TOGETHER
Creating a
Clean Air Future
ANNUAL REPORT
2015
The Bay Area Air Quality Management District is the public agency responsible for protecting air quality in the nine counties that surround San Francisco Bay:

- Alameda
- Contra Costa
- Marin
- Napa
- San Francisco
- San Mateo
- Santa Clara
- Southwestern Solano
- Southern Sonoma

Our mission is to protect and improve public health, air quality and the global climate.
In 2015, the Bay Area Air District celebrated 60 years of service to the region by improving air quality and public health throughout the nine counties that surround the Bay and reaffirmed our commitment as a climate leader.

This past year, the Air District began preparing a Regional Climate Protection Strategy as part of the 2016 Clean Air Plan, which will establish a plan of action toward aggressive long-term greenhouse gas reduction goals.

We completed a consumption-based greenhouse gas emissions inventory and launched a monitoring network that will track trends in GHGs and provide details about Bay Area sources. This data will allow us to pinpoint areas where greater emission reductions can be achieved in the coming period.

To help us reduce wintertime pollution, we updated the Air District’s wood-burning regulation. The amended rule will prohibit wood-burning devices from being installed in new building construction throughout the nine counties. Later this year, we will launch a wood stove change-out program that will assist Bay Area households in moving to cleaner, more efficient heating devices.

At the end of 2015, our Board of Directors unanimously adopted Regulation 6-5, that requires reduction of harmful PM2.5 from refinery equipment. The Board also amended Regulations 11-10 and 8-18 that strengthen leak detection and require expedited repairs of refinery equipment.

We have continued to fulfill our core duty of enforcing air quality regulations, issuing permits, and forecasting and monitoring air quality throughout the region.

As the Air District’s Executive Officer, I am proud of our work protecting the health of Bay Area residents and leading the way toward a clean air future. I hope you enjoy this review of our work over the past year.

JACK P. BRODBENT
Executive Officer
Air Pollution Control Officer
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We completed a consumption-based greenhouse gas emissions inventory and launched a monitoring network that will track trends over time and provide insights about Bay Area sources. This data will allow us to target areas where greenhouse emission reductions can be achieved and monitored over time.

To help us reduce air pollution, we updated the Air District’s wood-burning regulation. The amended rule prohibits wood-burning devices in new construction throughout the nine counties. Later this year, we will launch a wood-stove change-out program that will assist Bay Area households in switching to cleaner, more efficient heating devices.

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Executive Officer
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In 2016, the Air District stepped up its commitment to be a climate leader by establishing a new, distinct Climate Protection Section within the Planning Division. This section will coordinate the Air District’s climate protection activities throughout the Air District. Staff began preparing a Regional Climate Protection Strategy as a key element of our 2016 Clean Air Plan. The Regional Climate Protection Strategy—to be finalized in 2016—will identify actions the Air District will undertake to help achieve aggressive long-term greenhouse gas reduction goals for the Bay Area established by the Board of Directors.

In 2015, the Air District completed a consumption-based greenhouse gas emissions inventory, which estimates the amount of GHGs emitted anywhere in the world by the production of goods and services consumed by Bay Area residents. Also, in 2015, the agency launched a greenhouse gas monitoring network that will track trends in GHGs over time and provide detailed information about Bay Area sources of GHGs. This network will be expanded in 2016. The consumption-based inventory and the GHG monitoring network provide information to support technical programs, public engagement campaigns and other initiatives summarized in the Regional Climate Protection Strategy.

In December 2015, the Air District adopted one rule and two rule amendments as part of a new effort to tighten air pollution controls on petroleum refining activity in the Bay Area. The recent amendments are the first step in implementing the Air District’s Refinery Emissions Reduction Strategy, which will reduce emissions from Bay Area refineries by as much as 20 percent by 2020. Three additional refinery rules are moving through the public review process and will be considered by the Air District Board later in 2016.

In October 2015, the Air District adopted a set of strong new amendments that significantly improve the agency’s wood-burning regulation, which is designed to safeguard public health against the hazards of fine particle pollution. Among other provisions, the amended rule will prohibit wood-burning devices from being installed in new building construction. In February 2016, the Air District approved $3 million for a fireplace and wood stove change-out program to provide cleaner, more efficient heating devices for nearly 3,000 households. Increased funding will be available for low-income households.

In January 2016, the Air District awarded more than $260,000 to 11 community-based partnership projects within the nine-county Bay Area region. These projects will increase awareness about air quality issues and initiate activities to reduce air pollution. Ten of the selected projects are located in Bay Area communities—identified through the Air District’s Community Air Risk Evaluation, or CARE, program—that experience concentrated air pollution and related public health impacts.

In May 2015, the Air District approved the allocation of $14 million in funding for programs that promote and accelerate plug-in electric vehicle, or PEV, usage in the Bay Area. The funds support the expansion of charging stations at workplaces, multi-unit dwellings, transportation corridors and at key destinations. The funding facilitates clean air vehicle leasing for government agencies, and provides incentives for operators of light-duty vehicle fleets and heavy-duty vehicles and buses to purchase clean air vehicles.

In May 2015, the Air District awarded $2.2 million in funding for the completion of 12 new hydrogen refueling cell stations in the Bay Area. All 12 hydrogen stations are scheduled to be in service in 2016.

In July 2015, the Air District approved the allocation of $20 million to help fund the electrification of the Caltrain corridor. Key benefits associated with electrifying the 51 miles of rail line between San Francisco and San Jose include a reduction of greenhouse gases, increased frequency and speed of train service, reduced engine noise and reduced traffic congestion from automobiles. Caltrain expects to start operating the electric trains by the winter of 2020.

In March 2015, the Air District awarded $2.5 million to United Airlines, Inc. to fund the replacement of 87 diesel-powered ground support equipment units with zero-emission alternatives at the San Francisco International Airport. This is the largest Air District grant issued for purchasing zero-emission airport equipment in the Bay Area and replaces old, diesel-powered aircraft tow/tug vehicles with electric, zero-emission equivalents.

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Grant Programs

Carl Moyer Program/ Mobile Source Incentive Fund (MSIF)—2015

<table>
<thead>
<tr>
<th>Total Funds Awarded</th>
<th>$19.3M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Engines Covered by Grant Projects</td>
<td>265</td>
</tr>
<tr>
<td>Estimated Lifetime Emissions Reduction for the Projects Funded (tons)</td>
<td></td>
</tr>
<tr>
<td>Reactive Organic Gases (ROG)</td>
<td>50</td>
</tr>
<tr>
<td>Oxides of Nitrogen (NOx)</td>
<td>384</td>
</tr>
<tr>
<td>Particulate Matter (PM10)</td>
<td>18</td>
</tr>
<tr>
<td>TOTAL</td>
<td>462</td>
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</table>

Goods Movement Program—2015

<table>
<thead>
<tr>
<th>Total Funds Awarded</th>
<th>$8.1M</th>
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<tbody>
<tr>
<td>Number of Projects/Programs Awarded Grants</td>
<td>63</td>
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<tr>
<td>Estimated Lifetime Emissions Reduction for the Projects Funded (tons)</td>
<td></td>
</tr>
<tr>
<td>ROG</td>
<td>41.43</td>
</tr>
<tr>
<td>NOx</td>
<td>62.61</td>
</tr>
<tr>
<td>PM10</td>
<td>42.10</td>
</tr>
<tr>
<td>TOTAL</td>
<td>136.14</td>
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TFCA Regional Fund Grants—2015

<table>
<thead>
<tr>
<th>Total Funds Awarded</th>
<th>$11.9M</th>
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<tbody>
<tr>
<td>Number of Projects/Programs Awarded Grants</td>
<td>67</td>
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<tr>
<td>Estimated Lifetime Emissions Reduction for the Projects Funded (tons)</td>
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<tr>
<td>ROG</td>
<td>41.43</td>
</tr>
<tr>
<td>NOx</td>
<td>62.61</td>
</tr>
<tr>
<td>PM10</td>
<td>42.10</td>
</tr>
<tr>
<td>TOTAL</td>
<td>136.14</td>
</tr>
<tr>
<td>Carbon Dioxide (CO2)</td>
<td>85,161.70</td>
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TFCA County Program Manager Fund Grants—FYE 2015

<table>
<thead>
<tr>
<th>Total Funds Awarded</th>
<th>$11.4M</th>
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<tbody>
<tr>
<td>Number of Projects/Programs Awarded Grants</td>
<td>64</td>
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<tr>
<td>Estimated Lifetime Emissions Reduction for the Projects Funded (tons)</td>
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</tr>
<tr>
<td>ROG</td>
<td>69.09</td>
</tr>
<tr>
<td>NOx</td>
<td>62.61</td>
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<tr>
<td>PM10</td>
<td>50.76</td>
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<tr>
<td>TOTAL</td>
<td>162.46</td>
</tr>
<tr>
<td>Carbon Dioxide (CO2)</td>
<td>88,427.68</td>
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Lower Emission School Bus Program—2015

<table>
<thead>
<tr>
<th>Total Funds Awarded</th>
<th>$2.6M</th>
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<tbody>
<tr>
<td>Number of Buses Awarded Grants</td>
<td>63</td>
</tr>
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</table>

Vehicle Buy Back Program—2015

<table>
<thead>
<tr>
<th>Total Funds Awarded</th>
<th>$6.5M</th>
</tr>
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<tbody>
<tr>
<td>Number of Vehicles Scrapped in 2015</td>
<td>6,139</td>
</tr>
<tr>
<td>Estimated Lifetime Emissions Reduction for the Projects Funded (tons)</td>
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</tr>
<tr>
<td>ROG</td>
<td>229</td>
</tr>
<tr>
<td>NOx</td>
<td>229</td>
</tr>
<tr>
<td>PM</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL</td>
<td>661</td>
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Legislation and CARE Program

2015 Legislative Summary

One critical piece of legislation that directly affects the Air District was SB 683, authored by Senator Jim Beall and sponsored by the California Air Pollution Control Officers Association. This bill provides modernization to the Carl Moyer and AB 928 incentive programs that the Air District administers.

The bill expands project categories for both programs, allows the Carl Moyer program to adopt to future clean technologies, and establishes a process to adjust the outdated cost-effectiveness limit—including for projects providing co-benefits such as greenhouse gas reductions or air quality improvements in the most polluted communities. It encourages leveraging with other funding sources, and streamlines and updates administrative requirements. This bill was signed into law by the governor in October.

Two other bills supported by the Air District were passed by the legislature with significant modifications and signed into law:

- SB 950 (De Leon), which increases the renewable portfolio standard to 60 percent renewables by 2030 (the current RPS is 33 percent by 2020), and increases the energy efficiency of existing buildings by 60 percent by 2030. A third provision, calling for curtailing petroleum use by 50 percent by 2030, was eliminated.
- AB 1288 (Atkins), adds two new seats to the Air Resources Board. The new board members will essentially represent environmental justice communities. Key components of the bill were cut that would have extended ARB’s authority to implement cap-and-trade programs beyond 2020 and to direct cap-and-trade revenues into disadvantaged communities after 2020.

SB 777 (Allen), sponsored by the Air District did not pass the legislature this year, but is eligible to be heard in 2016. The bill would allow for a University of California study of the effect of unregistered and out-of-state vehicles on air quality and lost revenue.

Six other bills supported by the Air District failed to pass, including SB 92 (Pavley), which was a bill to extend AB 82 beyond 2020 and essentially require that California achieve 1.990 levels of greenhouse gas emissions by 2020. The bill failed to pass the Assembly floor, but an amended version can be considered in 2016.

None of the 10 bills that the Air District opposed in 2015 became law, many of which would have limited or constrained California’s efforts to cut greenhouse gas emissions or to implement existing programs to cut air pollution.

Community Air-Risk Evaluation (CARE) Program 2015 Accomplishments

In 2016, the Air District began developing updated and refined air pollution emission estimates for detailed modeling of fine particulate matter concentrations and community health risk from nearby pollution sources. These updated emissions can be used to:

- Map areas with higher pollution impacts
- Support Planning Healthy Places guidance
- Update and develop Community Risk Reduction Plans

In recent years, advancements in air quality monitoring technology have enabled exciting opportunities to conduct detailed, localized air quality studies. The Air District is collaborating with researchers from the University of Washington to measure near-roadway pollution levels in Oakland and with researchers from UC Berkeley to install networks of devices in Oakland and San Francisco to map air pollution levels and help track greenhouse gas trends. In 2016, Air District staff will continue to collaborate with air quality researchers and community members to investigate and implement networks of air quality sensors to improve our understanding of local air-quality conditions.
2015 by the Numbers

REVENUE
- Permit-Related Revenue: 65%
- County Property Tax: 36%
- Federal Grants: 3%
- Staats and Other Grants: 4%

EXPENDITURES
- Personnel: 70%
- Services and Supplies: 23%
- Capital Outlay: 7%

BAY AREA AIR QUALITY
2015 Exceedances of Air Quality Standards
- OZONE: Days over National 8-Hour Standard: 5, Days over California 1-Hour Standard: 4, Days over California 8-Hour Standard: 11
- PARTICULATE MATTER: Days over National 24-Hour PM10 Standard: 0, Days over California 24-Hour PM10 Standard: 1, Days over National 24-Hour PM2.5 Standard: 9

RULEMAKING ACTIVITY
2015 Rules Adopted or Amended
- JUNE 3, 2015: Regulation 3: Fees—amendments adopted

PERMITTING ACTIVITY
BAY AREA PERMITTED FACILITIES
- Refineries: 5
- Major Facilities Excluding Refineries: 84
- Gasoline Dispensing Facilities: 2,365
- All Other Facilities: 8,860
- TOTAL: 11,314
- Permitted Devices and Operations: 25,487

NEW PERMIT APPLICATIONS
- Major Source Review (Title V): 64
- New Source Review (NSR): 993
- TOTAL: 1,047

HEALTH RISK SCREENING ANALYSES
- Diesel Engines: 236
- Gasoline Dispensing: 7
- Other Commercial/Industrial: 41
- TOTAL: 304

COMPLIANCE AND ENFORCEMENT ACTIVITY
2015 COMPLIANCE INSPECTIONS
- Source Inspections: 7,218
- Air Pollution Complainant Inspections (Including Smoking Vehicles): 9,763
- Gasoline Dispensing Facility Inspections: 707
- Asbestos Inspections: 1,860
- Reportable Compliance Activities: 461
- Diesel Compliance and Grant Inspections: 1,906
- TOTAL: 21,896

2015 CRIMINAL AND VIOLATIONS
- Penalties: $6,112,931
- Violations Resolved with Penalties: 441

AIR POLLUTION COMPLAINT CATEGORIES
- TOTAL COMPLAINTS: 12,889
  - Odor: 38.5%
  - Wood Smoke: 31.4%
  - Smoking Vehicles: 24.9%
  - Dust: 2.7%
  - Asbestos: 1.2%
  - Miscellaneous Categories (including Smoke, Outdoor Burning and Gas Stations): 1.8%

SOURCE TEST ACTIVITY
2015 Number of Source Tests
- Refinery Source Tests: 152
  - Compliance Rate: 98.0%
- Title V Facility Source Tests (Excluding Refineries): 346
  - Compliance Rate: 98.0%
- Gasoline Cargo Tank Source Tests: 364
  - Compliance Rate: 97.2%
- Gasoline Dispensing Facility Source Tests: 90
  - Compliance Rate: 86.7%
- Other Miscellaneous Source Tests: 16,130
  - Compliance Rate: 99.7%
- TOTAL SOURCE TESTS: 16,130
- TOTAL VIOLATIONS: 68
- COMPLIANCE RATE: 99.6%

LABORATORY
2015 Samples Analyzed in the Lab
- PM: 3,290
- Toxins: 786
- Source-oriented analyses: 308
- Interagency projects: 7
- TOTAL: 4,391
The Bay Area Air Quality Management District does not discriminate on the basis of race, national origin, ethnic group identification, ancestry, religion, age, sex, sexual orientation, gender identity, gender expression, color, genetic information, medical condition, mental or physical disability, or any other attribute or belief protected by law.

It is the Air District's policy to provide fair and equal access to the benefits of a program or activity that we administer. The Air District will not tolerate discrimination against any person(s) seeking to participate in, or receive the benefits of, any program or activity offered or conducted by us. Members of the public who believe they or others were unlawfully denied full and equal access to an Air District program or activity may file a discrimination complaint with us under this policy. This non-discrimination policy also applies to other people or entities affiliated with the Air District, including contractors or grantees that we utilize to provide benefits and services to members of the public.

Auxiliary aids and services including, for example, qualified interpreters and/or listening devices to individuals who are deaf or hard of hearing, and to other individuals as necessary to ensure effective communication or an equal opportunity to participate fully in the benefits, activities, programs and services will be provided by the Air District in a timely manner and in such a way as to protect the privacy and independence of the individual. Please contact the Non-Discrimination Coordinator identified below at least three days in advance of a meeting so that arrangements can be made accordingly.

If you believe discrimination has occurred with respect to one of our programs or activities, you may contact the Non-Discrimination Coordinator identified below or visit our website at www.baaqmd.gov/accessibility to learn how and where to file a complaint of discrimination.

Questions regarding this policy should be directed to the Air District Non-Discrimination Coordinator, Rex Sanders, at 415.749.4951 or by email at rsanders@baaqmd.gov.