



BAY AREA AIR QUALITY
MANAGEMENT DISTRICT

2012 Annual Report



*Doing our part
for clean air.*



Our Mission and Vision.

Vision A healthy breathing environment for every Bay Area resident. **Mission** To protect and improve public health, air quality, and the global climate.

Table of Contents

02: We Spare the Air	10: Looking Closely
04: We Give Grants	12: Setting the Bar
06: We Work with Communities	14: Controlling Sources
08: Who We Are	16: Moving Forward
09: Letter from our Executive Officer	18: By the Numbers





We spare the air.

The Air District's summer and winter Spare the Air campaigns focus on educating and encouraging the public to rethink their everyday choices that contribute to air pollution. During the summer and throughout the year, the Spare the Air program urges residents to reduce their driving by walking, taking transit, or carpooling. During the winter months, smoke from residential wood burning becomes a major health concern in the Bay Area. From November to February, wood burning is illegal when the Air District issues a Winter Spare the Air Alert.

In 2012, the Air District issued a total of 10 summer and five winter Spare the Air Alerts on days when air quality was forecast to be unhealthy. Air District survey results show that the public responded and took action on those days—and all year long—to reduce pollution. For more information, see www.annualreport.baaqmd.gov/sparetheair.

We give grants to encourage clean air.

The Air District administers various grant and incentive programs to improve air quality in the Bay Area. These programs offer funding to public agencies and private companies for projects that reduce or eliminate air pollution and greenhouse gases from mobile sources. In the Bay Area, mobile sources—such as cars, trucks, marine vessels, locomotives, and construction equipment—are the greatest contributor to air pollution. For more information, see www.annualreport.baaqmd.gov/encourage.







We work with communities to improve air quality.

The Air District is dedicated to improving air quality for all Bay Area residents. Each of the Bay Area's nine counties is made up of smaller communities and neighborhoods with unique air quality concerns. The Air District is committed to adopting rules and policies that are fair and equitable to all residents, and to involving the many diverse communities and perspectives in the Bay Area into our work. For more information, see **www.annualreport.baaqmd.gov/communities**.



Who we are:

The Bay Area Air Quality Management District is the public agency entrusted with protecting the air you breathe 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 that oversees policies and adopts regulations for the control of air pollution within the district.

The Air District consists of more than 300 dedicated staff members, including engineers, inspectors, planners, scientists, and other professionals.

- ▲ AIR MONITORING SITES
- METEOROLOGICAL SITES





As the Air District's Executive Officer and a proud Bay Area resident, I'm pleased to introduce the Bay Area Air District's *2012 Annual Report*. This document showcases the dedicated effort we have made to preserve the quality of life in the region we call home.

Over the past few decades, air quality in the Bay Area has been an unqualified success story. As the result of our efforts and those of our partner agencies from national to state to the local level, air pollution has declined significantly, with tremendous benefits for public health and broad reductions in health-related costs in the region.

But with our rebounding and industrious economy, population growth, and increasing traffic, there's always more work to be done and new challenges to meet. Last year, nothing underscored this more dramatically in the Bay Area than the August 6 fire at the Chevron refinery in Richmond. This catastrophic event brought about a renewed commitment from all parties involved—from government agencies to industry to community groups—to reduce the likelihood that such events will happen again in the future, and to improve response support capabilities when they do. The Air District's *Work Plan for Action Items Related to Accidental Releases from Industrial Facilities* is just one of the important initiatives we developed to help us be prepared in the future.

Last year, we issued a comprehensive report summarizing efforts to reduce particulate matter, or PM, in the region. This report describes the substantial health impacts of PM, provides technical information about PM emissions, and describes current regulations and programs that have made progress in reducing PM levels. The report also identifies future work needed to improve our understanding of PM, and explains how crucial PM-reduction efforts are to protecting public health and the environment.

In 2012, we continued to build on our core program successes, incorporating the latest air quality research and technological advances as we planned a course for the future. We pushed the frontiers of new information as we pursued air monitoring efforts to determine how ultra-fine particles affect air quality and public health in the region. We continued to fund pioneering initiatives to bring plug-in electric vehicle charging infrastructure to the region and to help the Bay Area join the ranks of progressive metropolitan regions with bike-sharing programs. And we adopted the strictest regulation in the nation on Portland cement manufacturing facilities.

This year, we'll continue to fine-tune existing regulations and pass trailblazing new rules to measure, reduce, and limit emissions. In these and other ways, the Air District will continue to pursue our vision of providing a healthy breathing environment for every Bay Area resident.

The public is now recognizing the role we all play in contributing to the region's air pollution challenges. Encouraging the public to rethink how, when, and what they drive will continue to help individuals in our region to reduce their air pollution contributions. Better air quality leads to improved quality of life for all of us who live and work in the Bay Area, so breathe easy and enjoy this look back at the 2012 Bay Area Air Quality Management District's year in review.

Jack P. Broadbent
Executive Officer
Air Pollution Control Officer

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.

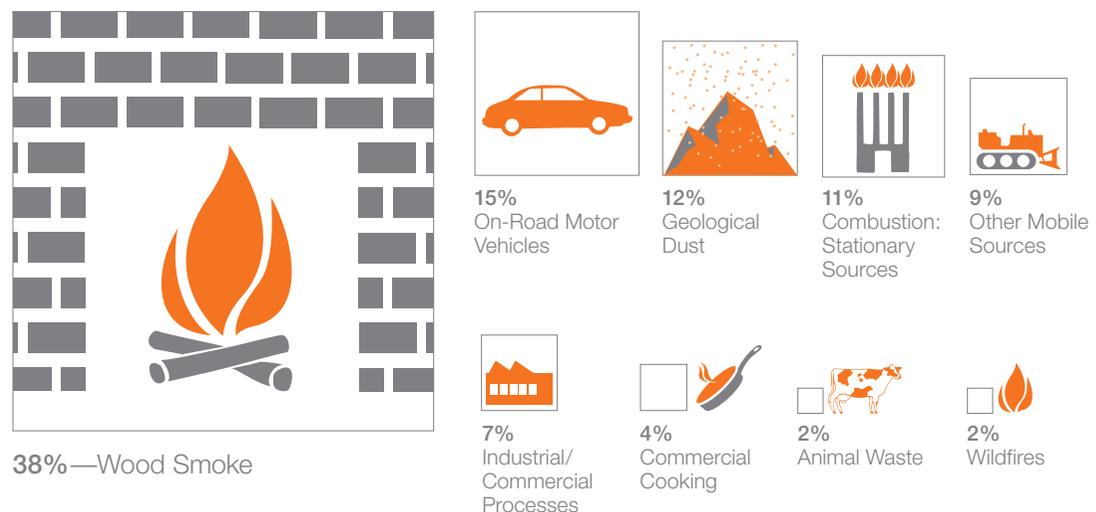
There are three major types of air pollutants that constitute a public health concern for the Bay Area: ozone, particulate matter, and toxic air contaminants.

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.

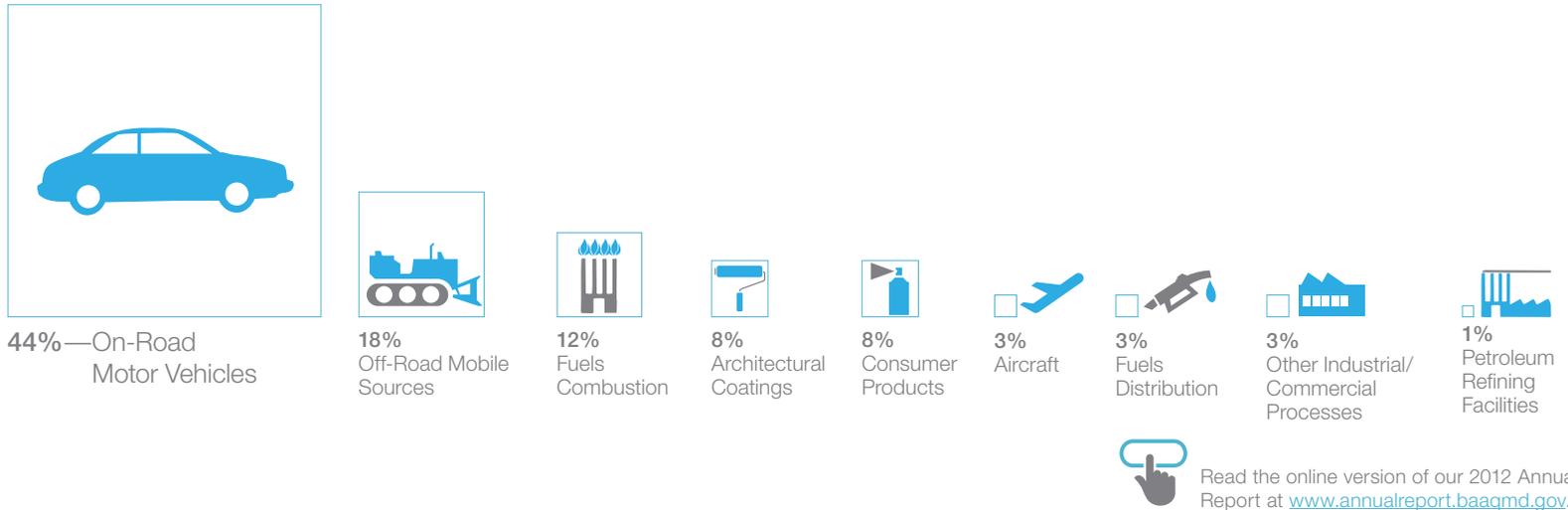
Particulate Matter (PM10 and PM2.5) Particulate matter, or PM, consists of microscopically small solid particles or liquid droplets suspended in the air. PM can be emitted directly into the air, or it can be formed from secondary reactions involving gaseous pollutants that combine in the atmosphere. 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.

Winter Sources of Bay Area Fine Particulates



Summer Sources of Bay Area Ozone-Forming Pollutants



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.

Air Monitoring The Air District maintains one of the most comprehensive air quality monitoring networks in the country, consisting of 31 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 re-locatable 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.

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.

Planning Activities The Air District continues to focus its planning efforts on the reduction of emissions from industrial and commercial activity. However, as mobile sources are significant emitters of air pollutants and greenhouse gases, our planning activities also included collaboration with local and regional agencies to address sources over which we do not have regulatory authority, such as local land use and transportation planning. The Air District also implemented a number of projects that targeted fine particulate matter, or PM, which research shows is the air pollutant with the most significant health impact in the Bay Area.

Our emphasis on fine PM promises to result in reduced human exposure—leading to significant health benefits. Air District activities aimed at reducing PM exposure include preparation of PM reduction plans; modeling and technical analyses to better understand PM sources, formation, transport, and health effects; ongoing improvement of the PM emission inventory; development of regulations to reduce PM emissions; and collaboration with local jurisdictions to develop and implement local programs to reduce PM emissions and exposure.

Partnerships with local governments and other agencies present opportunities for additional and innovative air quality initiatives, such as integrating air quality

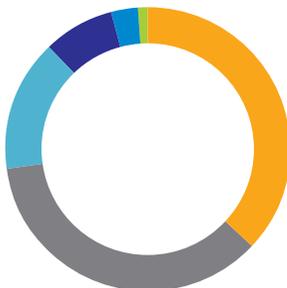
considerations into local plans and programs. We've worked with local agencies to incorporate air quality provisions in transportation and land use strategies that reduce motor vehicle use and emissions, local general plans and specific plans, environmental review processes, local air quality studies, and community risk reduction plans that reduce local exposure to air toxics and fine particulate matter.

The Air District has also developed and implemented a variety of greenhouse gas, or GHG, reduction policies and programs. These include collaborating with the Association of Bay Area Governments and the Metropolitan Transportation Commission to create a Sustainable Communities Strategy pursuant to SB 375 to reduce GHG emissions via transportation and land use plans, assisting local jurisdictions in developing local climate action plans, identifying and emphasizing the air quality co-benefits of GHG reduction strategies, and maintaining a Bay Area region-wide GHG emission inventory.

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 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.



Bay Area Sources of Greenhouse Gas Emissions (2012)

- 37%—Industrial/Commercial
- 36%—Transportation
- 15%—Electricity/Co-Generation
- 8%—Residential Fuel Usage
- 3%—Off-Road Equipment
- 1%—Agriculture/Farming





Total source
tests in 2012

13,332

Compliance
rate in 2012

99.6%

Controlling sources.

Ensuring compliance of pollution sources.

Permits The Air District evaluates permit applications and issues permits for stationary sources and abatement devices to comply with regulatory standards, including requirements to use the Best Available Control Technology, give public notice, 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.

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.

Information that is gathered in the Air District Permit Program is used to develop the emissions inventory from permitted facilities.

Toxics The Air District's Toxics Evaluation Program integrates federal and state requirements concerning toxic air contaminants into the Air District's Permit Program. 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. 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 off-site 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 Program 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 a 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 Source Test 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, Permitting Services, Compliance and Enforcement, and Emission Inventory efforts.

Moving forward

Toward a healthy breathing environment.

Read the online version of our 2012 Annual Report at
www.annualreport.baaqmd.gov.



Air quality in the Bay Area has improved significantly in the past few decades. The Air District's programs have produced substantial public health benefits and saved the region millions of dollars in health-related costs. But there are still challenges to be met as population, traffic, and industry continue to grow throughout the region.

To meet these challenges and keep this momentum moving forward, the Air District will continue to fine-tune its traditional programs, while keeping up with the latest trends in air quality research and introducing new initiatives to effectively address key sources of air pollution in the Bay Area.

Particulate Matter Report The term *particulate matter*, or PM, describes a diverse assortment of extremely small airborne particles from a wide range of sources that can penetrate deep into the lungs, other vital organs, and even individual cells. Health studies indicate that fine particulate matter is the air pollutant that poses the greatest overall health risk to Bay Area residents. The Air District has made substantial progress in analyzing PM and reducing PM levels in the Bay Area over the past 20 years. As a result, the region currently attains most national and state standards for PM.

To guide its ongoing efforts to reduce PM levels in the Bay Area, the Air District prepared a report in 2012 entitled *Particulates Matter: Understanding PM to Protect Public Health in the Bay Area*. This report:

- describes PM and its impacts on public health, climate change, and ecosystems;
- provides technical information about how PM is emitted and formed in the Bay Area;
- describes progress in reducing PM levels in the Bay Area in recent years;
- describes current regulations and programs to reduce PM emissions and concentrations;
- identifies future technical work needed to improve the Air District's understanding of PM; and
- explains the importance of continuing the Air District's efforts to reduce PM in order to protect public health and the environment.

On November 7, 2012, the Air District prepared a fine particulate emission inventory and submitted it to the U.S. Environmental Protection Agency to fulfill federal planning requirements. The PM report, which includes a PM emissions inventory, can be viewed in the Planning section of the Air District's website at www.baaqmd.gov.

Rule Changes The Air District continuously evaluates and updates its air quality regulations to reflect the latest trends in research and technology.

In 2012, the Air District approved a series of amendments that strengthened the agency's core permitting regulations by including new provisions that will further reduce emissions of fine particles and greenhouse gases from industrial sources such as refineries, power plants, and other large commercial facilities. These rule amendments fulfill federal particulate matter planning requirements, and will serve to better protect air quality in the Bay Area.

Last year, the Air District approved a pioneering rule that imposes the strictest limits in the nation on existing local Portland cement manufacturing facilities. This rule protects community health by requiring more stringent emissions limits for nitrogen oxides, particulate matter, and toxic air contaminants, such as mercury, benzene, and hydrochloric acid. It also includes new continuous emissions monitoring, recordkeeping, reporting, and operational requirements, such as dust mitigation measures.

In 2013, the Air District has approved two new rules that will further reduce particulate matter pollution and odors from foundries, forges, and metal recycling facilities. These rules are the first in California to address fugitive emissions of particulate matter and odorous substances from these kinds of metal-processing facilities. The new rules require metal-processing facilities to implement Emissions Minimization Plans, or written documents that show how these facilities plan to reduce air pollution emissions and odors. These plans must be approved by the Air District and revised and resubmitted every five years.

This year, the Air District is also developing a rule amendment to address emissions of nitrogen oxide and carbon monoxide from boilers, steam generators, and process heaters at petroleum refineries. In addition, the agency is currently in the process of developing four new rules that further restrict fugitive dust, sulfur dioxide from coke calcining, diesel emissions from emergency generators, and refinery emissions.

Accidental Release Action Plan In response to the August 6 incident at the Chevron refinery in Richmond, the Air District has adopted a work plan to further improve the Air District's regulatory response and communications systems and capabilities for assisting responding agencies during significant events.

The *Work Plan for Action Items Related to Accidental Releases from Industrial Facilities* contains the following action items, along with a schedule for their implementation:

- Continuing the investigation of the Chevron incident in order to take appropriate enforcement action;
- Reviewing and updating Air District incident response procedures;
- Evaluating enhancements to the Air District's air quality monitoring capabilities;

- Developing a rule that would track air emissions at refineries over time and require mitigation of any significant increases, as well as additional community air monitoring;
- Evaluating the Air District's incident response resources and developing amendments to the fee regulation to recover the costs of these resources;
- Evaluating enhancements to community outreach related to incidents; and
- Sponsoring legislation that would provide the Air District with the authority to collect more substantial penalties in order to encourage industries to take proactive measures to avoid accidental releases.

These action items are intended to reduce the potential for accidental releases in the future, to improve the Air District's response to such releases, and to ensure that affected communities have access to the best resources and timely information. The implementation schedule for most of these items began in late 2012 and early 2013 and will continue throughout the year.

Ultra-Fine Particle Study Although they are not currently regulated as a separate air pollutant category, the Air District initiated a study of ultra-fine particles, or UFPs, in 2012. UFPs are particles with diameters smaller than 0.1 microns or 100 nanometers, and their small size can lead to deeper penetration in the human body and potentially significant health impacts. The Air District's study consists of continuous monitoring of UFPs at four air monitoring stations, preparation of an emissions inventory, air quality modeling, human exposure analyses, and an estimation of their health impacts on Bay Area residents. Because of their miniscule size, routine monitoring of UFPs has been difficult until very recently. Most UFPs are thought to be released directly to the atmosphere from combustion sources, and once their sources are better analyzed and understood, it will be possible to devise improved strategies for reducing their emissions.

Regional Commute Benefits Program Last year, Governor Brown signed Senate Bill 1339 into law, which tasks the Air District and the Metropolitan Transportation Commission with implementing a regional commute benefits pilot program for employees who work at least 20 hours per week for an employer with 50 or more full-time employees in the San Francisco Bay Area.

This regional commute benefits requirement will give Bay Area employers the flexibility to offer employees their choice of such commute benefits as:

- The option to pay for transit or vanpooling expenses with pre-tax dollars, as allowed by federal law;
- A transit or vanpool subsidy up to \$75 per month;
- A free shuttle or vanpool operated by or for the employer; or
- Their own customized commuter benefits program.

Transportation is one of the largest sources of air pollution and greenhouse gas emissions in the Bay Area. A regional commute benefits program will provide a powerful and economically viable new tool to cut traffic congestion, improve air quality, and reduce greenhouse gas emissions.

PEV Plan In December 2012, the Air District released a regional Plug-In Electric Vehicle, or PEV, Readiness Plan for the Bay Area and Monterey Bay regions. The PEV Readiness Plan is a regional and statewide effort co-sponsored by the United States Department of Energy and California Energy Commission that seeks to identify the systems and resources that are needed to support accelerated PEV deployment, infrastructure, investment, and readiness in the region.

PEVs offer tremendous promise for reducing air pollution and greenhouse gases. In recent years, the Air District has provided more than \$3 million in funding to accelerate the deployment of charging infrastructure that will be needed to support widespread PEV use in the Bay Area. That funding contributed to the deployment of more than 200 Level 2 chargers in public locations throughout the region and rebates for installation of 1,500 home chargers. In 2013, additional incentive funding for PEV deployment projects is being planned to continue the support for accelerated early-adoption of PEVs.

In 2012, the Air District also launched a new Bay Area Plug-In Electric Vehicle Ready website, www.bayareapevready.org, which provides valuable resources and support for current and prospective electric vehicle drivers across the region.

Bike Sharing In 2012 and early 2013, thanks to funding from the Air District, a regional bike sharing system pilot pedaled a few laps closer to the finish line. The Air District signed a contract with Alta Bicycle Share to deploy and operate the projected regional system, which will run along the Peninsula transportation corridor in the cities of San Francisco, Redwood City, Mountain View, Palo Alto, and San Jose, and is expected to launch in August 2013.

Bike sharing is ideal for short distance point-to-point trips, providing users the ability to pick up a bicycle at any self-serve bike station and return it to any bike station located within the system's service area. The bicycle stations will be located near transit hubs, high-density residential areas, and key destinations such as employment centers and universities, making it easier to quickly and conveniently connect to and from transit and to make short-distance trips by bike.

The pilot project is a partnership between local government agencies including the Air District, the San Francisco Municipal Transportation Agency, Sam-Trans, Caltrain, the County of San Mateo, the City of Redwood City, and the Santa Clara Valley Transportation Authority. In the Bay Area, the transportation sector accounts for more than 50 percent of overall air pollution. Significant emission reductions from this sector will help the Bay Area attain and maintain state and national air quality standards and reduce greenhouse gases.

Green Fleet Plan In recent years, the Air District has initiated an internal Green Fleet Plan to shrink the agency's eco-footprint. The Green Fleet Plan included the introduction of alternative fuels, use of electric and hybrid vehicles, replacement of older vehicles with more fuel-efficient ones, and "right-sizing" the fleet to ensure that vehicle specifications do not over-match requirements.

The Air District currently operates with an 81 percent green fleet, a 12 percent increase since 2010, and is moving towards the target goal of 90 percent. As of the end of 2012, the Air District managed over 111 green vehicles, including fully electric, natural gas, and hybrid sedans and SUVs. Estimated emission reductions were 85 metric tons of CO₂ between 2004 and 2011.

Public Participation Plan The Air District has prepared a draft Public Participation Plan, which includes strategies for increasing the Air District's visibility in the community and giving residents easier access to the Air District, as well as enabling the Air District to better engage with limited English speakers about air quality issues.

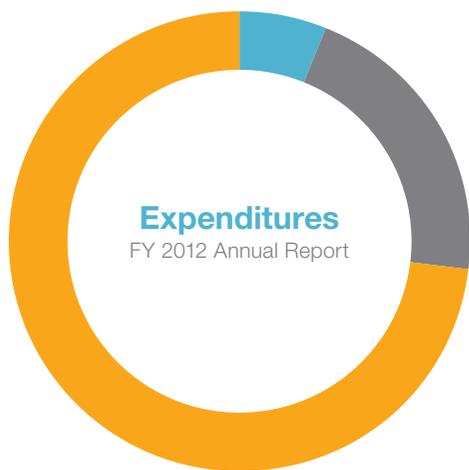
In 2013, the Air District will begin workshops and public review of the draft plan, which reaffirms the Air District's commitment to public engagement and outlines ways in which the Air District will improve public participation efforts in the future.

2012 by the numbers.



Revenue
FY 2012 Annual Report

- 55% // Permit-Related Revenue
- 34% // County Property Tax
- 7% // Federal Grants
- 4% // State and Other Grants



Expenditures
FY 2012 Annual Report

- 74% // Personnel
- 20% // Services and Supplies
- 6% // Capital Outlay

BAY AREA AIR QUALITY

2012 Exceedances of Air Quality Standards

Ozone

Days over National 8-Hour Standard	4
Days over California 1-Hour Standard	3
Days over California 8-Hour Standard	8

Particulate Matter

Days over National 24-Hour PM10 Standard	0
Days over California 24-Hour PM10 Standard	2
Days over National 24-Hour PM2.5 Standard	3

RULEMAKING ACTIVITY

2012 Rules Adopted or Amended

May 18, 2012

Regulation 8: Organic Compounds, Rule 53: Vacuum Truck Operations—new rule adopted

June 6, 2012

Regulation 3: Fees—amendments adopted

September 17, 2012

Regulation 9: Inorganic Gaseous Pollutants, Rule 17: Nitrogen Oxides, Particulate Matter and Toxic Air Contaminants from Portland Cement Manufacturing—new rule adopted

December 19, 2012

Regulation 2: Permits, Rule 1: General Requirements, Rule 2: New Source Review, Rule 4: Emissions Banking and Rule 6: Major Facility Review—amendments adopted

PERMITTING ACTIVITY

2012 Bay Area Permitted Facilities

Refineries	5
Major Facilities Excluding Refineries	90
Gasoline-Dispensing Facilities	2,315
All Other Facilities	7,964
Total	10,374
2012 Permitted Devices and Operations Total Including Registrations	23,873

2012 New Permit Applications Received

Major Facility Review (Title V)	73
New Source Review (NSR)	1,147
Total	1,220

TOXIC PROGRAM ACTIVITY

2012 Health Risk Screening Analyses

Diesel Engines	219
Gasoline-Dispensing Facilities	12
Other Commercial/Industrial	54
Total Number of Analyses	285

COMPLIANCE & ENFORCEMENT ACTIVITY STATS

2012 Compliance Inspections

Source Inspections	5,867
Air Pollution Complaints (Excluding Smoking Vehicles)	5,124
Gasoline-Dispensing Facility Inspections	550
Asbestos Inspections	2,499
Reportable Compliance Activities	535
Diesel Compliance and Grant Inspections	4,883
Total Number of Analyses	19,458

continued

2012 Violations and Penalties

Violations Resolved	300
Civil Penalties Collected	\$1.3M

AIR POLLUTION COMPLAINT CATEGORIES

Total Complaints	10,153
Smoking Vehicles	49.5%
Wood Smoke	25.9%
Odor	17.0%
Dust	2.9%
Smoke	1.1%
Outdoor Fires/Open Burning	1.0%
Asbestos	1.0%
Other	0.8%
Gas Stations	0.5%
Idling	0.3%

SOURCE TEST ACTIVITY

2012 Number of Source Tests	
Refinery Source Tests	150
Compliance Rate	97.3%
Title V Facility Source Tests (Excluding Refineries)	84
Compliance Rate	92.9%
Gasoline Cargo Tank Source Tests	262
Compliance Rate	98.9%
Gasoline-Dispensing Facility Source Test	90
Compliance Rate	80.0%
Other Miscellaneous Source Tests	12,746
Compliance Rate	99.9%
Total Source Tests	13,332
Test Violations	50
Compliance Rate	99.6%

LABORATORY

2012 Samples Analyzed in Lab	
PM10	3,893
PM2.5	1,043
Toxics	16,090
Cartridge/Aldehyde	780
VOC and Speciation	27
Metals by XRF	1,848
Metals	48
Microscopy	8
VOC	18
Miscellaneous	43
Total Source Tests	23,798

GRANT AND INCENTIVE PROGRAMS

Carl Moyer Program/Mobile Source Incentive Fund—2012	
Total Funds Awarded	\$10.4M
Number of Engines Covered by Grant Projects	184
Number of Locomotive Wayside Power Projects	1
Percent of Funding Awarded to Projects in Impacted Communities	53%

Estimated Lifetime Emissions Reduction for the Projects Funded (tons)

Reactive Organic Gases (ROG)	30
Oxides of Nitrogen (NOx)	727
Particulate Matter (PM10)	18
Total	775

Goods Movement Program—2012

Total Funds Awarded	\$30.4M
Number of Engines Covered by Grant Projects	946
Percent of Funding Awarded to Projects in Impacted Communities	100%

Estimated Lifetime Emissions Reduction for the Projects Funded (tons)

NOx	3,029
PM10	11
Total	3,040

TFCA Regional Fund Grants—FYE 2012

Total Funds Awarded	\$4.15M
Number of Projects/Programs Awarded Grants	14

Estimated Lifetime Emissions Reduction for the Projects Funded (tons)

ROG	23
NOx	18
PM10	17
Total	58
Carbon Dioxide (CO ₂)—a Greenhouse Gas (tons)	29,486

TFCA County Program Manager Fund Grants—FY 2012/2013

Total Funds Awarded	\$8.6M
Number of Projects/Programs Awarded Grants	56

Estimated Lifetime Emissions Reduction for the Projects Funded (tons)

ROG	47
NOx	59
PM10	29
Total	135
CO ₂	50,955

Lower Emission School Bus Program 2012

CNG Tank Replacement (MSIF funds)	
Total Funds Awarded	\$259,103
Number of Projects Awarded Grants	3

PUBLIC OUTREACH ACTIVITIES

2012 Spare the Air Program	
Spare the Air Days	10
AirAlert Registrations	110,443
Employers Registered	1,844
Winter Spare the Air Alerts (2012–13 season)	10

2012 Smoking Vehicle Program

Vehicles Reported	5,091
-------------------	-------

2012 Community Outreach Meetings/Events

Public Meetings and Workshops Held by District	8
Meetings with Local Organizations	54
Spare the Air Resource Team Meetings	40
Fairs and Events	75
Total	177

Community Air Risk Evaluation (CARE) Program 2012 Accomplishments

- Continued working with the Air District's Strategic Incentives Division to target incentive funds in the six impacted communities identified through the CARE program.
- Completed technical analysis and modeling in support of the San Francisco Community Risk Reduction Plan, or CRRP, which was presented at the California Asthma Summit. Based on this analysis, San Francisco is moving forward with proposed short-term and near-term mitigation measures to reduce emissions and exposures in areas that are above their city-wide standards. The Air District continues to offer technical support to other local agencies in developing CRRPs and has begun modeling stationary sources for the City of San Jose. The Air District is working with the City of Hayward to support their efforts to complete a CRRP by providing technical guidance and some modeling inputs.
- Worked with Air District planners in support of the Sustainable Communities Strategy environmental clearance document, incorporating local risk and hazard data from Air District screening tools.
- Worked with Air District planners to provide assistance to cities and project leads in assessing and reducing impacts of new development projects.
- Developed a draft updated methodology for identifying areas in the Bay Area most impacted by air pollution. The Air District hosted a workshop in which representatives from Cal/EPA, UC Berkeley, and the San Francisco Department of Public Health presented their methodologies for identifying impacted communities.
- Supported the work of researchers at UC Berkeley to repeat mobile van sampling of diesel truck exhaust plumes in West Oakland to ensure that emission reductions from drayage truck retrofits and replacements are maintained over time.

2012 Legislative Summary

The Air District had two primary legislative goals for 2012, and both were achieved: we had no budgetary cuts from the State, and the transit commute benefits requirement sponsored by the Air District and authored by Senator Leland Yee, SB 1339, was passed and signed into law.

SB 1339 is similar to the previous year's SB 582, vetoed by the Governor. It tasks the Air District and the Metropolitan Transportation Commission with jointly adopting a commute benefit requirement for Bay Area businesses and agencies with 50 or more employees. Affected employers will choose one of several benefits to offer their employees, such as the option of paying for transit or vanpooling with pre-tax dollars.

SB 1339 will help the region achieve greenhouse gas emissions reductions mandated by SB 375.

The Air District opposed 10 measures introduced in 2012 to curb air quality regulations and programs, with proponents claiming that these would protect businesses in a tough economy. None of these bills passed out of the Legislature.

Along with SB 1339, two additional measures supported by the Air District were passed by the Legislature and signed into law by the Governor.

- AB 1532 (Perez), which creates the Greenhouse Gas Emission Reduction Fund for revenues from auction of GHG allowances.
- AB 535 (DeLeon), which directs funds in the Greenhouse Gas Emission Reduction Fund to disadvantaged communities.

The Air District also supported SB 1455, which would have reauthorized Carl Moyer, AB 118, and AB 923 air quality incentive and funding programs, and made changes to the California Air Resources Board's Clean Fuel Outlet regulation. The programs affected provide roughly \$24 million annually to the Bay Area for emission reduction projects. To pass, SB 1455 required a two-thirds vote of both the Assembly and the Senate. It passed the Assembly, but failed passage of the Senate at midnight of the last session, falling two votes shy of the required supermajority.

Executive Management Staff

Jack P. Broadbent

Executive Officer/Air Pollution Control Officer

Brian C. Bungler

District Counsel

Jeff McKay

Jean Roggenkamp

Deputy Air Pollution Control Officers

Brian Bateman

Health and Science Officer

Jaime Williams

Information Technology Officer

Division Directors

Damian Breen

Strategic Incentives

John Chiladakis

Information Systems Services

Jack Colbourn

Administration Services

Lisa F. Fasano

Communications and Outreach

Henry Hilken

Planning, Rules and Research

Jim Karas

Engineering

Wayne Kino

Compliance and Enforcement

Eric Stevenson

Technical Services

Current Board Members

Alameda County

Tom Bates, Scott Haggerty, Nate Miley (Vice Chair),
Tim Sbranti

Contra Costa County

John Gioia, David E. Hudson, Mary Piepho, Mark Ross

Marin County

Susan Adams

Napa County

Brad Wagenknecht

San Francisco County

John Avalos, Edwin M. Lee, Eric Mar

San Mateo County

Carole Groom (Secretary), Carol L. Klatt

Santa Clara County

Ash Kalra (Chair), Liz Kniss, Jan Pepper, Ken Yeager

Solano County

Jim Spering

Sonoma County

Teresa Barrett, Shirlee Zane

Contact Information

GENERAL BUSINESS

415.743.5000

PUBLIC INFORMATION

415.749.4900

COMPLIANCE ASSISTANCE

415.749.4999

ENGINEERING SERVICES

415.749.4990

WEBSITES

www.baaqmd.gov

www.sparetheair.org

www.bayareapevready.org

www.twitter.com/@sparetheair

www.facebook.com/sparetheair

AIR QUALITY INFO

800.HELP.AIR (435.7247)

Daily Air Quality Forecasts, Spare the Air Alerts, Agricultural Burn Days

REPORT SMOKING VEHICLES

800.EXHAUST (394.2878)

www.SmokingVehicleHelp.org

AIR POLLUTION COMPLAINTS

800.334.ODOR (6367)

WINTER SPARE THE AIR ALERTS

877.4-NO.BURN (466.2876)



**BAY AREA AIR QUALITY
MANAGEMENT DISTRICT**

939 Ellis St., San Francisco, CA 94109
415.771.6000

Contributors

*Communications and Outreach Director
Lisa Fasano*

*Communications Manager
Kristine Roselius*

*Project Coordinators/Editors
Aaron Richardson and Jennifer Jones*

*Design/Production
Curran & Connors, Inc.*

*Photography
Mark Compton 1, 4-5, 6-7, 9*

*Printer
Watermark Press*

Printed on acid-free, elemental chlorine-free, 10% post-consumer recycled paper, using soy-based inks.

www.baaqmd.gov