



Annual Report  
to the Community  
2010



**San Joaquin Valley**  
AIR POLLUTION CONTROL DISTRICT



## Message from the Air Pollution Control Officer

To the Residents of the San Joaquin Valley:

Once again, it is with great pleasure that we present our 2010 Report to the Community. The District Governing Board and the staff are committed to full transparency and public accountability. This report details our challenges and explains the District's actions and initiatives from the preceding year. It is the hope of the District Governing Board and the staff that the general public, regulated businesses, community activists and all interested parties review this report and provide feedback and suggestions on how the Valley can best address the enormous air quality challenges that we face.

This report highlights the significant contributions from Valley businesses and municipalities in reducing emissions and the important role the public can play in bringing continued air quality improvements to the Valley. The past year saw the implementation of new, innovative rules, such as the Employer Based Trip Reduction rule, and the further strengthening of rules, such as the Agricultural Open Burning rule.

Enhanced outreach allowed us to expand our Healthy Air Living Partner program and build strategic public engagement messages based on an extensive public opinion survey.

The struggling economy continued to be a challenge for everyone in the Valley. In response, the Governing Board extended the Economic Assistance Initiative, and staff redoubled efforts to be proactive and efficient in both applying for and processing grant funding from state and federal sources.

The District has collaborated with top scientists and stakeholders throughout both the state and the nation to be on the cutting edge of scientific and technological advancements, which can assist in setting successful air quality public policy. This has led the District to be a resource for Valley businesses and municipalities navigating new climate change mandates being implemented throughout the state.

I am happy to report that the last summer and winter were the cleanest on record. Of course, the Valley continues to face exceptional air quality challenges, and still records a high number of days when we exceed the state and federal health-based standards for ozone and particulate matter.

With continued collaboration from all corners of the Valley, the District will face the unmatched challenges ahead effectively and efficiently. Please do not hesitate to give us a call or send us an email. We continue to need and value your insight and ideas.

Toward cleaner air,

A handwritten signature in black ink, appearing to read 'Seyed Sadredin'. The signature is fluid and cursive.

**Seyed Sadredin**

*Executive Director/Air Pollution Control Officer*

## 2010 Governing Board Members

The District is governed by a 15-member Board that consists of representatives from the boards of supervisors of all eight counties, five councilmembers from Valley cities, and two governor-appointed public members. The San Joaquin Valley Air Pollution Control District Governing Board members:

CHAIR:

**Tony Barba**  
*Kings County Supervisor*

VICE CHAIR:

**J. Steven Worthley**  
*Tulare County Supervisor*

**David Ayers**  
*City of Hanford Councilmember*

**Judith G. Case, R.N.**  
*Fresno County Supervisor*

**Ronn Dominici**  
*Madera County Supervisor*

**Henry Jay Forman, Ph.D.**  
*Appointed by Governor*

**Ann Johnston**  
*City of Stockton Mayor*

**Mike Lane**  
*City of Visalia Councilmember*

**Randy Miller**  
*City of Taft Councilmember*

**Mike Nelson**  
*Merced County Supervisor*

**William O'Brien**  
*Stanislaus County Supervisor*

**Leroy Ornellas**  
*San Joaquin County Supervisor*

**John G. Telles, M.D.**  
*Appointed by Governor*

**Chris Vierra**  
*City of Ceres Councilmember*

**Raymond A. Watson**  
*Kern County Supervisor*

**\*Hub Walsh**  
*Merced County Supervisor*  
Appointed to the Board in December 2010

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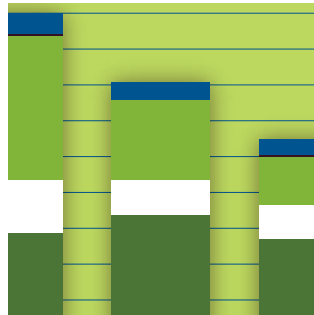
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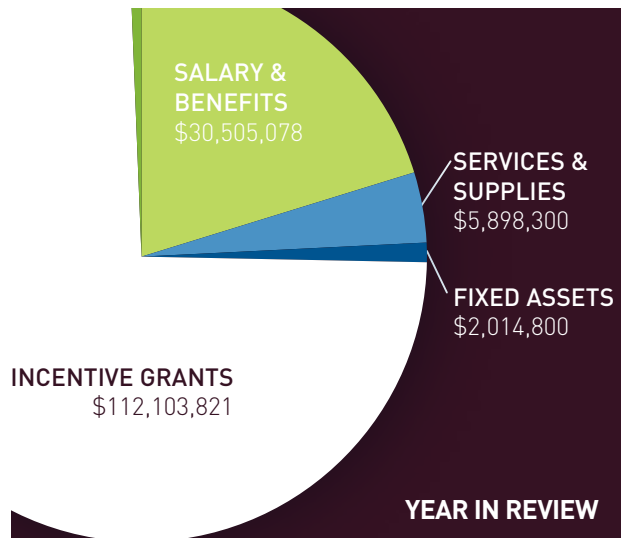
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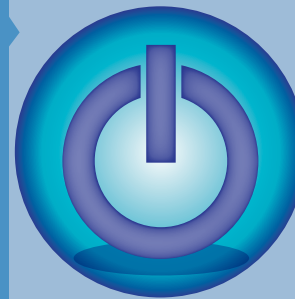


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## About the Valley Air District

The San Joaquin Valley Air Pollution Control District is a regional government agency responsible for air quality management in the eight counties in the San Joaquin Valley Air Basin: San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare and the Valley air basin portion of Kern.

The District works with local, state and federal government agencies, the business community and the residents of the Valley to reduce emissions that create harmful air quality conditions.

## The District's Mission

The San Joaquin Valley Air Pollution Control District is a public health agency whose mission is to improve the health and quality of life for all Valley residents through efficient, effective and entrepreneurial air quality-management strategies.

## The District's Vision

Healthful air that meets or exceeds air quality standards for all Valley residents. The District is a leader in air-pollution control. Valley residents take pride in our collective efforts to continuously improve air quality.



# The Valley Air District's Core Values

- Protection of public health** > The District shall continue to strive to protect the health of Valley residents through efforts to meet health-based state and federal ambient air-quality standards.
- Active and effective air pollution control efforts with minimal disruption to the Valley's economic prosperity** > District staff shall work diligently to adopt and fully implement cost-effective air pollution-control measures, provide meaningful incentives for reducing emissions, and develop creative alternatives for achieving emissions reductions.
- Outstanding customer service** > District staff shall work to provide excellent customer service for stakeholders in activities including: rule and plan development; permitting and emissions inventory functions; compliance activities; financial and grant-funding transactions; and responses to public complaints and inquiries.
- Ingenuity and innovation** > The District values innovation and ingenuity in meeting the challenges we face. Examples of this spirit of innovation include developing programs that provide new incentives for emissions reductions, and providing alternate compliance strategies that supplement traditional regulatory efforts and generate more emissions reductions than could otherwise be reasonably obtained.
- Accountability to the public** > The District serves, and is ultimately accountable to, the people of the Valley for the wise and appropriate use of public resources, and for accomplishing the District's mission with integrity and honesty.
- Open and transparent public processes** > The District shall continue to provide meaningful opportunities for public input and be responsive to all public inquiries.
- Recognition of the uniqueness of the San Joaquin Valley** > The Valley's meteorology, topography and economy differ significantly from those in other jurisdictions. Although it is valuable to review and evaluate efforts of other agencies, we must consistently look for solutions that fully consider the Valley's unique needs.
- Continuous improvement** > The District works to continually improve its internal operations and processes, and strives to streamline District operations through optimally utilizing information technology and human resources.
- Effective and efficient use of public funds** > The District shall continually strive to efficiently use all resources and to minimize costs associated with District functions.
- Respect for the opinions and interest of all Valley residents** > The District shall respect the interests and opinions of all Valley residents and fully consider these opinions, working collaboratively, in carrying out the District's mission.

# Working Together for Clean Air

Although the District is legally charged with the responsibility to design and implement the Valley's clean air strategies, achieving cleaner air relies on the work, investment and sacrifice of many. Following are just a few examples of the many valuable efforts for clean air that happened in 2009 and 2010.

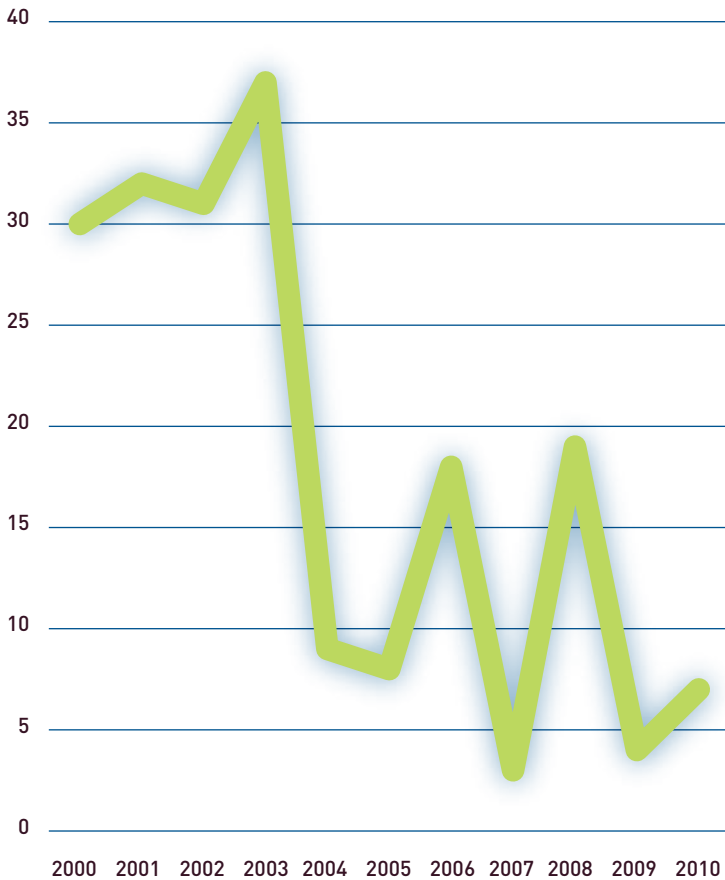
## 2009-2010 Air Quality Trends

As a result of the extraordinary investments by businesses and municipalities in the San Joaquin Valley, and the efficient and effective public policy established by the Valley Air District Governing Board, air quality continues to improve in the Valley.

## Ozone

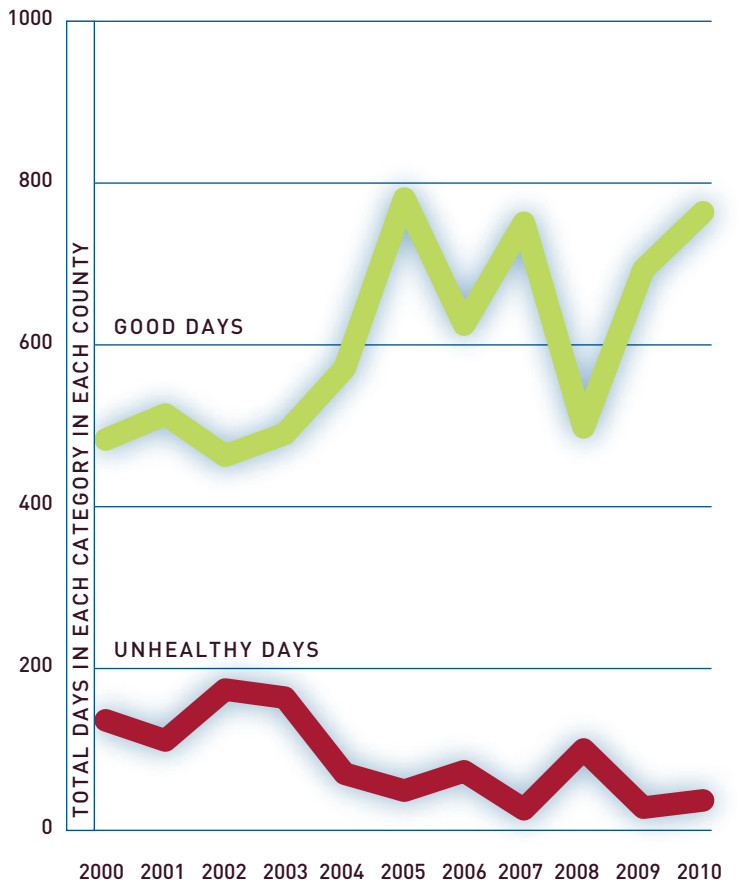
The 2009 ozone season was one of the cleanest of recent years. Preliminary data indicates that the Valley recorded seven exceedances of the federal 1-hour ozone standard, which triggers a punitive Clean Air Act Fee (see *Federal Ozone Nonattainment Fees* section, page 18). Regarding the current 8-hour federal ozone standard, the summer of 2010 was the cleanest on record in the Valley, continuing the 20-year trend.

Basin-Days Over the Revoked 1-hour Ozone Standard



8-hour Ozone

County Days in AQI Good and Unhealthy Ranges April to September





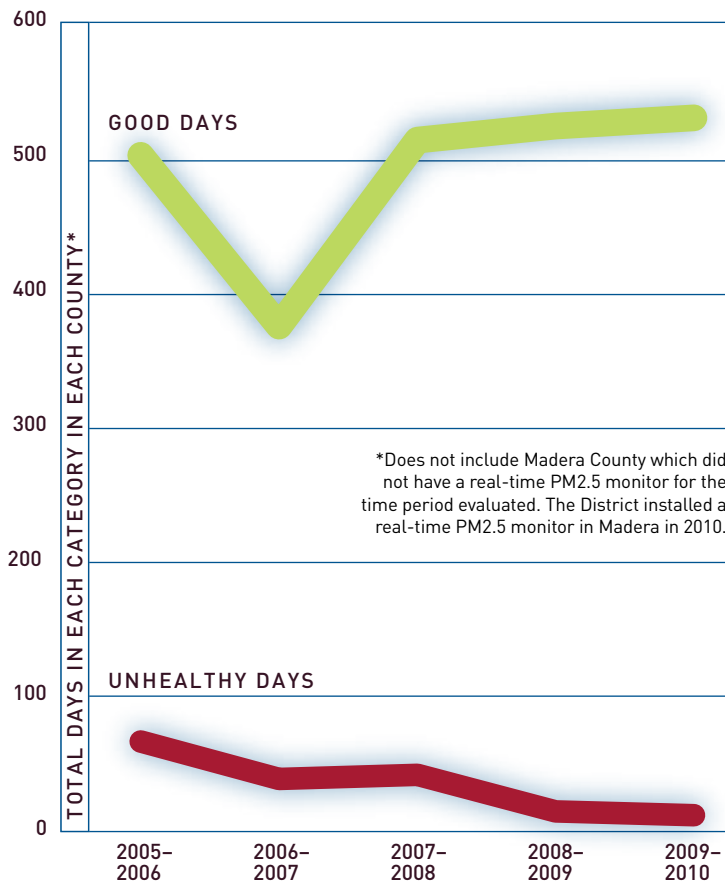
**PM2.5**

Fall and winter comprise the San Joaquin Valley's PM2.5 season, and in late 2009 through early 2010, there were more "Good" air quality days (based on the federal Air Quality Index scale) and fewer "Unhealthy" air quality days as compared to previous years.

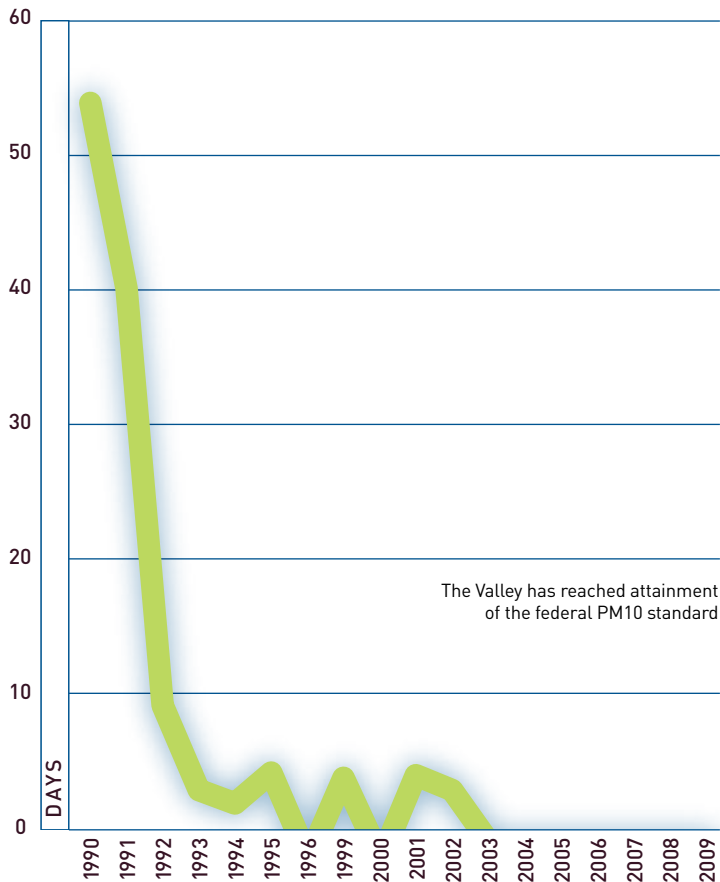
**PM10**

EPA re-designated the San Joaquin Valley to "Attainment" of the federal PM10 standard in November 2008. The Valley qualifies for the "Attainment" ranking because no monitoring sites have experienced PM10 violations since 2003. While PM10 air quality met federal standards in 2009–2010, the Valley experienced three days when unusually strong winds stirred up dust, which raised PM10 concentrations in the southern end of the Valley. These weather-driven episodes are considered "Exceptional Events" under federal regulations, and do not constitute violations of the health-based standard.

**PM2.5 Season Days in each AQI Category**  
October to March

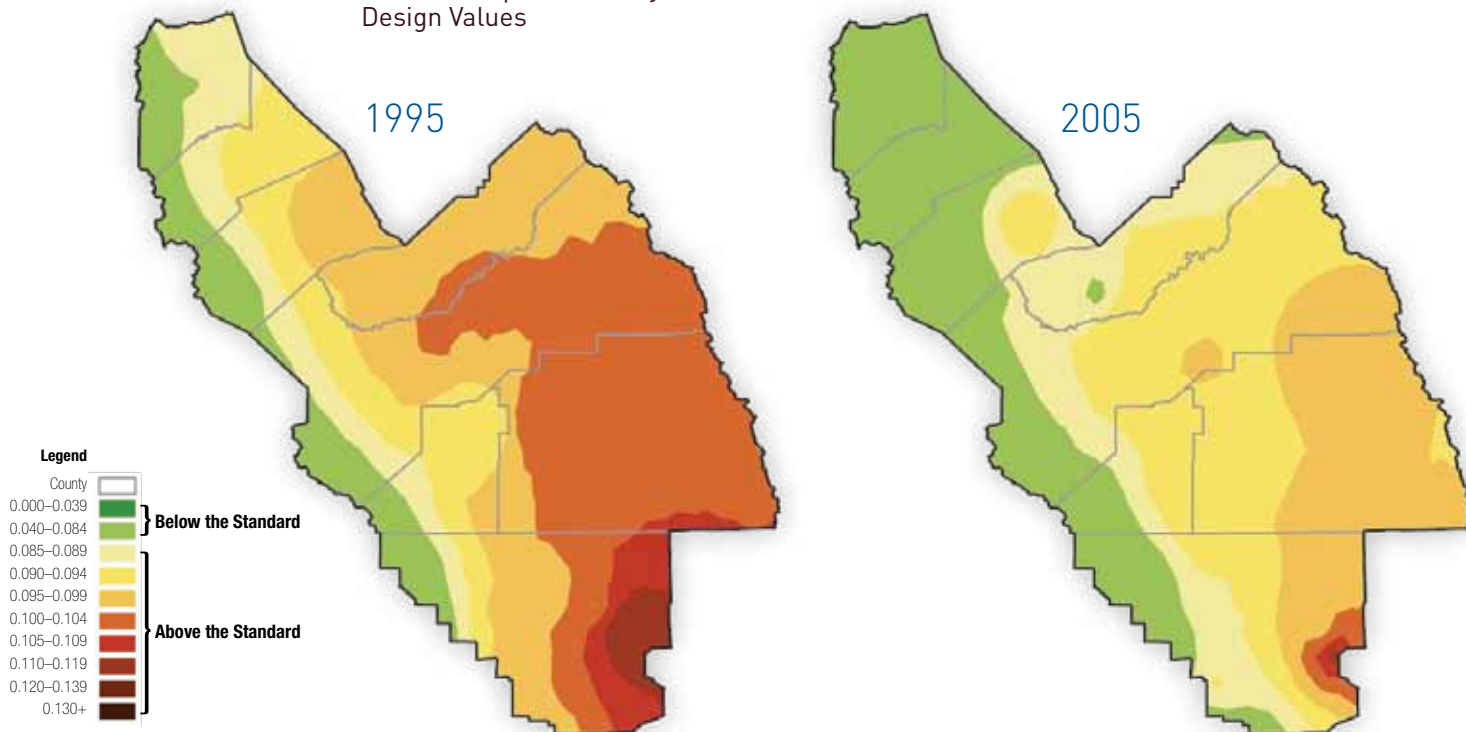


**Estimated Days Over PM10 Standard**



## 8-hour Ozone Air Quality Trends

San Joaquin Valley National 8-Hr Ozone Design Values



The bulk of the credit for the considerable improvements in the Valley's air quality goes to Valley businesses. Once adopted, the District's rules require significant investment by industry to ensure emission reductions.

## Continued Investments in Clean Air by Valley Businesses

- The Valley Air District engages in an exhaustive rule development process to employ the most advanced and effective control techniques that are technologically and economically feasible. Notwithstanding the District's efforts, the bulk of the credit for the considerable improvements in the Valley's air quality goes to Valley businesses. Once adopted, the District's rules require significant investment by industry to ensure emission reductions.
- In July 2010, operators of more than 900 boilers, steam generators and process heaters notified the District of how they intend to implement District Rule 4320 (AERO) to reduce emissions of oxides of nitrogen (NOx). Rule 4320 allows operators whose units already have stringent NOx controls to comply with a new, advanced-technology NOx limit, or to choose an emission fee option for those units where additional controls would not be economically feasible. Operators chose the emission fee option for nearly 500 boilers and steam generators, resulting in approximately \$5.6 million that will be used by the District for grants to fund other, more cost-effective, emission reductions. In total, industry retrofits to comply with the rule will achieve about 1,022 tons per year of NOx reductions, and the grant projects funded with these fees will significantly increase the NOx reduction.
- The Valley's large nut growers — almonds, walnuts, and pecans — implemented the final phase-out for open-burning their orchard prunings. Since 2002, PM2.5 emissions from agricultural burning — including fruits, nuts, and field crops — have been reduced by more than 2,900 tons per year, contributing significantly to improvements in winter-time air quality.
- Agricultural operators also applied for permits and registered their non-certified diesel engines in the latter half of 2009. They also demonstrated compliance with NOx, carbon monoxide (CO), and volatile organic compound (VOC) emission limits by the end of 2009. In total, more than 1,000 applications for Authority to Construct (ATC) have been submitted to replace or modify internal combustion engines. Between July 2009 and June 2010, growers repowered or replaced 285 engines with the assistance of District grant funds, achieving lifetime reductions of 1,744 tons of NOx, 55 tons of PM2.5, and 153 tons of VOC.

- In December 2009, 62 ATC applications were received for dryers used mainly in asphalt and concrete plants, in advance of modifying the equipment to reduce NOx emissions. These modifications will ultimately achieve approximately 235 tons per year of NOx reductions.
- In July 2010, operators of flares at petroleum refineries, oil and gas production fields, sewage treatment plants, and other facilities, submitted flare minimization plans to the District. These plans outline the equipment, processes and procedures that operators will implement to eliminate or reduce flaring at their facilities. In total, operators provided the District 49 plans representing approximately 24 tons per year of reductions in oxides of sulfur (SOx). SOx is a PM2.5 precursor, and the reductions from the flare minimization plans will assist the District in meeting its complex and considerable PM2.5 challenge.
- The Valley's largest employers, including traditional stationary sources, and businesses and municipalities that have never before been regulated by the District, registered for the District's new Employer-Based Trip Reduction program (eTRIP) to reduce commute trips by their employees. In anticipation of eTRIP's ultimate reduction of approximately 440 tons per year of NOx and VOC emissions from passenger vehicles, at press time, employers had started or completed the registration process for more than 300 worksites, representing more than 114,000 employees, or almost a quarter of a million daily commutes to and from work.

## Advocating for the Valley in Washington

The District works hard to maintain a leadership role in developing and implementing groundbreaking clean air strategies, and these efforts have paid off in dramatic improvements in air quality. However, it is becoming increasingly clear that without continued, significant assistance from the state and federal governments to clean up mobile sources of pollution, the Valley will not achieve the level of improvement that is needed to meet federal air quality standards. Toward that end, the District has taken an active role to garner additional financial resources for the Valley, and help shape state and federal budgets, policy and legislation to benefit air quality.

Working with California senators and our congressional delegation, the District became one of the first air agencies to secure direct funding for emission reductions from the U.S. Environmental Protection Agency (EPA). The District has received approximately \$17 million in funding that is targeted to reduce emissions from federal sources of pollution (on- and off-road vehicles whose emissions are subject to federal new engine standards). The District also supported the inclusion of \$150 million in air quality funding for nonattainment areas in the Farm Bill, and has had Air Quality Empowerment Zone legislation introduced by Senator Boxer and Congressman McNerney.

Additional efforts that the Valley Air District has been actively pursuing include:

- Advocating priority funding for beneficial "air-friendly" projects in the federal Transportation Bill and for greater local air district authority over how those funds are spent.
- Advocating for full funding of EPA's Diesel Emission Reduction Account (DERA), which provides incentive funding for diesel emission reduction projects.
- Seeking opportunities to reduce the air quality impact of wildfires by garnering additional resources for reducing fuel loads and managing wildfires, lessening or removing contradictory environmental protection policies that limit air-friendly forest management, and changing federal prescribed burning policies to incorporate air quality concerns.
- Advocating the repeal of Section 185 Clean Air Act penalty fees or eliminating inequities in the fee by providing an exemption from the fee for businesses that have installed Best Available Control Technologies (see *Federal Ozone Nonattainment Fees* section, page 18).

Without continued, significant assistance from the state and federal governments to clean up mobile sources of pollution, the Valley will not achieve the level of improvement that is needed to meet federal air quality standards.

## Environmental Justice

Continuing air quality and socioeconomic challenges in the Valley necessitate the continued District focus on environmental justice. The District's Environmental Justice Strategy provides the roadmap by which the District will be guided in integrating environmental justice principles into all programs, policies and activities; and providing a framework to protect the health of all Valley residents who may be disproportionately affected by air pollution.

GRANT	DESCRIPTION OF PROJECT	AMOUNT REQUESTED
<b>Air Pollution Control Program Support</b>	Air Pollution Control Program	\$2,028,155
<b>CAA Surveys, Studies, Investigation &amp; Demonstration Projects</b>	WCC Innovations in Clean Diesel	\$300,000
<b>ARRA National Clean Diesel Funding Assistance Program</b>	School Bus Engine Retrofit	\$10,000,000
	Agricultural Re-power	\$9,946,788
	SCRT-1000 Retrofit	\$1,260,906
<b>Congressionally Mandated Projects</b>	Federal Diesel Earmark Grant – Phase 2	\$7,500,000
<b>Capacity Building Grants &amp; Cooperative Agreements to States &amp; Tribes</b>	Title V Electronic Submission	\$200,000
<b>Climate Showcase Communities Grants</b>	CSC Vanpool Voucher	\$500,000
	CSC Clean Green Yard Machine	\$500,000
<b>National Clean Diesel Funding Assistance Program</b>	Clean Diesel On-Road Heavy-Duty Truck Replacement	\$2,392,948
<b>Congressionally Mandated Projects (Earmark)</b>	Federal Diesel Earmark Grant – Phase 3	\$5,000,000
	Hybrid Electric Buses	\$3,350,000
	Med. Heavy-Duty Delivery Vehicle Electrification	\$3,315,789
	Vanpool	\$789,157
	Lawn Mower Voucher Program	\$500,000
	On-Road Heavy-Duty Truck Replacement Program	\$3,315,789
	Agricultural Off-Road Tractor Replacement Program	\$3,350,000
	Locomotive Re-Power Program	\$3,092,784
	Waste Gas Energy Conversion	\$3,350,000
<b>Air Pollution Control Program Support</b>	Air Pollution Control Program	\$1,904,873
<b>Total</b>		<b>\$62,597,191</b>

The Environmental Justice Advisory Group (EJAG) was born from the District's Environmental Justice Strategy, approved in August 2007. EJAG has served as a forum to gather public input and enhance public participation since it began meeting in October 2008. The EJAG has established by-laws and adopted an initial Action Plan, which established goals and objectives aligned with the Environmental Justice Strategy.

Details on the District's Environmental Justice Strategy and the EJAG can be found at:  
[http://www.valleyair.org/Programs/EnvironmentalJustice/Environmental\\_Justice\\_idx.htm](http://www.valleyair.org/Programs/EnvironmentalJustice/Environmental_Justice_idx.htm)

TOTAL PROJECT COST	STATUS
\$2,028,155	<b>AWARDED</b> \$1,661,208
\$810,387	<b>AWARDED</b> \$300,000
\$10,416,659	<b>AWARDED</b> \$4,000,000
\$2,635,000	<b>AWARDED</b> \$2,000,000
\$1,594,961	<b>AWARDED</b> \$1,260,906
\$15,000,000	<b>AWARDED</b> \$7,500,000
\$200,000	<b>AWARDED</b> \$200,000
\$750,340	<b>PENDING</b>
\$750,000	<b>PENDING</b>
\$6,916,421	<b>PENDING</b>
\$5,000,000	<b>PENDING</b>
\$4,100,000	<b>PENDING</b>
\$6,615,789	<b>PENDING</b>
\$789,158	<b>PENDING</b>
\$690,000	<b>PENDING</b>
\$8,985,789	<b>PENDING</b>
\$5,471,650	<b>PENDING</b>
\$6,560,167	<b>PENDING</b>
\$4,350,000	<b>PENDING</b>
\$1,904,873	<b>CLOSED</b> \$1,904,873
<b>\$85,569,350</b>	<b>\$18,826,987</b>

### Helping the Valley Get its Fair Share of Funding

The District coordinates regional efforts and provides assistance to ensure that local municipalities, businesses and organizations receive the Valley's fair share of state and federal funds. Specifically, the District has taken the lead in preparing a number of regional and large-scale projects that benefit air quality and bring much-needed funding into our region, as shown in the table at the left.

### Providing Grant Assistance to Other Air Districts

In recent audits, the state Department of Finance, Bureau of State Audits and ARB commended the District for its efficient, robust, and effective use of incentive grant funds in reducing air pollution. Several of the District's policies and procedures were noted by the ARB as best practices for administering grant programs.

Due to the District's excellent track record in administering grant programs, we are now assisting five small or rural air districts in administering the Lower Emission School Bus Program (LESBP) to retrofit and replace school buses throughout the state. The District is administering more than \$6 million for the Great Basin, Calaveras, Eastern Kern, Mariposa and Tuolumne air districts. The Valley Air District also administers the Carl Moyer Program for the Great Basin, Antelope Valley and Mojave Desert air districts. To date, approximately half of the total \$2.3 million for off-road retrofit projects has been contracted, and we are actively seeking additional projects.

Because of the Valley Air District's successes in efficiently administering both its own program and in assisting other air districts, ARB asked the District to administer the LESBP for 13 additional air districts. To assist the ARB, the District has agreed to administer more than \$19 million dollars in the LESBP for the Amador, Antelope Valley, Colusa, Feather River, Lake, Lassen, Mendocino, Modoc, Mojave Desert, San Luis Obispo, Santa Barbara, Siskiyou and Tehama air districts, and has begun accepting applications from school districts.

The District is reimbursed for its cost of these programs by the agencies that have chosen to outsource their programs to the Valley Air District.

## In Focus...

2010 was another year with enormous challenges for the Valley Air District. The following sections describe a number of recent key initiatives and issues undertaken by the District.

### Crafting Public Policy to Improve Public Health and Quality of Life

#### Employer-Based Trip Reduction

Although the District does not have authority to regulate tailpipe emissions, the District can adopt regulatory approaches to promote the reduction of vehicle miles traveled.

The goal of the eTRIP Rule (Rule 9410, Employer Based Trip Reduction) is to reduce single-occupancy vehicle work commutes. The Valley's larger employers, representing a wide range of locales and sectors, can select and implement workplace measures that make it easier for their employees to choose ridesharing and alternative transportation. Because of the diversity of employers covered by the eTRIP Rule, the rule was built with a flexible, menu-based approach.

In the eTRIP, or "Employer Trip Reduction Implementation Plan," employers choose from a list of measures, each contributing to a workplace where it is easier for employees to reduce their dependence on single-occupancy vehicles. Each eTRIP measure has a point value, and employer eTRIPs must reach specified point targets for each strategy over a phased-in schedule.

The District is fully committed to this outreach and to the success of this rule. The Valley Air District will continually provide employer assistance through training, guidance materials, promotional information, and online reporting options.

eTRIP Rule information and registration is available at [www.valleyair.org/tripreduction.htm](http://www.valleyair.org/tripreduction.htm).

#### Three phases of eTRIP measures

##### PHASE 1 MARKETING AND PROGRAM SUPPORT

###### SAMPLE MEASURES:

- Be a Healthy Air Living Partner
- Register with a local rideshare agency
- Employee ride matching
- Rideshare bulletin board

###### ETRIP DUE TO DISTRICT:

September 2011

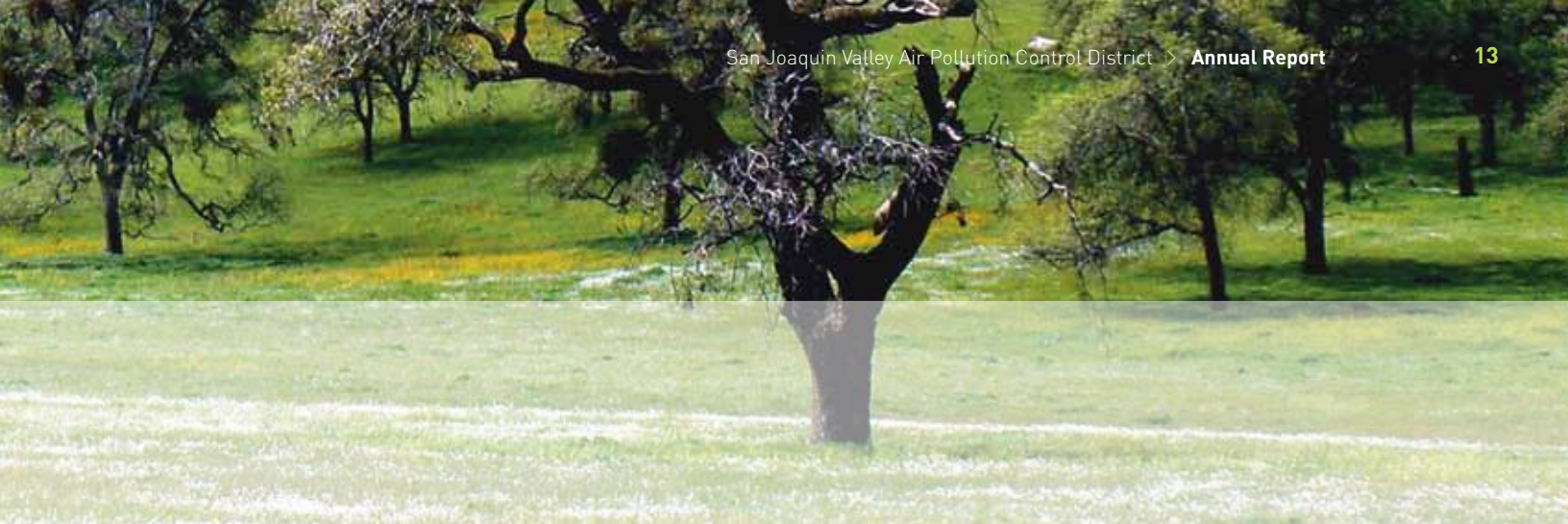
##### PHASE 2 SERVICES AND FACILITIES

###### SAMPLE MEASURES:

- Bicycle racks
- Sell postage stamps onsite
- Onsite kitchenette
- Vending machines

###### ETRIP DUE TO DISTRICT:

September 2012



The eTRIP Rule applies to employers who have at least 100 “eligible employees”. Several types of “excluded employees” are not included in the eligible employee count, such as:

- Those who report to work before 6 a.m. or after 10 a.m.
- Emergency health and safety employees.
- Farm workers.



**PHASE 3 TRANSPORTATION, ALTERNATIVE SCHEDULES, AND INCENTIVES**

**SAMPLE MEASURES:**

- Comprehensive carpool program
- Compressed workweek
- Monetary incentives
- Prize drawings for participants

**ETRIP DUE TO DISTRICT:**

September 2013

**District Seeks Healthy Air Living Partners**

Since its transition to a year-round program in 2008, Healthy Air Living has continued to expand, and today encompasses programs for individuals, nonprofit organizations, faith-based communities, municipalities and businesses, through the Healthy Air Living Partner program.

By becoming a Healthy Air Living Partner, enrollees can network with like-minded individuals and organizations that have made air quality a priority in their daily decision-making processes. With the understanding that every sector in the Valley can make simple changes that benefit our air, Partners take it one step further by implementing emission-reducing strategies in their operations or day-to-day lives.

Through an innovative, point-based program, Healthy Air Living partners can also receive credit toward fulfilling their obligations to the new eTRIP rule, if applicable. Examples of eTRIP-eligible Healthy Air Living strategies are:

- Hosting an employee rideshare event;
- Creating an onsite transportation information center;
- Publishing a quarterly employee rideshare newsletter;
- Providing ride-matching services for employees who wish to carpool.

It's easy to become a Healthy Air Living Partner! Just visit [www.healthyairliving.com](http://www.healthyairliving.com) and download an application. After completing it and returning it to the Air District along with either a resolution or letter of commitment, new Partners can receive tools and resources to help them put Healthy Air Living strategies into place.

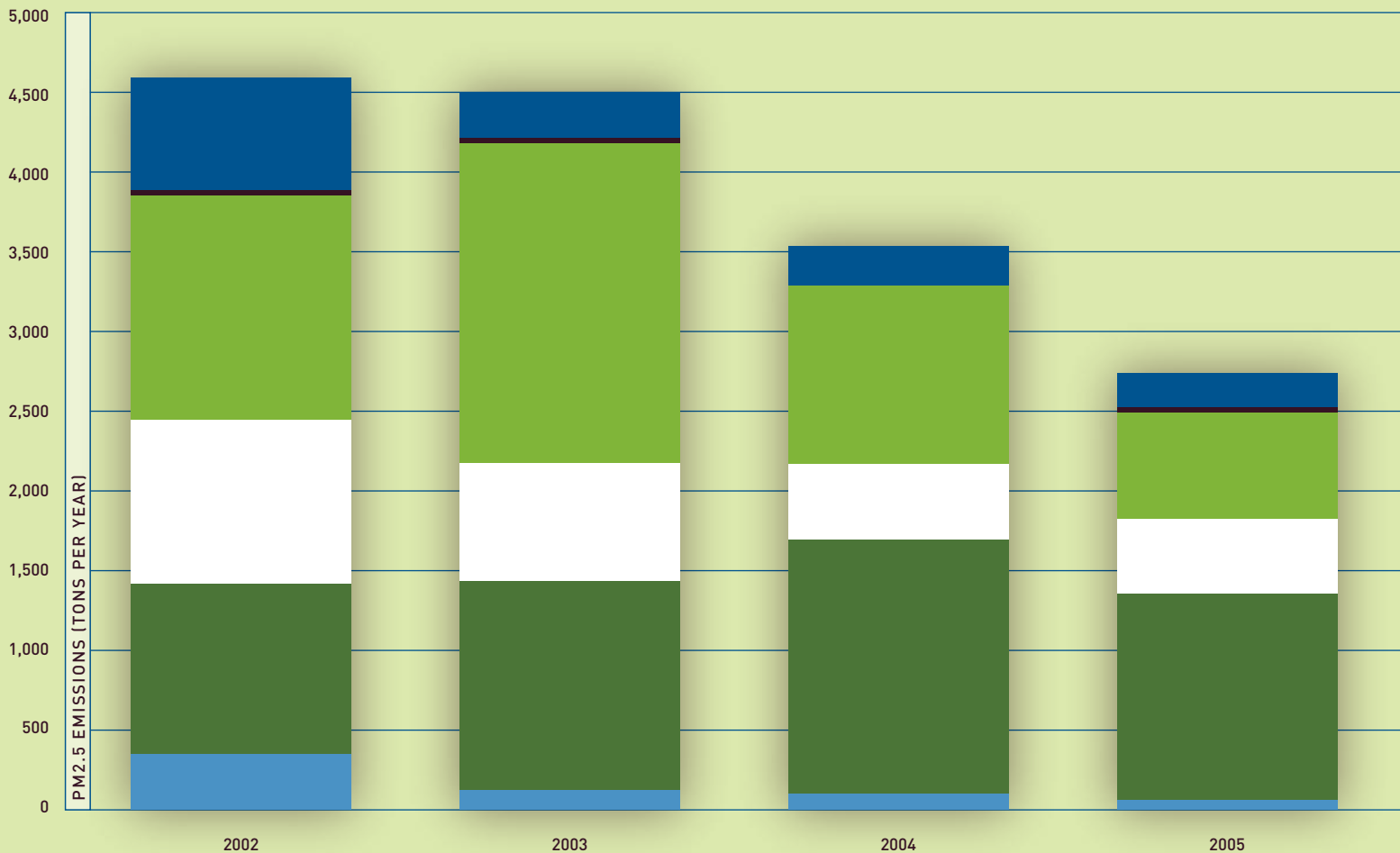
By pledging to make just one change, Healthy Air Living Partners are contributing in a concrete way to cleaner air in the Valley.

### Further Reductions in Agricultural Burning

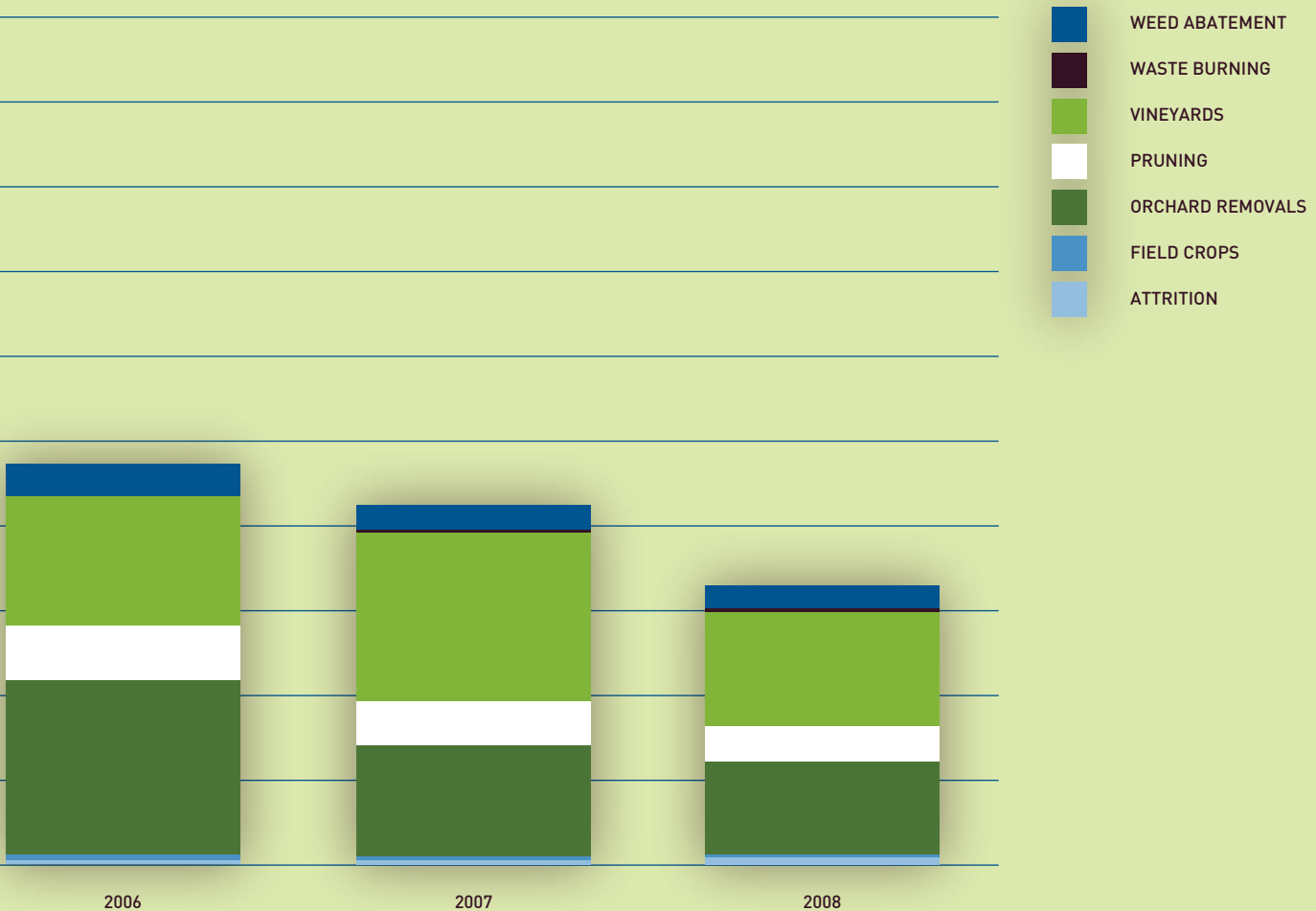
Open-burning provided an economically feasible, effective and timely method for agricultural waste disposal, helping to control the spread of weeds, pests and plant diseases. The impact of open-burning emissions on San Joaquin Valley air quality has long been a concern, however, the Valley Air District has worked closely with the agricultural community to implement a number of measures to minimize that impact. In fact, open burning acreage has been reached by approximately 70% since 2002 and PM2.5 emissions from open burning have been reduced by eight tons per day.

In 2003, a new state law for the first time gave the District the authority to over time, prohibit the open-burning of agricultural materials where economically feasible alternatives exist. Consistent with the “phase-in” approach of the state law, the District amended Rule 4103 (Open Burning) in 2004, 2005 and 2007, and most recently in April 2010. The District’s rule amendments have effectively prohibited the burning of field crops and weeds, as well as most tree prunings and orchard removal materials. Since 2004, the District has been allocating the remaining burning through the rigorous Smoke Management System (SMS), using real-time meteorological information to analyze potential impacts of burning on air quality to ensure that emissions will not cause a violation of health-based air quality standards.

**Decrease in Annual PM2.5 Emissions** for Agriculture Burning in the San Joaquin Valley



The final phase of the state-mandated burn prohibitions was set for June 2010, and the District addressed this final milestone in a two-step process. First, on April 15, 2010, the District adopted amendments to District Rule 4103 to incorporate the state’s open burning provisions directly into the District rule. Second, to specify which types of agricultural burning would be prohibited and which would be allowed to continue under stringent controls, on May 20, 2010, the Governing Board adopted a set of determinations developed by District staff in an open public process and published in an exhaustive 532-page report. The report included the most detailed analysis to-date of the technological feasibility, economic impacts and environmental impacts of alternatives to open burning for each crop type. The report recommended new prohibitions for burning certain orchard removal and pruning materials, and included the findings specified by state law in order to postpone burn prohibitions for crop types where economically feasible, non-burning alternatives are still clearly not available. On May 27, 2010, the Air Resources Board concurred with the District’s determinations, and on September 28, confirmed their concurrence after a review of the determinations by the state Senate Committee on Air Quality. In recognition of the dynamics of agricultural economics and technology development, the District will re-evaluate the continuation of the few remaining burn allowances by mid-2012.



In December 2009, the Valley Air District Governing Board adopted the first comprehensive regional policy and guidance on addressing and mitigating green house gas impacts caused by industrial, commercial and residential development in the San Joaquin Valley.

## Helping Valley Businesses and Municipalities Meet Climate Change Mandates

Recent changes to the California Environmental Quality Act (CEQA) now mandate that environmental impact analyses include an assessment of greenhouse gas (GHG) emissions. Unfortunately, there has been very little guidance from the state on how to properly address GHG emission impacts. Responding to this vacuum of information, and after a significant public development process, in December 2009, the Valley Air District Governing Board adopted the first comprehensive regional policy and guidance on addressing and mitigating GHG impacts caused by industrial, commercial and residential development in the San Joaquin Valley. This set of guidance documents is designed to assist local permitting agencies and businesses in addressing GHG impacts under CEQA.

The District's methodology streamlines the process of determining the significance of a project's GHG emission impacts, and it asks proponents of projects resulting in GHG increases to mitigate the GHG emissions by either implementing the District's pre-approved Best Performance Standards (BPS) or by reducing the project's GHG emissions by 29% compared to business-as-usual emissions during the 2002–2004 baseline period. Since adoption of the proposed methodology, the District has developed several BPS for specific classes and categories of industrial equipment. The District has also been actively involved in identifying GHG emission mitigation measures for commercial and residential development projects. Land-use agencies that adopt the District's CEQA/ GHG guidance can then use our compilation of mitigation measures to streamline the process of determining the significance of their development projects. Consistent with its core value for continuous improvement, the District is working with Valley stakeholders and other air districts to enhance the list of mitigation measures.

As the District continues to streamline the process of complying with CEQA GHG mandates, work has begun to develop the District's own GHG emission reduction credit-banking rule. This rule will allow Valley businesses to apply for and receive credits for voluntary GHG emissions reductions, and the credits would then be available to mitigate GHG emissions increases.



## Public Opinion Survey

The Valley Air District ensures that it stays abreast of the most current public sentiments regarding air pollution and related environmental concerns through periodic public opinion surveys. Every few years, through a strictly regimented proposal process, the District commissions an expansive, comprehensive public survey by a nationally respected public survey firm.

During spring 2010, market researcher Corey, Canapary & Galanis, a long time San Francisco-based firm with substantial expertise in environmental issues, conducted a series of quantitative and qualitative public surveys of Valley residents and stakeholders. The purpose of the survey was to determine the level of understanding among Valley residents of air quality issues; to direct the District's educational priorities; and to more effectively utilize the District's media campaigns to maximize their breadth and depth of outreach.

### SOME KEY FINDINGS AMONG SURVEYED RESIDENTS:

More than  $1/2$  correctly identified vehicle use as the single, most-influential contributor to the Valley's air pollution.

More than  $3/4$  said that individuals can take action to directly reduce air pollution in the Valley.

Of residents with wood-burning fireplaces or stoves in their homes, nearly  $1/2$  said they never used them, demonstrating an understanding of the correlation between wood burning and poor wintertime air quality.

### AMONG KEY FINDINGS OF STAKEHOLDERS:

They were particularly knowledgeable about improvements in the Valley's air quality over the past 5 years.

They were very aware of the correlation between poor air quality, public health and perceived quality of life issues.

They understood that environmental and economic concerns were not mutually exclusive, but could be worked on as one combined goal.

Despite significant improvements in air quality, a penalty was triggered under federal Clean Air Act law due to seven exceedences in the Valley in late summer and early fall 2010. By contrast, in 1996, the Valley experienced 56 exceedences of the 1-hour ozone standard.

### Federal Ozone Nonattainment Fees

A very difficult issue facing the District in 2010 was the 1-hour ozone nonattainment penalty fees mandated by the federal government. Under Section 185 of the federal Clean Air Act, the San Joaquin Valley was required to impose penalty fees on major stationary sources in the air basin. Despite significant improvements in air quality, this penalty was triggered under federal law due to seven exceedences in the Valley in late summer and early fall 2010. By contrast, in 1996, the Valley experienced 56 exceedences of the 1-hour ozone standard. The 2010 exceedences occurred on days with excessively high temperatures and coincided with added emissions from back-to-school vehicular traffic.

Inaction was not an option in responding to this federal mandate. Without a federally approvable program to collect the penalties locally, the federal EPA would collect penalties plus interest from Valley businesses and the funds would go to the federal Treasury with no return to the Valley. This left the District with two options: 1) Collect the fees solely from Valley businesses, or 2) Apply the fees to mobile and stationary sources proportionally, in accordance to their contribution to the Valley's ozone violations.

In the San Joaquin Valley, 81.4% of NO<sub>x</sub> emissions come from mobile sources, 15.2 % from stationary sources and 3.4 % from area sources. Of the 81.4% of the emissions from mobile sources, 56.8% come from on-road vehicles (passenger vehicles, trucks, buses) and 24.6% come from off-road mobile sources. Since 1980, there has been a 75% reduction in NO<sub>x</sub> emissions from stationary sources. During the same period, there has been a 14% increase in on-road motor vehicle emissions. Another factor that points to vehicular traffic as a cause for the 1-hour ozone exceedences is the correlation of most violations with back-to-school traffic in late summer and early fall.

Finally, in crafting an acceptable approach to meeting this federal mandate, minimizing the economic impact to Valley residents was a key factor in the decision by the District's Governing Board. The Board concluded that hitting Valley businesses with a \$29 million-per-year penalty could lead to the loss of many jobs, and would have a detrimental impact on Valley residents, especially given the Valley's current dire economic circumstances and high unemployment rates. Therefore, in October 2010, the Governing Board ordered that a program be developed to satisfy the Section 185 mandates by exempting the well-controlled Valley businesses from the penalty while supplementing the program with an annual \$12 motor vehicle fee. The Board also ordered

#### IN THE SAN JOAQUIN VALLEY,

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56.8% come from on-road vehicles (passenger vehicles, trucks, buses)

and 24.6% come from off-road mobile sources.

that the District pursue federal legislative changes to repeal Section 185 of the federal Clean Air Act or eliminate inequities in the fee by providing an exemption from the fee for well-controlled stationary sources.

Revenues generated by the new motor vehicle fee will be reinvested in the Valley to reduce mobile source emissions as provided under California Health and Safety Code Sections 44223 and 44225. None of these revenues will be spent on general administration or other District expenses. Utilizing the District's highly successful grant administration program, the funds generated here will be awarded to Valley businesses, residents and municipalities to generate real and quantifiable reductions in emissions. Projects funded by the District include replacement and retrofit of school buses, agricultural irrigation pumps and tractors, trucks, fireplace inserts and heaters, gross-polluting vehicle replacements, alternative fuel vehicles and infrastructure, electric lawn mowers, bike lanes, park and ride lots, traffic signal lights synchronizations, locomotives, construction equipment and others.

When Section 185 was first enacted by the U. S. Congress, it was intended to serve as a hammer compelling stationary sources to install additional controls to reduce emissions and expedite attainment. Given today's circumstances, however, these fees, if applied to stationary sources, will not have the intended impact in the San Joaquin Valley. Most Valley stationary sources are already equipped with Best Available Retrofit Control Technology (BARCT) or Best Available Control Technology (BACT). In reality, with the mature control programs that are in place, most businesses have already made significant investments by installing the most advanced controls available for their facilities. (Please refer to the District's recent 2010 Ozone Mid-Course Review for a detailed assessment of the various stationary source regulations that Valley businesses must comply with.)

Under these circumstances, Section 185 has become a punitive fee with no real ability by most facilities to reduce their emissions. The only options available to Valley businesses to reduce or avoid the fees would be to curtail production or go out of business. Given the Valley's chronic, high unemployment rates, combined with the current global and regional economic distress, the consequences would have been devastating.

### TAKE NO FURTHER ACTION

*Considered, but NOT adopted for the following reasons:*

- Federal EPA will collect penalties plus interest from Valley businesses
- All penalties collected will go to the federal Treasury (no return to the Valley)
- Expensive federal sanctions will be imposed:
  - De-facto ban on new and expanding businesses (2:1 offset ratio)
  - \$250 million per year loss of highway funds

### APPLY PENALTY TO VALLEY BUSINESSES

*Considered but NOT adopted for the following reasons:*

- Well-controlled Valley businesses should not be penalized for nonattainment
- Stationary source emissions reduced by over 80%
- Violations primarily due to mobile sources
- Penalties would be a significant blow to the Valley's fragile economy (businesses and residents will suffer)
- Recent guidance by EPA provides the option to assess nonattainment penalties on mobile sources

Since 1980 there has been a **75%** reduction in NOx emissions from stationary sources.

During the same period, there has been a **14%** increase in on-road motor vehicle emissions.

Another factor that points to vehicular traffic as the cause of the 1-hour ozone exceedances is the fact that most violations of the standard in recent years have coincided with back-to-school traffic in late summer and early fall.

### Economic Assistance Initiative Extended

In March 2010, the District's Governing Board indefinitely extended most of the District's Economic Assistance Initiative, which contains a number of measures aimed at offering financial relief to Valley businesses and municipalities that are experiencing economic distress. This initiative provides a measure of economic relief to the community as a whole without sacrificing environmental safeguards.



Established in February 2009, the Economic Assistance Initiative was planned to offer financial hardship relief only on a temporary basis. However, due to the success of the relief measures and the continued need during the economic downturn that still affects California — especially in our region — the District's Governing Board this year reauthorized and indefinitely extended the following measures.

- Additional time to pay permit renewal fees
- Installment payment plans for businesses and municipalities
- Waive late fees
- Waive penalty for certain defaults on Proposition 1B grant contracts
- Provide additional time in incentive grant contracts for businesses failing to meet certain performance requirements
- Priority fund-disbursements to grant recipients

Detailed information about the District's Economic Assistance Initiative including information on participating in the program can be found at:

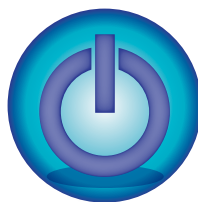
[http://www.valleyair.org/Programs/EconomicAssistance/EconAssistance\\_Contacts.htm](http://www.valleyair.org/Programs/EconomicAssistance/EconAssistance_Contacts.htm)

The District continues to stress fiscally-conservative principles aimed at maximizing efficiency and minimizing costs while striving to provide the best customer service possible without sacrificing air quality. In fact, the District has raised fees across the board only twice in the 17 years of its existence, and we continue to maintain the lowest permit fees and administrative overhead of any large air district in the state.

## Incentives to Expand the Breadth of Emission Reductions

### Technology Advancement Program and Regional Energy Efficiency Strategy

Bringing the Valley into attainment of the increasingly stringent federal standards will require not only incremental advances in current technologies, but transformational technological breakthroughs over the next decade. The District recently adopted a Technology Advancement Program (TAP) and a Regional Energy Efficiency Strategy to support technology development and deployment in the Valley.



## TECHNOLOGY ADVANCEMENT PROGRAM

**THROUGH THE TAP, THE DISTRICT WILL MAKE FUNDING AVAILABLE THROUGH A COMPETITIVE PROCESS.**


The initial Request for Proposals opened on June 3, 2010 for **\$900,000** in funding.

EPA has also contributed an additional **\$400,000** for technology advancement as part of the 2011 Clean Air Act Section 105 grant.

Future funding will expand on this initial step with locally generated funds, state and federal funds, and other sources. The District will also work with potential technology partners, including the Valley's universities, on cooperative grant proposals and proposals for outside funding sources, as available.

The TAP also supports opportunities for District partnership with other agencies. For example, the District is participating in the Clean Air Technology Initiative in collaboration with California Air Resources Board, EPA Region 9, and the South Coast Air Quality Management District to coordinate research and technology demonstrations in the state. The District will also utilize the TAP as an opportunity to partner with Valley universities, allowing the District to draw on local expertise and further build research and development capacity in the San Joaquin Valley.

In January 2010, the Governing Board approved the Regional Energy Efficiency Strategy (REES) as part of the District's Fast Track program to accelerate attainment of the federal ozone standard. The REES lays out goals and measures that guide the District's actions to reduce emissions caused by electricity and natural gas consumption in the residential, business, and municipal sectors of the Valley. These efforts align with state and federal energy policies, green technology discussions and funding opportunities. In early 2009, the American Recovery and Reinvestment Act (ARRA) allocated \$45 billion in stimulus funding to energy efficiency and renewable energy programs and projects, with \$3.7 billion slated for California. The District coordinated a regional application for Energy Efficiency & Conservation Block Grants from the U.S. Department of Energy and the California Energy Commission (CEC) grant funding. The District's application could bring up to \$4 million total for energy efficiency building retrofits in the Valley's 36 small jurisdictions represented on the application.



Through the Heavy-Duty Off-Road Vehicle component, owners of tractors, backhoes, dozers, wheel loaders and excavators can apply for funding for engine retrofits and repowers. To be eligible, vehicles must currently be in-use, operate off-road and be self-propelled.

### How Incentive Funds Were Spent

In the 2009–2010 fiscal year, more than \$33 million was paid out through the Air District’s grant programs. The majority of incentive funds — over \$30 million — were disbursed through two programs: the Proposition 1B: Goods Movement Emission Reduction Program and the Heavy-Duty Engine Program. Within the Heavy-Duty Engine Program, most District grants were disbursed through either the Stationary Agricultural Irrigation Pump Engine component or the Heavy-Duty Off-Road Vehicle component.

A significant amount of incentive funds spent in 2009–2010 were from California’s Proposition 1B Program, a ballot measure approved by voters in 2006. In addition to targeting other modes of transportation such as harbor craft and locomotives, Proposition 1B aimed to reduce emissions from heavy-duty on-road diesel trucks by subsidizing engine retrofit, engine replacement (repower), and vehicle replacement projects. More than \$15 million in Proposition 1B funding was used to replace or retrofit a total of 340 heavy-duty, on-road diesel trucks.

Through the Heavy-Duty Off-Road Vehicle component, owners of tractors, backhoes, dozers, wheel loaders and excavators can apply for funding for engine retrofits and repowers. To be eligible, vehicles must currently be in-use, operate off-road and be self-propelled. A total of 246 off-road vehicles were repowered and/or retrofitted in 2009–2010, for a total of nearly \$7.5 million dollars in distributed grants. The Stationary Agricultural Pump Engine component provides incentive funding for two categories: the replacement of old, polluting diesel engines with cleaner diesel engines or electric motors, or the installation of a zero-emission electric motor on a new well. In 2009–2010, more than \$5.5 million was awarded for a total of 280 new engines and motors.

In addition, more than \$2.9 million was expended on the Off-Road Agricultural Equipment Replacement Program and the Burn Cleaner Woodstove Change-Out Program. The Off-Road Agricultural Equipment Replacement Program was a joint effort with the U.S. Department of Agriculture Natural Resources Conservation Service, to help local farmers replace high-polluting old tractors with new, cleaner tractors. A combination of federal, state and local funds totaling over \$2.7 million was spent to replace 151 uncontrolled farm tractors in the San Joaquin Valley. The Burn Cleaner Program provided vouchers to assist in the purchase of new, cleaner burning gas fireplace inserts and EPA certified wood-stoves. Valley residents were eligible to receive a voucher worth up to \$750, depending on the type of unit purchased, and low income residents were eligible for vouchers up to \$1,500.

## Science Guides the Valley Air District Strategies and Policies

Recent decisions by EPA to tighten both ozone and PM<sub>2.5</sub> standards reflect a substantial body of new research. Meeting these stricter standards in the Valley will require tough control measures by the District and the Air Resources Board. A solid decision-making foundation in the atmospheric and health sciences will help ensure that the health benefits of controls far exceed their economic cost.

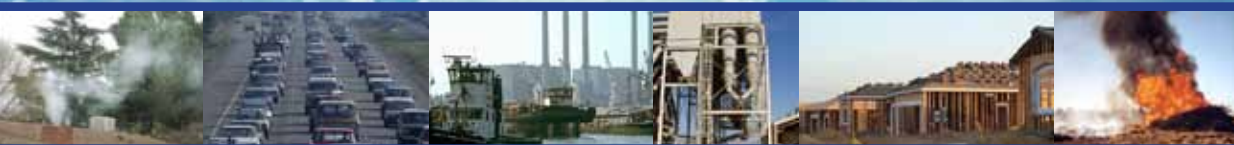
Translating the latest health and atmospheric research into feasible control measures with public health benefits is a major responsibility for the District. The body of relevant health studies is rapidly growing and increasingly sophisticated, particularly in relation to aspects of PM. To address this challenge, in June the District hosted “Particulate Pollution in the San Joaquin Valley: Translating Science into Policy.” This highly successful, two-day science conference brought together leading PM researchers, who presented the latest research findings from the Valley, California and the nation to an audience of over 150 health professionals, advocates, stakeholders, government agency staff and the public at large. The knowledge generated by the conference will help provide a stronger scientific foundation for future District control measures and public outreach.

In June the District hosted “Particulate Pollution in the San Joaquin Valley: Translating Science into Policy.” This highly successful, two-day science conference brought together leading PM researchers, who presented the latest research findings from the Valley, California and the nation.



**San Joaquin Valley** | Air Quality Conference  
AIR POLLUTION CONTROL DISTRICT

## Particulate Pollution in the San Joaquin Valley: Translating Science into Policy



## Streamlining & Efficiency

Effective and efficient use of public funds is a core value of the District, so the District continually looks for opportunities to increase efficiency and minimize costs. These ongoing efforts were redoubled this year in the face of increased workload from new mandates and the continuing economic recession. Some recent efforts to streamline and optimize operations are shown below.

### **MERGER OF THE EMISSION REDUCTION INCENTIVE PROGRAM AND PLANNING DEPARTMENT:**

In March 2010, the Emission Reductions Incentive Program (ERIP) and Planning Departments were merged into the Strategies and Incentives Department. In addition to immediate salary savings, this merger will increase overall operating efficiency and provide strategic benefits. The synergies that are being developed from the merger are improving the District's coordination of various innovative measures, strategies and research efforts, including the Regional Energy Efficiency Strategy, Fast Track and the new Technology Advancement Program. Department synergy will also enhance the development of the District's upcoming air quality attainment plans and long-term strategies, including SIP-creditable incentive programs and other innovative emissions reduction measures.

### **GRANT PROGRAM AUTOMATION:**

Automation in the District's grant programs enhances efficiency and ensures continued accountability and transparency. The District developed and implemented a new database system, giving the District new tools to increase productivity and maintain the high level of fiscal responsibility on which the grant programs were founded.

### **STREAMLINING GRANT APPLICATION PROCESSES:**

District grant program staff continues to work with federal, state and local agencies to enhance and streamline existing grant programs, as well as shape the policies and guidelines as new grant programs are developed. One example is the shift toward voucher-type programs, in which the administrative burden of the participants is greatly reduced while maintaining program integrity.

### **GRANT PROGRAM ONLINE TOOLS AND MODERNIZATION:**

Ongoing efforts that promote the use of technology increase efficiency and improve the stakeholder experience within the District's grant programs. The District has increased the availability of online grant program applications and is currently converting all paper documents to electronic through an electronic document management system.

**DISTRICT WORKSHOPS:** The District continues to utilize video-teleconferencing and webcasting for draft rule, plan and other workshops to ensure the most efficient use of staff (and stakeholder) time. The District recently began to use postcards for noticing of workshops and comment periods, generating cost savings while remaining proactive about informing interested parties.

### **TABLET COMPUTERS WITH ELECTRONIC INSPECTION FORMS FOR FIELD STAFF:**

New electronic checklists have been developed for hand-held tablet computers to eliminate time-consuming inspection report paperwork. Tablet PCs and the new streamlined inspection forms are now being used by the majority of the District's inspection staff, with the continued implementation to occur during the next year.

**AIR MONITORING SYSTEMS:** District Air Monitoring equipment and systems located throughout the Valley are being further automated for increased remote operation, which reduces travel time and the need for on-site service.

### **COMPLIANCE STAFF PAPERWORK REDUCTION:**

Forms used by District inspectors have been redesigned, and new procedures are reducing inspection report paperwork. These checklists and procedures are being used as templates for the new electronic inspection forms. A new automated Title V report submittal and pre-screening program is also in development. Once completed, this program is expected to significantly decrease the amount of time necessary to review the required Title V reports. This streamlining tool will be vital given the upcoming increase in the number of Title V sources following the Valley's re-classification to Extreme Nonattainment for the federal ozone standard.

**REDUCING FIELD STAFF TRAVEL TIME WITH INCREASED ACCOUNTABILITY:**

At more than 23,000 square miles, the Valley Air District is the largest air district in California and larger than nine states. Aside from their routine inspections, District field staff must also respond to unforeseen events such as public complaints and equipment breakdowns. The District has installed Global Positioning Systems (GPS) in all field staff vehicles to provide supervisors with real-time data on vehicle location, enabling more effective deployment of field staff. Furthermore, field staff has been provided with GPS navigation devices to ensure efficient travel.

**CONTINUED WORK WITH STAKEHOLDERS TO STREAMLINE PERMITTING:**

District staff continue to meet quarterly with industry stakeholders in an ongoing effort to identify opportunities for further gains in efficiency and productivity. Dozens of new procedures, application forms and evaluation templates have been developed to further streamline the permitting process for both applicants and District staff.

**CLIMATE CHANGE ACTION PLAN:**

District Staff developed new procedures to allow the District to fulfill its requirements under the California Environmental Quality Act (CEQA) regarding greenhouse gas impacts from certain projects subject to District permits. The development of Best Performance Standards for several types of equipment has allowed the District to issue permits for such equipment in a timely manner and remain in compliance with CEQA requirements.

**ELECTRONIC NOTIFICATION:** The District is now posting notices and evaluations of proposed and final permitting actions on the District's website, and is informing the District's oversight agencies of these actions via email. These steps allow greater public access to these documents and may significantly reduce the time necessary to issue permits.

**AGRICULTURAL ENGINE AND CONSERVATION MANAGEMENT PRACTICES WORKSHOPS:**

In 2009, the District, in partnership with several ag organizations, held nine workshops throughout the Valley to inform farmers of upcoming engine regulations and requirements, and to assist them in modifying the engine permits and Conservation Management Practices Plans.

**WEB-BASED EMISSIONS INVENTORY SUBMITTAL PROCESS:**

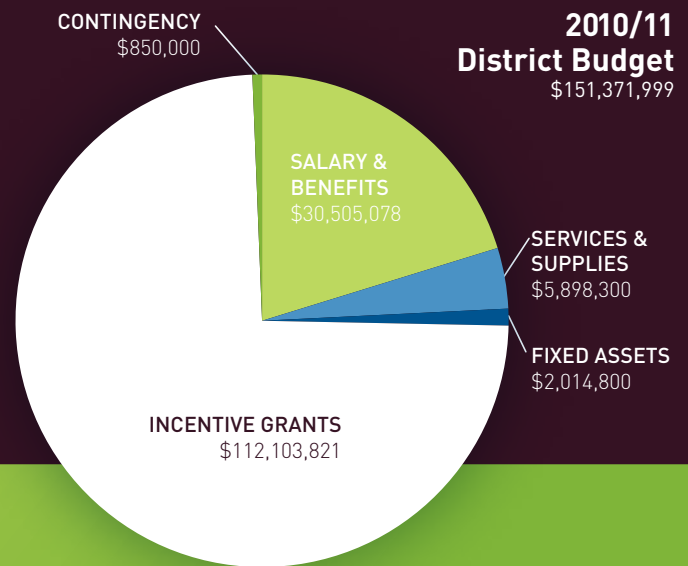
To help facilities to report annual emissions inventory data, the District created a web-based emissions inventory submittal tool. This new program allows more than 4,500 facilities to process their inventory submittals online, offering immediate online responses to applicants, eliminating paper and greatly streamlining the reporting process.

## The Year in Review: District Operations

A key purpose of this report is to provide useful information to the public concerning the Valley Air District's activities and operations. It is hoped that this information will help the public understand District operations, hold us accountable, and aid in our commitment to continuous improvement. The following sections provide summary information on activities for each department within the District.

The Valley Air District is a public health agency whose mission is to improve the health and quality of life for all Valley residents through efficient, effective and entrepreneurial air quality-management strategies. Toward that end, the District conducts the following activities:

- Develops and adopts **air quality plans** outlining strategies needed to reduce emissions.
- Develops, adopts and implements **rules and regulations** to reduce emissions.
- Organizes and promotes efforts to achieve early attainment through the **Fast Track Strategy**.
- Administers **voluntary incentive grants** offering financial assistance to reduce air pollution.
- Administers an efficient and comprehensive **permitting** system for stationary sources and offers meaningful business assistance to the regulated community in meeting applicable regulations.
- Maintains and updates an **inventory of emissions** from various Valley sources on an ongoing basis.
- Maintains an active and effective **enforcement** program.
- Operates an extensive **air monitoring** network to measure air pollutants throughout the Valley and track air quality improvements.
- Conducts comprehensive **public education and outreach**.
- Continues to set high standards **in legal activities**.
- Collaborates with **state and local agencies**.



## Air Quality Plans

The District has written several State Implementation Plans (SIPs) over the years that serve as “road maps” for the new measures needed to achieve cleaner air for the Valley. The strategies and measures outlined in these plans represent legally binding commitments that the District must follow in meeting the federal health-based standards for each pollutant. The District’s air quality plans include emissions inventories indicating the sources of air pollutants, evaluations of how well different control methods have worked, and a strategy for how air pollution will be further reduced. The plans also use computer modeling to estimate future levels of pollution and to ensure that the Valley will meet air quality goals on time. The plans include not only a strategy of regulatory control measures, but other innovative strategies for achieving attainment through non-regulatory measures. Although the District was not tasked to adopt a major attainment plan during 2009–2010, the following strategic milestones are noteworthy.

- On June 4, 2010, EPA issued a final rule approving the Valley’s voluntary reclassification from “serious” to “extreme” nonattainment under the 1997 8-hour ozone national ambient air quality standard.
- On June 17, 2010, the District adopted a minor amendment to the 2008 PM<sub>2.5</sub> Plan to extend the rule amendment schedule for Rule 4905 (Natural Gas-Fired, Fan-Type Residential Central Furnaces). This will allow the District to assist with the development of advanced, low-NO<sub>x</sub> residential furnace technology in partnership with South Coast Air Quality Management District.
- On June 29, 2010 the District submitted the 2010 Ozone Mid-Course Review to the Air Resources Board. This review fulfills a 2007 SIP commitment and documents the Valley’s progress toward attainment of the 8-hour ozone standard and the 1-hour ozone standard. The review also highlights the continuing air quality attainment challenges faced by the Valley.

In addition, District staff have been completing foundational work for upcoming SIP projects, including a new plan for EPA’s revised 8-hour ozone standard, a new plan for EPA’s 2006 PM<sub>2.5</sub> standard, and a PM<sub>2.5</sub> Mid-Course Review evaluating the District’s progress toward meeting the 1997 PM<sub>2.5</sub> standard.

## Rules and Regulations

The Valley Air District continues its leadership role in developing and implementing groundbreaking strategies to reduce emissions. Tough and innovative rules such as the District's rules for Indirect Source Review (ISR), residential fireplaces, wine production and storage, and Conservation Management Practices (CMP) have set benchmarks for California and the nation. The District engages in an exhaustive rule development process to identify the most effective control technologies that are technologically and economically feasible. This open process provides multiple opportunities for meaningful input and participation by the public and businesses. Last year saw the following notable highlights.

### COMMERCIAL CHARBROILING

**(RULE 4692):** Amended on September 17, 2009, this rule controls PM<sub>2.5</sub> emissions from medium-throughput, chain-driven charbroilers, such as those found at Carl's Jr. and Red Robin restaurants. The District also created a \$500,000 pilot Charbroiler Incentive Program (CHIP) to fund the installation of PM<sub>2.5</sub> controls on under-fired charbroilers and further investigate the economic feasibility and availability of such controls. Funds for the pilot program come from the existing Indirect Source Review mitigation fees, which were collected to offset emissions from new developments. *Estimated reductions: 0.08 tons per day (tpd) of PM<sub>2.5</sub>.*

### BRANDY AGING AND WINE AGING

**OPERATIONS (RULE 4695):** Adopted on September 17, 2009, this rule requires controls to reduce VOC emissions generated from larger wine and brandy aging operations. *Estimated reductions: 0.1 tpd of VOC.*

### MOTOR VEHICLE ASSEMBLY COATINGS

**(RULE 4602), SURFACE COATING OF METAL PARTS AND PRODUCTS (RULE 4603), ADHESIVES (RULE 4653), AND POLYESTER RESIN OPERATIONS (RULE 4684):** Amended on September 17, 2009, these measures incorporated new federal Control Technique Guideline requirements for lower-VOC coatings and adhesive materials, as well as emission-reducing work practices. Existing Valley operations were already compliant with these requirements, so no additional emission reductions are expected.

### ARCHITECTURAL COATINGS (RULE 4601):

Amended on December 17, 2009, this rule amendment reduced the VOC content limits of several coating categories to make them consistent with ARB's Suggested Control Measures. *Estimated reductions: 3.0 tons per day of VOC.*

### EMPLOYER BASED TRIP REDUCTION

**(RULE 9410):** Adopted on December 17, 2009 (see Employer Based Trip Reduction section, page 12). *Estimated reductions: 0.5 tpd VOC; 0.5 tpd NO<sub>x</sub>; and 0.05 tpd of PM<sub>2.5</sub>.*

### SMALL BOILERS, PROCESS HEATERS, STEAM GENERATORS, AND WATER

**HEATERS (RULE 4308):** Amended on December 17, 2009, this rule requires new and replaced units to meet lower NO<sub>x</sub> limits. *Estimated reductions: 0.6 tpd of NO<sub>x</sub>.*

### OPEN BURNING (RULE 4103):

Amended on April 15, 2010, this measure incorporates the language of SB 705 (Flores, 2003) regarding open burning of certain agricultural materials (see Further Reductions in Agricultural Burning section, page 14). *Estimated reductions: 3.9 tpd of NO<sub>x</sub>, 5.1 tpd of PM<sub>2.5</sub>, 0.2 tpd of oxides of sulfur (SO<sub>x</sub>), and 5.2 tpd of VOC.*

### CONFINED ANIMAL FACILITIES

**(RULE 4570):** Amended on October 21, 2010, this rule amendment lowered the applicability threshold for dairy and poultry confined animal facilities, and strengthened rule requirements, including new requirements to reduce emissions from silage. *Estimated reductions: 31.8 tpd of VOC.*

## Emission Reduction Commitments and Achievements

In total, the rules adopted mid-2009 through mid-2010 met the District's 2014 emission reduction commitments for NO<sub>x</sub>, VOC, SO<sub>x</sub>, and PM<sub>2.5</sub>.

	PLAN COMMITMENT	ADOPTED RULES	ASSESSMENT
NO <sub>x</sub>	Adopt rules to reduce emissions by 3.5 tons per day	Adopted rules reduce emissions by 5.0 tons per day	Reductions are 43% above target
VOC	Adopt rules to reduce emissions by 24.4 tons per day	Adopted rules reduce emissions by 40.6 tons per day	Reductions are 66% above target
SO <sub>x</sub>	Adopt rules to reduce emissions by 0.14 tons per day	Adopted rules reduce emissions by 0.2 tons per day	Reductions are 43% above target
PM <sub>2.5</sub>	Adopt rules to reduce emissions by 5.8 tons per day	Adopted rules reduce emissions by 5.2 tons per day	Reductions are 10% below the target, due to technology limitations. Extra reductions in other precursors from other rules more than make up for this small shortfall.

## Fast Track Strategy

In June 2007, the Valley Air District adopted the non-regulatory Fast Track Strategy to complement the District's legally-binding ozone attainment plan and accelerate the attainment of the federal ozone standard. Fast Track's three main elements are to increase revenue for incentive grants, assure that EPA and ARB continue to pursue regulations to achieve effective and efficient NOx reductions from mobile sources, and establish a set of measures that will reduce emissions from categories where the District does not have regulatory authority. While other sections in this Annual Report describe the District's success in increasing incentive funds and ARB's recent efforts to reduce emissions under state purview, this section briefly describes activity on Fast Track measures during 2009–2010. The initial list of Fast Track measures included the following:

**ENERGY EFFICIENCY:** In January 2010, the Governing Board adopted the Regional Energy Efficiency Strategy (see Regional Energy Efficiency Strategy section, page 21).

**TRUCK REPLACEMENT/RETROFIT/REPOWER:** The District's Emission Reduction Incentive Program dedicates significant resources to this measure (see How Incentive Funds Were Spent section, page 22).

**SHORT SEA SHIPPING:** After advocacy by the District and Valley stakeholders, in February 2010, the U.S. Department of Transportation announced that the Port of Stockton and the ports of West Sacramento and Oakland would receive a \$30 million Transportation Investment Generating Economic Recovery (TIGER) grant, designed to help take trucks off the highway and move goods over water through the San Joaquin-Sacramento Delta and Bay Area.

**HIGH-SPEED RAIL:** In January 2010, California's high-speed train project won \$2.25 billion, the largest share of federal funding set aside for such projects under the American Recovery and Reinvestment Act. The California High Speed Rail Authority states that environmental reviews are taking place, the project is moving toward construction, outreach to communities is being improved, and interest is increasing from private partners.

**INLAND PORTS:** Intended to optimize connections between rail and truck transportation modes with the goal of streamlining goods movement in and out of the Port of Oakland, interest in intermodal terminals has waned with the downturn in the economy. District staff believes interest will revive as the economy recovers and longer-term private investments become more attractive.

**EPISODIC/REGIONAL CONTROLS:** The District's summer-only Spare the Air episodic control program was replaced by the highly successful, year-round Healthy Air Living program in 2008 (see District Seeks Healthy Air Living Partners section, page 13). At the September 2010 Governing Board Study Session, staff was directed to develop a public outreach and education program to alert and inform the public of potential 1-hour ozone summertime exceedance days. That program will be implemented in 2011.

**ADVANCED EMISSION REDUCTION OPTIONS (AERO):** Understanding that adding NOx controls to well-controlled combustion equipment results in extremely costly emission reductions, the District incorporated AERO as the heart of Rule 4320, which covers larger boilers, process heaters and steam generators. The District is continually looking for stationary source control measures that need to capitalize on AERO (see Continued Investment in Clean Air by Valley Businesses section, page 08).

In late 2010, District staff will conclude developmental work on the remaining Fast Track measures: Alternative Energy Generation, Green Contracting & Green Fleets and Heat Island Mitigation. Staff expects to begin implementing these incentive-based and voluntary sustainability measures in early 2011.

## Voluntary Incentive Grants

To attain the current health-based air quality standards for ozone, the Valley requires at least 75% in NO<sub>x</sub> reductions from the 2005 level. The District, however, has limited legal authority to achieve these emission reductions, as mobile sources comprise 80% of the Valley's NO<sub>x</sub> emission inventory. Thus, District regulations alone will not bring the Valley into attainment of federal air quality standards. Voluntary incentive programs play a critical role in achieving and accelerating the reductions required for the Valley's attainment.

Since inception, the District has awarded more than \$278 million in incentives, resulting in more than 81,000 tons of lifetime emission reductions. During the 2009–2010 fiscal year, the District executed more than 1,092 agreements for more than \$55 million. These projects are expected to reduce more than 8,307 tons of lifetime emissions.

The District's incentive program has become a model for grant programs throughout the state. In recent state audits, the District was noted for its efficient, robust and effective use of incentive grant funds in reducing air pollution. Due to the District's excellent track record in administering grant programs, the District is now assisting 18 small or rural air districts in administering the Lower Emission School Bus program to retrofit and replace school buses throughout the state.

**FEDERAL STIMULUS FUNDING:** The District continues to be actively involved in regional efforts to ensure that the Valley receives its fair share of available funding (see Helping the Valley Get its Fair Share of Funding section, page 10).

**ECONOMIC ASSISTANCE INITIATIVE:** Under the Economic Assistance Initiative program, the District can expedite contracts for applicants whose economic impact can be alleviated by replacing their equipment more quickly. When feasible, contract periods can also be lengthened. The District has also allowed applicants who, due to the downturn in the economy were unable to afford the purchase of a new truck or retrofit device, to cancel their Proposition 1B contracts without penalty. Funds from canceled projects were made available to other applicants. These efforts provide allowances for those adversely affected by the weakened economy while maintaining the integrity and effectiveness of District incentive programs (see Economic Assistance Initiative Extended section, page 20).

**REVAMPING THE POLLUTING AUTOMOBILE SCRAP AND SALVAGE PROGRAM:** The District's Polluting Automobile Scrap and Salvage (PASS) Program provides incentives to crush or replace the worst-polluting vehicles in the Valley. In the past year, participation in PASS has increased significantly. The District has been working to further expand the program through partnerships and statewide coordination efforts.

### Future Funding

It will take an estimated \$3 billion (approximately \$200 million per year) in incentive funds to bring the Valley into attainment of the federal ozone standard. Currently, the District receives approximately \$40 million per year in grant funding from Department of Motor Vehicles (DMV) vehicle registration fees and the Carl Moyer Program. Unless reauthorized by the California Legislature, the DMV fees authorized under AB 923 will cease January 1, 2015. The District also uses ISR and Voluntary Emission Reduction Agreement fees for grants, but these funds are based on land development activity in the Valley. Since the construction industry and development fluctuate, these fees also fluctuate. Considering that several of the funding sources sunset in 2015 and the remaining funding sources do not provide sustained funding amounts, the District has begun to aggressively pursue additional funding sources.

The District is currently seeking competitive federal funding through the EPA's Targeted Air Shed Grant Program. To date, the District has applied for more than \$21 million from the EPA.

It will take an estimated \$3 billion (approximately \$200 million per year) in incentive funds to bring the Valley into attainment of the federal ozone standard.

## New Programs

The District was the first air district in California to implement the Voucher Incentive Program (VIP) to provide expedited Moyer funding for eligible small fleet owners. Through this expedited process, the District can approve complete applications within five days of receipt and process reimbursement requests within 10 days. To date, the District has processed four times more VIP vouchers than the next leading air district.

Through the “Clean Green Yard Machines” program, the District provides Valley residents with \$250 vouchers toward the purchase of cordless, zero-emission residential lawn mowers upon trade-in of old, gas-powered mowers.

The state-funded Zero-Emission Agricultural Utility Terrain Vehicle Rebate Program (Ag UTV) encourages the use of zero-emission utility terrain vehicles in California agricultural operations. Rebates up to \$2,500 per vehicle are provided to qualified individuals, businesses, public agencies and non-profit organizations involved in agricultural operations.

ChIP, the Charbroiler Incentive Program, debuted 2010 to promote the development and use of emissions control devices for under-fired charbroilers. The pilot program explores the viability of different emissions control devices for different-sized cooking operations.



### The District's Incentive Grant program funds the following types of projects:

- Emerging technology demonstration projects
- Electric forklift purchases
- Bicycle path construction
- On-road and off-road vehicle engine replacement, engine retrofit and vehicle replacement
- Wood-stove replacements
- School bus replacement and retrofits
- Gross-polluting vehicle crushing and replacements
- New, clean-vehicle purchases
- Transit pass subsidies
- Locomotive replacements
- E-mobility equipment
- Vanpools
- Lawn and garden equipment
- Zero-emission agricultural utility terrain vehicles
- Alternate fuel mechanic training
- Diesel agriculture irrigation pump replacement

During the 2009–10 fiscal year, the District's incentive projects were **funded through a variety of local, state and federal sources, including:**

- DMV Surcharge Fees
- State Carl Moyer Memorial Air Quality Standards Attainment Program Funds
- State Proposition 1B Goods Movement Emission Reduction Program Funds
- State Proposition 1B Lower Emission School Bus Program Funds
- Voluntary Emission Reduction Agreement Funds
- San Joaquin Valley Emergency Clean Air Attainment Program Funds
- Federal Diesel Earmark Funds
- Federal Diesel Emission Reduction Act (DERA) Funds
- State Zero-Emission Ag Utility Terrain Funds
- Lawn and Garden Equipment Replacement Funds
- Wood Stove Change Out Funds

One project the District's Incentive Grant Program funds is school bus replacement and retrofit.

## 2009–2010 Statistics

5,201

Authority to Construct  
permits issued

339

new Permits  
to Operate issued

414

new Title V permits issued  
to five facilities

642

Title V permit  
modifications

617

Conservation  
Management Practices  
plans issued

339

Emission Reduction  
Credit certificates issued  
or transferred

806

toxic air contaminant  
risk-management reviews  
performed

4,375

annual emissions  
inventory statements and  
surveys processed

1,759

California Environmental  
Quality Act review  
requests processed

752

CEQA comment letters

145

CEQA documents  
prepared

163

Indirect Source Review  
applications processed

## Permitting

The District has the responsibility for issuing or denying permits, registrations and plan approvals for more than 30,000 non-mobile sources of air contaminants, and for tracking and assessing the impacts of these facilities' annual pollutant emissions.

### **AUTHORITIES TO CONSTRUCT AND PERMITS TO OPERATE:**

Air permits are required in the San Joaquin Valley for very small to very large stationary sources of air pollution. In fact, most facilities that emit air contaminants — from gas stations and body shops to refineries and power plants — must obtain permits from the District before constructing or operating. The permitting process involves two steps.

The applicant must apply for and receive an Authority to Construct (ATC) permit. This process can be fairly lengthy, but it provides an important opportunity for the project proponent, the District, and interested public to provide input and to assess a project's compliance with federal, state and local air pollution control requirements prior to beginning construction. The requirements that must be met to obtain a permit in the Valley are among the strictest in the nation, requiring the best available air pollution control equipment and mitigation of emissions increases.

A Permit to Operate is issued after the applicant has properly installed the equipment allowed by the Authority to Construct.

### **FEDERALLY MANDATED OPERATING PERMITS**

**(TITLE V):** The District has issued Title V permits to more than 200 facilities known as “major sources” of air pollution. Title V permits are required of major sources by federal law, and are designed to expand public and EPA participation in the permitting process for the largest emitters of air contaminants.

### **CONSERVATION MANAGEMENT PRACTICES**

**(CMP) PLANS:** The District is responsible for regulating and updating more than 6,200 CMP plans designed to decrease air pollution emissions from agricultural operations.

**EMISSION REDUCTION BANKING:** The purpose of the District's Emission Reduction Credit (ERC)

bank is to allow facilities that make voluntary reductions in emissions to store ERCs for later use as mitigation, or “offsets,” of emissions increases. Facilities proposing increases in emissions may have to offset their emission increases by purchasing ERCs.

**AIR TOXICS PROGRAM:** The District performs a number of tasks aimed at reducing the quantity and associated risks of hazardous (or toxic) air contaminants. The District implements state and federal air toxic control regulations, maintains an inventory of toxic emissions from Valley sources, and assures that those emissions, and any proposed emissions increase, do not cause a significant risk to the residents of the San Joaquin Valley.

**EMISSIONS INVENTORY:** Each year, the District gathers emissions and process data from facilities and other information sources, calculates each facility's annual emissions, and reports the emissions to the ARB. This inventory then acts as a cornerstone of our attainment plans that identifies sources of air pollution that can be further controlled.

### **CALIFORNIA ENVIRONMENTAL QUALITY ACT**

**(CEQA):** District staff carefully reviews land developers' project proposals, as well as new District plans and rules, for compliance with CEQA. CEQA is the state law that requires projects' environmental impacts be assessed and publicly disclosed, and that any significant impacts be mitigated to the extent feasible. In 2009, the District adopted and began implementing the state's first comprehensive and streamlined approach for addressing greenhouse gases under CEQA (see Helping Valley Businesses and Municipalities Meet Climate Change Mandates section, page 16).

**INDIRECT SOURCE REVIEW (ISR):** Indirect sources are buildings or facilities that attract mobile sources of emissions, but may not directly emit pollution. For example, new residential housing developments and shopping centers attract many cars, which emit air contaminants. The District's ISR group analyzes applications that assess the potential emissions created by a development project, quantifies the mitigation proposed by the applicant, and may assess a development mitigation fee if insufficient

mitigation is proposed by the applicant. An annual report of ISR activity, and the emission reductions generated by the program, is published by the District each year.

**EMPLOYER BASED TRIP REDUCTION:** Since adoption of this new rule, the District developed an online registration program, held numerous outreach and training meetings, and helped employers register through workshops and public meetings (see Employer-Based Trip Reduction section page 12).

**SMALL BUSINESS ASSISTANCE (SBA):** The District operates an effective SBA program to provide assistance to help businesses that lack the resources or expertise needed to efficiently obtain air permits. District SBA engineers provide expert advice on technology options, application processes and any other air quality issues. Interested parties can contact the District SBA through hotline telephone numbers in any region of the Valley (559-230-5888 in the Fresno area, 661-392-5665 in the Bakersfield area, and 209-557-6446 in the Modesto area).



## 2009–2010 Statistics

23,532  
permit units inspected

2,157  
public complaints  
investigated

2,508  
open burn sites inspected

2,764  
incentive funding  
units (trucks, engines)  
inspected

1,017  
asbestos projects  
reviewed and inspected



## Enforcement

The District inspects sources of air pollution, including all facilities with permits issued by the District. When sources are found in violation of District rules and regulations, citations are issued and monetary fines are levied.

**INSPECTIONS:** Field staff conducts many types of activities each year, including detailed inspections of existing and new sources; incentive project inspections; open-burning inspections; and responding to all public complaints. The District trains staff to thoroughly inspect complex sources to assure that emissions are within acceptable limits. Field staff inspects many different types of facilities, including petroleum refineries, oil production facilities, gas stations, dry cleaners, power plants, manufacturing plants, concrete batch plants, chemical plants, dairies, farms and asphalt plants. In 2009–2010, District staff inspected truck stops to verify drivers complied with state idling requirements and also conducted many inspections of newly regulated facilities.

**TECHNOLOGY:** To effectively assess compliance, Valley Air District inspectors utilize specialized equipment to measure emissions that would otherwise be invisible. While the District is certified by the state to employ highly sophisticated instruments to measure smokestack emissions, District field staff also use simpler portable devices to show gas leaks, measure stack emissions and identify toxic compounds in wood scheduled to be burned. Field staff is also certified to visibly assess concentrations of emissions like smoke, dust and soot. The District is using tablet PCs in the field to streamline report writing, allowing staff more time to complete more inspections.

**STAFF TRAINING:** The District has an effective training program to ensure staff is adequately trained to conduct thorough inspections. New and existing staff attend several ARB classes that cover a wide range of topics, including how to read smoke, enforcement techniques, and industry-specific courses. In addition, there are monthly in-house training sessions where staff is instructed on upcoming new/modified rules, new forms, and inspection techniques.

**COMPLIANCE ASSISTANCE TRAINING:** The District's Compliance Assistance Training educates regulated sources and individuals to prevent non-compliance. The District provides compliance assistance through classes, bulletins and one-on-one meetings.

**LEGAL ACTION:** When there is a violation, notices are issued and submitted to Compliance specialists to review and, if deemed appropriate, assess a monetary fine. When cases cannot be settled by the Compliance specialists, they are referred to District Counsel. In fiscal year 2009–2010, the District processed 2,945 Notices of Violation, transferred 302 cases to District Counsel, and collected approximately \$4.5 million in settlements.

**HEARING BOARD:** On rare occasions, a source may emit excess air pollution or otherwise violate a rule or regulation. If strict conditions are met, an independent Hearing Board comprised of members of the public is authorized under the California Health and Safety Code to grant temporary relief from District rules. Any excess emissions associated with these situations represent a very small fraction of the Valley's total emission inventory. In fiscal year 2009–2010, 131 variance petitions were heard at 64 hearings. District Compliance staff coordinated these hearings, which included the handling of public noticing, providing the Hearing Board members with the petitions and other support information, and giving expert testimony.

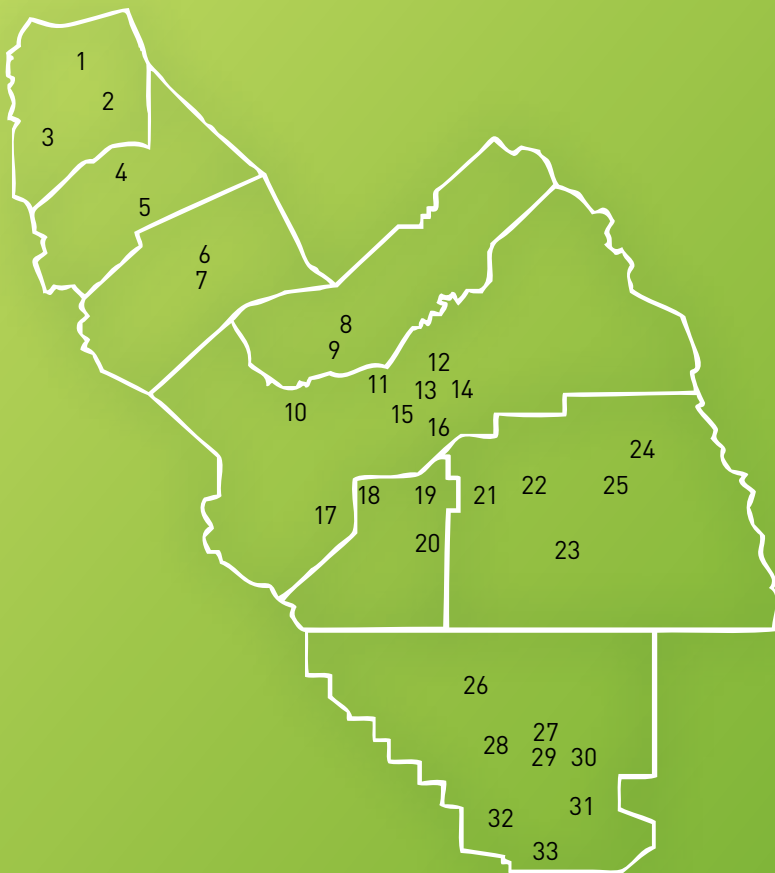
## Air Monitoring

The Valley Air District operates an extensive network of air-quality monitors throughout the Valley to support its mission of improving and protecting public health. The District uses hourly readings from its real-time monitors to generate a daily Air Quality Index (AQI) forecast for each Valley county. The AQI communicates the current state of air quality to Valley residents so they can keep air quality in mind as they plan their activities. On a longer-term scale, the District rigorously analyzes air quality data to help chart the future path to ozone and PM2.5 attainment.

Leveraging recent advancements in technology, the District will continue to expand the use of automated monitoring equipment and remote connection systems to allow for remote diagnostics and repairs of the equipment. This results in increased efficiency and reduced travel to distant monitoring stations. The District has added, or is in the process of adding, several new monitoring stations to its network to address federal requirements, to improve modeling and forecasting analyses, and to provide additional air quality information to Valley residents. New stations are located near Tranquillity, Lebec, Porterville, Madera and Manteca. The District is also in the process of relocating the former Bakersfield Golden State station to a new location at Bakersfield Municipal Airport.

### Air Monitoring Sites in Operation

May 2010



#### SAN JOAQUIN COUNTY

- 1 Hazelton: G,M,P,F,T
- 2 Wagner/Holt: P
- 3 Tracy: G,M,P,F

#### STANISLAUS COUNTY

- 4 Modesto: G,M,P,F
- 5 Turlock: G,M,P,F

#### MERCED COUNTY

- 6 M Street: P,F
- 7 Coffee Street: G,M

#### MADERA COUNTY

- 8 Madera City: G,P,F,M
- 9 Madera: G,M

#### FRESNO COUNTY

- 10 Tranquillity: G,F,M
- 11 Sierra Sky Park: G,M
- 12 Clovis: G,M,P,F
- 13 First Street: G,M,P,F,T,N
- 14 Fresno-Pacific: F
- 15 Drummond: G,P,M
- 16 Parlier: G,M
- 17 Huron: F

#### MONITORING OPERATION:

- = Site operated by the District
- = Site operated jointly by the District and ARB

#### MONITORING DESIGNATIONS

- A: Acid Deposition
- F: Fine Particulate (PM2.5)
- G: Gaseous
- M: Meteorological
- P: Particulate (PM10)
- N: National Core
- T: Toxics

#### KINGS COUNTY

- 19 Hanford: G,P,M
- 20 Corcoran: G,M,P,F

#### Other:

#### Tachi Yokut Tribe

- 18 Santa Rosa Rancheria: G,M,P

#### TULARE COUNTY

- 21 Visalia Airport: M
- 22 Church Street: G,M,P,F
- 23 Porterville: G,F,M

#### Other:

#### National Park Service

- 24 Kaweah: G,M
- 25 Ash Mountain: A,G,M,F

#### KERN COUNTY

- 26 Shafter: G,M
- 27 Oildale: G,M,P
- 28 California Avenue: A,G,M,P,F,T
- 29 Planz Road: F
- 30 Edison: G,M
- 31 Arvin: GM
- 32 Maricopa: G,M
- 33 Lebec: F,M

## 2009–2010 Statistics

362  
media calls

1,725  
public calls

48  
news releases

228  
presentations/events

## Outreach and Communications

The Valley Air District's Outreach and Communications Department continues to set the standard for innovative, effective and efficient outreach strategies and campaigns. Operating with a budget just two-thirds of similar air management agencies within the state, the District's outreach department nonetheless is just as effective in conveying critical public information, policy and air quality news.

Outreach and Communications is staffed by seasoned professionals representing all aspects of media and public relations, including bilingual staff. Although relatively small in terms of personnel, the department is acknowledged as being as effective, if not more so, than similar departments in other agencies many times its size.

The District continues to spearhead many important campaigns, including;

**CHECK BEFORE YOU BURN:** This annual multimedia, multilingual outreach campaign runs from November through February, and is credited with the Valley achieving unprecedented improvements in wintertime air quality. Using diverse resources including web, traditional media and direct outreach, the District has, in a few short years, permeated the Valley with an awareness of the urgency in reducing residential wood burning for the sake of overall public health.

**OUTREACH TO STUDENTS AND SCHOOLS:** Outreach and Communications has been steadily expanding its ongoing programs to capture the imaginations of and encourage participation by the Valley's student population.

- The Healthy Air Living Kids' Calendar Contest
- For Reel Video Contest
- "Blue Sky, Brown Sky... It's Up to You!"  
Healthy Air Living elementary school curriculum
- The "Clean Air Challenge" middle school curriculum
- "Flag Your Flag" Air Quality Flag program, a school air quality notification system
- Real-time Air Advisory Network (RAAN), providing flexibility to schools regarding outdoor activities on days with deteriorating air quality forecasted

Details on these programs can be found at [www.healthyairliving.com](http://www.healthyairliving.com).

**HEALTHY AIR LIVING OUTREACH AND PARTNER PROGRAM:** The Healthy Air Living program continues to expand and promote the "Make One Change" for air quality message (see District Seeks Healthy Air Living partners section, page 13).

**INCENTIVE & GRANT OUTREACH:** The District uses strategic outreach, targeted messaging and collaboration with stakeholder groups to promote grant programs. Efforts to inform the public of lawnmower exchange grants, woodstove trade-in grants, polluting automobile crushing programs and many other District grant programs have helped to build the success of the grants and incentives activities at the District.

But special projects and programs aside, perhaps the most important function of Outreach and Communications is its everyday presence in the media, on the phone and in person throughout the eight-county air basin, always representing the District and its mission of engaging the public in clean-air strategies with professionalism and a high level of expertise.



# HEALTHY AIR LIVING PARTNER CHECK LIST

As a Healthy Air Living Partner, you are committing your organization to the following when and wherever possible:

- Post the Healthy Air Living Partner logo on your organization's website and link to the Healthy Air Living Partner page (http://www.sjvalldistrict.org/healthyairliving/partner.html) and
- Post the Healthy Air Living Partner logo on your organization's social media pages (Facebook, Twitter, LinkedIn, etc.)



Make ONE change for cleaner air

## BE A HEALTHY AIR LIVING PARTNER

And be part of the solution



# Fly Your Flag

stay informed about air quality conditions



### Good

A great day to play outside!



### Moderate

Unusually sensitive? Consider limiting time outside!



### Unhealthy for sensitive groups

If you have asthma or other health problems, stay inside!



### Unhealthy

Everyone, play inside!

## Legal Activities

In January 2010, the California Supreme Court declined to hear developers' challenges to the District's Indirect Source Review rule, Rule 9510. This case involved a challenge to Rule 9510 on 11 state law grounds, including, among others, that the rule imposed a tax; the District had no authority to adopt the rule; the rule was an unconstitutional "taking" of property; and that the rule violated equal-protection laws. The trial court rejected all 11 claims and upheld Rule 9510. The Court of Appeal agreed with the trial court's ruling and upheld the rule in its entirety. The Building Industry Association petitioned the California Supreme Court to review the Court of Appeal's ruling, and the District vigorously opposed the petition. The Supreme Court declined to hear the case. The District's Governing Board has now released all fees collected under the rule for expenditure on emission mitigation projects, and the rule is achieving emissions reductions as planned.

In a companion case, the National Association of Home Builders (NAHB) challenged Rule 9510 in federal court claiming that the ISR rule, which regulates air pollution from new residential and commercial developments, is preempted by the federal Clean Air Act. The federal District Court disagreed and upheld the rule. The NAHB appealed the ruling to the Court of Appeals for the Ninth Circuit, and the Ninth Circuit upheld the rule on December 7, 2010.

Starting in September 2009, the District joined forces with EPA on several large enforcement actions. The District and EPA have been working closely together on bringing enforcement cases against a variety of emissions sources that have failed to comply with District rules and federal Clean Air Act provisions. These include actions against a glass manufacturer, a landfill, a bakery and a cereal plant. While one of the actions has recently been concluded in federal court by consent decree, the others remain pending.

In July 2009, the District succeeded in reducing an attorney's fee award to less than one-tenth of the amount requested. Environmental groups challenged District Rule 4570, which regulates VOC emissions from large dairies and confined animal operations, on numerous substantive grounds and one procedural aspect. While the Court required the District to address the procedural issue, it upheld all of the substantive aspects of the rule and no changes to the rule were required. The environmental groups then sued for an attorney's fee award of over half a million dollars. The District was able to convince the court to reduce the award to \$45,750.

## Partnering With State And Local Agencies

### State of California Air Resources Board (ARB)

Between July 2009 and June 2010, the ARB took significant action to reduce air pollution in California. These actions were driven by the need to dramatically reduce emissions that contribute to the ozone and fine particulate matter air-quality challenges in the Valley. Other actions lessen California's contribution to global climate change and reduce greenhouse gas emissions from sources operating statewide. ARB also revised its area designations for state ambient air quality standards. The following table shows ARB's considerable action over the past year, and provides web-links for more information.

### Air Resources Board Regulations

Mid-2009 Through Mid-2010

MEASURE	LINK
<b>JULY 2009</b>	
In-Use Off-Road Diesel-Fueled Fleets (Amendment)	<a href="http://www.arb.ca.gov/regact/2009/offroad09/offroad09.htm">www.arb.ca.gov/regact/2009/offroad09/offroad09.htm</a>
<b>SEPTEMBER 2009</b>	
New passenger Motor Vehicle Greenhouse Gas Emission Standards	<a href="http://www.arb.ca.gov/regact/2009/ghgvp09/ghgvp09.htm">www.arb.ca.gov/regact/2009/ghgvp09/ghgvp09.htm</a>
AB32 Mandatory Reporting of Greenhouse Gas Emissions and Cost of Implementation Fees	<a href="http://www.arb.ca.gov/regact/2009/feereg09/feereg09.htm">www.arb.ca.gov/regact/2009/feereg09/feereg09.htm</a>
California Consumer Products Regulations	<a href="http://www.arb.ca.gov/regact/2009/cpmthd310/cpmthd310.htm">www.arb.ca.gov/regact/2009/cpmthd310/cpmthd310.htm</a>
<b>NOVEMBER 2009</b>	
Amendments to the Tables of Maximum Incremental Reactivity (MIR) Tables	<a href="http://www.arb.ca.gov/regact/2009/mir2009/mir2009.htm">www.arb.ca.gov/regact/2009/mir2009/mir2009.htm</a>
<b>DECEMBER 2009</b>	
Limiting Ozone Emissions from Indoor Air Cleaning Devices	<a href="http://www.arb.ca.gov/regact/2009/iacd09/iacd09.htm">www.arb.ca.gov/regact/2009/iacd09/iacd09.htm</a>
Management of High Global Warming Potential Refrigerants for Stationary Sources	<a href="http://www.arb.ca.gov/regact/2009/gwprmp09/gwprmp09.htm">www.arb.ca.gov/regact/2009/gwprmp09/gwprmp09.htm</a>
<b>JANUARY 2010</b>	
Verification Procedure, Warranty and In-Use Compliance Requirements for In-Use Strategies to Control Emissions from Diesel Engines	<a href="http://www.arb.ca.gov/regact/2010/verdev2010/verdev2010.htm">www.arb.ca.gov/regact/2010/verdev2010/verdev2010.htm</a>
Portable Diesel Engines and Diesel Engines Used in Off-Road and On-Road Vehicles	<a href="http://www.arb.ca.gov/regact/2010/perp2010/perp2010.htm">www.arb.ca.gov/regact/2010/perp2010/perp2010.htm</a>
<b>FEBRUARY 2010</b>	
GHG Emission Standards for Passenger Vehicles, 2012-2016 Model Year	<a href="http://www.arb.ca.gov/regact/2010/ghgvp10/ghgvp10.htm">www.arb.ca.gov/regact/2010/ghgvp10/ghgvp10.htm</a>
SF6 Insulated Switchgear	<a href="http://www.arb.ca.gov/regact/2010/sf6elec/sf6elec.htm">www.arb.ca.gov/regact/2010/sf6elec/sf6elec.htm</a>
<b>MARCH 2010</b>	
Area Designations 2010, for State Ambient Air Quality Standards	<a href="http://www.arb.ca.gov/regact/2010/area10/area10.htm">www.arb.ca.gov/regact/2010/area10/area10.htm</a>
<b>JUNE 2010</b>	
Commercial Harbor Craft	<a href="http://www.arb.ca.gov/regact/2010/chc10/chc10.htm">www.arb.ca.gov/regact/2010/chc10/chc10.htm</a>

## Metropolitan Planning Organizations

**FTIP AND RTP:** This past year, the Valley's eight metropolitan planning organizations (MPOs) updated their Federal Transportation Improvement Program (FTIP) lists and their Regional Transportation Plans (RTP). From late 2009 through June 2010, FTIP workshops and interagency meetings provided opportunities for public involvement and interagency interactions. Each Valley MPO updates its FTIP periodically to include transportation projects scheduled to begin in the next few years, including new roads, street repaving, new transit vehicle purchases, and bicycle and pedestrian projects. FTIPs must contain a conformity determination showing how new transportation projects support the District's air quality goals and contribute to progress toward attainment of the national ambient air quality standards. The 2011 FTIP shows all eight MPOs at or below the District's emission estimates for transportation emissions, helping the Valley decrease PM<sub>2.5</sub> and ozone precursor emissions.

**SB 375:** Senate Bill 375 (SB 375, also known as the Sustainable Communities and Climate Protection Act of 2008), requires regional transportation plans to include a Sustainable Communities Strategy (SCS) to link transportation and land use planning together into a more comprehensive, integrated process. The Valley's MPOs worked together to draft vehicle greenhouse gas (GHG) reductions and submitted initial results to ARB for consideration. For the eight Valley counties, ARB set reduction targets of five percent in 2020 and ten percent in 2035. The ARB committed to reviewing the Valley targets in 2012 after more transportation modeling and analysis can be performed. The District will continue to work collaboratively with the MPOs and the ARB to set targets that are both beneficial and achievable.

**CALIFORNIA INTERREGIONAL BLUEPRINT:** MPOs around the state are developing Blueprints to plan for California's anticipated population growth. These Blueprints are regional in scope and integrate land use, transportation, and resource planning. The planning process considers the "Three Es" of sustainable communities: prosperous economy, quality environment, and social equity. On April 1, 2009, the San Joaquin Valley Regional Policy Council reviewed the Valley MPOs collaborative work on the Blueprint and took the following actions:

- Adopted a list of Smart Growth Principles as the basis of Blueprint planning in the Valley.
- Adopted Scenario B+ as the Preferred Blueprint Growth Scenario for the San Joaquin Valley to the year 2050. This scenario will serve as guidance for the Valley's local jurisdictions with land use authority as they update their general plans.

The Valley MPOs participated in Caltrans' Fresno workshop on the development of the California Interregional Blueprint. For Phase 1, the California-wide Blueprint aims to combine the Regional Blueprints and Plans from the four major MPOs and the eight MPOs in the San Joaquin Valley to find positive effect Blueprint-based strategies and show beneficial planning scenarios and trends. Phase 2 will build on the work from Phase 1 with the implementation of robust modeling and data programs that will be operational in December 2012. Upon completion, a Statewide Integrated Interregional Transportation, Land Use and Economic model will be available to MPOs, providing information on GHG assessments, multi-modal travel needs, and land use strategies while connecting travel corridors.

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

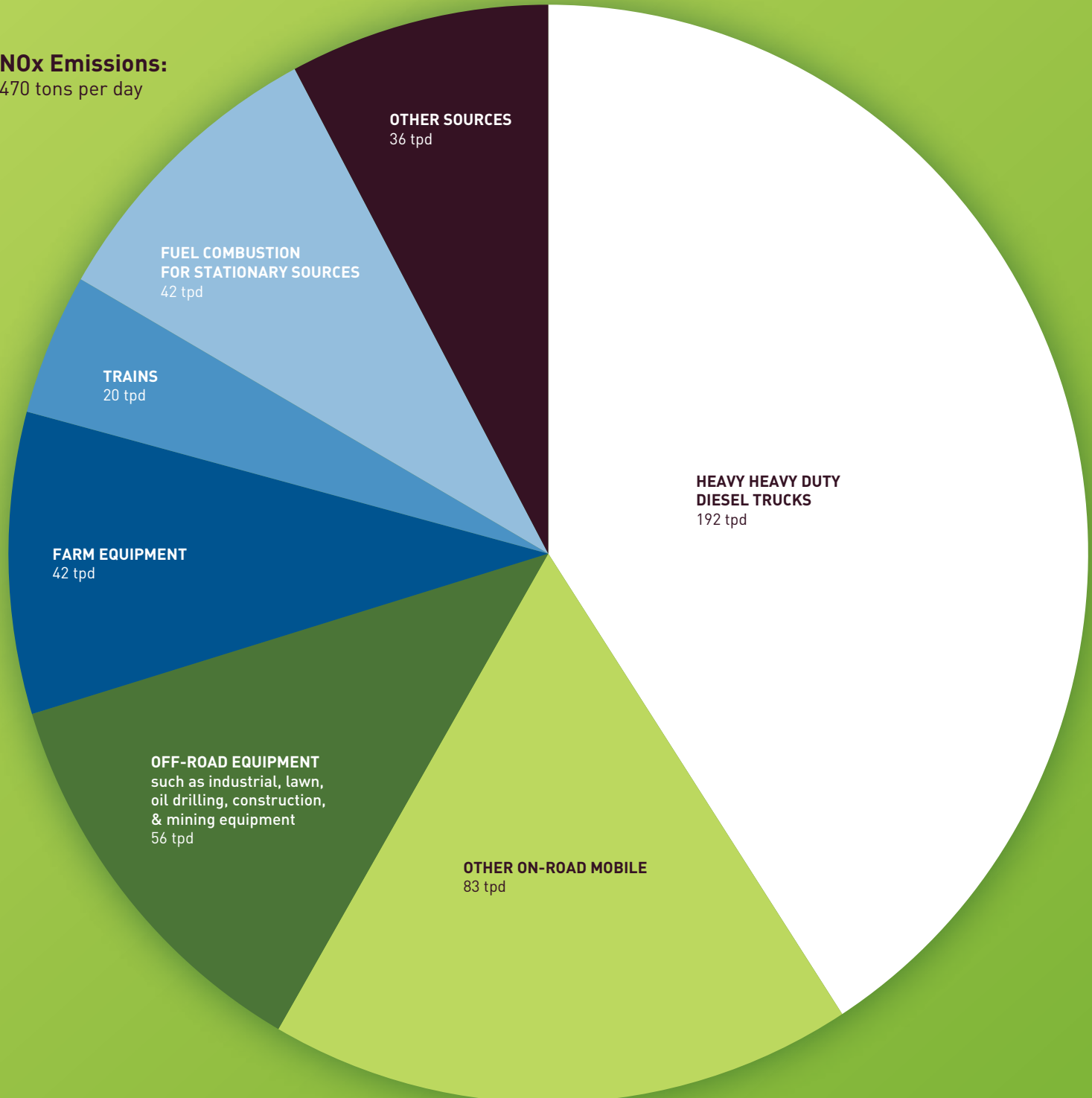
## Sources of Air Pollution in the San Joaquin Valley

Despite major improvements in air quality, the Valley still faces significant challenges in meeting the federal health-based particulate and ozone standards. These challenges are the result of the Valley's unique geography, topography and meteorology, which create ideal conditions for trapping air pollution for long periods of time.

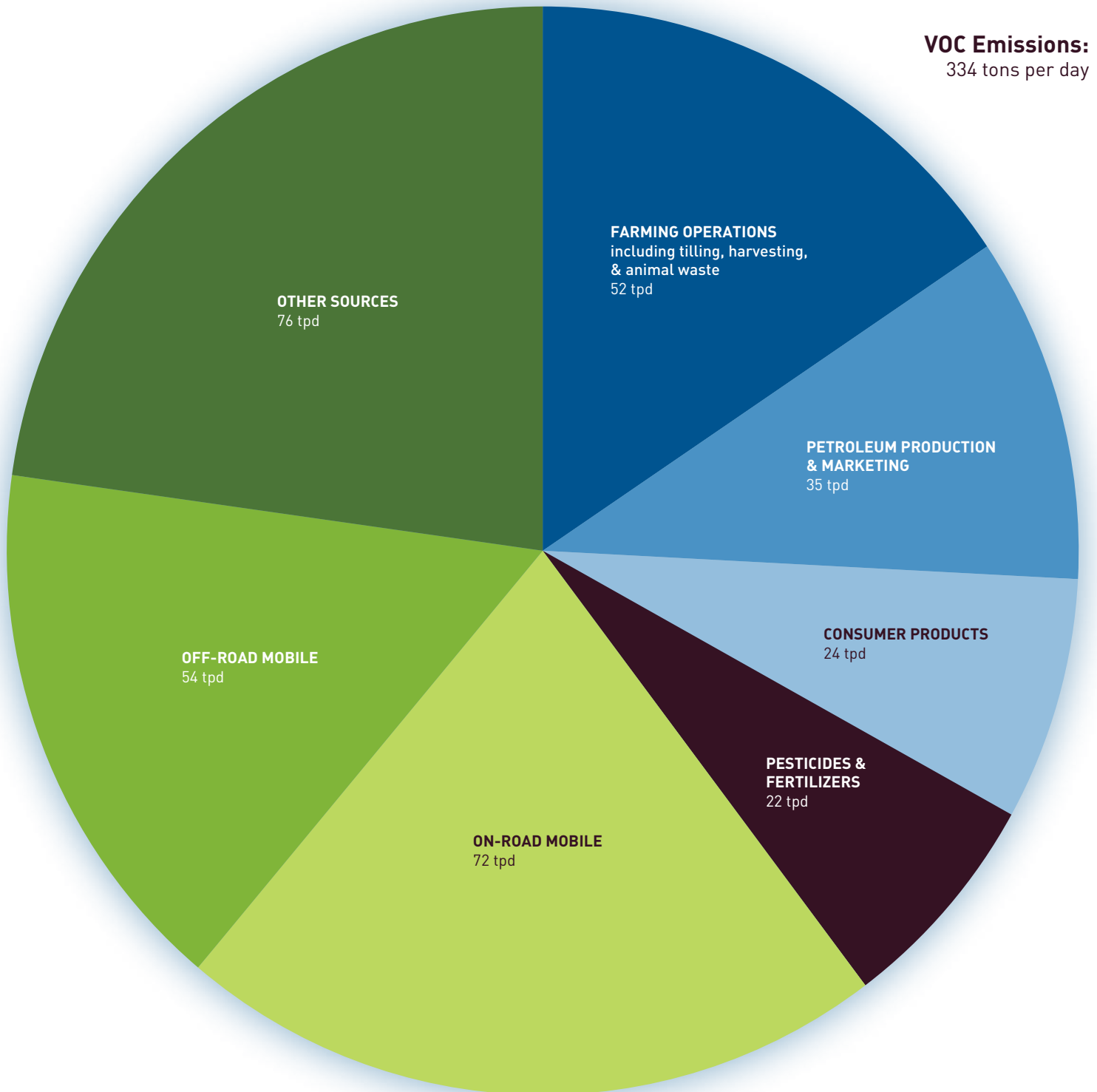
Ozone and particulate matter are the two pollutants that are responsible for the bulk of the Valley's air-quality problems. Ozone is the major component of the Valley's summertime "smog," and it affects human health and vegetation. Ozone is not emitted directly into the air, but is created by chemical reactions between NO<sub>x</sub> and VOCs in the presence of sunlight.

### NO<sub>x</sub> Emissions:

470 tons per day



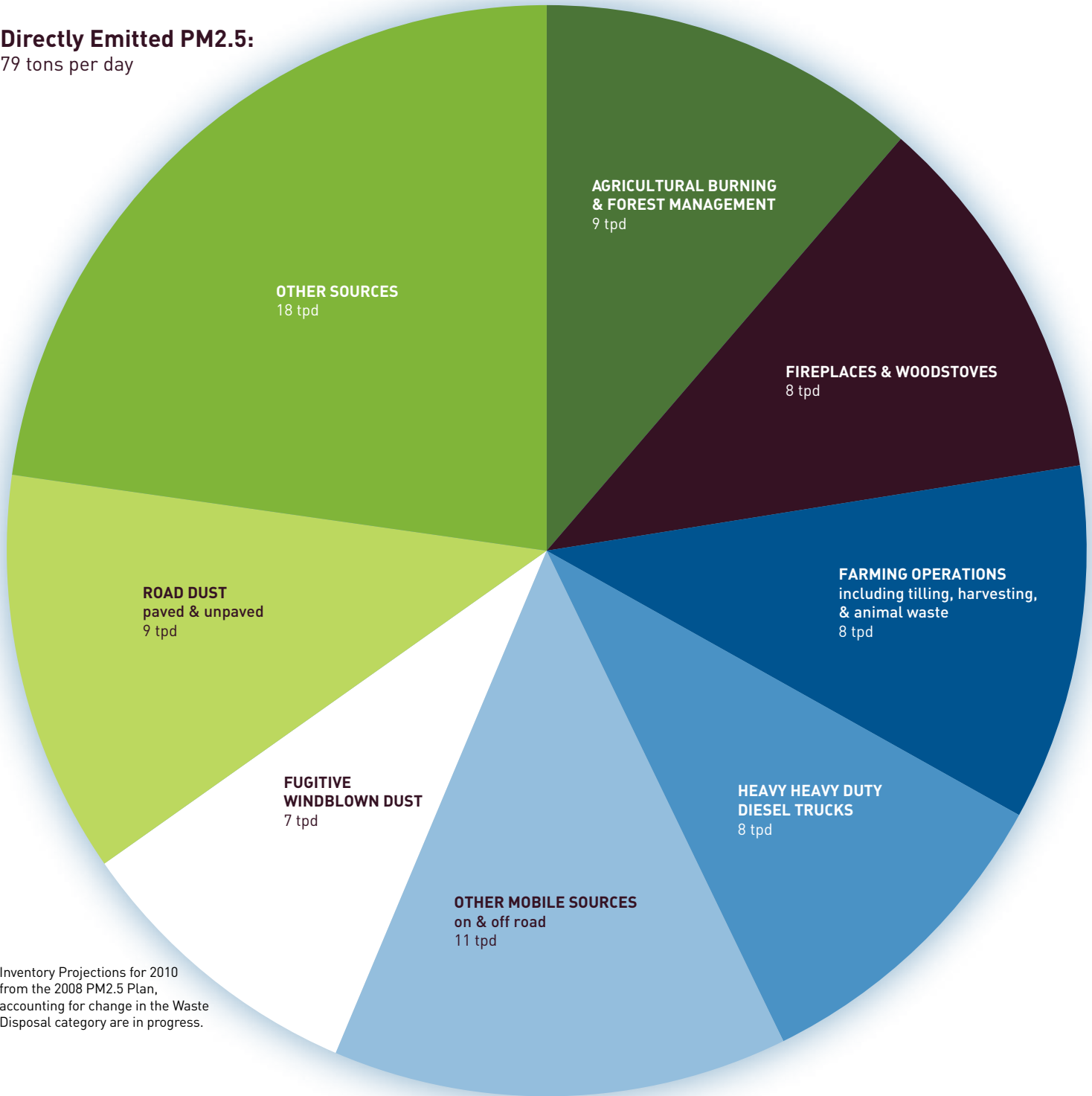
In the San Joaquin Valley, due to our climate and the chemical composition of the air pollutants, NO<sub>x</sub> is the primary culprit in the formation of both ozone and PM<sub>2.5</sub>. More detailed information on emissions is provided in the 2007 Ozone Plan and the 2008 PM<sub>2.5</sub> Plan, which are available on the District website, [www.valleyair.org](http://www.valleyair.org).



Particulate matter (PM) is any material except pure water that exists in solid or liquid state in the atmosphere. Particulate matter includes PM2.5 (particles no larger than 2.5 micrometers in diameter) and PM10 (particles less than 10 micrometers in diameter). Particulate matter can be emitted directly (primary PM, such as dust or soot), and it can form in the atmosphere through reactions of gaseous precursors (secondary PM). Much of the Valley's ambient PM10 and PM2.5 is secondary PM, formed in atmospheric reactions of NOx.

**Directly Emitted PM2.5:**

79 tons per day



Inventory Projections for 2010 from the 2008 PM2.5 Plan, accounting for change in the Waste Disposal category are in progress.

## Looking Forward

One undeniable reality that District staff, environmental justice stakeholders and the regulated community have come to understand is that federal air quality standards will continue to change. EPA periodically reviews the NAAQS to incorporate the best and most recently available health research. NAAQS revisions enhance the protections of public health, but these “moving targets” can also complicate the planning process with sometimes conflicting requirements, and generally demand significantly more reductions from the Valley’s already heavily-controlled emissions inventory.

For example, the new PM<sub>2.5</sub> standards that are currently under review by EPA would reduce acceptable pollution levels by about two-thirds compared to the standard promulgated in 1997. EPA also continues to revise the ambient ozone standard. EPA first set the 8-hour ozone standard in 1997 and strengthened it in 2008. After reexamining the 2008 standard in light of new data, in 2010, EPA proposed to strengthen the standard to better protect children and other at-risk populations. EPA was expected to finalize the new ozone standard in late 2010, and the Valley’s next attainment plan would be due in December 2013.

In association with these stronger pollution standards, EPA also recently tightened the requirements for air monitoring by state and local agencies. Specifically, EPA mandated that new monitoring stations be installed in larger urban areas near major intersections where maximum pollution concentrations occur. These new, stand-alone monitors will be required at four locations in the San Joaquin Valley — Bakersfield, Fresno, Modesto, and Stockton — by no later than January 1, 2013. The District will be required to spend significant time and resources over the next few years to site and construct the near-roadway monitoring stations, and the readings from these stations are expected to further emphasize the need for significantly more investment in mobile source emission reductions and transportation improvements.

As a public health agency, the San Joaquin Valley Air District will continue to use all available resources to help the Valley attain the clean air standards as quickly as possible, and to reduce the risk of air pollution during the journey to attainment. While the stationary source inventory continues to decline through District regulations, it is increasingly important to accelerate technology development, and bring more incentive funding into the Valley to achieve more mobile source emissions reductions. It is also important for state and federal agencies to continue to develop effective regulations to further reduce emissions from mobile sources. Most importantly, each business and resident will have the opportunity to be a part of the air quality solution by working with the District to develop and implement effective and economically efficient regulations, by taking advantage of incentive programs, and by taking personal responsibility to improve the quality of life in our Valley.





**San Joaquin Valley**  
AIR POLLUTION CONTROL DISTRICT

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[www.healthyairliving.com](http://www.healthyairliving.com)