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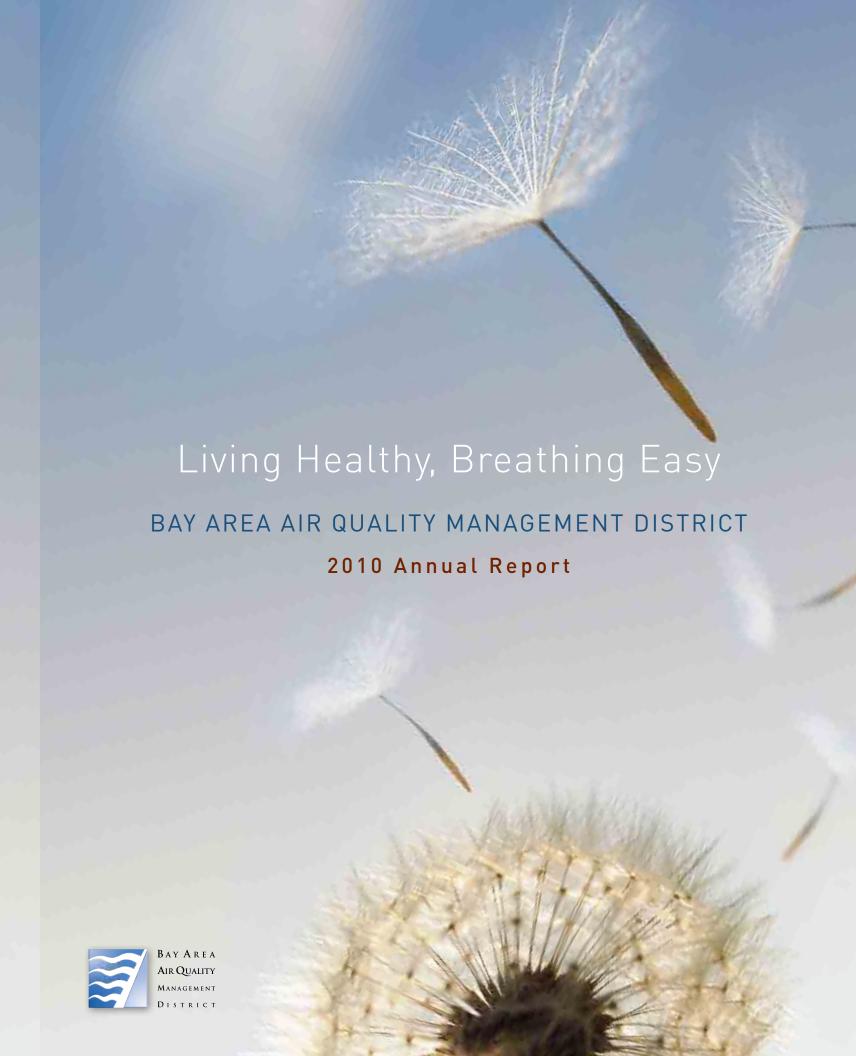
Design/Production RIEZEBOS HOLZBAUR GROUP (RHDG)

Photography **BETHANY BANDERA**

Printer **DAKOTA PRESS**

Printed on elemental chlorine-free, 30-percent post-consumer recycled paper, using soy-based inks.

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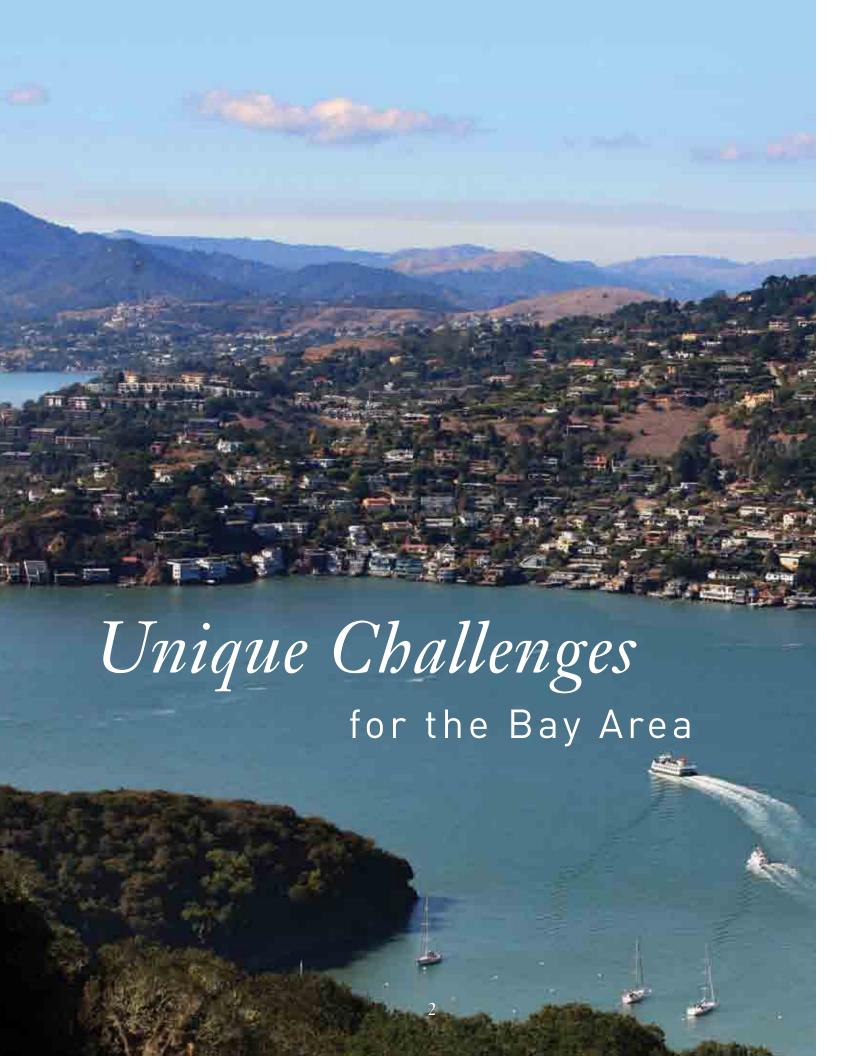
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Table of Contents

03	Introduction: by Jack P. Broadbent
04	Celebrating: 20th Anniversary of "Spare the Air" Program
06	<i>Our History:</i> Charting Our History of Reducing Bay Area Pollutants
08	Looking Closely: Measuring and Analyzing Air Quality
12	Encouraging Clean Air: Providing Incentives to Reduce Air Pollution
14	Building Bridges: Encouraging Clean Air Choices Through Public Education
16	Setting the Bar: Implementing Standards, Guidelines, and Rules for Clean Air
19	Providing Guidance: Controlling Sources of Pollution and Ensuring Compliance
20	Making Connections: Working with Communities to Improve Air Quality
22	Building Momentum: Looking Ahead to the Future
25	By the Numbers: 2010 Statistics and Charts



Jack P. Broadbent

Executive Officer
Air Pollution Control Officer



The San Francisco Bay Area is unique. We are surrounded by breathtaking landscapes and a body of water that gracefully unites this amazing environment. Our region's temperate climate and scenic beauty, coupled with great opportunity, has attracted people for generations. As a result, our community is as diverse and inspired as the region we live in. All of these factors motivate us at the Bay Area Air Quality Management District as we strive to provide a healthy breathing environment for all those who live, work, and call the Bay Area home.

This annual report will introduce you to our agency and explain how our programs have been implemented to reduce local air pollution and protect public health. It will answer questions about how we are organized, why we were created, and what kinds of air pollution are a problem in the Bay Area. The report shows what we do to improve air quality, what our greatest current challenges are, and ultimately, how everyone can play an essential participatory role in the process in which we work to clear the air in the region.

In 2011, one of our key outreach programs, Spare the Air, will be celebrating 20 successful years of educating people about air pollution and encouraging them to improve air quality by changing their behavior. For 20 years, we have asked residents to rethink their transportation and wood-burning choices to reduce pollution every day. Thanks in part to Spare the Air, overall pollutant levels have decreased dramatically in the past two decades and the program has become a model initiative for other air quality districts across the country.

This year's report will also showcase the people and organizations who have advanced the clean air cause by partnering with us or taking advantage of our grants and incentives programs. These people and organizations are the true heroes in the quest for clean air.

As the Air District's Executive Officer, it is my pleasure to present the Bay Area Air Quality Management District 2010 Annual Report. We hope it will inspire you to join us in the ongoing good work we can all do together to ensure there is clean air to breathe for years to come.

Sincerely,

Jack P. Broadbent Executive Officer

Air Pollution Control Officer

Joh P. Froedhy

Our Continuing Journey

Caring about the air you breathe



A healthy breathing environment for every Bay Area resident.

MISSION

To protect and improve public health, air quality, and the global climate.

CORE VALUES

EXCELLENCE

Air District programs and policies are founded on science, developed with technical expertise, and executed with quality.

LEADERSHIP

The Air District will be at the forefront of air quality improvement and will pioneer new strategies to achieve healthy air and protect the climate.

COLLABORATION

Involving, listening, and engaging all stakeholders, including partner agencies, to create broad acceptance for healthy air solutions.

DEDICATION

Committed staff that live and believe the Air District's mission.

EQUITY

All Bay Area residents have the right to breathe clean air.



The Bay Area Air Quality Management District is the public agency entrusted with regulating stationary sources of air pollution in the nine counties that surround San Francisco Bay: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, southwestern Solano, and southern Sonoma counties.

The Air District is governed by a 22-member **Board of Directors** composed of locally elected officials from each of the nine Bay Area counties. The number of Board members from each county is proportionate to its population.

The Board oversees policies and adopts regulations for the control of air pollution within the district. The Board also appoints the Air District's Executive Officer / Air Pollution Control Officer, who implements Board policies and gives direction to staff as well as the District Counsel, who manages the legal affairs of the agency.

The Air District consists of more than 320 dedicated staff members, including engineers, inspectors, planners, scientists, and other professionals.

The Air District is assisted by an **Advisory Council** that provides input to the Board and the Executive Officer on air quality matters. The Council is made up of 20 representatives from community, health, environmental, and other organizations.

An independent, five-member **Hearing Board** serves to adjudicate regulatory compliance issues that may arise between the Air District and local industries, and also hears appeals of permitting decisions made by the Executive Officer.

Celebrating 20th Annwersary of "Spare the Air" Program

This year, the Bay Area Air Quality Management District looks back on 20 years of its successful Spare the Air program. The initiative was started in 1991 to educate people about air pollution and to encourage them to change their behavior to improve air quality. The following timeline is a testament to the great progress that can be made by taking one small step at a time towards cleaner air in the region.

1990

U.S. Congress passes 1990 federal Clean Air Act amendments, which introduce control strategies for toxic substances and pollutants.

1991

"Clear Choices for Clean Air" and "Don't Light Tonight" public outreach programs launched to voluntarily reduce the polluting activities of individuals.

Bay Area Clean Air Plan is first state-mandated ozone reduction plan to be adopted in California. including all feasible measures to reduce ozone in the Bay Area.

1992

"Clear Choices for Clean Air" officially renamed "Spare the Air."

Spare the Air expands, successfully recruiting over 100 employers to new Employer Program.

Spare the Air's Smoking Vehicle Program launches 1-800-EXHAUST hotline for Bay Area residents to report vehicles with excessive tailpipe emissions.



Spare the Air's Smoking Vehicle Program averages 3,000 reports a month during the hotline's first four months of operation.

1994

"Don't Light Tonight" begins offering speakers for local clubs, schools, and employee groups.

Spare the Air's Smoking Vehicle Assistance Program increases its average reports to 5,000 a month and results in over 110,000 calls over its first two years of operation.

Spare the Air's Employer Program totals over 400 participating companies.



Air District unveils Spare the Air website, providing electronic air quality forecasts to the public.

Spare the Air's Vehicle Buy-Back Program is launched with goal of scrapping approximately 1,800 pre-1975 cars.

"Don't Light Tonight" changes its name to "Spare the Air Tonight."



Spare the Air's Lawn Mower Buy-Back Program launches, offering rebates for cordless electric mulching mowers in exchange for gas-powered mowers, which are scrapped.

Spare the Air's "Great Stove Changeout" offers rebates to residents who turn in their old stoves and fireplace inserts for a new, cleaner-burning model.

City and County of San Francisco adopts Bay Area's first comprehensive ban on use of polluting garden and utility equipment on Spare the Air days.

Spare the Air expands with support from federal funding and institutes regular public opinion surveys to measure effectiveness. The program enjoys an 8 percent increase in awareness and a 4 percent boost in Alert Day awareness compared to 1998.

2000



Spare the Air expands its Employer Program to 1,650 companies and Air Alert subscribers to 10,000. Program awareness at 80 percent and Alert Day awareness at 55 percent.

Spare the Air's Lawn Mower Buy-Back Program expands and exchanges 1,340 mowers, up from 430 in 1999, becoming the largest lawn mower exchange program in the U.S.

2001

Vehicle Buy-Back Program scraps 10.000th car = 1.500 tons fewer pollutants in the air.

New Federal PM2.5 standard passed. Air District begins daily PM2.5 forecasts as new basis for Spare the Air Tonight advisories.

2003

The Air District's pilot Wood Smoke Rebate Program offers rebates to Santa Clara County residents for replacing wood-burning stoves and fireplaces with gas-burning appliances.

Free transit available on Spare the Air days on WHEELS buses in Livermore-Pleasanton Tri-Valley area.

2004

Spare the Air partners with BART and the Metropolitan Transportation Commission (MTC) to offer free rides on weekday Spare the Air Alert days. Bay Area residents who reduce trips on Alert Days increases from 3 percent to 7 percent. There are 24,000 AirAlert subscribers, 575 participating schools, and 2,000 employers.



2004 ends as the cleanest year on record for air quality in the Bay Area, with no exceedances of the federal one-hour or eight-hour ozone standards. and only seven exceedances of the more stringent state standard.

2005

Free morning commutes offered on weekday Spare the Air days by 21 local transit agencies, including BART.

Spare the Air's Vehicle Buy-Back Program increases trade-in value to \$650 for eligible 1985 and older vehicles.

For the first time Spare the Air offers free rides all day on Spare the Air days on over 24 Bay Area transit systems.

2007

Transit agencies see a 23 percent increase in ridership on Spare the Air days.

Free all-day commutes offered on the first four weekday Spare the Air days by 29 local agencies.

2008

Spare the Air Program retools message to Spare the Air Every Day, expanding its focus to include climate protection in addition to health and air quality.

Air District adopts Wood Smoke Rule that restricts wood burning when a Winter Spare the Air Alert is issued from November through February.

"Spare the Air Tonight" renamed "Winter Spare the Air."

2009

Spare the Air goes social with a new Facebook page.

Spare the Air AirAlert email subscribers reach 100,000 Bay Area residents.



"The Great Race for Clean Air" goes Bay Area-wide, encouraging employers and employees to help reduce pollution by using alternatives to solo driving.

Our History

Charting Our History of Reducing Bay Area Pollutants

The California Legislature created the Air District in 1955 as the first regional air pollution control agency in the country, recognizing that the problem of harmful air emissions extends beyond political boundaries. The nine counties of the San Francisco Bay Area form a regional air basin, sharing common geographical features and weather patterns, and therefore similar air pollution burdens, which cannot be addressed by counties acting on their own.

In the early 1950s, the science of air pollution was energized by the discovery that ground-level ozone was the main chemical in "smog," a conjunction of "smoke" and "fog" that soon became a household word. Ozone was found to cause breathing problems, damage crops, and corrode buildings. Local agriculture in particular absorbed significant losses, and it was largely the organized efforts of Bay Area farmers that generated the political will to establish the first regional air district.

1961 "Miss Clean Air"



The first official meeting of the Air District's Board of Directors was held on November 16, 1955, in San Francisco. Charged with regulating stationary sources of air emissions, the Air District set to work on its first two regulations, which banned open burning at dumps and wrecking yards, and established controls on dust, liquid droplets, and combustion gases from certain industrial sources.

Since then, the agency has used its expertise to clear the skies and diminish air pollution levels throughout the Bay Area. Its actions, along with the concentrated efforts of public and private organizations and concerned individuals, have dramatically improved air quality, despite

significant increases in traffic and population. But much remains to be done, as new challenges arise in the Air District's second half-century of stewardship of the air we breathe.

Particulate Matter PM 2.5

Bay Area Historical Exceedances

Number of Days Exceeding the National 24-Hour Standard (35 μg/m³)



7

Spare the Air Program

Hayward Banner

Looking Closely

Measuring and Analyzing Air Quality Is Our First Step to Reducing Air Pollution

The air in our lower atmosphere is a dynamic, constantly shifting mixture of gases, liquid droplets, and small particles. It swirls and eddies around the globe like the water in the ocean, with winds and weather patterns resulting from this movement. It's also not as light as it seems. A column of air one foot square and extending from sea level to the outer limit of the atmosphere would weigh nearly one ton. And contrary to what one might expect, the air we breathe in the lower atmosphere is not primarily composed of oxygen. Instead, it contains 78 percent nitrogen, 21 percent oxygen, and less than 1 percent gases like argon and carbon dioxide. Unfortunately, it can also contain substances that are unhealthy for us to inhale.

In the Bay Area, as in the entire state of California, a certain amount of air pollution comes from stationary industrial sources, such as refineries and power plants. But a greater percentage of harmful air emissions come from cars and trucks, construction equipment, and other mobile sources. California has more cars per household (1.8) than any other state, along with a diverse business community and a continually expanding population. All of these factors contribute to the state's air quality challenges.

There are three major types of air pollutants that constitute a public health concern for the Bay Area: ozone, particulate matter, and toxic air contaminants.

Ozone

Ozone is the main ingredient in the pollution commonly called "smog." Primarily a problem in the summertime, ozone is a colorless gas formed through a complex series of photochemical reactions involving sunlight and heat. It is not emitted directly into the air in significant quantities, but is formed in the presence of sunlight from chemical reactions involving other directly released precursor pollutants: reactive organic compounds and oxides of nitrogen.

Particulate Matter (PM10 and PM2.5)

Particulate matter, or PM, consists of microscopically small solid particles or liquid droplets suspended

in the air. PM can be emitted directly into the air, or it can be formed from secondary reactions involving gaseous pollutants that combine in the atmosphere. Particulate pollution is primarily a problem in the winter, accumulating when cold, stagnant weather comes to the Bay Area.

PM is usually measured and monitored in two size distributions: PM10 and PM2.5. PM10 refers to particles with diameters that are less than or equal to 10 microns in size (a micron is one-millionth of a meter), or about 1/7 the diameter of a human hair. PM2.5 consists of particles with diameters that are less than or equal to 2.5 microns in size. PM2.5 is a more serious health concern than PM10, since smaller particles can travel more deeply into our lungs and cause more harmful effects.

Toxic Air Contaminants (TACs)

Toxic Air Contaminants, or TACs, are a category of air pollutants that, in relatively small concentrations can potentially cause serious human health effects, such as cancer. The state of California has listed more than 180 TACs, which are emitted by mobile sources such as cars and trucks, large industrial plants such as refineries and power plants, and smaller facilities such as gas stations and dry cleaners. PM from diesel exhaust is listed as a TAC by the state of California.

The Air District has developed its core programs and implemented special initiatives to provide a flexible framework of solutions to air pollution in the Bay Area.

Summer Sources of Bay Area Ozone-Forming Pollutants



OFF-ROAD MOBILE SOURCES



ON-ROAD MOTOR **VEHICLES**



FUELS COMBUSTION



ARCHITECTURAL COATINGS



CONSUMER **PRODUCTS**



AIRCRAFT



FUELS DISTRIBUTION



OTHER INDUSTRIAL/ **COMMERCIAL PROCESSES**



PETROLEUM REFINING FACILITIES

Air Monitoring

The Air District maintains one of the most comprehensive air quality monitoring networks in the country, consisting of 27 monitoring stations distributed among the nine Bay Area counties. This network measures concentrations of pollutants for which health-based ambient air quality standards have been set by the U.S. Environmental Protection Agency, and by the California Air Resources Board, or CARB. These pollutants include ozone, particulate matter, carbon monoxide, nitrogen dioxide, and sulfur dioxide. The Air District's network also measures concentrations of 19 toxic air contaminants and various other pollutants of concern.

The Air District's network also includes two portable air monitoring stations similar to those used by CARB under the Children's Environmental Health Protection Program. These stations are placed in communities of interest for one to two years, in order to compare local air measurements with those obtained by the agency's monitoring network.

Laboratory

The Air District maintains an extensive laboratory with state-of-the-art equipment for testing air quality samples collected from ambient monitors, from source tests, or during accidental releases at Bay Area facilities. The laboratory also analyzes samples submitted by the Enforcement Division to assess compliance with Air District regulations.

Forecasting

Weather patterns play a fundamental role in determining, on any given day, whether air pollution will disperse or accumulate. Air District meteorologists collect and analyze data from a network of meteorological sensors located throughout the nine Bay Area counties. This information in combination with air monitoring measurements, computer models, and satellite feeds from weather services is used to make daily air quality forecasts for the public.

The Air District prohibits open burning throughout the Bay Area, with the exception of a few types of fires (generally for agricultural or natural-resource management purposes) that are allowed on designated "burn" days. The Air District's meteorological staff issues "burn" or "no-burn" notices for these types of permissible burns every day of the year.

Winter Sources of Bay Area Fine Particulates (PM2.5)



WOOD **SMOKE**



COOKING



OTHER MOBILE **SOURCES**



ROAD DUST



ON-ROAD **MOTOR VEHICLES**



COMBUSTION: STATIONARY SOURCES



INDUSTRIAL/ COMMERCIAL **PROCESSES**



CONSTRUCTION AND FARMING DUST



ANIMAL WASTE



WIND-BLOWN DUST



WILDFIRES



Encouraging Clean Air

Providing Incentives to Reduce Air Pollution

The Air District administers grant and incentive programs to improve air quality in the Bay Area.

These programs offer funding to public agencies, private companies, and Bay Area residents for projects that reduce or eliminate air pollution and greenhouse gases from mobile sources—such as cars, trucks, marine vessels, locomotives, and construction equipment.

In the Bay Area, mobile sources and wood burning are the greatest contributors to air pollution.

Transportation Fund for Clean Air

Assembly Bill 434 authorized the Air District to levy a \$4 surcharge on all motor vehicles registered in the Bay Area in order to mitigate the impact of vehicular emissions. The Air District allocates these revenues through the Transportation Fund for Clean Air, or TFCA.

TFCA revenues are distributed through two separate mechanisms. Forty percent of the TFCA funds, known as the TFCA County Program Manager Fund, are allocated directly to the region's nine county congestion management agencies for disbursement to eligible projects. The Air District distributes the remaining 60 percent, known as the TFCA Regional Fund, to eligible projects and programs that reduce motor vehicle emissions. In 2010, eligible projects included trip reduction (e.g., shuttles, ride sharing, and bicycle projects) and alternative fuel vehicle and infrastructure projects.

A portion of the TFCA Regional Fund revenues is distributed to project sponsors on a competitive

basis, and a portion is used to fund several mobile-source emission-reduction programs directly administered by the Air District, such as the Smoking Vehicle Program.

The Mobile Source Incentive Fund

AB 923, enacted in 2004, authorized local air districts to increase their motor vehicle registration surcharge up to an additional \$2 per vehicle. AB 923 stipulates that air districts may use the revenues generated by the additional \$2 surcharge for any of the four programs listed below:

- Projects eligible for grants under the Carl Moyer Program;
- New purchases of clean air school buses;
- Accelerated vehicle retirement or repair program; and
- Projects to reduce emissions from previously unregulated agricultural sources.

The revenues from the additional \$2 surcharge are deposited in, and administered via, the Air District's Mobile Source Incentive Fund, or MSIF.

The Carl Moyer Program

The Carl Moyer Program is a state-funded incentive program originally created by the California Legislature to reduce emissions from heavy-duty engines. Managed locally by the Air District, the Carl Moyer Program provides grants primarily for installing new, cleaner engines or emission-control devices in heavy-duty equipment, such as trucks and buses, marine vessels, construction equipment, locomotives, and agricultural irrigation pumps.

Heavy-duty diesel engines are major sources of oxides of nitrogen, reactive organic gases, and particulate matter.

The Lower-Emission School Bus Program

The Lower-Emission School Bus Program provides financial incentives for school districts to replace or retrofit older diesel-fueled school buses. The primary goal of this program is to reduce the exposure of schoolchildren to harmful diesel emissions.

Goods Movement Program

The emphasis of the Goods Movement Program is to quickly reduce air pollution emissions and health risk from freight movement at the Bay Area's ports and along the region's major roadways. The program funds the retrofit and replacement of older, higher-polluting diesel trucks, locomotives, cargo-handling equipment, and marine vessels, as well as the installation of shore-side power systems.



Building Bridges

Encouraging Clean Air Choices Through Public Education

Everyday activities—driving, painting, mowing the lawn, and even using aerosol hairsprays and deodorants—add pollution to the air we breathe. Many of these activities fall outside the Air District's regulatory jurisdiction. However, the Air District encourages Bay Area residents to "Spare the Air" through its public education campaigns.

Spare the Air Every Day

The Spare the Air Every Day program educates the public about air pollution and promotes long-term behavior changes that improve air quality. From April to October, the Air District issues Spare the Air Alerts on days when ozone pollution is forecast to be unhealthy. On Spare the Air days, the Air District urges residents to reduce their driving by walking, biking, taking transit, or carpooling, as well as taking steps to lower their energy use and cut back on pollution. People sensitive to pollution, such as children and the elderly, are cautioned to limit outdoor exposure.



Spare the Air Alerts and daily air quality forecasts are posted on the www.sparetheair.org website, recorded on the 1 (800) HELP AIR phone line, and announced in local media. Bay Area residents can also sign up on the website to be notified via email AirAlerts.

In 2010 the Spare the Air website was redesigned to make the site more graphically appealing and

accessible. The Air District also began a process of expanding its social media presence with featured messages on Facebook and Twitter. In 2011, the agency will continue to leverage its social media outlets by integrating the Spare the Air and Smoking Vehicle Facebook and Twitter sites, as well as linking the Facebook site to the more traditional Spare the Air website. Finally, the Air District expanded its Spare the Air audience by reaching out with a special ad campaign tailored to the 17-34 year-old demographic.

Winter Spare the Air

The Winter Spare the Air program runs from November through February, when particulate matter from woodstoves and fireplaces becomes a major health concern in the Bay Area. The Air District issues Winter Spare the Air Alerts on days when air quality is expected to reach unhealthy levels. Under the Air District's Wood Burning Rule, it is illegal for Bay Area residents to use any wood-burning devices, such as fireplaces, woodstoves, or pellet stoves, when these alerts are in effect

In 2010, 20 percent of Bay Area households reduced wood burning thanks to this program and 76 percent of residents supported the wood-burning rule. The Air District also called three "voluntary" no burn days to help reduce fine particle build-up and avoid a mandatory no-burn alert.

Smoking Vehicle Assistance Program

The Air District's Smoking Vehicle Assistance Program was implemented to decrease the number of vehicles spewing visible tailpipe exhaust on the region's roads and highways. Residents can report smoking vehicles by phone to 1 (800) EXHAUST or online at www.800exhaust.org. Owners will be notified that their vehicle may be operating illegally and are encouraged to have it checked and repaired.



Setting the Bar

Implementing Standards, Guidelines, and Rules for Clean Air

Air quality planning is an evolving process the Air District continually updates and refines its rules to meet the highest clean air standards.

Air Quality Standards

The Air District's regulations and programs are formally guided by a set of federal and state air quality standards that establish health-based concentration limits for specific pollutants, including ozone and particulate matter.

When an air district meets these standards, its region is considered to be in attainment for a given pollutant category. If it does not meet these standards, the air district is required to outline measures designed to reduce emissions and bring its region into attainment.

Bay Area Clean Air Plan

In September 2010, the Air District adopted the Bay Area 2010 Clean Air Plan, an update to the Bay Area 2005 Ozone Strategy. The Plan was developed in association with the Air District's regional agency partners, the Metropolitan Transportation Commission, the Association of Bay Area Governments, and the San Francisco Bay Conservation and Development Commission. The Plan includes a review of air quality progress to date in the Bay Area and control strategies for achieving California's ozone standards. For the first time, the Air District took a multi-pollutant approach by addressing ozone, particulate matter, air toxics, and greenhouse gas emission reductions in a single integrated plan. The primary purpose of the Plan is to protect air quality, public health, and the climate.

The Bay Area 2010 Clean Air Plan includes new, revised, and updated control measures in the three traditional categories of stationary sources, cleaner mobile source engines and fuels, and transportation strategies to promote carpooling, transit, bicycling, and walking. The Plan also

introduces two new categories of control measures: for land use and local impacts, and energy and climate. Measures relating to land use and local impacts promote mixed-use, compact development to reduce motor vehicle travel and emissions, and to ensure that the region plans for focused growth in a way that protects people from exposure to air pollution from stationary and mobile sources of emissions. Measures relating to energy and climate protect our climate by reducing greenhouse gas and air pollutant emissions.

Bay Area Sources of Greenhouse Gas Emissions (2010)

37%	6%	16%	7%	3%	
Industrial/CommercialTransportationElectricity/Co-Generation		Residential Off-Road Eq Agriculture/	uipmer	nt	

CEQA Guidelines

In June 2010, the Air District updated its California Environmental Quality Act Guidelines and revised its recommended air quality thresholds of significance. The California Environmental Quality Act, or CEQA, requires that state and local public agencies review the potential environmental impacts of projects that they carry out, fund, or approve. Last updated in 1999, the Air District's CEQA Guidelines are intended to help local jurisdictions identify and mitigate potential air quality impacts of such projects.

The updated CEQA Guidelines contain thresholds of significance for air emissions stemming from construction and operations of development projects and plans. The new and revised thresholds set levels for emissions of criteria pollutants, toxic air contaminants, odors, and for the first time, greenhouse gases. The CEQA Guidelines also outline assessment methodologies and mitigation strategies. As part of the update process, the Air District met with local governments, held public workshops, and developed resources to assist lead agencies in using the CEQA Guidelines.

Rule Development

Rule development is the Air District's process of putting into place regulations that limit emissions of air pollutants from stationary sources of pollution, like gas stations and refineries. These rules help the Bay Area meet federal and state air quality standards, reduce risk caused by emissions, and improve public health. The Air District's rules are adopted by the Board of Directors at public hearings which are open for public comment.

Rules are derived from documents like the 2010 Clean Air Plan. Rules and rule amendments are the product of extensive technical research, cost and environmental analyses, and public input. Public participation is an integral element of this process, and the Air District engages in extensive outreach to both affected industries and members of the public. Draft rules are reviewed at public workshops, and comments are considered and integrated prior to proposing final rules to the Board.

A current list of the Air District's rules and regulations is available at www.baaqmd.gov.

PLANNING Ahead Technical Planning Manager, Health Hazard Assessment Group

City of San Francisco Department of Public Health San Francisco, CA

> **JESSICA RANGE** Policy Planning

Tom Rivard and Jessica Range work on the Community Risk Reduction Plan for San Francisco in collaboration with Air District staff. The area featured in the photo is in the Excelsior District of San Francisco which was divided by construction of Highway 280 many years ago.

High traffic volume has been identified as the area's number one air pollution

source causing adverse respiratory health problems for people living near the highway.

Tom and Jessica are working on solutions to mitigate pollution and noise in the area, helping to create a healthier and more liveable environment for residents closest to this high-traffic corridor.



PROTECTING Our Skies The Bay Area Air Quality Management District helps control pollution through a variety of methods, including: • Issuing Permits • Health Risk Screening Analyses Site Inspections • Complaint Response • Penalty Assessments • Industry Compliance Schools Source Testing Incentives

Providing Guidance

Controlling Sources of Pollution and Ensuring Compliance

Permits

The Air District evaluates permit applications and issues permits for stationary emission sources and abatement devices to comply with regulatory conditions, including requirements to use the Best Available Control Technology or provide emissions offsets. The Air District Permit Program is also responsible for emissions banking and interchangeable emission reduction credit activities in the Bay Area, as well as California Environmental Quality Act review for permitted sources.

Permit applications evaluated by the Air District include those for Prevention of Significant Deterioration, Acid Rain, and federal Title V permits. The federal Title V Permit Program enhances compliance with the Clean Air Act by explicitly including all applicable federal, state, and local air quality requirements into a single permit.

Toxics

The Air District's Toxics Evaluation Program integrates federal and state laws and regulations concerning toxic air contaminants into the Air District's permit program. As part of its permit process, the Air District performs health risk screening analyses for all new projects in the region that require air quality permits and emit toxic air contaminants in quantities greater than de minimis levels. The Air District also inventories existing commercial and industrial sources of toxic air contaminants. Facilities that emit significant quantities of toxic air contaminants are required to prepare health risk assessments that estimate the facility's health risks for local residents and offsite workers. A facility that is determined to pose an unacceptable health risk must implement measures to reduce risks to acceptable levels.

Compliance and Enforcement

The Air District's Compliance and Enforcement Division ensures a high degree of compliance with air quality-related federal, state, and Air District laws, regulations, and permit conditions. A full range of educational and compliance assistance activities are provided to help companies and residents proactively comply with air quality regulations. Air quality inspectors investigate air pollution complaints from the public and conduct regular compliance inspections to promote compliance with air quality regulations. When violations of air quality regulations are discovered, the Air District provides an appropriate level of enforcement action to expedite return to compliance and assesses monetary penalties to provide an effective deterrence.



Source Test

The Air District monitors emissions from facilities with stationary pollution sources. The Air District's SourceTest staff collect samples that can usually be analyzed on-site with instrumentation in specially outfitted vans. An immediate determination can typically be made as to whether or not emissions are in compliance with Air District regulations and permit conditions. The Air District also conducts source tests in support of its Rule Development and Emission Inventory efforts.

Making Connections

Working with Communities to Improve Air Quality

Each of the Bay Area's nine counties is made up of smaller communities and neighborhoods with unique air quality concerns. It is the Air District's job to adopt rules and policies that are fair and equitable to all residents of the Bay Area, and to ensure that community-level air pollution problems are not eclipsed by larger-scale policy issues.

Community Outreach

As part of our community outreach program, the Air District organizes and facilitates meetings that provide an opportunity for local residents to share and receive information about air quality-related topics. Through these meetings the Air District provides information and seeks input on pending regulations, clean air plans and strategies, or other issues of interest to a particular community.

Community Initiatives

The Air District supports and encourages community-based initiatives that reduce air pollution and model new modes of behavior that will help meet the challenges identified by local communities. Initiatives include efforts to reduce traffic at schools and reduce greenhouse gas emissions.

Limited English Proficiency Assessment—

In November 2010, the Air District published the Assessment of Limited English Proficient Populations and Current Services. The assessment reviews the language needs of Bay Area residents and current practices by the Air District to meet these needs.

Community Resource Teams

The Air District collaborates with community-based resource teams comprising members from business, government, and nonprofit organizations that work on projects to improve air quality at the local level.

In 2010 Air District Resource Teams worked on various projects, including:

- Planning home energy conservation workshops for low-income residents.
- The Great Race for Clean Air promotional event—a friendly competition among Bay Area employers to encourage employees to use commute alternatives such as transit, carpooling, vanpooling, walking, and bicycling rather than driving solo to work. Over the months of August and September, participants together saved over 900 tons of CO₂ by using alternatives to driving alone to work!
- Developing the San Francisco Car Free website.

Youth Outreach

The Air District is working collaboratively with its regional agency partners, the Metropolitan Transportation Commission and the Association of Bay Area Governments, to promote air quality and climate education through the Climate Initiatives Youth and School Outreach Program. The goal of the program is to identify best practices for climate education in the Bay Area and to ensure that students have access to the latest climate education resources.

Goods Movement and Local Planning

The environmental impact of goods movement activities on communities near ports and railroad



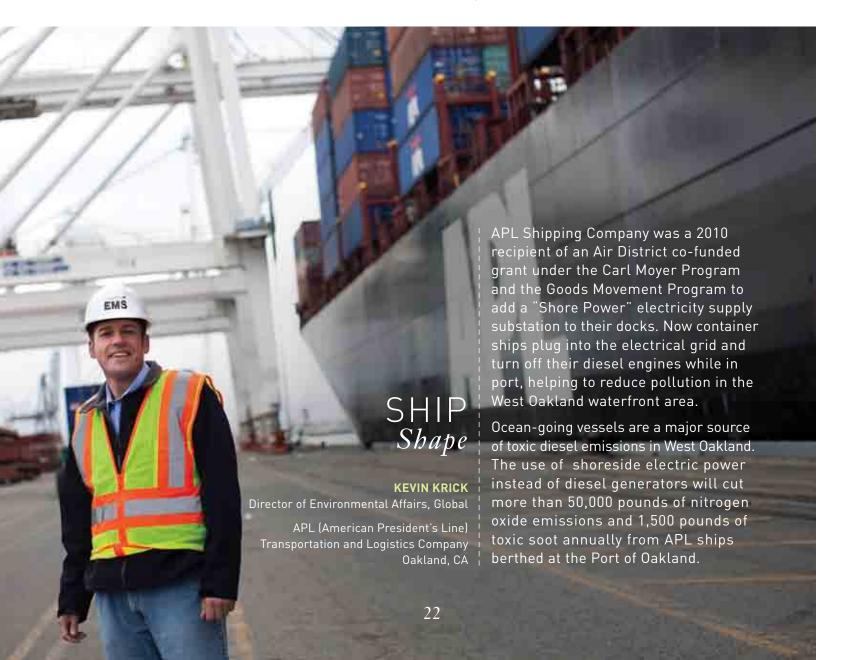
stations remains a central concern. Although mobile sources (which are the largest community sources of diesel particulate matter and other toxic air contaminants) are regulated at the federal and state levels, the Air District has worked closely with the California Air Resources Board, the Metropolitan Transportation Commission, the Port of Oakland, and other stakeholders to reduce air quality impacts from goods movement in the Bay Area.

The Air District also assumes an advisory role on air quality issues related to land-use development, housing, and transportation, and reviews and comments on local general plans and environmental documents.

Building Momentum

Looking Ahead to the Future

Preserving and improving air quality in the Bay Area is a process that requires constant effort and vigilance. While continuing to pursue emission reductions through its traditional programs, the Air District has also developed and expanded newer initiatives to address such issues as climate change and the effects of particulate matter and diesel exhaust in our communities. Impressive progress has been made at improving Bay Area air quality over the decades. But the fact remains that reducing air pollution is an issue that must be addressed on a daily basis, while looking ahead to keep pace with increases in population, vehicle traffic, and commercial and industrial development.



Planning Ahead

Last fall the Air District adopted its 2010 Clean Air Plan, which sets a firm foundation for the Air District's regulatory activities in years to come. This is the first Bay Area plan to address multiple air pollutants—ozone, particulate matter, air toxics, and greenhouse gases—in one comprehensive strategy for improving local air quality and protecting public health and the global climate.

The Clean Air Plan identifies 55 measures for reducing pollution from industrial, commercial, residential and vehicular sources. Implementation of the proposed control measures will provide both a significant public health benefit and a significant financial benefit to the region. The estimated value of this benefit—including reduced medical costs, increased life expectancy, energy savings and state and federal transportation investments—is on the order of \$3 billion per year.

Healthy Development

In June 2010, the Air District adopted its updated CEQA Guidelines, which recommend air quality thresholds, analytical methods, and mitigation measures for local agencies to use in evaluating prospective projects and plans under the California Environmental Quality Act. The comprehensive update includes recommended thresholds for air pollutants—including particulate matter, ozone precursors, and carbon monoxide, as well as toxic pollutants and greenhouse gases—above which there is a likelihood that a project would cause harmful environmental effects.

Under the new guidelines, for the first time, local agencies will need to consider the health effects from existing sources of air pollution in a given area on proposed sensitive land uses such as housing or schools. This provision will be especially protective of communities that already have significant air quality concerns.

In the coming years, the Air District will continue to work with local jurisdictions and other stakeholders to implement the 2010 CEQA Guidelines and thresholds. The agency will continue its work with regional partners to provide technical assistance in the development of the Bay Area Sustainable Communities Strategy/Regional Transportation Plan and Station Area

Plans / Priority Development Areas to ensure healthy high-density infill development continues. The Air District will also continue to work with local cities and counties to develop Community Risk Reduction Plans, which can identify comprehensive strategies for reducing emissions throughout a community.

Funding Change

The Air District's innovative incentive programs continue to help support the clean air technologies of the future. On February 2, 2011, the agency awarded \$3.9 million to four vendors charged with helping to develop electric vehicle charging infrastructure in the Bay Area. In the next few years, along with \$1.3 million allocated in 2010, this funding will be used to deploy 3,000 home chargers at single family and multi-family dwellings, 400 public chargers at employer and high-density parking areas, and 50 fast chargers within close proximity to highways. Electric vehicles are rolling out across the country, and the Air District is helping to create the necessary charging support network for the Bay Area.

In 2010, the Air District also helped provide seed money for a pioneering bike-sharing program in the region. This project will deploy approximately 1,000 bicycles at up to 100 kiosk stations along the Peninsula transportation corridor in locations of up to five cities including San Francisco, Redwood City, Mountain View, Palo Alto and San Jose. Bike sharing is similar to car sharing and involves an organized system of short-term, collective bicycle rental for purposes of transportation in an urban environment.

The Air District's Goods Movement program continues to provide critical financial support for local truckers as they make the necessary equipment adjustments to meet upcoming state diesel regulation deadlines.

Monitoring Our Future

Enhancements to the Air District's air monitoring network ensure that air pollution in the Bay Area continues to be adequately tracked and measured. In 2010, the Air District deployed three Photochemical Assessment Monitoring Stations in San Ramon, Patterson Pass, and Livermore. These collection and analysis facilities continually measure a suite of 57 organic ozone-precursor compounds every hour to help better define regional atmospheric chemistry. These stations contain the latest laboratory-grade collection and analysis technology, and in years to come, they will give the agency a better picture of how ozone is created throughout the District, and more specifically in the Livermore Valley ozone "hot spot."

Since September 2010, air monitoring data from a new Cupertino monitoring station has been available on the agency's website. This temporary air monitoring station, one mile east of the Lehigh Cement Plant in Cupertino, will provide a one-year air monitoring study of air quality in the community.

Streamlining and Clarifying the Process

For the past few years, the Air District has been working internally to create a comprehensive online permitting system for businesses. Work on this project is nearing completion, and a roll-out date is expected in mid-2011. This new online system will streamline permit acquisition and update activity for the Bay Area's 15,000-plus permit holders. With the old paper-based system, even getting a simple permit could take up to 45 days, but with the new online system, many permits can be granted instantly upon submission, helping businesses become operational and generate revenue sooner.

In 2010, the Air District began work on a new Small Business Assistance Program to help businesses navigate the permitting process more easily. This multilingual effort will go into effect in the second half of 2011 or the first half of 2012. Key program components will include outreach to help business owners understand how to use the new online permitting system, and fee-discount incentives for businesses to go green. A new forum will be created for information-sharing among like businesses, giving them a voice in the rulemaking process and demonstrating ways to reduce emissions and stay in compliance.

Reaching Out to Everyone

In order to establish procedures and best practices for public engagement, the Air District is developing a Public Engagement Policy and Plan, slated for completion in October 2011. This plan will enhance communication between the Air District and members of the public and further the mission and vision of the Air District in the Bay Area.

In 2010, the Air District developed an Assessment of Limited English Proficient Populations and Current Services in order to better understand the agency's effectiveness at communicating with individuals who speak limited English. In order to better meet the needs of limited-English speakers, translation services can now be made available in five languages for all board and community meetings, free of charge. A phone translation assistance line has also been established for the main Air District phone line, and a new Spanish language web portal will be operational in mid-2011.

Quick Takes

- The Breathmobile Mobile Asthma Clinic, which debuted in the Bay Area in 2008, and currently makes rounds to elementary schools in the East Bay will be expanding its visits to San Francisco in 2011. This mobile clinic, partially funded by the Air District and staffed by a doctor and a registered nurse, provides clinical based asthma management care and information for kids without requiring a trip to a hospital or clinic.
- In early 2011, the Air District will begin participating in a Bay Area-wide Toyota Prius Plug-In Hybrid year-long demonstration and research program. During the next year, two Toyota Prius Plug-In Hybrids will be available through the Air District for selected users to drive for two-month periods to capture real-world driving data, demonstrate the viability of plug-in hybrid technology and educate the public about plug-in technology prior to the vehicle coming to market in 2012.

Future Move

The Air District is planning a move to a new location within the next two years, with a site selected in 2011. This move is due in part to the age of the Air District's current facility and the ongoing maintenance and infrastructure costs.

By the Numbers

BAY AREA AIR QUALITY

2010 EXCEEDANCES OF AIR QUALITY STANDARDSOzoneDays over National 8-Hour Standard9Days over California 1-Hour Standard8Days over California 8-Hour Standard11Particulate MatterDays over National 24-Hour PM10 Standard0Days over California 24-Hour PM10 Standard2Days over National 24-Hour PM2.5 Standard6

Days over California 24-Hour PM10 Standard Days over National 24-Hour PM2.5 Standard 6 RULEMAKING ACTIVITY 2010 RULES ADOPTED OR AMENDED January 6, 2010 Regulation 2: Permits – Rule 5: New Source Review of Toxic Air Contaminants – amendments adopted June 16, 2010 Regulation 3: Fees – amendments adopted December 15, 2010 Regulation 9: Inorganic Gaseous Pollutants – Rule 10: Nitrogen Oxides and Carbon Monoxide from Boilers, Steam Generators, and Process Heaters in Petroleum Refineries – amendments adopted

PERMITTING ACTIVITY

Total	1,486
Other Facilities	1,033
Gasoline-Dispensing Facilities	374
Major Facility Review (Title V)	79
2010 NEW PERMIT APPLICATIONS RECEIV	ED
Total	10,335
Smaller Industrial Facilities	7,702
Major Facilities Excluding Refineries	99
Gasoline-Dispensing Facilities	2,529
Refineries	5
2010 BAY AREA PERMITTED FACILITIES	

TOXIC PROGRAM ACTIVITY

Total Number of Facilities	286
Total Number of Analyses	316
Other Commercial/Industrial	51
Gasoline-Dispensing Facilities	9
Diesel Engines	256
2010 HEALTH RISK SCREENING ANALYSES	

COMPLIANCE & ENFORCEMENT ACTIVITY STATS

ACTIVITY STATS	
2010 COMPLIANCE INSPECTIONS	
Source Inspections	7,391
Air Pollution Complaints (Excluding Smoking Vehicles)	3,507
Gasoline-Dispensing Facility Inspections	737
Asbestos Inspections	1,438
Reportable Compliance Activities	643
Diesel Compliance and Grant Inspections	3,089
Total	16,805
2010 VIOLATIONS AND PENALTIES	
Violations Resolved	484
Civil Penalties Collected	\$1,260,277
AIR POLLUTION COMPLAINT CATEGOR	IES
Total Complaints	12,563
Smoking Vehicles	72.1%
Odor	11.0%
Wood Smoke	10.9%
Dust	1.6%
Outdoor Fires/Open Burning	1.2%
Smoke	0.9%
Asbestos	0.9%
Other	0.7%
Gas Stations	0.5%
Idling	0.2%

SOURCE TEST ACTIVITY

2010 NUMBER OF SOURCE TESTS	
Refinery Source Tests	431
Compliance Rate	98.4%
Title V Facility Source Tests (excluding Refineries)	332
Compliance Rate	97.3%
Gasoline Cargo Tank Source Tests	392
Compliance Rate	97.4%
Gasoline-Dispensing Facility Source Tests	14,253
Compliance Rate	99.6%
Other Miscellaneous Source Tests	238
Compliance Rate	94.3%
Total Source Tests	15,646
Total Violations	104
Compliance Rate	99.3%

LABORATORY

LABURATURY	
2010 SAMPLES ANALYZED IN LAB	
PM10	3,840
PM2.5	1,200
Toxics	12,400
Cartridge Aldehydes	780
VOC Speciation	740
Aldehydes	12
Metals by XRF	560
Metals by AA	105
Asbestos	60
Microscopy	9
VOC	5
Misc.	54
Total	19,765

GRANT AND INCENTIVE PROGRAMS

CARL MOYER PROGRAM / MOBILE	
SOURCE INCENTIVE FUND - 2010	
Total Funds Awarded	\$10.3 million
Number of Engines Covered	192
by Grant Projects	
Percent of Funding Awarded to Projects in Impacted Communities	31
Estimated Lifetime Emissions Reduction	on
for the Projects Funded (tons)	
Reactive Organic Gases (ROG)	42
Oxides of Nitrogen (NOx)	463
Particulate Matter (PM10)	42
Total	547
GOODS MOVEMENT PROGRAM - 2010)
Total Funds Awarded	\$13.2 million
Number of Engines Covered by Grant	286
Projects	
Percent of Funding Awarded to Projects in Impacted Communities	100
Estimated Lifetime Emissions Reduction	\n
for the Projects Funded (tons)	,11
Oxides of Nitrogen (NOx)	1,290
Particulate Matter (PM10)	65
Total	1,355
TRANSPORTATION FUND FOR CLEAN REGIONAL FUND GRANTS – 2010	I AIR
Total Funds Awarded	\$9.8 million
Number of Projects/Programs Awarded Grants	58
Estimated Lifetime Emissions Reduction for the Projects Funded (tons)	on
ROG	63
NOx	119
PM10	66
Total	248
Carbon Dioxide (CO ₂) - a Greenhouse Gas (tons)	12,000

TRANSPORTATION FUND FOR CLEAN AIR COUNTY PROGRAM MANAGER FUND GRANTS – FY 2010/2011 Total Funds Awarded \$\$ 5 million

Estimated Emissions Reduction for the I	Proiect	s
Number of Projects Awarded Grants		57
Total Funds Awarded	\$0.77	miiiion

Estimated Emissions Reduction for the Projects Funded (tons)

NOx	66
PM10	37
Total	170
CO	86.000

VEHICLE BUY-BACK PROGRAM - 2010

ROG

Estimated Emissions Reduction (tons):	
Number of Vehicles Scrapped in 2010	5,862
TEINOLL DOT DAOITTIKOOITAM 2010	

ROG	372
NOx	261
PM10	4

Total 637 Number of Vehicles Scrapped Since Program Inception (June 1996 to end of 2010) Over 55,000

PUBLIC OUTREACH ACTIVITIES

2010 SPARE THE AIR PROGRAM	
Spare the Air Days	10
AirAlert Registrations	102,942
Employers Registered	2,080
Winter Spare the Air Alerts	6
2010 SMOKING VEHICLE PROGRAM	
Vehicles Reported	8,340
COAC COMMUNITY OUTDEACH MEETING	C/EVENTS

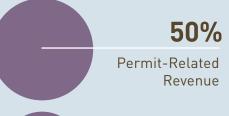
2010 COMMUNITY OUTREACH MEETINGS/EVEN	ITS
Local Community Meetings	45
Impacted Communities/CARE Program/	25

Total	155
Fairs and Events	65
Community Grants and Climate Change	10
Youth Outreach/Events	10
dods Movement	

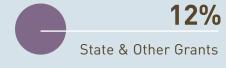
2010 FINANCIAL BREAKDOWN

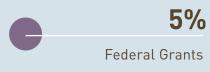


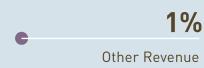
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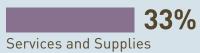




EXPENDITURES



reisonnet



5%
Capital Outlay

CARE PROGRAM

2010 MAJOR ACCOMPLISHMENTS

- Continued working with the Air District's Strategic Incentives Division staff to target incentive funds in the six impacted communities identified through the CARE program.
- Completed the West Oakland Monitoring Study (WOMS) in partnership with the Air District's Technical Services Division and the Desert Research Institute.
- Completed data collection efforts undertaken with the Air District's Technical Services Division to measure fine particulate metals at multiple locations upwind and downwind of a metals melting facility in West Oakland. Data collected during this period were analyzed and results presented at a series of community meetings.
- Initiated pilot Community Risk Reduction Plans in San Francisco and San Jose in collaboration with City staff.
- Convened meetings of the CARE Task Force to review the development of Community Risk Reduction Plans and other District activities.
- Developed, and posted on the Air District's website, screening tools for roadways and permitted stationary sources to support the updated CEQA Guidelines.
- Worked with researchers from UC Berkeley to deploy our mobile sampling van to analyze truck exhaust at an overpass near the Port of Oakland. This study was designed to detect changes in emissions from drayage trucks before and after the State's port truck regulation.
- Developed updated regional toxic emissions inventories for future years 2015 and 2020 to examine changes in air toxics emissions with continued state and local controls.

2010 LEGISLATIVE SUMMARY

The Air District adopted positions on 23 bills during 2010. Last year, California's ongoing fiscal crisis had an overwhelming influence or the legislative climate.

Fifteen measures to curb air quality regulations and programs were introduced in 2010, with proponents claiming that such regulations had negative impacts on the state's business climate. The Air District opposed these bills, and none of them passed out of the Legislature.

The following six measures supported by the Air District were passed by the Legislature.

- AB 1863 (Gaines), which extends current reductions in testing requirements for hospitals' diesel backup generators.
- AB 2289 (Eng), which allows major changes to smog check testing procedures.
- AB 2565 (Ammiano), which reduces CEQA paperwork for lead agencies by allowing increased Internet use in the CEQA process.
- SB 435 (Pavley), which would allow enforcement against tampering of motorcycle emissions controls for 2013 and later bikes.
- SB 1340 (Kehoe), which requires CEC to establish a program to reduce costs for in-home electric vehicle charging.
- SB 1445 (DeSaulnier), which increases vehicle registration fees by \$1 to fund SB 375 implementation.

Five of these bills were signed into law by the Governor. SB 1445 failed to become law.

In addition, the Air District cosponsored SB 1433 by Senator Mark Leno, which would have tied air quality penalties to inflation. Despite significant business opposition, it passed in the Legislature but was vetoed by the Governor.

Perhaps the most significant air quality bill of the year was AB 2289, which proposed significant changes to the Smog Check program. Signed into law, the bill should cut roughly 70 tons per day of ozone precursors statewide.

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