

# REPORT TO THE COMMUNITY

2012-13 Edition



**San Joaquin Valley**  
AIR POLLUTION CONTROL DISTRICT



## Message from the Air Pollution Control Officer

To the residents of the San Joaquin Valley:

Twenty years have passed since the eight counties in the Valley joined to form the San Joaquin Valley Air Pollution Control District in 1992. This unification was rooted in the recognition by Valley residents and policy makers that air pollution does not respect political boundaries, and that the enormity of air-quality challenges requires pooling of our resources Valley-wide.

In the last 20 years, we have faced daunting challenges that, in any other place, would be overwhelming. On one hand, the Valley's geography, topography and climate conditions demand more from the Valley in the form of measures to reduce air pollution. On the other hand, the Valley's resources and capacity to absorb regulatory costs are limited due to the region's economic disadvantages. Designing effective programs that balance these competing interests demands a great deal of innovation, cutting edge creativity, and a lot of hard work. But the Valley air basin is a land of incredible abundance and true wealth that is mirrored in the spirit of its people.

Since 1992, Valley businesses have invested billions of dollars in reducing air pollution, leading to real and measurable improvements in quality of life for Valley residents. Valley residents are doing more to help reduce air pollution by making air-friendly choices as they go about their day-to-day lives. We have seen significant improvements in the Valley's air quality, and clean-air strategies designed and implemented in the Valley now serve as the model for the rest of the state and the nation. The progress we've made together over the past two decades is unmistakable: an 80 percent reduction in air pollution from Valley businesses, the cleanest winters and summers on record, the attainment of an important air-quality standard for particulate matter (PM10), significant reductions in the number of days with unhealthy air quality, and being closer than ever to meeting tough new health standards for ozone. These are real victories and they should be celebrated.

As we celebrate the Valley's accomplishments with this 20-year milestone, we have to remember that, in many ways, we're just beginning to tap the surface of the incredible wealth of resources that our region possesses: its people, their perseverance and their unshakeable belief in a healthier future. Much more needs to be done as we pursue our vision of healthy air for every single Valley resident. As we move forward, we must continue to find creative solutions that improve public health and preserve the Valley's economic well-being.

Given the outstanding partnership and resulting successes between the public, business and industry and the Air District in our first 20 years, we are truly gratified and fully confident that we will achieve the totality of our goals in the years to come.

**Seyed Sadredin**  
Executive Director/Air Pollution Control Officer

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**Alexander C. Sherriffs, M.D.**  
Appointed by  
the Governor



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## About the District

The San Joaquin Valley Air Pollution Control District is a regional public health 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

The District's vision is 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 District's Core Values

### PROTECTION OF PUBLIC HEALTH

The District shall continue to strive to protect the health of all 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 air pollution control measures, provide meaningful incentives for reducing emissions, and develop creative alternatives for achieving emissions reduction.

### 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 ingenuity and innovation 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 INTERESTS 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.

# 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 ozone and particulate matter standards. These challenges are the result of the Valley's unique geography, topography and climate, which create ideal conditions for creating and trapping air pollution.

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 photochemical reactions between oxides of nitrogen (NOx) and volatile organic compounds (VOC) in the presence of sunlight. Particulate matter (PM) consists of tiny particles of solids or liquids (except pure water) that are suspended in the atmosphere. Particulate matter includes PM2.5 (particles less 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 can form in the atmosphere through photochemical reactions or gaseous precursors (secondary PM). Much of the Valley's ambient PM10 and PM2.5 is secondary PM, formed in atmospheric reactions of NOx.

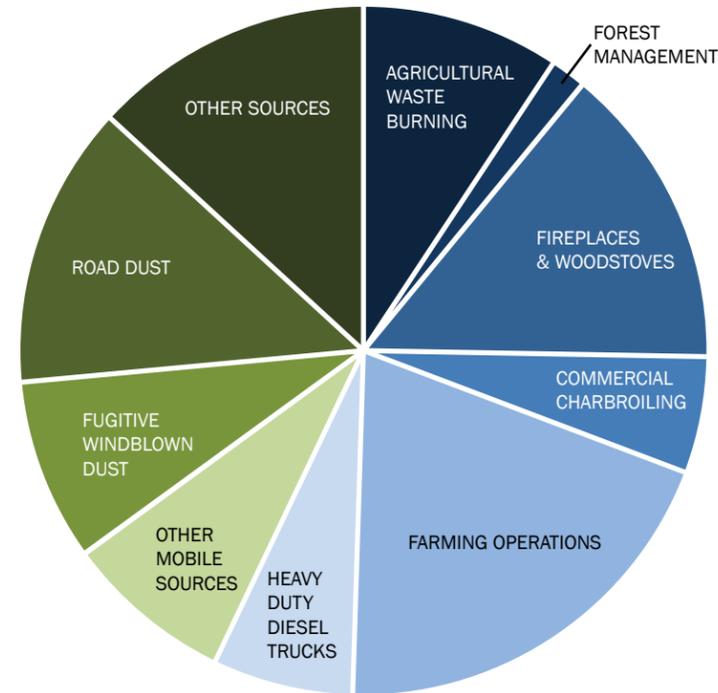
In the San Joaquin Valley, due to our climate and the chemical composition of air pollutants, NOx is the primary culprit in the formation of both ozone and PM2.5. More detailed information on emissions is provided in the District's air quality plans, available at [www.valleyair.org](http://www.valleyair.org).

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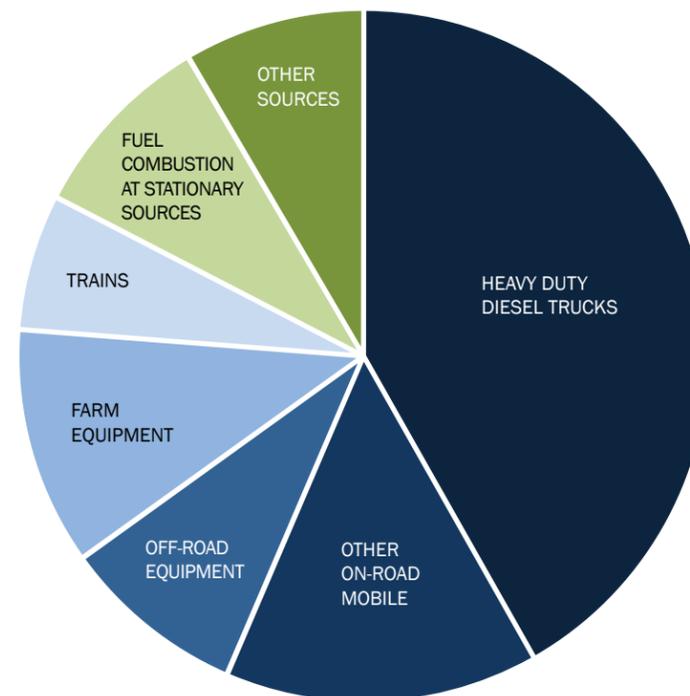
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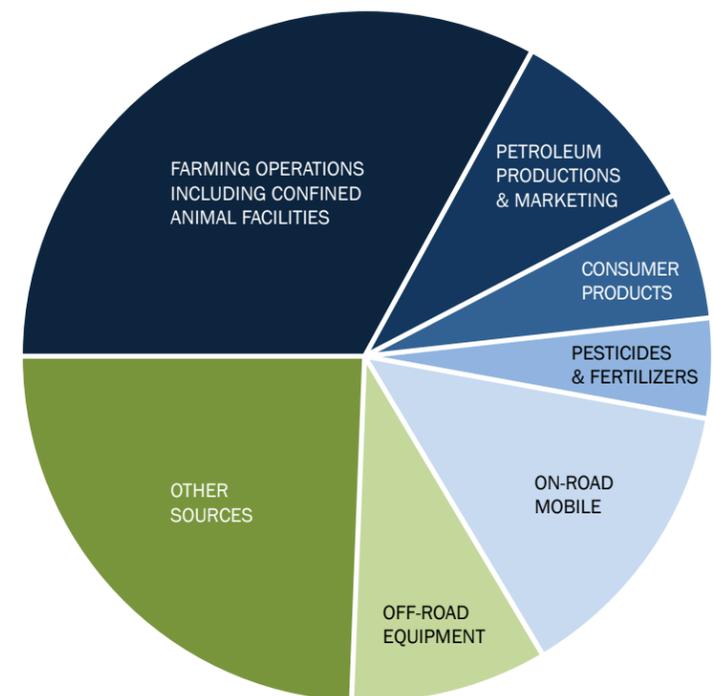
**Winter PM2.5 Emissions**  
Includes various directly-emitted PM species



**NOx Emissions**



**VOC Emissions**



# Ozone Trends

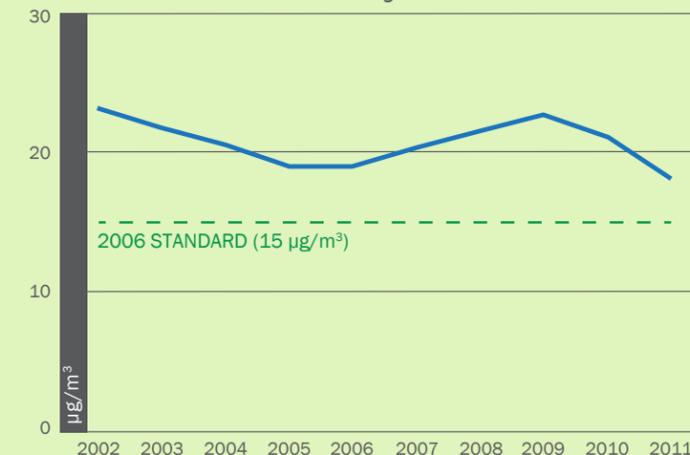
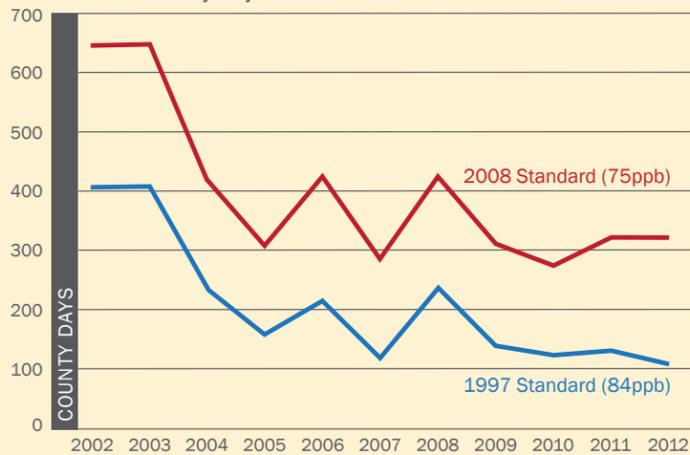
# PM2.5 Trends

County Days over Federal 8-hr Ozone Standards

County Days over Federal 1-hr Ozone Standards

24-hour PM2.5 Design Value Trend

Annual PM2.5 Design Value Trend

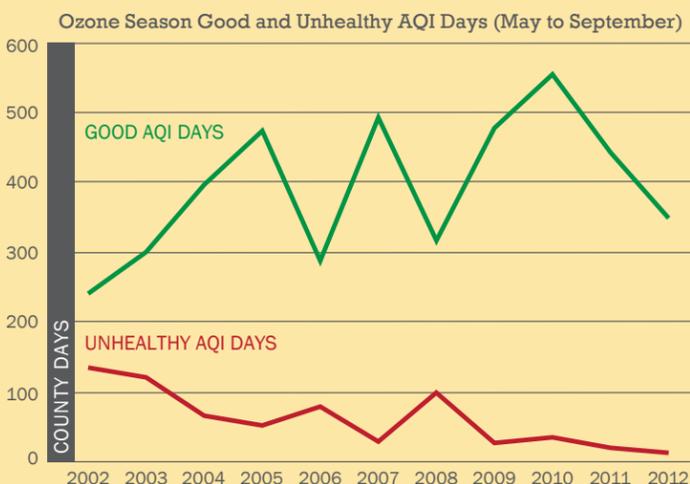
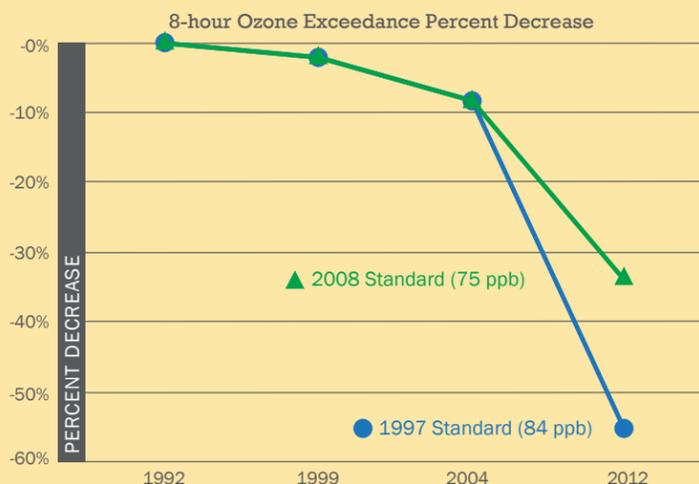


> 8-hour ozone design value continuing slow but steady decline.

> Occurrences of 1-hr ozone exceedances continue to decrease.

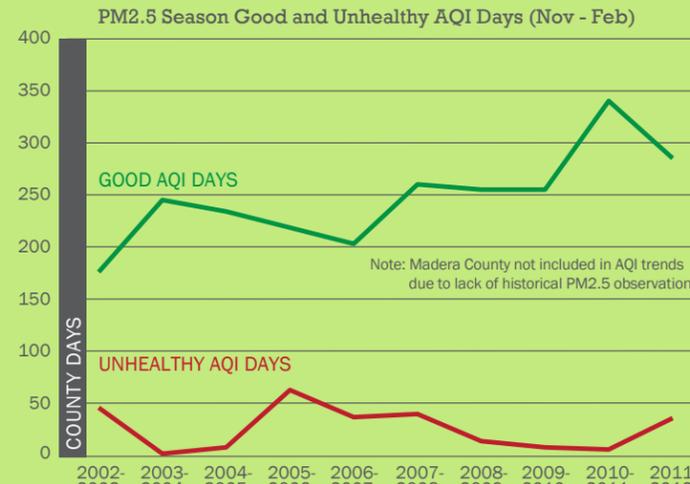
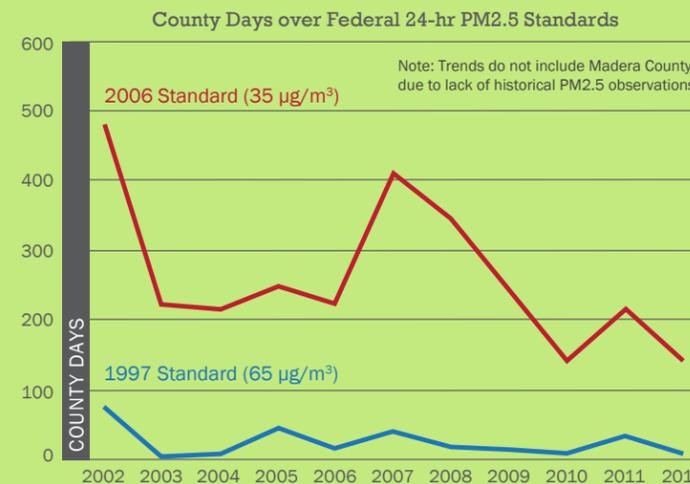
> 24-hour PM2.5 design value now below the 1997 standard of 65 µg/m³.

> Annual PM2.5 design value continuing to decline.



> Ozone (Smog) exceedances of the 1997 and 2008 federal 8-hour ozone standards have dropped by 55% and 34% since 1992.

> Continued decrease in the number of "Unhealthy AQI" days during ozone season.



> Increase in 2011 24-hr PM2.5 exceedances and Unhealthy AQI days compared to previous years, mostly due to severe PM2.5 conducive meteorology during the winter (wood burning season) of 2011-12. 2012 values have dropped to reach levels similar to those of 2010.

# New PM Plan Tackles Toughest Pollution Problem

## Fine Particulates Take Center Stage in Cleanup

A new health-based standard for fine-particulate matter – PM2.5 – was established in 2006 by the federal government. During 2012, the District’s planning and rule development resources focused on preparing the 2012 PM2.5 Plan to demonstrate attainment of this standard.

It is important for an attainment plan to include accurate and realistic “emissions budgets” – emissions stemming from transportation projections for a region -- avoiding budgets that are either too high (possibly jeopardizing PM2.5 attainment) or too low (which could fail to accommodate future transportation projects the region needs). To allow additional time to address these technical issues while assuring time for public review, the District extended the plan development timeline a couple of months.

After an exhaustive review process that included many opportunities for public and stakeholder input and review, the District’s 2012 PM2.5 Plan was adopted by the Governing Board in December and submitted to EPA through the state Air Resources Board shortly thereafter.

Plan components include aggressive, ambitious measures to attain health-based standards as expeditiously and practicably as possible. As such, certain existing rules of the District, including the residential wood-burning rule (Rule 4901) will be amended to both tighten the threshold at which curtailments are issued and, importantly, to acknowledge the investment made by thousands of Valley residents in the latest, cleanest wood-burning technology.

To provide overall strategic direction in developing this plan, the District Governing Board adopted the following Guiding Principles at its February 2012 Public Hearing:

- 1 With public health as our No. 1 priority, meet the federal ambient air-quality standards as quickly as possible.
- 2 Use sound science as the plan’s foundation. This includes assessing public health impacts, predicting future air quality, determining the emissions reductions needed, and evaluating the availability, effectiveness and feasibility of emission-control measures.
- 3 Consider the Valley’s unique challenges and develop cost-effective strategies that provide adequate operational flexibility and minimize costs to Valley businesses.
- 4 Consider all opportunities for timely, innovative and cost-effective emission reductions. Consider traditional regulations, but look beyond traditional regulations to incorporate monetary incentives, policy initiatives, guidance documents, and outreach, including working with cities and counties to incorporate 2012 PM2.5 Plan principles into their general plans.
- 5 Given that 80 percent of the Valley’s emissions originate from mobile sources, provide a balanced approach to reducing mobile and stationary source emissions.
- 6 Devise and implement reasonable strategies that involve the public in reducing emissions.
- 7 Prioritize strategies that contribute to the District’s Risk-based Strategy by achieving the greatest public health benefits.

- 8 Prioritize strategies that contribute to attaining multiple air-quality standards.
- 9 Recognize that there is no “silver bullet” for attainment. In this plan and upcoming attainment plans, every sector – from the public through all levels of government, businesses and industry – must continue to reduce emissions.
- 10 Compel state and federal agencies to provide adequate resources and regulatory assistance to reduce emissions from sources under their jurisdiction.
- 11 Address air pollutant transport issues with air districts neighboring the Valley.
- 12 Provide ample opportunity for public participation and feedback in designing and implementing these plans. Use the planning process to inform participants of the Valley’s air-quality challenges and successes as well as actions that can be taken to improve Valley air quality.
- 13 Build off of the successes of the District’s Technology Advancement Program by identifying further opportunities to continue fostering technology advancement, paving the way for new emissions control devices to be increasingly used in the San Joaquin Valley.

The District will now begin implementing the adopted plan’s commitments. The District will also begin preparing for upcoming attainment plans, including the plan for EPA’s revoked 1-hour ozone standard (required by a recent Ninth Circuit Court decision), the plan for EPA’s 2008 8-hour ozone standard (due to EPA in 2015), and the plan for EPA’s newest annual PM2.5 standard (likely due to EPA in 2018). The District will also track EPA efforts to again revise the 8-hour ozone standard, with EPA’s proposal expected in 2013.

### Expediting the Plan Commitment to Enhance Wood-burning Rule

Rule 4901 (Wood Burning Fireplaces and Wood Burning Heaters) is one of the District’s most cost-effective and health-protective rules, reducing fine particulates (PM2.5) when and where reductions are most needed. Photochemical modeling for the 2012 PM2.5 Plan has shown that achieving additional emissions reductions from residential wood combustion is critical for the Valley to reach attainment of EPA’s fine-particulate standards. In the plan, the District committed to amend Rule 4901 in 2016; however, due to the associated health benefits, the District Governing Board adopted a local commitment to amend the rule in 2014. This action is consistent with the District’s Risk Based Strategy, which prioritizes measures based on their impact on improving public health.

The rule amendment will lower the threshold for wood-burning curtailment and will allow Valley residents with EPA-certified wood-burning devices to be able to burn on more days.

During the rule amendment process, the District will consider all feasible options for strengthening Rule 4901. The District will also explore various means for allowing the use of EPA-certified wood-burning devices during certain curtailment days. The District values the cleaner burning technology that has been developed in recent years, as demonstrated by the creation of the District’s Burn Cleaner Program, which helps Valley residents upgrade their current wood-burning devices to natural gas, propane or clean pellet devices to reduce particulate emissions. The District invites all interested parties to provide input as the District holds public workshops to seek comments and suggestions in crafting a new rule.



## District Seeks Common-sense Changes to the Federal Clean Air Act

Since its adoption, the Clean Air Act has led to significant improvements in air quality and public health benefits throughout the nation. However, we have reached the point of diminishing returns in areas of the nation with mature local air-quality management programs. After more than 20 years since the last amendments to the Clean Air Act (CAA) in 1990, our experience shows that many well-intentioned provisions are leading to unintended adverse consequences. The antiquated provisions of the Clean Air Act are now leading to confusion, and lack of an updated congressional directive has rendered courts as policy makers.

The District supports the well-intentioned concepts in the Clean Air Act that call for routine review of health-based air-quality standards, clean-air objectives that are technology-forcing, and clean-air deadlines that ensure expeditious clean-up and timely action. However, we have reached a point where failure to take administrative and legislative action to update the Clean Air Act is leading to the following:

- 1 Chaotic and confusing transition to new standards
- 2 Standards and deadlines that are impossible to meet
- 3 Costly litigation leading to delays and confusion
- 4 Enormous administrative costs to state and local governments without any corresponding benefit to air quality
- 5 Enormous red-tape costs to businesses and individuals without any corresponding benefit to air quality

On Nov. 29, 2012, Seyed Sadredin, the District's Air Pollution Control Officer, testified in Washington D.C. at a congressional forum to provide a local perspective regarding implementation of the federal Clean Air Act. Please see the District's 2013 Legislative Platform for more details on the issues and remedies suggested by the District. This document can be found on the District's website at [www.valleyair.org/Board\\_meetings/GB/agenda\\_minutes/Agenda/2013/January/i11-CorrectedCorrectedFinalGBItemLegPlatform2013.pdf](http://www.valleyair.org/Board_meetings/GB/agenda_minutes/Agenda/2013/January/i11-CorrectedCorrectedFinalGBItemLegPlatform2013.pdf)

## District Seeks Relief from Redundant Federal Permitting Requirements

In an unprecedented move, the District is asking the federal Environmental Protection Agency to find that the District's local air-quality permitting program is consistent with, and equivalent to, a federal operating permit program called "Title V Permitting." The 1990 amendments of the federal Clean Air Act added Title V, which required major sources of air pollution to obtain federally enforceable operating permits.

In some parts of the country where there was not a local permitting program, this was the first time that major sources of air pollution received operating permits. In such locations, Title V permitting provided a mechanism that required facilities to comply with all applicable federal regulations.

However, in California, local air-permitting agencies such as the District have required operating permits for decades. These permitting programs include enforceable permits to operate that specify all applicable requirements, require monitoring and testing, and are enforced by routine site inspections. Additionally, the District's permit program requires permits for minor sources of emissions, with emissions as low as two pounds per day, while Title V regulates only major sources emitting 20,000 pounds per year or more. Despite enormous administrative costs, Title V permitting provides no benefits to air quality in San Joaquin valley.

Unfortunately, establishing a Title V permitting program adds significant, resource-intensive administrative duties for both Valley businesses and the District, but adds no substantive requirements to the District's permitting program that would further protect air quality or reduce air pollution. If the District is successful in obtaining a determination of equivalency, there would be a significant reduction in workload, by up to 15,000 person-hours per year, with no negative impact on air quality.



## Valley Air District Urges Federal, State Action

For air-quality issues, 2011-12 was an active year at the federal level. Congress considered the reauthorization of a number of large, federal programs that will have an impact upon air quality. The District advocated for “air-friendly” funding in the federal transportation bill, continued funding of air-quality programs in the farm bill, and lobbied for air-quality empowerment zone legislation.

District staff also met with high-level staff of the U.S. Environmental Protection Agency on a number of policy issues. These included pursuing additional resources from EPA for enhanced air-quality monitoring, the District’s risk-based approach to attaining air-quality standards, and on the implementation of new air-quality standards for ozone and particulate matter. These efforts were effective, with the District receiving funding for two additional air-monitoring stations, EPA’s scientific review committee considering risk in their particulate-matter deliberations, and EPA exercising a more measured approach to new air-quality standards.

At the state level, the District’s most significant effort was in working to develop a broad coalition of stakeholders to support the reauthorization of air-quality incentive funding that is set to expire in 2015. The District also supported the adoption of the Clean Cars Program by the California Air Resources Board.

### Legal Activities

#### **DISTRICT PREVAILS AT U.S SUPREME COURT**

On June 6, 2007, the National Association of Home Builders (“NAHB”) filed suit against the District in federal court claiming that District Rule 9510 – Indirect Source Review – operates as an engine-emissions standard that is preempted by the Clean Air Act. Rule 9510 requires that the NOx and PM10 emissions associated with new residential and commercial development projects over a certain size mitigate a portion of those emissions. The District prevailed before the district court and the Ninth Circuit Court of Appeals. *National Ass’n of Home Builders v. San Joaquin Valley Unified Air Pollution Control Dist.*, 627 F.3d 730 (9th Cir. 2010). The Ninth Circuit denied NAHB’s request to rehear the case and NAHB filed a petition asking the U.S. Supreme Court to review the decision. The District opposed NAHB’s petition and, on Oct. 3, 2011, the Supreme Court declined to hear the case.

#### **STATE HIGH COURT UPHOLDS AUTHORITY**

On June 25, 2012, the California Supreme Court upheld the California air districts’ authority to adopt pollution control regulations that require the development of new technologies. At issue were amendments to the South Coast Air District’s paint and coatings rule, which established VOC limits that required the development of new coatings technologies. In September 2009, a California Court of Appeals held that South Coast had exceeded its authority in adopting the regulation and South Coast asked the California Supreme Court to review the decision. The San Joaquin Valley Air District filed an amicus (or “friend of the court”) brief with the Supreme Court urging the Court to reverse the Court of Appeals’ decision. The Supreme Court agreed with the air districts’ position and upheld their authority to adopt “technology-forcing rules” such as the South Coast coatings rule.

#### **DISTRICT DEFENDS OZONE, PM 2.5 PLANS**

The District adopted its plans to attain the 8-hour ozone and PM 2.5 standards in April 2007 and April 2008, respectively, and forwarded them to EPA for approval. EPA approved the PM 2.5 Plan in November 2011 and approved the 8-hour Ozone Plan in March 2012. Environmental groups filed challenges to EPA’s approvals of the Plans in the Court of Appeals for the Ninth Circuit and the District has intervened in the suits on behalf of EPA. Both cases are currently in the briefing stage and oral arguments will likely be held sometime in late 2013 or early 2014.

#### **DISTRICT, EPA UNITE IN ENFORCEMENT ACTIONS**

The District and EPA have successfully worked together on two large enforcement actions over the past year: one against a local landfill that failed to comply with District rules and Clean Air Act provisions, and the other against a large bakery facility that operated for years without District permits. The first action was recently concluded in federal court by consent decree, while the other is awaiting federal court approval of the consent decree.



## Near-Roadway Air Monitoring

In 2010, the U.S. Environmental Protection Agency (EPA) established a new 1-hour standard and new minimum monitoring requirements for nitrogen dioxide (NO<sub>2</sub>). At the same time, EPA announced new NO<sub>2</sub> monitoring network design requirements to create a near-road monitoring network aimed at capturing peak-level NO<sub>2</sub> concentrations, which are expected near roadways. The 2010 NO<sub>2</sub> requirements signaled a shift in monitoring network design requirements by requiring monitoring to evaluate short-term, high concentration exposures in the near-roadway environment.

Following the establishment of the NO<sub>2</sub> near-road monitoring network, EPA also established the requirements for near-road monitoring of particulate matter less than 2.5 microns and carbon monoxide, which, like NO<sub>2</sub>, are expected to have high short-term concentrations near major roadways.

The District is in the process of locating four new monitoring stations in Bakersfield, Fresno, Modesto and Stockton to monitor and evaluate NO<sub>2</sub> concentrations in the near-road environment. This is especially important since studies show a connection between short-term NO<sub>2</sub> exposures and an increase of symptoms associated with respiratory illnesses. With \$400,000 in grant funding secured from the federal government to aid in the implementation of the new monitoring stations and \$500,000 in District funds, the District is evaluating potential site locations by looking at criteria such as traffic volumes, fleet mix, traffic congestion patterns and population exposure.

Public workshops and hearings will be held to solicit public input into the location of these new monitoring stations.



## District Board Goes Paperless

### District Forms a Valley-wide Paperless Consortium to Share Resources

In 2011, the District began using paperless Governing Board meeting agendas to reduce costs, improve efficiency and save paper. This approach was successful in saving more than \$20,000 a year and becoming a model for several other Valley agencies. In October 2012, noting broad interest at agencies throughout the Valley, the District Board approved a proposal to establish a multi-agency Paperless Agenda Resource Consortium to share costs and resources, and to further help other Valley agencies establishing paperless agendas.

The District hosted the first in a series of monthly Consortium meetings in early February 2013, and board clerks and IT staff from more than 20 Valley agencies attended. The meeting kicked off with a description of the District's approach, which uses wireless tablet computers and commercially available software to eliminate the need to print and distribute volumes of paper agenda items and Board reports.

At the first meeting, Consortium members agreed to develop a "Quick-Start" guide to support smaller agencies in their efforts to set up simple paperless agenda processes. Consortium members will also work to identify a recommended common hardware and software platform to maximize opportunities for resource sharing. Other issues the Consortium will tackle include addressing security concerns and answering legal questions associated with wireless network and tablet computer use.

Because of overwhelming interest from Valley agencies, the District will continue to provide a high level of assistance and support for advancing the transition to paperless agendas throughout the Valley.

## Businesses Can Now Obtain Federal Construction Permits Locally

For more than 20 years, the federal Environmental Protection Agency has administered preconstruction permits called Prevention of Significant Deterioration (PSD) for the largest sources of attainment pollutants. Attainment pollutants are those pollutants for which the District's air quality "attains", or complies with federal health-based air-quality standards.

During this time, the District has been administering a separate New Source Review preconstruction permitting program for large and small sources.

This dual-agency permit processing situation has caused problems for project proponents. For instance, those seeking PSD permits from EPA had to also file applications with the District, creating the need to prepare two separate applications, each with its own set of agency-specific information needs. In addition, many of the requirements of the two permitting programs are the same or similar.

The District believes that this duplication of effort is inherently counter to the standards of good governance and sound regulatory practices that guide District programs. Also, EPA has not demonstrated the ability to process PSD permits in a timely manner, which has led to difficulties and significant permitting delays for project proponents. These factors led EPA to request that the District assume administration of the PSD permitting program.

The District agreed. Since late 2012, the dual-agency air permitting process has been eliminated and the District is now processing Valley businesses' PSD permitting actions. In addition to streamlining permitting requirements, the District's takeover of this federal permitting program has already resulted in faster permitting for Valley businesses, while maintaining the highest level of air-quality protection.



## Transboundary Ozone Transport from Asia

The significant reductions in the Valley's ozone levels over the past several decades are a direct result of considerable sacrifices by Valley businesses and residents. Despite this progress, a new body of research indicates that the region's progress towards ozone attainment is under threat from rising levels of transboundary ozone (TBO) generated by fossil-fuel combustion in Asia. New findings over the past decade have provided compelling evidence of the following:

- 1 Average daily TBO flows from Asia have increased about 2-3 parts per billion (ppb) per decade in the past 30 years in proportion with the substantial increase in coal combustion and vehicle use in China and India;
- 2 National Oceanic and Atmospheric Administration (NOAA) researchers have published that TBO substantially increases ground-level ozone in the northern Sacramento Valley, resulting in non-attainment status for Butte County under the 1997 8-hour ozone standard of 85 ppb;
- 3 A publication from NOAA's 2010 CalNEX Valley research campaign indicates that TBO likely accounts for 12 percent to 23 percent of the ozone measured in Bakersfield during peak summer events. This finding suggests that the Valley's handful of annual exceedances of the federal 1-hour ozone standard are wholly or partially the result of TBO circulated to ground level;
- 4 District-funded aircraft- and ground-based research by University of California, Davis has found that summertime air masses entering the San Joaquin Valley from offshore consistently contain 50-60 ppb of ozone.

While the District and other affected air districts cannot influence the sources of TBO, a fairness clause in the federal Clean Air Act does allow for subtracting TBO concentrations from any standard attainment test, assuming a compelling scientific case can be made. As a result, additional research is planned in order to definitively estimate TBO's contributions to ground concentrations.



**OUTDOOR ACTIVITY RISKS (ROAR)**

The health risk of outdoor exertion varies significantly, depending on several factors:

- > The current pollution concentration,
- > The duration and intensity of exercise, and
- > Individual sensitivity to ozone or PM2.5

In order to help people avoid outdoor activity during periods of poor air quality, Air District staff, working with university health researchers, have established Real-Time Outdoor Activity Risk (ROAR) levels. These levels are numerically ranked from 1 to 5 (good to very bad), depending on the pollution concentration level.

Researchers designed these guidelines with sensitive individuals in mind, especially children. They provide schools and youth organizations with valuable guidance for determining if and when air quality in their area is conducive to sports practices, physical education or other outdoor activities.

**RAAN Brings Neighborhood Data Home**

Each day, Valley Air District forecasters analyze the latest meteorological data in order to predict how much air pollution, and of what kind, we can expect for the following day for each county in the Valley. Known as the Air Quality Index or AQI, this daily air-quality forecast is one of the most valuable and recognizable tools the Air District produces.

But given the size of the Valley and its counties, significant differences in air quality can exist within each county.

**REAL-TIME AIR ADVISORY NETWORK (RAAN)**

Faced with the critical need for timely, accurate and easy-to-access air-quality information, the Air District's scientific and technical staff have developed a first-of-its-kind program called the Real-Time Air Advisory Network (RAAN). RAAN delivers current air-quality data from its extensive monitoring network directly to a subscriber's computer. Instead of just knowing what the pollution peak will be on a given day in a particular county, residents can determine the air quality based on the monitor closest to their residence, school or workplace.

**HOW IT WORKS**

Unlike the daily forecast, RAAN does not forecast air pollution. Instead, RAAN gives users round-the-clock access to current air pollution levels through a Valley-wide network of ozone and PM 2.5 monitors. Each hour, these monitors calculate the local ozone or PM 2.5 concentration level and send that average to the District website about 18 to 25 minutes after the hour in question. Not only can RAAN subscribers access their local air quality 24/7, they can sign up to receive automatic text or email notifications when air quality deteriorates.



	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5
RECESS (15MIN)	NO RESTRICTIONS	INSURE THAT SENSITIVE INDIVIDUALS ARE MEDICALLY MANAGING THEIR CONDITION.*	SENSITIVE INDIVIDUALS SHOULD EXERCISE INDOORS OR AVOID VIGOROUS OUTDOOR ACTIVITIES.*	EXERCISE INDOORS OR AVOID VIGOROUS OUTDOOR ACTIVITIES. SENSITIVE INDIVIDUALS SHOULD REMAIN INDOORS.*	NO OUTDOOR ACTIVITY. ALL ACTIVITIES SHOULD BE MOVED INDOORS.
P.E. (1HR)	NO RESTRICTIONS	INSURE THAT SENSITIVE INDIVIDUALS ARE MEDICALLY MANAGING THEIR CONDITION.	SENSITIVE INDIVIDUALS SHOULD EXERCISE INDOORS OR AVOID VIGOROUS OUTDOOR ACTIVITIES.	EXERCISE INDOORS OR LIMIT VIGOROUS OUTDOOR ACTIVITIES TO A MAXIMUM OF 15 MINUTES. SENSITIVE INDIVIDUALS SHOULD REMAIN INDOORS.	NO OUTDOOR ACTIVITY. ALL ACTIVITIES SHOULD BE MOVED INDOORS.
ATHLETIC PRACTICE & TRAINING (2-4HRS)	NO RESTRICTIONS	INSURE THAT SENSITIVE INDIVIDUALS ARE MEDICALLY MANAGING THEIR CONDITION.	REDUCE VIGOROUS EXERCISE TO 30 MINUTES PER HOUR OF PRACTICE TIME WITH INCREASED REST BREAKS AND SUBSTITUTIONS. INSURE THAT SENSITIVE INDIVIDUALS ARE MEDICALLY MANAGING THEIR CONDITION.	EXERCISE INDOORS OR REDUCE VIGOROUS EXERCISE TO 30 MINUTES OF PRACTICE TIME WITH INCREASED REST BREAKS AND SUBSTITUTIONS. SENSITIVE INDIVIDUALS SHOULD REMAIN INDOORS.	NO OUTDOOR ACTIVITY. ALL ACTIVITIES SHOULD BE MOVED INDOORS.
SCHEDULED SPORTING EVENTS	NO RESTRICTIONS	INSURE THAT SENSITIVE INDIVIDUALS ARE MEDICALLY MANAGING THEIR CONDITION.	INCREASE REST BREAKS AND SUBSTITUTIONS PER CIF GUIDELINES FOR EXTREME HEAT.** INSURE THAT SENSITIVE INDIVIDUALS ARE MEDICALLY MANAGING THEIR CONDITION.	INCREASE REST BREAKS AND SUBSTITUTIONS PER CIF GUIDELINES FOR EXTREME HEAT.** INSURE THAT SENSITIVE INDIVIDUALS ARE MEDICALLY MANAGING THEIR CONDITION.	EVENT MUST BE RESCHEDULED OR RELOCATED.
PM2.5 RANGE	1 – 15 µg/m <sup>3</sup>	16 – 35 µg/m <sup>3</sup>	36 – 55 µg/m <sup>3</sup>	56 – 75 µg/m <sup>3</sup>	>75 µg/m <sup>3</sup>
OZONE RANGE	1 – 59 ppb	60 – 75 ppb	76 – 95 ppb	96 – 115 ppb	>115 ppb

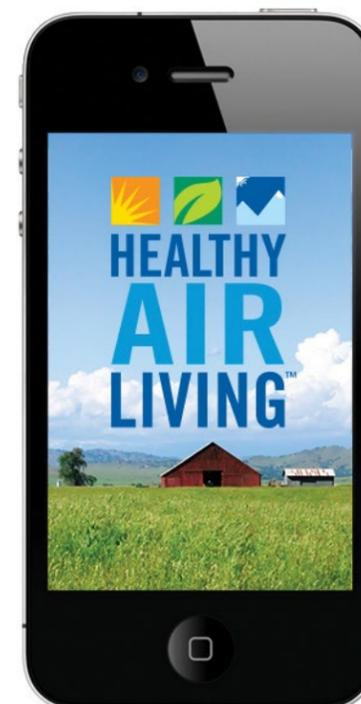
## Healthy Air Living Schools

A key component of the Air District's overall outreach strategy is air-quality education for children. With a foundation in several popular, perennial projects, the District added and expanded important components in 2012 that significantly broadened the reach of the District's message and engaged new segments of the Valley's youngest population.

In 2012, the District reached out with a Request for Proposals to any qualified organization for operating the critical Healthy Air Living Schools outreach program. The Central California Asthma Collaborative emerged as the best-qualified and networked organization to partner with the Air District on this important project. With CCAC's relationships with asthma coalitions and school-based medical professionals throughout the Valley, the District and its new partner will be able to offer training for school administrators, educators, students and parents to understand the health implications, risks and recommended protective measures associated with air-quality flags and RAAN notifications.

Healthy Air Living Schools, which stresses an anti-idling message at Valley school sites in addition to air quality flag placement and RAAN notifications, is free to any public or private school in the Valley. Brochures, posters and signs to be placed near student drop-off and pick-up points were developed by the District to reinforce the key message of the program that idling a vehicle is a preventable pollution source that endangers student health. Schools can learn more about this program by visiting: [http://www.valleyair.org/Programs/FlagProgram/AirQualityFlagProgram\\_Idx.htm](http://www.valleyair.org/Programs/FlagProgram/AirQualityFlagProgram_Idx.htm)

The District also entered into a partnership last fiscal year with Valley Public Television to develop air-quality awareness through the Kids Count program and the promotion of the free Healthy Air Living children's educational kit. This free kit is a version of the District's popular elementary school curriculum, but it is directed toward parents and child-care providers by way of Valley PBS's top-rated children's daytime programming. Order can be placed online, by fax or by phone for the free kits, which are compiled into two grade levels, bringing air-quality education home to children through fun and interesting activities. Valley Public Television reaches residents from Kern through Merced counties, and is working with District staff to build a partnership with Sacramento's public television station to air the Kids Count series. Additional information about these programs can be found at <http://www.valleyair.org/kids/KidsElemCurr.htm>.



### iPhone App

A new iPhone application released in late 2012 gives Valley residents instant information for health protection by delivering real-time Valley air-quality data quickly and conveniently.

The new, free Valley Air app provides easy access to the most-used District tools:

- > The pioneering Real-time Air Advisory Network (RAAN) data
- > Daily air-quality forecasts
- > Air quality flag program forecasts
- > Winter wood-burning forecasts
- > Quick links that directly dial the District when you need assistance right away, such as to the smoking-vehicle complaint hotline

Easy to navigate and visually appealing, the Valley Air app can be downloaded through the iPhone app store or iTunes.

This iPhone app and other smartphone applications that are planned for release in 2013 are part of the District's continued efforts to provide real-time air-quality information through multiple means to the diverse residents of the Valley.

## State of California Audits District Incentive Programs

### District programs lauded as shining examples

Since 1992, the District has been providing financial incentives for a variety of strategies to voluntarily reduce emissions and improve the quality of life for all Valley residents. In total, the District has provided close to \$500 million in incentives from a variety of local, state and federal sources. These efforts have resulted in a reduction of more than 98,000 tons of harmful emissions. Our incentive programs have become models for other air districts throughout California.

The District is regularly audited by independent outside agencies including professional accountancy corporations on behalf of the federal government, the California Air Resources Board, the California Department of Finance and the California Bureau of State Audits. These comprehensive and rigorous independent audits focus on every aspect of our incentive programs including our programmatic and fiscal controls. These audits are conducted to ensure that the public funds to which we have been entrusted are spent appropriately and in the manner in which they were intended. The District welcomes these opportunities to gain valuable feedback regarding our implementation of these critical programs.

Recently, the District's incentive programs were audited by the state Air Resources Board and the state Department of Finance. This audit included a thorough review of several of our largest and most complex incentive programs totaling more than \$215 million over a four-year period.

Overall, the results of the audits confirmed that the District's incentive programs are fiscally sound and are "efficiently and effectively achieving their emission reduction objectives." ARB's audit report concluded that the District is meeting or exceeding all requirements for the expenditure of funds and commended the District for administering the Proposition 1B Lower Emission School Bus Program on behalf of 18 other local air districts.



## Tune In, Tune Up

California Council for Environmental and Economic Balance, a respected, statewide, nonpartisan business and labor coalition, awarded the Valley Air District with the 2012 Edmund G. "Pat" Brown Award for its innovation in collaboration and public-private partnerships for the Tune In, Tune Up car testing and repair program.

Tune In, Tune Up is a program designed to identify and repair high-emitting vehicles. The Tune In, Tune Up Program is operated in partnership with Valley Clean Air Now, which has a long history of successfully implementing this program, and excels at reaching residents in environmental justice communities who otherwise may not be able to afford costly vehicle repairs. Reaching this key demographic is essential as the emission reductions are most needed in low-income communities, which are historically home to the greatest percentage of high-emitting vehicles.

Through 12 weekend events held throughout the Valley in 2012, participating residents could have their vehicles screened to determine if they qualified for emissions-related repairs at little to no cost to them. In the Tune In, Tune Up program, vehicle owners bring their vehicles to one of the program's weekend events, where an emissions test is performed to determine the likelihood of that vehicle failing the required biennial smog test. Owners of vehicles that fail this initial screening are provided with vouchers that are redeemable at participating smog shops for up to \$650 in emissions-related repairs. Once the vehicle is repaired, confirmatory smog tests are conducted that can then be used for vehicle re-registration purposes. In 2012, more than 2,900 vouchers were issued to Valley residents through these weekend events.

The effect of mobile sources emissions on the Valley's air quality has been well documented. Over 80 percent of nitrogen oxides (NOX) emissions are directly related to mobile sources. NOX is the key pollutant responsible for the formation of ozone and PM2.5. As such, the District focuses considerable resources and incentive funding toward a variety of programs to reduce emissions from this important category.

### 2012 EVENTS

FEBRUARY 25, 2012 – LEMOORE	SEPTEMBER 29, 2012 - PORTERVILLE
MARCH 24, 2012 – VISALIA	OCTOBER 20, 2012 – CHOWCHILLA
JULY 14, 2012 – BAKERSFIELD	NOVEMBER 3, 2012 – LEMOORE
AUGUST 4, 2012 – TURLOCK	NOVEMBER 17, 2012- TULARE
AUGUST 25, 2012 – FRESNO	DECEMBER 1, 2012 – STOCKTON
SEPTEMBER 8, 2012 – MERCED	DECEMBER 15, 2012 - BAKERSFIELD





## Technology Advancement Program

In March 2010, the District's Governing Board approved the creation of the Technology Advancement Program, a strategic and comprehensive program to identify, solicit and support technology advancement opportunities. The program's primary goal is to advance technology and accelerate the use of innovative, clean-air technologies that can reduce emissions as rapidly as practicable. Despite major reductions in emissions and corresponding improvements in air quality, the San Joaquin Valley continues to face difficult challenges in meeting federal air-quality standards. It is virtually impossible for the Valley to attain the new standards for ozone and particulates without significant advancements in low-emission technologies for mobile and stationary sources.

The Technology Advancement Program has had two rounds of funding and received more than 60 proposals for clean-technology projects. The District has committed to funding 11 of the projects totaling \$3 million. Many of these projects have put into operation clean technologies that are reducing our current emissions, as well as providing useful data to improve these technologies for future clean-air projects. The City of Manteca has recently received two advanced serial-hydraulic hybrid refuse trucks

as a clean alternative to conventional diesel refuse trucks, and will be demonstrating the system in their daily curbside pick-up. Another project testing a thermal energy storage system at the DLM Ranch in Stanislaus County enables round-the-clock irrigation from a solar-thermal array as an alternative to remove internal-combustion engine irrigation pumping. In Kern County, a zero-emissions, autonomous robotic agricultural spray rig is beginning field testing. In Tulare County, a project demonstrated a modification to traditional methods used for commercial scale composting of organic wastes. Other funded projects are moving forward as expected through various demonstration stages, including equipment and prototype manufacturing and deployment.

Building on the successes of the previous proposal requests, the District further allocated \$4 million in incentive money for a third round of Technology Advancement Program funding. To that end, District staff issued a competitive RFP in September and received proposals for 40 projects, requesting approximately \$20 million in funding. The District is evaluating the proposals and will be recommending funding to the Governing Board in the next few months.

The Valley's air-quality challenges are not isolated within the boundaries of the air basin. Technology development can benefit regional and state air quality. Strategies for reducing emissions in the Valley can be enhanced through partnerships and collaborations with other air districts and state agencies. In fact, the District is participating with EPA Region 9, the state Air Resources Board, South Coast Air Quality Management District and other agencies in the Clean Air Technology Initiative (CATI), where these partners aim to use available resources through research and technology demonstration efforts.

District staff will continue to search for opportunities to support projects that build the air-quality technology research and demonstration capacity of colleges and universities in the Valley, improving the ability of local institutions to engage in future clean-technology projects that are specifically suited to the Valley's needs.



## Tractor Replacement Program

In recent years, the District has partnered with the USDA Natural Resource Conservation Service (NRCS) to fund the replacement of off-road mobile agricultural equipment. The goal of the program was to replace old, high-polluting diesel tractors and other agricultural equipment with new, cleaner equipment. During the first year of the program, the District allocated \$2.7 million to co-fund 118 of the 295 new tractors funded by the NRCS.

In 2010, after seeing the success of the program and the potential for significant cost-effective emission reductions, the District launched its own, independent agricultural equipment replacement program. To ensure the integrity of both programs, the District and the NRCS worked in a closely coordinated fashion with similar funding levels and other program requirements. The goal of each program is to provide an incentive equal to approximately 50 percent of the cost of the new equipment with the remaining cost share contributed by the applicants. As expected, the interest in the program remained extremely strong. During the second phase of the program, the District obligated more than \$21 million and replaced 713 tractors with an average District incentive of approximately \$30,000.

With demand for both programs far exceeding the available funding, the District and the NRCS have opened subsequent phases of the program. To date, the District has obligated more than \$43 million and replaced more than 1,400 tractors, and the outlook for this important and well-received program appears very strong into the future.



## Investing in our Valley

The largest area of growth at the Valley Air District is in its grants and incentives program. In fewer than 10 years, awards through the District have increased more than tenfold, reflecting the ongoing commitment of the District, business and industry and Valley residents in making clean-air investments that will benefit all of us.

During fiscal year 2011-12, more than \$99 million found its way to projects that reduced more than 10,200 tons of lifetime emissions in the Valley air basin while providing needed support for Valley jobs and economy.

More than \$28 million was invested in offsetting the cost of replacing heavy-duty on and off-road engines, including farm equipment vehicles and agricultural pumps. In addition to funds paid out, more than 2,000 new contracts were issued and executed.

To date, the District has awarded nearly **\$500 MILLION** in incentive funding resulting in more than **98,000 TONS** of lifetime emission reductions.

During the 2011-12 fiscal year, the District executed **4,260 AGREEMENTS** for more than **\$99 MILLION**.

These projects are expected to reduce more than **10,200 TONS** of lifetime emission reductions.

The health of Valley schoolchildren and air-quality benefits at large benefitted from more than \$46 million to replace and repower aging, diesel-powered school buses. This program hits close to home for a large percentage of Valley residents. Included in that was the nation's first all-electric school bus, which was purchased by the Kings Canyon Unified School District and is a model for other such projects around the country.



The District funded **859 NEW WOOD STOVES** with **\$500,000** in program funds.



More than **\$24 MILLION** was used to replace or retrofit **533 HEAVY-DUTY, ON-ROAD DIESEL TRUCKS**.



The District funded **\$1.4 MILLION** for **50 ELECTRIC UPS VEHICLES** delivering in the Valley.



The District issued over **2,900 REPAIR VOUCHERS** in **12 TUNE-IN, TUNE-UP** events throughout the Valley.



**685 OFF-ROAD VEHICLES** were repowered or retrofitted for a total of nearly **\$21 MILLION**.



## Grants

### ELECTRIC VEHICLE WORKSHOPS/GRANTS

Reducing pollution from mobile sources will be challenging without the mass adoption of plug-in electric vehicles (PEV) throughout the region. Toward that end, the Air District is working to prepare the Valley for PEVs by developing plans for electric vehicle charging stations, as well as incentive programs to offset the costs.

The Department of Energy awarded \$75,000 to the Air District as part of the California PEV Readiness Project, a statewide, multi-agency collaboration. During this one-year project, the District will work with other agencies to create a statewide, community-based PEV readiness plan. In addition, the District will organize activities to prepare for more PEV efforts; conduct PEV education, outreach and communication activities; share recommendations and best practices with Valley stakeholders and residents, and help implement as many recommendations as possible. The Valley's regional workshop in May 2012 was well-attended and received enthusiastic reviews from attendees.

The Air District was also awarded \$200,000 from the California Energy Commission to build upon the California PEV Readiness Project and develop a more comprehensive PEV Readiness Plan specifically for the Valley. The regional plan will focus on core PEV readiness elements and will provide guidance to address the potential barriers unique to our Valley that hinder PEV growth.

To help coordinate and address the concerns of such a wide range of stakeholders, a regional PEV Coordinating Council comprised of industry and local representatives has been established. The PEVCC will address barriers, make recommendations for future planning activities, and provide coordination and outreach to communicate best practices to everyone involved in PEV readiness efforts throughout the Valley.

### PUBLIC BENEFIT GRANTS PROGRAM

Approved by the Governing Board in 2011, the Public Benefit Grants Program funds a wide variety of clean-air, public benefit projects that will directly benefit Valley residents. Eligible applicants are public agencies and public educational institutions within the geographic boundaries of the San Joaquin Valley air basin. The program has two components: New Alternative-Fuel Vehicle Purchase and Advance Transit and Transportation. A third component was released in fall 2012 to fund Alternative-Fuel Infrastructure projects. To date, the District has received 113 applications for more than \$7 million in requested funds for the New Alternative-Fuel Vehicle Purchase component. The Advanced Transit and Transportation component was released to competitive bids and 24 proposals were received seeking more than \$26 million in funding.

### DISTRICT ADMINISTERS SCHOOL BUS PROGRAM FOR OTHER DISTRICTS

The primary goal of the Lower-Emission School Bus Program (LESBP) is to reduce schoolchildren's exposure to both cancer-causing and smog-forming pollution. In addition to administering the program in the San Joaquin Valley, the Air District administered the program for 18 other local air agencies throughout the state of California. During fiscal year 2011-2012, the Valley Air District expended its entire allotment of LESBP funds – more than \$39 million -- to retrofit 899 school buses and replace 219 high-polluting school buses in the Valley. In the other air districts, more than \$25 million was expended through this program to replace 150 school buses and retrofit 444 high-emitting public school buses. The program also came to an end during the last fiscal year with a total expenditure amount of \$61,147,203.16 for buses within the SJVAPCD and the other air districts.

### BURN CLEANER

The Burn Cleaner Wood Stove Change-out Program gives San Joaquin Valley residents incentives to reduce emissions from wood-burning devices by replacing older, dirtier units with cleaner gas devices, clean-burning pellet devices or cleaner burning EPA Phase II-certified wood-burning devices. To date, the District has received more than 2,800 applications and provided more than \$1.6 million in funding.

### SHORT SEA SHIPPING

In 2011-12, the District provided \$750,000 to the Port of Stockton to complete the Short Sea Shipping project, which will reduce emissions from trucks traveling between the Valley and the Port of Oakland. Containers that would otherwise be hauled by trucks to the Port of Oakland are loaded onto a barge at the Port of Stockton and moved by tug boat to awaiting ships at Oakland. The Short Sea Shipping project reduces criteria pollutants and greenhouse gas emissions related to goods movement, alleviates freeway congestion, creates jobs and improves the overall system for moving goods throughout California.

### LAWN MOWERS

The highly popular, consumer-oriented Clean Green Yard Machines program helps clean the San Joaquin Valley's air through incentives for retiring gas-powered mowers in favor of nonpolluting, electric mowers. The new Cordless Zero-Emission Commercial Lawn and Garden Equipment Demonstration Program demonstrates the performance and durability of electric equipment in non-residential applications to accelerate market acceptance and build upon the progress already made in the residential sector. To showcase developments in leading edge, low-emission lawn care technology, the District hosted the Valley's first Lawn Care Conference in March 2012, which featured speakers and panel discussions by industry professionals.



## Rules & Regulations

The Valley Air District continues its leadership in developing groundbreaking regulatory strategies to reduce emissions. Tough, innovative rules such as the District's rules for indirect source review, residential fireplaces, glass manufacturing and agricultural burning have set benchmarks for California and the nation. Of the 26 control measures in recent air-quality plans, the District has adopted all but one for residential furnaces, which is scheduled for adoption in 2014 to allow time for technology development. New rule commitments for future years are being formulated as a result of new plans, such as the recently adopted 2012 PM2.5 Plan. The following rules and amendments highlighted fiscal 2011-12:

**ORGANIC MATERIAL COMPOSTING OPERATIONS (RULE 4566)** This rule reduces VOC emissions from organic material composting operations. Adopting this first-of-its-kind rule required extensive research and stakeholder involvement. The District coordinated a multi-agency, \$200,000 composting field study to provide a thorough analysis and scientific justification behind proposed rule requirements. District staff conducted several composting facility site visits, technical workgroup meetings and public workshops with various stakeholders, including composting operators, state Air Resources Board, California Department of Resources Recycling and Recovery, agricultural groups, environmental advocates, other air districts, and city and county agencies. These combined efforts culminated in the rule's feasible, cost-effective measures, reducing VOC emissions by about 30 percent. Estimated reductions: 19.2 tons per day of VOC.

### Emission Reduction Commitments and Achievements

	Plan Commitments	Adopted Rules	Assessment
<b>NO<sub>x</sub></b>	No commitment for additional reductions from 2011-12 rules	Adopted rules reduce emissions by <b>1.43 TONS PER DAY</b>	Reductions <b>EXCEED COMMITMENT</b>
<b>VOC</b>	Reduce emissions by <b>10 TONS PER DAY</b>	Adopted rules reduce emissions by <b>19.2 TONS PER DAY</b>	Reductions are <b>92% ABOVE TARGET</b>

No SO<sub>x</sub> or PM<sub>2.5</sub> commitment

#### **INTERNAL COMBUSTION ENGINES (RULE 4702)**

This rule amendment strengthened the current NO<sub>x</sub> limits, added SO<sub>x</sub> requirements, expanded the rule applicability to engines rated between 25 to 50 bhp, and provided the option to pay an annual fee to achieve equivalent NO<sub>x</sub> emission reductions through the District's grant program. Estimated reductions: 1.43 tons per day of NO<sub>x</sub>.

Amendments to the following rules in 2011 ensured that they satisfy Clean Air Act requirements for reasonably available control technology (RACT) and allow for full EPA approval:

#### > **POLYESTER RESIN OPERATIONS (RULE 4684)**

Amendments added new specialty coating categories, reduced some VOC limits and raised control-system effectiveness limits to match existing limits in other air districts.

> **EXEMPTIONS (RULE 2020)** Amendments clearly identified the specific exempted sources/equipment rather than citing the California Health and Safety Code.

#### > **CRUDE OIL PRODUCTION SUMPS (RULE 4402)**

Amendments prohibited first stage sumps, updated test methods, clarified existing requirements, and added new requirements for recordkeeping and for use of emergency pits.

#### > **SOLID FUEL FIRED BOILERS, STEAM GENERATORS AND PROCESS HEATERS (RULE 4352)**

Amendments reduced NO<sub>x</sub> emission limits, added definitions and removed outdated sections for rule clarity.

#### > **WASTEWATER SEPARATORS (RULE 4625)**

Amendments added new definitions for improved clarity, increased required vapor control efficiency, removed all exemptions, updated test methods and included new recordkeeping and inspection requirements.

#### > **POLYSTYRENE, POLYETHYLENE, AND POLYPROPYLENE PRODUCTS MANUFACTURING (RULE 4682)**

Amendments separated the VOC limits for foam extrusion facilities and expandable polystyrene (EPS) foam facilities and added a daily VOC limit for EPS facilities.



## Permitting

**WORKING WITH BUSINESS** The District issues or denies permits, registrations and plan approvals for businesses operating more than 30,000 non-mobile sources of air contaminants, and tracks and assesses the impacts of these facilities' annual pollutant emissions.

**AUTHORITIES TO CONSTRUCT AND PERMITS TO OPERATE** Stationary sources of air pollution – from gas stations and body shops to refineries and power plants — must obtain air permits from the District before constructing or operating. The permitting process involves two steps:

1. The applicant must apply for an Authority to Construct (ATC) permit. This is an important opportunity for the project proponent, the District and interested public 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.
2. 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 about 300 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.

### PERMITS BY THE NUMBERS 2011-12

- > 7,055 AUTHORITY TO CONSTRUCT PERMITS ISSUED
- > 227 NEW PERMITS TO OPERATE ISSUED
- > 225 PERMIT-EXEMPT EQUIPMENT REGISTRATIONS ISSUED
- > 238 NEW TITLE V PERMITS ISSUED TO 13 FACILITIES
- > 8,784 TITLE V PERMIT RENEWALS ISSUED TO 82 FACILITIES
- > 1,313 TITLE V PERMIT MODIFICATIONS
- > 680 CONSERVATION MANAGEMENT PRACTICES PLANS ISSUED
- > 333 ETRIP PLANS

**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 District's Emission Reduction Credit (ERC) bank allows facilities that make voluntary emission reductions 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 from facilities that have made voluntary emissions reductions. In January 2012, greenhouse gases were added to the list of pollutants that can be banked under this program.

**AIR TOXICS PROGRAM** 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 toxic emissions increases, 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 more than 5,000 facilities and other information sources, calculates each facility's annual emissions, and reports the emissions to the state Air Resources Board. This inventory then acts as a cornerstone of District attainment plans.

**CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)** District staff carefully reviews land developers' project proposals, as well as new District permits, plans and rules, for compliance with this state law that requires projects' environmental impacts, including greenhouse gases, be assessed and publicly disclosed, and that any significant impacts be offset to the extent feasible.

**GREENHOUSE GAS EMISSIONS INVENTORY SERVICES** District staff has developed protocols and processes for preparing inventories of greenhouse gases from local government operations and communities. These inventories are needed by cities and counties as they develop planning documents and climate change action plans, and the District will continue to offer a consistent, high-quality and low-cost emissions inventory preparation service to agencies in need.

**INDIRECT SOURCE REVIEW (ISR)** Indirect sources are buildings or facilities, such as new residential housing and shopping center developments, that attract mobile sources of emissions (for example, vehicles) but may not directly emit pollution. The District's ISR group analyzes applications to assess the potential indirect emissions created by a development project, calculates the offset proposed by the applicant, and may assess a development mitigation fee if the offset proposed by the applicant is not sufficient. 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 (ET RIP)** The District has developed an easy-to-use online eTrip Plan submittal program for employers with more than 100 eligible employees at a single location. Phase 3 eTrip plans are due September 1, 2013. [www.valleyair.org/Programs/Rule9410TripReduction/eTRIP\\_main.htm](http://www.valleyair.org/Programs/Rule9410TripReduction/eTRIP_main.htm)

**SMALL BUSINESS ASSISTANCE (SBA)** The District operates an effective SBA program to provide assistance to stakeholders who 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.

- > 232 EMISSION REDUCTION CREDIT CERTIFICATES ISSUED OR TRANSFERRED
- > 903 TOXIC AIR CONTAMINANT RISK-MANAGEMENT REVIEWS PERFORMED
- > 1820 ANNUAL EMISSIONS INVENTORY STATEMENTS AND SURVEYS PROCESSED
- > 1367 CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) REVIEW REQUESTS PROCESSED
- > 695 CEQA COMMENT LETTERS AND 47 CEQA DOCUMENTS PREPARED
- > 214 INDIRECT SOURCE REVIEW APPLICATIONS PROCESSED



## Enforcement

The District ensures compliance with federal, state and District air quality rules and regulations by conducting a robust inspection program along with a full range of educational and compliance assistance activities.

**INSPECTIONS** The District routinely conducts detailed inspections and audits of equipment at new and existing facilities to ensure compliance with applicable rules and regulations. Source categories include petroleum and chemical refining, oil production, gasoline dispensing, dry cleaning, power plants, manufacturing and agriculture. The District also inspects other emission-producing activities, such as asbestos demolitions and renovations, construction, residential wood burning, agricultural burning, hazard-reduction burning and idling diesel trucks.

**AIR POLLUTION COMPLAINTS** The District responds to approximately 3,000 air pollution complaints from members of the public each year. Public complaints are often the initial indicator of air-quality issues in a community. As such, the District places the highest priority on responding to air pollution complaints and operates an on-call program to ensure timely response to complaints, even during non-business hours.

**SOURCE TESTING AND MONITORING** The District monitors emissions from facilities using a variety of methods including vans outfitted with specialized monitoring equipment, hand-held portable emissions analyzers and leak detectors, and staff certified to read visible emissions. When non-compliance is suspected, an immediate compliance test can often lead to timely corrective action. In addition to Compliance and Enforcement work, the District also performs testing and monitoring in support of permitting, rule development, planning and emission inventory efforts.

**COMPLIANCE ASSISTANCE AND EDUCATION** The District provides a full range of educational and compliance assistance activities to proactively aid facilities and individuals in complying with air quality rules and regulations. The District provides this assistance and education through training classes, certification programs, bulletins, email blasts, workshops and one-on-one meetings.

**ENFORCEMENT ACTIONS** When violations of rules and regulations are discovered, the District delivers an appropriate level of enforcement action to ensure an expeditious return to compliance, and assesses fines to deter future violations. Disputed cases are generally handled in-house and settled through a mutual settlement process. On the rare occasion that a case cannot be settled through the mutual settlement process, the case may be transferred to District Counsel for more formal action. In fiscal year 2011-12, the District processed nearly 2,900 issued notices, transferred 296 cases to District Counsel, and collected approximately \$5 million in settlements.

**HEARING BOARDS** The Hearing Boards are quasi-judicial panels that act independently of the District. They are authorized by state law to provide temporary relief from District rules and regulations if strict conditions prescribed under the California Health and Safety Code are met. Any excess emissions associated with the temporary relief granted by the Hearing Boards represent only a very small fraction of the Valley's total emission inventory and cannot by law be likely to interfere with the attainment and maintenance of health-based air quality standards or cause a public nuisance. In fiscal year 2011-12, 114 variance petitions were heard at 55 hearings.

### COMPLIANCE BY THE NUMBERS 2011-12

- > 31,090 UNITS INSPECTED
- > 3,239 PUBLIC COMPLAINTS INVESTIGATED
- > 1,993 OPEN BURN SITES INSPECTED
- > 3,792 INCENTIVE FUNDING UNITS (I.E., TRUCKS, ENGINES) INSPECTED
- > 1,112 ASBESTOS PROJECTS REVIEWED AND INSPECTED

Comment by Kerry Drake  
Associate director, Air Division, Region 9,  
U.S. Environmental Protection Agency

On behalf of Deborah Jordan, director, Air Division,  
Region 9, U.S. EPA

### IN YOUR VIEW, WHAT IS/ARE THE DISTRICT'S MOST SIGNIFICANT ACHIEVEMENT(S) IN THE PAST 20 YEARS?

The District's most significant achievements have been working with EPA to develop approvable plans to attain the health-based standards for PM10, PM 2.5, and ozone in the face of adverse meteorology and geography and with sources not traditionally included in air quality plans across the country, such as agriculture.

### SOME OF THE ACCOMPLISHMENTS OF WHICH YOU ARE PROUDEST IN THE VALLEY'S PROGRESS TO CLEAN AIR.

- \* Developing reasonable yet best-in-the-nation controls for dust and ozone pollutants from agricultural sources.
- \* Developing controls for residential wood burning because of the tremendous positive impact on public health, despite the (initial) unpopularity of the program.
- \* Developing the first indirect source review rule in the nation.
- \* Building substantial incentive programs and a technology-advancement program to accelerate progress toward clean air.

### MEMORABLE MOMENTS IN YOUR RELATIONSHIP WITH THE DISTRICT.

There are many, but the one that stands out the most is when EPA was able to approve, for the first time, a San Joaquin Valley air quality plan. That was the PM10 plan, which ultimately resulted in attainment of that standard.

### WHERE YOU SEE THE VALLEY AND ITS AIR QUALITY ISSUES 20 YEARS FROM NOW?

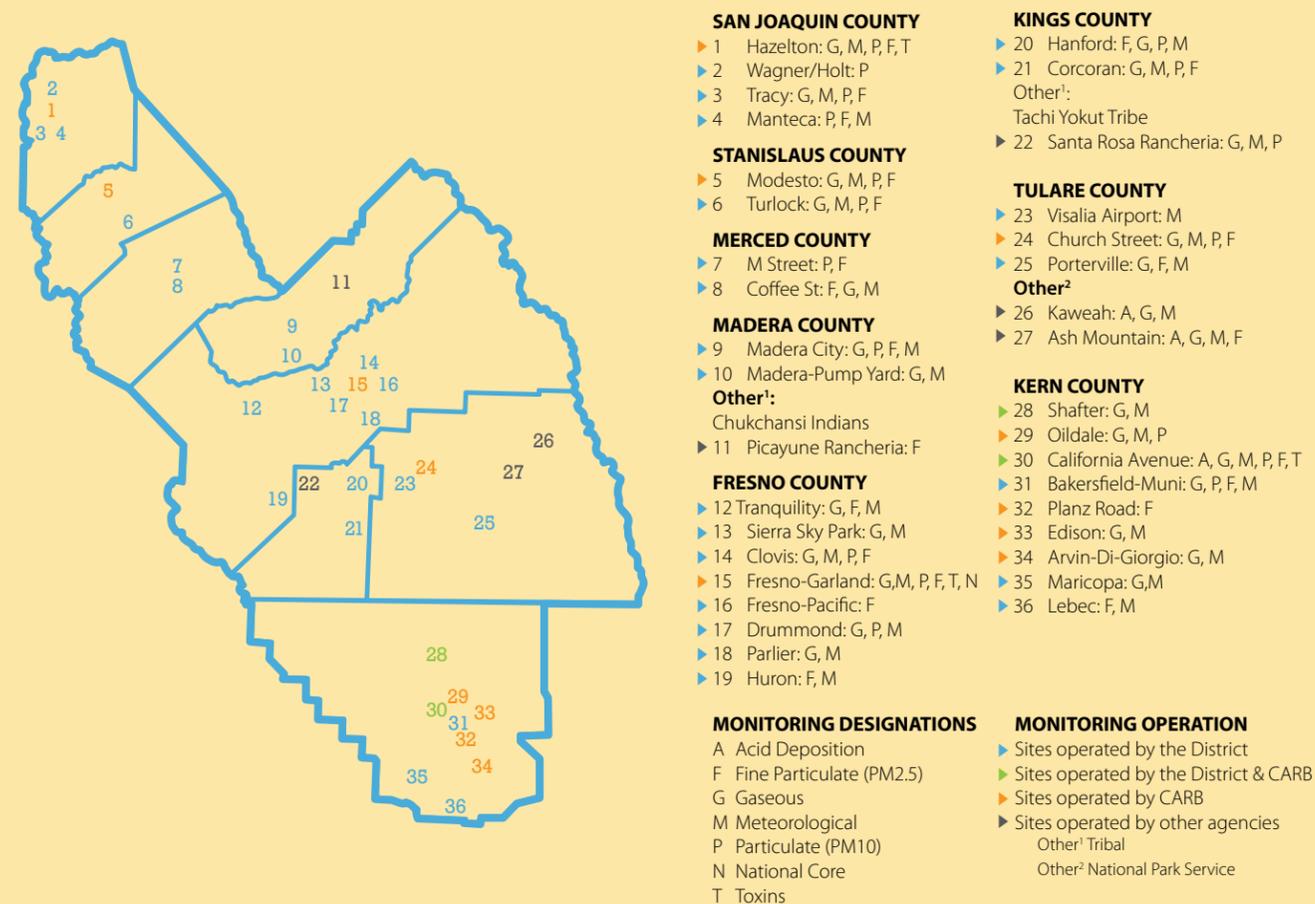
The San Joaquin Valley is a jewel of the nation, feeding us all. We see the Valley continuing to use its amazing resources to innovate and develop new, creative and economically feasible ways to protect the public health of its residents, and provide for a sustainable and prosperous future.

## Air Monitoring

The Valley Air District operates an extensive network of air-quality monitors to support its mission of improving air quality 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 state of air quality to Valley residents so they can keep air quality in mind as the plan their activities. The District also rigorously analyzes collected 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 monitoring equipment repairs. 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. The new Bakersfield Municipal Airport station replaced the Bakersfield station formerly located on Golden State Avenue. The District is also in the process of installing four new near-roadway air monitoring stations in response to new federal mandates. These stations will be located in Fresno, Bakersfield, Modesto and Stockton.

Air Monitoring Sites in Operation August 2012



## Partnerships & Investments

The Air District maintains valuable long-term relationships with public, private and nonprofit groups throughout the Valley in activities that benefit air-quality goals and enfranchise all stakeholders and constituents with a voice in the District's operations.

In addition, new partnerships are constantly forged, enabling the District to get the greatest value from its investments and reach out to diverse communities in ways that are meaningful and effective to them.

### SOME OF THE DISTRICT'S ALLIANCES THIS YEAR INCLUDE:

- > **VALLEY CLEAN AIR NOW** This longtime District partner is a big reason why Tune In, Tune Up was recognized as an outstanding public program this year by the California Council for Environmental and Economic Balance. Because of Valley CAN's operation of these free, emission-testing events, the District was able to double its funding for this valuable program this year, enabling many more low-income Valley residents to obtain critical auto-emission testing and repairs at no cost to them.
- > **LOCAL GOVERNMENT COMMISSION** This group will hold educational leadership forums, advancing clean-air goals related to land use.
- > **KINGS COUNTY ASSOCIATION OF GOVERNMENTS** This organization will prepare a community-wide greenhouse gas emissions inventory.
- > **SAN JOAQUIN VALLEY CLEAN ENERGY ORGANIZATION, GREATER STOCKTON CHAMBER OF COMMERCE AND CALIFORNIA MANUFACTURING TECHNOLOGY CONSULTING** These three organizations received funding for energy-efficiency projects that will reduce emissions.
- > **KERN GREEN** This Bakersfield-based organization will assist in recruiting and retaining new Healthy Air Living Partners, as well as integrate the Partner program into its Green Business Certification Program.
- > **STANISLAUS COUNCIL OF GOVERNMENTS** The District has provided this group with resources to purchase land-use tools to help Valley cities and counties develop land-use scenarios and assess emissions impacts, helping them establish greenhouse gas targets and reduce vehicle miles traveled.

The District was also the recipient during 2011-12 for funding from the state Air Resources Board and U.S. Environmental Protection Agency for grants that provided clean lawn-care equipment, locomotive repowering and statewide school bus retrofitting.

# Overview of the District's Operations

## EFFICIENT. EFFECTIVE. ENTREPRENEURIAL.

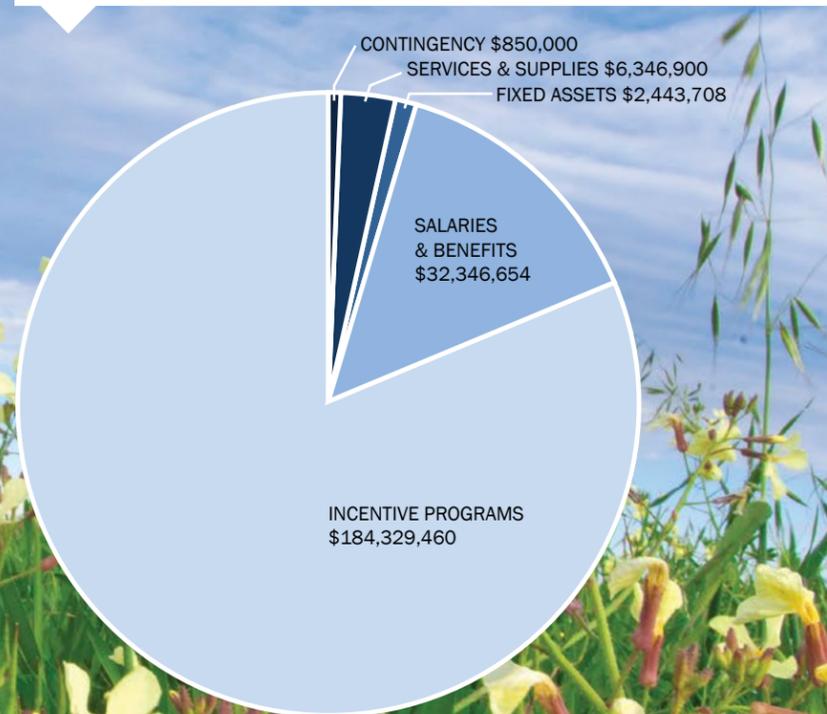
These qualities are so important at the Valley Air District, they are called out in our Guiding Principles. They describe not only the District's approach to cleaning up our air but also the way we conduct our internal operations.

In a rigorous audit by an independent environmental organization, the District's operations were given high marks in every category and favorably compared with much larger agencies for our productivity, cost savings and streamlining.

But this wasn't a one-time deal. This is normal operating procedure for the District each day, year-round. In fact, we have formalized this approach and call it STAR: Service, Teamwork, Attitude and Respect. It addresses the way we work, the way we treat our customers – both internally and externally – and the way we approach our jobs. It guides everything we do.

As the following operational information illustrates, the Valley's residents and stakeholders can be confident that their District is a serious steward of their resources and their trust.

2012-13 District Budget



## Streamlining & Efficiency

**ADMINISTRATIVE SERVICES** Finance staffing remains level as the division continues to absorb new workload through efficiencies gained from the use of improved technology and work flow processes. As an example, for the first time, the 2011-12 Recommended Budget was assembled with internally developed software, rather than Excel spreadsheets, which not only expedited budget development, but improved the accuracy and flexibility of budget reporting.

**AUTOMATED PAYROLL FUNCTIONS** During 2011-12, continued emphasis was placed on developing efficiencies and improving the District's financial infrastructure. The District has automated most of its payroll and leave tracking functions. This improves internal controls and decreases staff time necessary to process payroll. Time savings created by this automation will be allocated to important accounting and reporting functions for the District's expanding grant programs.

**FINANCE AND GRANTS SOFTWARE** The Finance section continues to promote efficiencies through increased usage of both the District's financial software and its grants management program. Significant improvements to the District's general ledger structure are under development. These improvements will provide more timely and accurate information and will ultimately decrease the time necessary to perform grant reporting and to close the fiscal year and prepare annual financial reports.

**ELECTRONIC PAYMENTS** The Finance section has also put into place electronic payment processing for District fees, providing permit holders and others the option to pay fees using a credit or debit card and further streamlining our billing and accounts receivable function.

**DEPARTMENTS COORDINATION** The Operations and Program Support section continues to assume and coordinate increased responsibilities from the operating departments ensuring that support type activities are handled in the most efficient and cost-effective manner.

**NEW TECHNOLOGIES IN INSPECTION PROGRAMS** Two-thirds of the Compliance inspection staff has been equipped with tablet computers, which allow them to complete inspection report forms while in the field; reduce time associated with paperwork; increase field time; and allow additional inspections to accommodate workload increases.

**Air monitoring automation, remote connection and modernization:** A modernization project to enhance air-quality monitoring automation is in the testing phase. When fully implemented, the new systems will reduce travel, equipment maintenance and data review time. CONTINUED ON PAGE 37



## S.T.A.R.

The service teamwork attitude respect (STAR) work culture creates an environment in which the district is continuously improving quality, and streamlining program effectiveness and efficiency, by implementing suggestions from those who know the processes best: district staff.

CONTINUED FROM PAGE 36

**COMPLIANCE STAFF PAPERWORK REDUCTION** A new, automated Title V (major stationary source) report submittal and pre-screening program will significantly reduce time required to review reports submitted by Title V operations, which are expected to increase under new, federal greenhouse gas-permitting requirements.

**REDUCING FIELD STAFF TRAVEL TIME WITH INCREASED ACCOUNTABILITY** Global Positioning System (GPS) units have been installed in all field staff vehicles to increase inspector safety, efficiency and accountability, allowing staff to be deployed quickly and efficiently to respond to unforeseen events such as public complaints and equipment breakdowns at facilities.

**New internet applications:** In the coming year, the District will evaluate several new applications for submitting online complaints and asbestos notification for demolition projects, enhancing stakeholder access to District services and streamlining labor-intensive internal processes.

**EXPANDED WEB-BASED TOOLS FOR REPORT SUBMISSIONS** The District has created web-based tools to help more than 5,000 facilities throughout the air basin submit annual emissions inventory and eTRIP reports. In early 2012, these services were expanded to include electronic permit application forms and associated reports, streamlining submissions and eliminating large amounts of paperwork.

#### **ELECTRONIC PERMITTING AUTOMATION**

In 2011-12, the District implemented the automation of an interdepartmental communication system, called the “change order process,” that the District uses to pass permitting information from the Compliance Department to the Permit Services Department. In the coming year, this system will be enhanced by including automatic permit-issuance for types of projects that do not require prior compliance inspection.

**CEQA STREAMLINING** The District continues to build on its successful, innovative approach of developing Best Performance Standards for commonly permitted equipment, removing greenhouse gas emissions measurement as an obstacle to simple projects, and greatly streamlining the California Environmental Quality Act process.

**AGRICULTURAL PERMITTING ASSISTANCE** During 2011-12, the District, in partnership with several agricultural organizations, developed streamlined application forms and boiler-plate engineering evaluations for more than 20 different agricultural operations and emissions sources.

**TITLE V “MAJOR SOURCE” PERMITTING** In the last year, the District designed and implemented streamlined permitting procedures to process applications for more than 100 facilities now required to obtain new federal operating permits under the streamlined, single-permit, Title V permitting process.

#### **CONTINUED WORK WITH STAKEHOLDERS**

District staff meets quarterly with industry stakeholders to identify opportunities for increased efficiency and productivity. Dozens of new procedures, application forms and evaluation templates have been developed in this cooperative effort, including:

- > Making permits easier to use and understand
- > Assessing any remaining permitting inconsistencies and potential solutions
- > Streamlining emissions assessments for the wine industry
- > Enhancing fast-tracked permitting processes for gas stations, body shops, emergency engines, nut processors, dairy modifications and many more;
- > Expediting electronic conversion of authorities to construct to permits to operate, after equipment is constructed or modified
- > Assuming the federal “prevention of significant deterioration” permitting process
- > Developing nationally-recognized air pollutant dispersion modeling expertise, guidance and tools that greatly streamline a very complex process

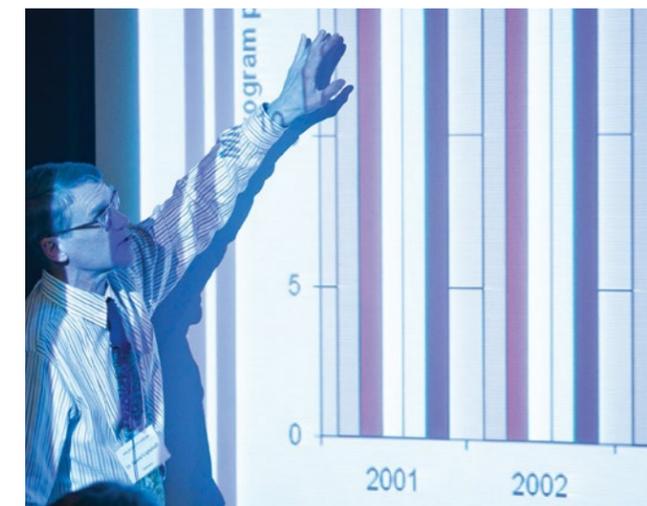
**AIR QUALITY FORECASTING** Staff has developed and implemented several automated modules in their daily Air Quality Index and burn allocation routines that have significantly reduced the time spent on those tasks. In addition, staff is working with state and federal land management agencies to improve communications to reduce time spent dealing with prescribed fires and minimize the public health consequences associated with those fires.

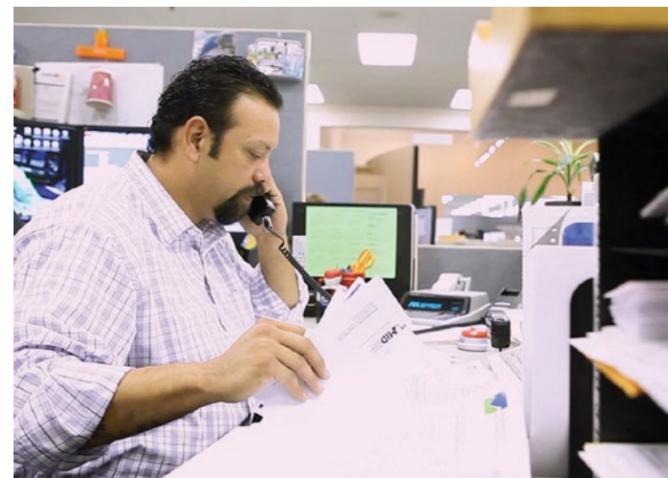
#### **PUBLIC WORKSHOPS AND OUTREACH**

The District continues to present major topics in-person throughout the Valley, and uses its VTC facilities and webcast capabilities for all public meetings. In order to better reach stakeholders in the Valley’s environmental and community groups, the District provides mini-workshop sessions at regularly scheduled meetings of the Environmental Justice Advisory Group. This has reduced the need to hold separate community workshops at night, while enhancing communication with knowledgeable stakeholders.

#### **ELECTRONIC DOCUMENT MANAGEMENT SYSTEM**

In order to streamline operations, archive hardcopy documents and conserve resources, the Planning Section electronically scans all paper documents into a new, electronic document management system. This new system allows staff to search key words and phrases to locate documents, rather than manually searching through file cabinets. The District also conserves paper since newer documents can be electronically stored into the system, rather than being printed for archive storage.





## Administration

Administration is comprised of the executive management staff and several divisions that provide support services for the District's core operations. For budgeting purposes, these functions are structured under: General Administration, District Counsel, Personnel, Administrative Services, Information Technology Services and Outreach and Communications.

### GENERAL ADMINISTRATION

The General Administration Division is responsible for the overall management of the District. Under policy direction of the Governing Board, the Executive Director/APCO and the Deputy APCO represent the Board's interests, and oversee the development and implementation of policies and procedures, formulation of policy alternatives and recommendations, overall management of personnel and resources, and development and implementation of air quality-related programs. Also included in General Administration are the Health Science Advisor, who provides technical support and expert advice to the APCO in addressing health-related issues on a scientific basis; the Senior Policy Advisor, who supports the APCO in advocacy efforts advancing Board-adopted legislative priorities and positions; and the Senior Project Manager, who provides high-level technical support to the APCO and to other District departments.

### DISTRICT COUNSEL

The District Counsel is the chief legal advisor to the Governing Board, the Executive Director/APCO, the three District Hearing Boards, and the San Joaquin Valley-wide Air Pollution Study Agency. Under policy direction of the Governing Board, the District Counsel provides legal representation and advice in both litigation and general law matters.

### PERSONNEL

The Personnel Division performs the full range of personnel support activities for all departments. Specific program activities include: recruitment, classification and pay, records management, legal compliance, labor relations, training, and management/supervisory support. In addition, the Division is responsible for minimizing risk to the District through employee benefits, workers' compensation, and wellness programs.

The Personnel Division has also taken a lead role in the development and implementation of the STAR (Service, Teamwork, Attitude, Respect) work culture program and both internal and external Healthy Air Living program activities.

### ADMINISTRATIVE SERVICES

The Administrative Services Division is responsible for all fiscal and general services related functions of the District, oversight of the District clerical staff, records management, and oversight of the Clerk of the Boards function. The fiscal functions include preparation and control of the District's budget; responsibility for accounting and auditing all District revenues and expenditures; preparation of financial statements and related reports and incentive grant financial management, including state and federal grant reporting. The general service functions include: responsibility for facilities management, fleet maintenance, purchasing, and risk management.

## Information Technology

Always ahead of the curve, the Valley Air District takes pride in bringing the latest conveniences and applications to Valley residents and businesses to streamline services and data delivery, and promote "green" operations strategies. Coupled with the District's entrepreneurial management style, this investment in technology paid dividends over the past year, with several new systems that have improved overall efficiency and customer service, and more on the radar.

### TAKING SOME OF THE PAIN OUT OF BILL PAYMENT

The District now offers a web-based bill payment option to improve customer service and reduce paperwork. This service not only eliminates the need for paper bills but can spare fee payers a trip to the District office, reducing emissions as well as saving time.

### ONLINE ETRIP REGISTRATION, UPDATES

In order to assist local businesses with their participation in air-friendly activities, the District has established the eTRIP (Employer-based Trip Reduction) web site [www.valleyair.org/Programs/Rule9410TripReduction/eTRIP\\_main.htm](http://www.valleyair.org/Programs/Rule9410TripReduction/eTRIP_main.htm). This site provides ideas on what businesses can do to help reduce air pollution in the Valley, allows businesses to register their air-friendly ideas and activities, and tracks their progress in the fight against air pollution.

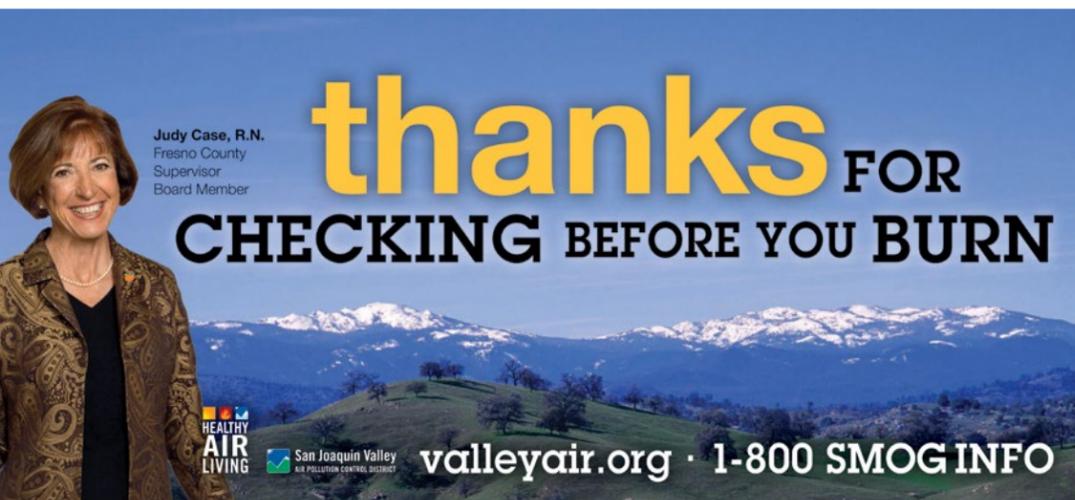
### DIRECT TO YOUR SMART PHONE

A new smart-phone application allows the public to check daily wood-burning status during winter, know the daily air-quality forecast year-round, be aware when Air Alerts are declared in the Valley, and evaluate current air quality conditions in their area through a connection to the District's Real-time Air Advisory Network.

### UPCOMING TECHNOLOGY PROJECTS INCLUDE

- > Online air quality improvement grant application website. This web site will allow grant applicants to file for their grants online and to track the status of their grant application as it moves through the approval process. It will also help District staff process grant applications more efficiently.
- > Online facility information portal for permitted facilities. This resource will allow permitted facilities to conduct business more efficiently with the District by providing electronic filing of permit applications, permit approval status, billing and payment information, and more.
- > Online air pollution complaint website. When members of the public see an air pollution problem situation, they need a fast and effective way of communicating with the District. This web site will provide a way for people to use their smart-phone, tablet computer or PC to quickly communicate with the District. This application will also provide the ability to check on the progress and status of their complaint.





## Outreach & Communications

The District's Outreach and Communications team, a highly skilled group of communications professionals with expertise in public relations, media, graphics and web design, audio-video production and event organization, continues to expand its activities and District messaging in the Valley air basin through programs tailored to each sector in the broader community.

Bilingual expertise in key positions ensures that a large segment of the Valley's population will be kept informed and engaged in District policy and decision-making. Similarly, the outreach department's aggressive use of social media ensures that all Valley populations have access to critical air quality, educational and public participation information and opportunities, such as Healthy Air Living. Extensive enhancements and upgrades were made to the Healthy Air Living Partners website including an online enrollment feature.

Also in 2012, OC established an internal video-production component, enabling the District to bring in-house critical outreach functions. Additionally, the District launched its first-ever iPhone app, a free service which delivers real-time air quality data, forecast information, links to important District interfaces such as complaints hotlines, and other features.

### OC BY THE NUMBERS 2011-12

- > 305 media calls
- > 1,278 public calls
- > 51 news releases
- > 329 presentations/ outreach events

**NEW EVENTS** In March, the Outreach and Communications Department organized and executed two first-ever conferences: one on lawn care, landscaping and air quality and another on electric vehicles.

The Lawn Care, Landscaping and Air Quality Conference in downtown Fresno was directed to landscaping professionals and lawn-care equipment developers. Topics included emissions from landscaping and air quality impacts, technological options for reduced emissions, and options for reducing emissions from the lawn-care sector. The District also announced a new pilot program for testing emission-free lawn-care equipment in the field.

Drive Clean! electric vehicle workshops were hosted in partnership with the California Center for Sustainable Energy in Fresno and Modesto. The workshops featured presentations by District and CCSE staff, as well as representatives of utility providers and owners' panels, about the technology behind the newest plug-in vehicles, generous incentives for their purchase and the experience of driving them. Attendees were given the opportunity to investigate a variety of electric vehicles on site, as well.

### CHECK BEFORE YOU BURN

After 10 seasons of wood-burning regulation, Check Before You Burn is the District's highest profile campaign and enjoys the greatest public recognition of any District program. Credited with mitigating to the greatest extent possible historically poor air quality during winter of 2011-12, Check Before You Burn continues to steadily gain traction and public support.



### REAL-TIME AIR ADVISORY NETWORK GROWTH (RAAN)

The most exciting development to emerge from the District in recent years, the Real-Time Air Advisory Network is the latest tool to empower the air basin's residents in protecting their health. This first-in-the-nation, real-time data delivery tool, created with noted health experts, evolved in 2011-12 to include a set of risk-based outdoor activity guidelines (Real-Time Outdoor Activity Risk, or ROAR). These tools have been exceptionally well-received and subscriptions – from school districts and residents, as well -- to this free program have grown exponentially.



### OUTREACH FOR THE YOUNGEST RESIDENTS

- > Healthy Air Living For REEL Video Contest: The annual For Reel Video Contest gains momentum each year, pulling in entertaining and thought-provoking 30-second videos from the Valley's students. Video entries are preliminarily judged by District staff and the finalists are posted online for public voting. The carrot? Great prizes donated by sponsors and the chance to have the winner's video shown on a local TV station.
- > Healthy Air Living Kids Calendar: Arguably the most-loved outreach material the District has ever produced, the annual clean-air calendar featuring art from the Valley's children is in its second decade and is eagerly awaited each fall. The rate at which the District distributes the press run of 20,000 copies attests to its perennial popularity.
- > "Blue Sky, Brown Sky ... It's Up to You!" This specially developed air-quality curriculum is available at no charge to any school, childcare facility or student in the Valley, and a new partnership with Valley Public Television in 2011-12 put it in the hands of television viewers, as well. Requests continue to be received daily for this customized environmental curriculum, formatted in two grade levels, which includes accompanying materials such as crayons, pencils and stickers. CONTINUED ON PAGE 43

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#### **BROCHURES AND COLLATERAL**

During the past year, Outreach and Communications added to its impressive catalog of brochures with new publications such as Air Quality and You (in English and Spanish), Make One Change (also in English and Spanish), Fast Track Sustainability Strategies, Air Permits and an updated residential wood burning mailer targeted to the real estate industry.

#### **PRESS RELEASES, PRESENTATIONS, EVENTS**

As part of its mission to protect public health, the outreach department fulfills hundreds of requests each year for presentations to every segment of the Valley's population, including schools, trade groups, community service groups, professional societies and other government agencies. The OC team also staffs and organizes hundreds of community-outreach events each year in all eight counties, including Earth Day events, Bike to Work events and health fairs, ranging from school districts to large corporations and municipalities.

Outreach and Communications also maintains one of the most visible, active and consistent presences among Valley media for timely press communications, such as press release and media advisories, regarding not only District events but in any situation where local air agency comment is appropriate.

#### **INDUSTRY-SPECIFIC OUTREACH**

The District reached out to business and industry during 2011-12, carrying out a commitment to showcase the best air quality practices of Valley businesses, through an in-house video production featuring California Citrus Mutual growers. In the coming year, the District plans even more such projects.

#### **MULTIMEDIA OUTREACH EXPANSION**

Outreach and Communications took massive strides in 2012 in developing its multimedia capabilities. With the creation of a position dedicated to videography and photography, the department now produces in-house video and still photography that rivals the highest-quality, professional products to be found anywhere, creating informational segments, documentary work and news footage that can be seen in a variety of settings including commercial TV and Valley news shows.

#### **STAFF DEVELOPMENT**

OC staff was also given the opportunity to learn valuable skills in audio and video creation through completing a series of classes provided by the Community Media Access Collaborative (CMAC) in Fresno. After completing a series of accelerated courses, students are certified in video production and may showcase their projects on two cable-access channels. OC plans to use this newly developed ability to produce an ongoing series about air quality in the Valley.

## **Environmental Justice Advisory Group**

Just a little over four years ago, the Environmental Justice Advisory Group (EJAG) was formed and held their first meeting as part of the District's Environmental Justice Strategy. Since then, EJAG members have been working diligently to provide guidance and input on a variety of key District efforts and issues. These members have also been working collaboratively with the District's Citizen's Advisory Committee (CAC) to build consensus on vital issues.

2012 brought changes to the EJAG membership with new appointments and reappointments. The group also worked on the development of goals and objectives for the upcoming year, provided input on grant money distribution and had a joint meeting with the CAC.

The EJAG also made changes to meeting dates and times in order to allow more public input during meetings. The group now meets on the fourth Thursday of the month at 5:30 p.m.

Extensive outreach will continue to fill the open seats. More information on the District's Environmental Justice Strategy and 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)



## On the Radar

If the first 20 years are any indication, the next two decades of the Air District's work in the Valley will yield momentous change indeed.

In 1992, the District was a fledgling agency with a general understanding of the enormity of the challenges it was tasked to address but little idea of exactly how to do so. The area of air quality science was new, and as we moved forward, we began to realize how quickly commonly held ideas were replaced with newer ones. We began to build partnerships with stakeholders and the public, without whom we would never have realized the notable achievements that we are all so proud of.

With each accomplishment, and each new challenge, the District, the business and industry community, and the Valley's 4 million residents strengthened their bonds with each other and recommitted to going the distance. With significant successes behind us and even more daunting challenges before us, we have never wavered in our belief in the ingenuity of the Valley's hardworking people.

The Valley has made tremendous progress toward the 1-hour ozone standard, which should be attained within the next few years. The Valley is also on track to meet EPA's 1997 annual PM2.5 standard of 15 µg/m<sup>3</sup> by the April 2015 attainment deadline. Although the Valley's air quality challenges continue under other current and upcoming EPA air quality standards, the District prioritizes strategies that contribute to attainment of multiple standards. In fact, as the District implements its recently adopted 2012 PM2.5 Plan by strengthening Rule 4901 (Wood Burning Fireplaces and Wood Burning Heaters) and enacting other stringent PM2.5 and NOx controls, the resulting air quality benefits will move the Valley toward several health-based standards.

Meanwhile, recognizing that meeting these health standards requires not just regulation but voluntary action addressing sources that are outside our regulatory jurisdiction, our grants program will continue to be the area of largest growth at the District. With annual funding that is tenfold what it was five years ago, we administer programs that address every sector in the Valley, and we continue to create new ones. Vital incentives programs are absolutely critical in order to offset what can often be significant economic burdens to invest in cleaner technology, especially in our Valley.

With our Governing Board leading with its expertise and deep understanding of the Valley's unique air-quality issues, our staff's commitment, innovation and indefatigable work, and the sincere support and active participation of everyone in the Valley, we have unshakable certainty that, 20 years from now, we will all have even more to be proud of.

## District Staff Prioritize Community Service

Eight local, non-profit organizations were enthusiastically supported by staff from the District's three regional offices during the second year of District-sanctioned community service projects. A District-wide toy drive that collected more than 300 new toys for homeless and displaced children through longtime Fresno charity the Poverello House capped off a year of generosity and service by District employees.

In the Northern region, 10 District employees, family and friends painted the interior of a two-story house built by Habitat for Humanity. The organization praised staff for quickly completing the work in one day, a job that was expected to take twice as long. Staff hours were donated to the future homeowner. Northern region staff also organized a blood drive in conjunction with American Medical Response and the Delta Blood Bank.

Central Region staff members showed their generosity in donating used clothing, canned goods and toiletries for the Poverello House, which provides meals and other necessities for the homeless. A large turnout for four blood drives held during the year resulted in more than 100 pints donated. More than \$300 was raised in support of the inaugural Race for Alzheimer's through a bake sale and ice cream sales.

In the Southern Region office in Bakersfield, several events supported HALT (Helping Animals Live Tomorrow), an organization that cares for abandoned pets. A Healthy Air Living staff lunch, rummage sale and involvement in an annual 5K/10K Walk-Run attracted both two-leg and four-leg participants. The office also organized several blood drives for the Houchin Community Blood Bank, and sponsored a team, an ice cream social and a bake sale to raise money for the American Lung Association's Fight for Air Walk.

Staff participation is voluntary and takes place during non-work hours. Organizations are nominated by regional office staff as part of the District's STAR program (Service, Teamwork, Attitude, Respect).



## San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT

1990 E Gettysburg Ave, Fresno CA 93726

559 230 6000    CENTRAL REGION OFFICE  
209 557 6400    NORTHERN REGION OFFICE  
661 392 5500    SOUTHERN REGION OFFICE

[www.valleyair.org](http://www.valleyair.org)

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



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