



San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

REPORT to the **COMMUNITY**

2013-14 Edition





Message from the Air Pollution Control Officer

Great work, San Joaquin Valley!

As the work of cleaning up the Valley's air continues, we are delighted to pause to savor a historic accomplishment.

In 2013, the Valley air basin became the first in the country to advance from a classification of extreme non-attainment for a pollutant to achieving a difficult health standard.

This is, indeed, a moment worth celebrating. Valley residents can take pride in our collective efforts to continuously improve air quality through groundbreaking strategies that are rooted in good science and common sense.

Since the 1-hour ozone standard was established by the federal Environmental Protection Agency, the Valley has been, dubiously, among the top several air basins throughout the nation in terms of exceedances. But in the past few years, all this changed.

Despite natural events including triple-digit temperatures and wildfires, 2013 was the cleanest year on record for ozone. The progress has been remarkable. In 1996, the air basin experienced 281 hours over the standard. In 2012, that number plummeted to seven hours over the standard. And last year, we had zero hours that exceeded the health standard.

How did this happen? Through nothing less than the concerted, relentless, unwavering efforts between and among all the businesses and residents of the Valley. This accomplishment, which dramatically improves the quality of life for everyone who lives and works here, required billions of dollars in clean-air investments, long-term behavior changes, and most of all, a fundamental understanding of the importance of attaining this health goal for both health and economic vitality.

The Valley is challenged by many forces out of anyone's control, such as our unique geography: a bowl shape surrounded by mountains, resulting in long, sunny days and temperate winters, which provides the best growing conditions in the nation but also, unfortunately, provides an ideal environment for trapping and retaining emissions. Added to the endemic economic challenges we have, these conditions can seem insurmountable in our quest to advance to clean air.

But as the Valley's people have demonstrated time and again, our greatest natural resource is our "can-do" attitude matched with determination, sacrifice, and hard work. This "can-do" attitude has produced a truly remarkable achievement that we can all be very proud of, and that will serve, once again, as an example to the rest of the country of what can be achieved when a region comes together for the common good.

As we chronicle the past year of air quality progress, we are heartened by this victory, and confident in our ability to meet our remaining challenges.

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Executive Director/Air Pollution Control Officer

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J. Steven Worthley
Tulare County

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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, based on science and prioritized where possible using health-risk reduction strategies.

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.

Attaining Ozone Standard Marks a HISTORIC ACHIEVEMENT FOR THE VALLEY

For the first time in recorded history, the San Joaquin Valley in 2013 had zero violations of the hourly ozone standard established under the federal Clean Air Act, down from 281 violations in 1996. In 2004, EPA classified the Valley as “Extreme” non-attainment for this standard, meaning that reaching the standard, at that time, was deemed impossible. San Joaquin Valley is the first and only region in the nation with “Extreme” classification to attain the standard.

Reaching this milestone has been a key focus of the Valley’s air quality-management strategies for more than two decades. Since 1992, the District has developed and implemented numerous attainment plans and adopted more than 500 of the most stringent rules in the nation to obtain the significant emission reductions needed to demonstrate attainment. Additionally, the District has supplemented its regulatory programs with a robust, voluntary incentive program, providing more than \$500 million in incentive funds, resulting in a reduction of more than 100,000 tons of emissions.

Despite significant progress, in 2010 under federal law, Valley residents and businesses became subject to an annual \$29 million penalty. At the time, the Air District crafted an alternative approach that kept these penalties from going to federal coffers. Under the alternative approach that was approved by EPA, the Valley was able to retain those dollars and invest them in the Valley’s local economy to fund clean-air projects in the eight-county region.

WORKING TOGETHER

Attaining this key smog standard is a historic accomplishment that reaffirms the effectiveness of the investment and commitment by Valley businesses and residents to reduce emissions and improve public health. The members of the District’s Governing Board were unanimous in their appreciation of the enormity of this achievement, and in expressing their gratitude to key stakeholders that made this achievement possible.

- ▶ Valley businesses and farmers have been instrumental in helping to craft cost-effective strategies that routinely exceed mandates through their expert input and willingness to form an effective, result-oriented public-private partnership with the District. Billions of dollars have been invested to reduce emissions through the installation of newer/cleaner technology and the replacement of older, higher polluting equipment.
- ▶ Valley residents consistently rank air quality as a top quality-of-life issue and have taken an active role in reducing air pollution. Public support and participation during Air Alert episodes in 2013 were critical to avoiding the few remaining 1-hour ozone violations.
- ▶ Local, state and federal policy makers have provided necessary funding and support commensurate with the region’s air quality needs. This success is the result of diligent work by local elected officials and community leaders and support from the California Partnership for the San Joaquin Valley.

With more than 80 percent of the Valley’s emissions coming from mobile sources, ARB’s efforts to reduce emissions from this sector have been crucial. EPA Region 9 has worked with the District to maneuver through the complicated mandates of the Clean Air Act and to bring resources to the Valley.

- ▶ Valley environmental organizations have been successful in drawing attention to the Valley’s air quality challenges and assisted the District in successfully advocating for the Valley’s fair share of financial resources by initiating audits, which have highlighted the effectiveness and efficiency of the District’s air quality management programs.
- ▶ The District’s Governing Board has to be commended for their great insight and skill in balancing the Valley’s economic, meteorological, and topographical challenges. They have consistently devised and implemented entrepreneurial strategies that have effectively reduced air pollution while accommodating the Valley’s unique needs. These innovative strategies now serve as a model for the rest of the nation.

NEXT STEPS

The District will now submit a formal request to the federal Environmental Protection Agency to declare the Valley in attainment and lift the \$29 million penalty mandate.

The attainment test for the 1-hour ozone standard of 0.12 parts per million is based on the number of exceedance days per year, averaged over a three-year period. In other words, if an air monitoring site has three or fewer exceedance days in a three-year period, then it meets the standard. If a single site violates the standard, the entire San Joaquin Valley is then in violation of the 1-hour ozone standard.

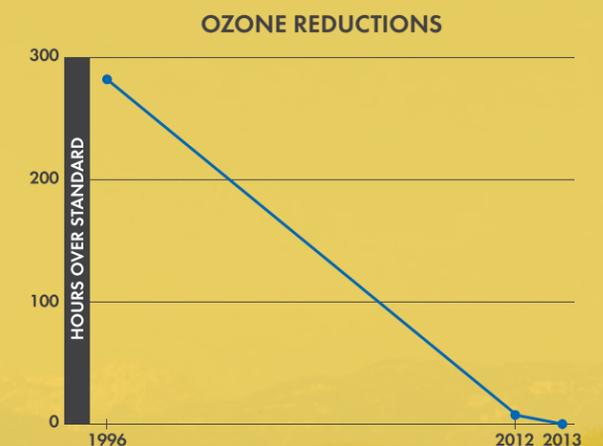
The District’s request for an attainment finding by EPA will include extensive technical support information. Special issues such as transboundary ozone from Asia, the District’s ozone saturation study to address the Arvin monitoring station relocation, and an exceptional event whereby the Valley experienced an exceedance of the 1-hour ozone standard due to a large industrial fire and wildfires will also be addressed.

2013 CLEANEST YEAR ON RECORD

Despite strings of triple-digit temperatures and wildfires, 2013 was the cleanest year on record for Ozone:

- 1996 ▶ 281 hours over the standard
- 2012 ▶ 7 hours over the standard
- 2013 ▶ 0 hours over the standard

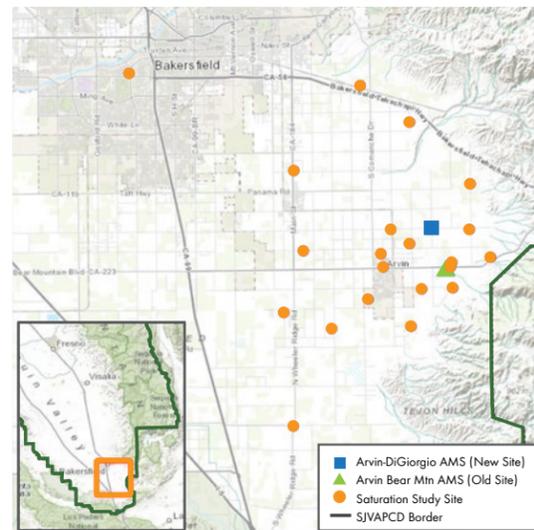
First region in nation to go from “Extreme” to “Attainment,” due to the investment and sacrifice of Valley residents, businesses, farmers and dairy families.



Arvin Ozone Saturation Study

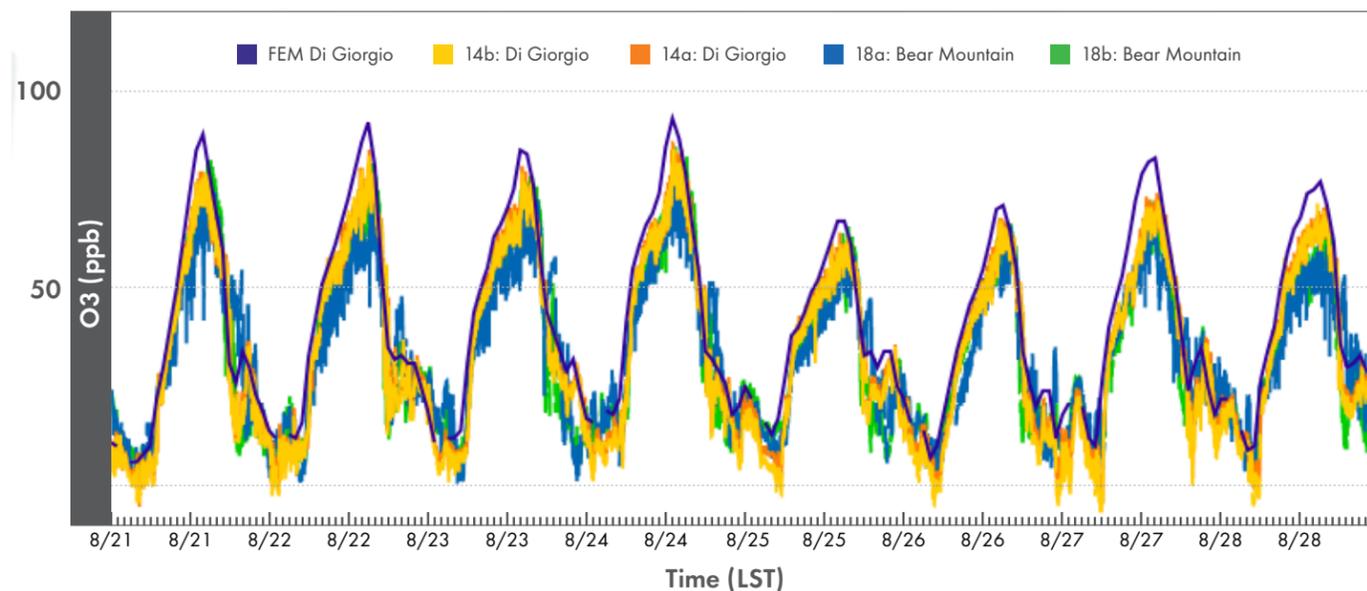
To enhance public outreach and education, the District is working to develop online resources that will provide Valley residents access to additional air quality information and statistics customized to their neighborhood. The Arvin Ozone Saturation Study was funded by the District to establish scientific correlations enabling the District to estimate and report neighborhood-level ozone concentrations. The study was also designed to answer outstanding questions regarding an old ozone monitor in Arvin that was relocated by the state Air Resources Board in December of 2010. A replacement station was located by ARB at the Di Giorgio Elementary School in Arvin. Some individuals affiliated with environmental groups have argued that the Valley should not be allowed to claim attainment with the 1-hour ozone standard without returning the monitor to the old Arvin Bear Mountain location.

In summer 2013, 23 new solar-powered ozone samplers were deployed to 21 locations, with three co-located at official monitoring sites to continually ensure and verify accuracy of the samplers. Two monitors were located across the street from the old Bear Mountain site in Arvin. Ozone concentrations were measured continuously (24 hours per day) for six weeks beginning in mid-August until the end of September. The majority of the monitoring locations for this special study were clustered in and around the community of Arvin with a scattering of samplers farther from the community to examine ozone in the surrounding area. The extensive



data collected here provides the scientific foundation for establishing ozone gradients for multiple locations in and around Arvin. This data indicates that ozone concentrations at the new Di Giorgio Elementary School site are actually higher than those measured at the old Bear Mountain site. Therefore, demonstrating attainment with existing monitors is actually more conservative and health-protective than the proposed alternative to reinstitute the old Arvin Bear Mountain site. Additionally, the new monitor measures ozone in close proximity to children at the elementary school, which provides for greater public health protection for this sensitive population.

Hourly and One Minute Ozone



How much Ozone from Asia Travels into the Valley?

In 2013, the District funded the second phase of research by University of California, Davis scientists that employed a series of daily air flights to collect real-time ozone data in order to estimate the entrainment of transboundary ozone into the airspace of the southern San Joaquin Valley.

The first phase, which began in 2011, was designed to measure the long-range movement of ozone and fine particles (PM2.5) from Asia into the airspace of the San Joaquin Valley. Continuous ozone, PM2.5 and carbon monoxide data was gathered at the Chews Ridge monitoring station, located at 5,200 ft. in the Santa Lucia Mountains southeast of Monterey. Additional flight transect data was collected by monthly air flights within the San Joaquin Valley and from the Valley to the Pacific. The results show that approximately an average of 50 ppb of Ozone under summer conditions from offshore flows in the free troposphere above the marine boundary layer (above 4,500 ft).

In the second phase, ozone concentrations were measured continuously by 12 daytime flights on peak days in summer 2013. NW to SE flights, which transect down the Valley from Sacramento to Arvin area, were used to measure ozone mixing into atmospheric boundary layer. Additionally, same-day flights in the south Valley with Arvin focus were used to measure circulation and downward mixing.

The data collected from the second phase will be used to evaluate the hypothesis that a significant fraction of ozone concentrations on peak days in the southern San Joaquin Valley is attributable to transboundary ozone. The results of this research will become increasingly important as the EPA is likely to further lower the federal 8-hour ozone standard in 2014, creating an even more difficult challenge for the Valley to achieve attainment.

As an emergent area of study in the research community, compelling findings on the impact of transboundary ozone on California air quality have been discovered. Recent research by the National Oceanic and Atmospheric Administration (NOAA) found evidence that transboundary ozone flow from Asia was significantly impacting ground-level ozone monitors in the northern Sacramento Valley. Additionally, daily flows of transboundary ozone were found to be highly correlated with ozone exceedance events in Butte County, CA. Regarding peer-reviewed estimates of transboundary impacts in the San Joaquin Valley, a 2013 publication based on NASA-funded field research has estimated that transboundary ozone flows are contributing up to 30 ppb to ground level concentrations which amounts to 12 percent to 23 percent impact in Bakersfield during periods of high spring and summer transport. While transboundary ozone impacts on any given day will depend on weather conditions, there is little question that transboundary ozone is making an incremental contribution to daily ozone concentrations in the Valley with a comparable impact on the number of 1-hour and 8-hour exceedances.

Through extensive investment and sacrifice by businesses and residents, the San Joaquin Valley has made tremendous progress in reducing ozone concentrations over the last several decades. As the Valley continues to decrease its levels of ozone, there is a growing concern that air quality impacts from transboundary ozone may jeopardize the region's ability to attain current and future federal ozone standards. Since transboundary ozone is primarily generated through fossil-fuel combustion in Asia and consequently carried across the Pacific Ocean towards the western United States, the District has no control over these emissions and is unable to address this issue through its local regulatory strategies.

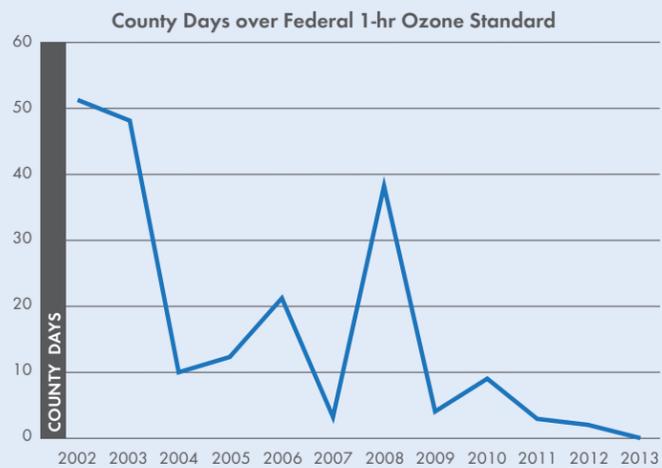




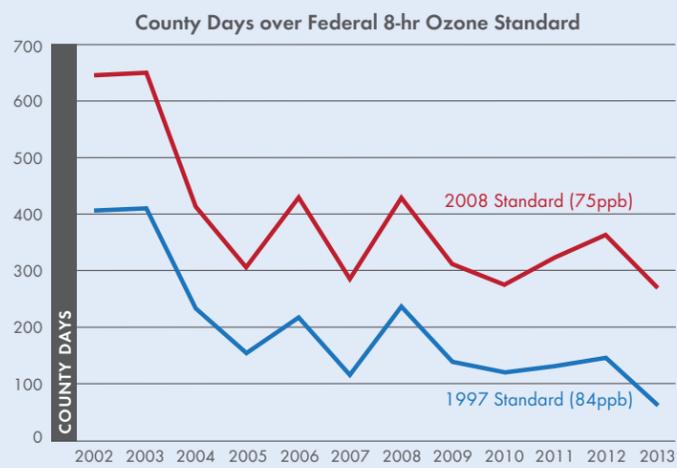
Ozone Trends



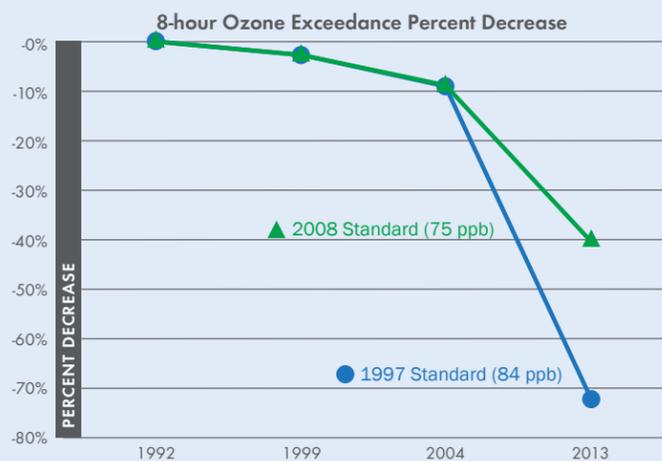
PM2.5 Trends



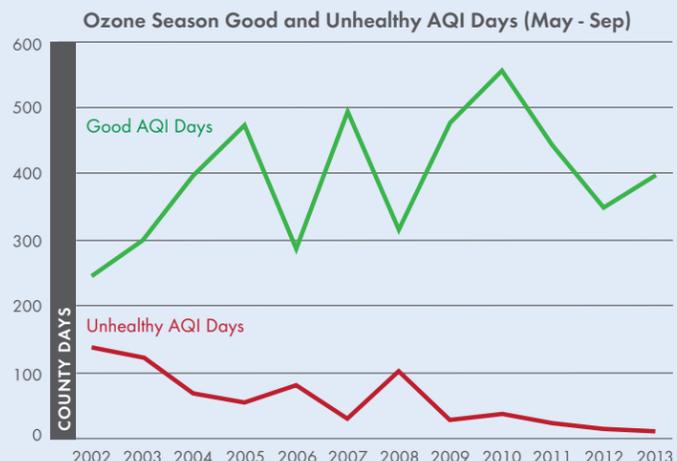
► The year 2013 made history by being the first year to ever record zero exceedances of the federal 1-hour ozone standard.



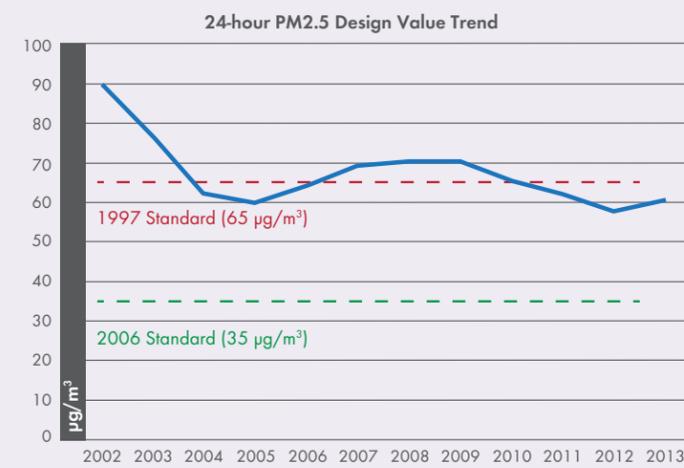
► Days over the federal 8-hour ozone standards continue to decline. 2013 had fewest exceedances of 1997 standard in Valley history.



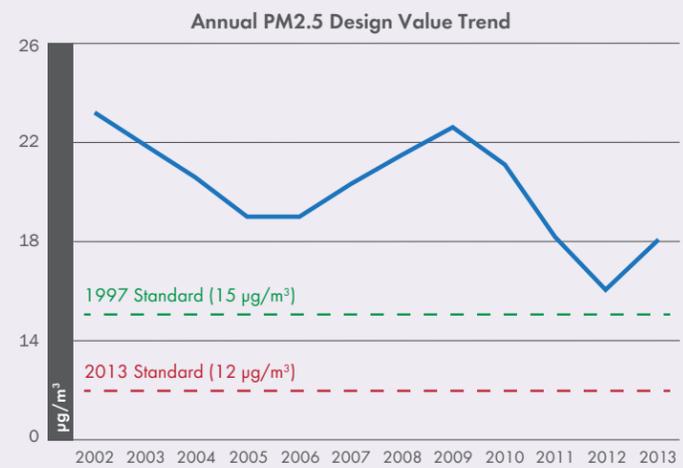
► 40% decrease in days over 2008 8-hr ozone standard since 1992, and 72% decrease in days over the 1997 standard over the same time period.



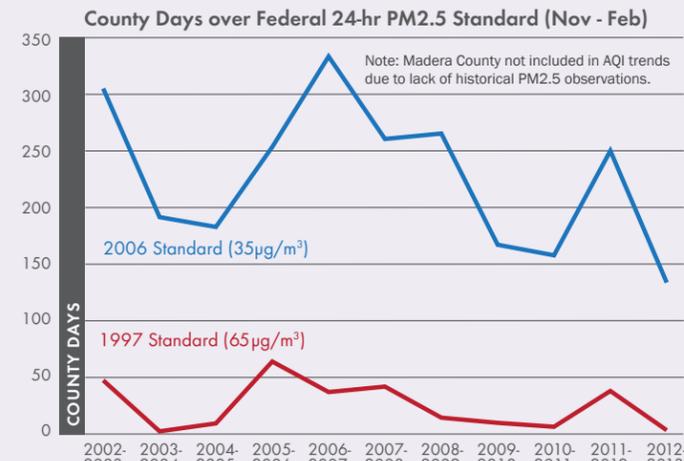
► Continued decrease in the number of Unhealthy AQI County-Days during the ozone season of May to September.



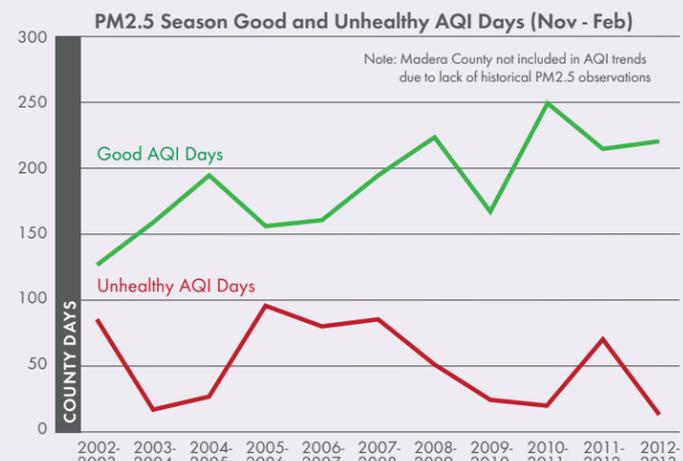
► The 24-hour Design Values remains below the 1997 federal standard.



► The increase in PM2.5 Design Values is due to the extreme meteorological conditions at the end of 2013.



► The downward trend continued during the wood burning season of 2012/13.



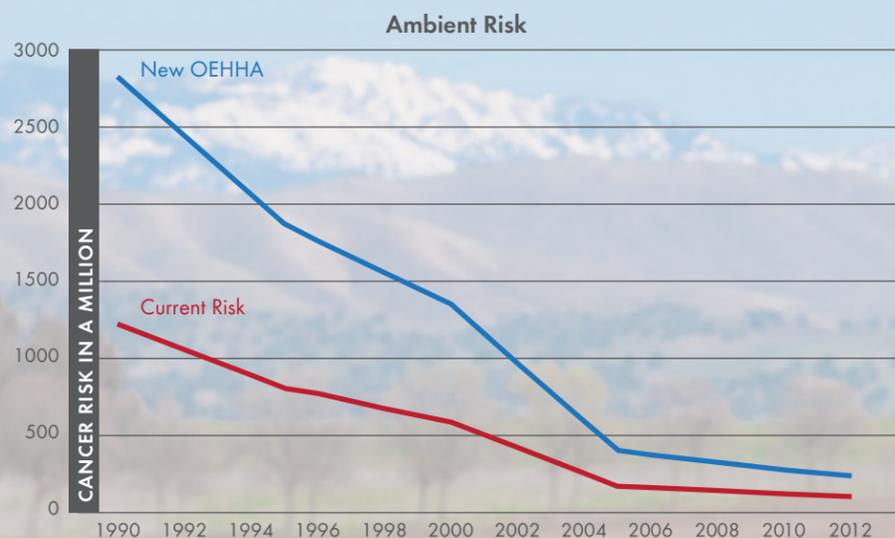
► The positive trends for both Good days and Unhealthy continued in the 2012/13 wood burning season.

District Prepares for New Risk Assessment Guidelines from Cal/EPA

In the next few months, the state Office of Environmental Health Hazard Assessment is expected to release draft changes to methods of determining health risks for people exposed to hazardous air pollutants. Our assessment indicates that these changes will more than double the calculated risk, as compared to the current methodology, for identical projects. Although the new methodology will result in higher calculated risk, it is indisputable by any measure that the Valley residents' exposure to hazardous air pollution and the actual health risks have been significantly reduced. The District's comprehensive regulatory and incentive-based programs discussed below, combined with state and federal air toxic control regulations, have significantly reduced the public's exposure to air toxics by about 85 percent over the past two decades.

As we move forward, it is important to recognize that although the risk calculation methodology is changing, and will result in higher calculated risk, the apparent increase in risk is not caused by increases in actual emissions or exposures to toxic air contaminants. As these new guidelines are being developed, in 2013, the District took early action to change the related risk management policies. This was done to avoid unreasonable impacts on the ability of facilities to obtain Air District permits and to minimize confusion for Valley residents. Toward that end, in 2013 the District Governing Board took the following actions:

- 1 Incorporate all portions of the state Office of Environmental Health Hazard Assessment's (OEHHA's) revised Risk Assessment Guidelines designed to provide enhanced protection of children.
- 2 Adjust permitting risk thresholds, as necessary, to prevent unreasonable restrictions on permitting of stationary sources and California Environmental Quality Act (CEQA) projects while preventing any relaxations of current health protections.
- 3 In order to enhance the public's right-to-know and health protection, retain the District's current public notification and health risk reduction thresholds used in implementing the Air Toxics "Hot Spots" Information and Assessment Act.
- 4 Incorporate all possible streamlining of the health risk assessment process to minimize administrative costs and burden to Valley businesses.
- 5 Develop effective outreach tools and processes to communicate with communities and businesses regarding revised procedures and risk estimates.



The District funded 391 **CLEAN AIR VEHICLES** with \$1,025,498

More than **\$17 MILLION** was used to replace 483 **HEAVY DUTY DIESEL TRUCKS**



The District replaced 328 **AG PUMP ENGINES** with \$6,099,517

Continuing to Invest 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 2013, more than **\$103 MILLION** in District funding and private investment found its way to projects that reduced more than **9,000** tons of lifetime emissions in the Valley air basin.



The District issued 29,221 **VANPOOL VOUCHERS** with \$906,600



776 **TRACTORS** were replaced for a total of nearly **\$33 MILLION**



The District funded 1,037 **NEW CERTIFIED STOVES & INSERTS** with \$563,650



Grants

TECHNOLOGY ADVANCEMENT PROGRAM

The Technology Advancement 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 concomitant 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 opened three rounds of funding and received over 100 proposals for clean-technology projects. The District has committed to funding 16 of these projects totaling \$5 million. In 2013, two projects were completed and final reports are now available on the program web page.

Technology development focusing on Valley needs can be enhanced through partnerships and collaborations with other air districts and state agencies. Additionally, strategies for reducing emissions in the Valley can benefit regional and state air quality. To make the most of these co-benefits, 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.

AG TRACTOR REPLACEMENT PROGRAM

In 2013, the District's Agricultural Tractor Replacement Program successfully replaced 776 old, high-polluting Tier 0 and Tier 1 Agricultural Tractors with new, cleaner Agricultural Tractors. The goal of the 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 farmers. As expected, the interest in the program remained extremely strong during 2013, with the District contributing over \$32 million and the farmers contributing over \$32 million. The 776 projects resulted in 5,114 tons of emissions being reduced over the lifetime of the projects.

During the course of the Ag Tractor Replacement Program, the District recognized that many small, Valley farmers have the oldest, highest polluting agricultural tractors but are financially unable to meet the program cost-share requirements. To address this issue, the District created and successfully implemented the first Tractor Trade-Up Program in the State of California. Instead of crushing a Tier 1 tractor that was turned into the program a small farmer is given the opportunity to take possession of the Tier 1 tractor and turn in their old Tier 0 tractor to be recycled. This program has the potential to remove hundreds of old high polluting agricultural tractors that would not have otherwise been recycled with zero financial burden to the small farmer.

LAWN EQUIPMENT

The highly popular, consumer-oriented Clean Green Yard Machines program helps San Joaquin Valley residents clean the air through rebates by replacing gas-powered mowers with nonpolluting, electric mowers. In 2013, 170 old gas-powered lawn mowers were replaced with cleaner electric models through this successful public program.

The Cordless Zero-Emission Commercial Lawn and Garden Equipment Demonstration Program successfully ended in June 2013 with a total of 4 technology demonstrators, 60 participants and 445 pieces of equipment for in-use testing. The program demonstrated 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.

ELECTRIC VEHICLE WORKSHOPS AND 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 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 of both vehicles and infrastructure.

The Department of Energy awarded \$75,000 to the District as part of the California PEV Readiness Project, a statewide, multi-agency collaboration. During this one-year project, the District worked with other agencies and created a statewide, community-based PEV readiness assessment. The Statewide and Regional San Joaquin Valley PEV Assessment was released in January 2013 and included an extensive assessment of the Valley region.

Based on recommendations in the PEV Assessment, and to help coordinate and address the concerns specific to our Valley, a regional PEV Coordinating Council (PEVCC) was established. This 28-member advisory group is comprised of local Metropolitan Planning Organizations, Cities, Counties, Energy Utilities, the local Clean Cities Coalition, Electric Vehicle Service Providers, as well as local consultants and Non-Profit Organizations. The Air District was also awarded \$200,000 from the California Energy Commission to build upon the Statewide and Regional San Joaquin Valley PEV Assessment and develop a more comprehensive PEV Readiness Plan specifically for the Valley.

In addition, the District began to conduct PEV education and outreach, share recommendations and best practices with Valley stakeholders and residents, and help implement as many recommendations as possible.

The District also supported the growth of PEVs in the Valley via the Drive Clean rebate program. This program provided a rebate (up to \$3,000) to assist 391 Valley residents in purchasing a PEV.



Grants

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 geographical boundaries of the San Joaquin Valley air basin. The program has three components: New Alternative-Fuel Vehicle Purchase, Advanced Transit and Transportation, and Alternative Fuel Infrastructure. To date, the District has received 166 applications for more than \$10 million in requested funds for the New Alternative-Fuel Vehicle Purchase component. The Advanced Transit and Transportation component was released to competitive bids and 15 proposals were awarded more than \$5 million in funding. The third component for Alternative Fuel Infrastructure received 17 project proposals with nearly \$16.5 million in funding requested.

BURN CLEANER

The Burn Cleaner woodstove change-out program provides incentives to San Joaquin Valley residents to help reduce emissions by replacing older, more polluting wood burning devices 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 3,500 applications and provided more than \$2.1 million in funding since the program began.

Federal Government Recognizes Incentive Programs

The District operates one of the largest and most well-respected voluntary incentive programs in California; with more than \$1 billion public/private funds invested and over 100,000 tons of lifetime emissions reduced. Incentive programs successfully accelerate the adoption of cleaner technologies beyond what is achieved by stringent regulations alone, and in sectors for which the District has limited regulatory authority (mobile sources). However, the U.S. Environmental Protection Agency (EPA) has not historically granted credit to the District for incentive-based emission reductions in State Implementation Plans (SIPs).

When given SIP credit, incentive-based emission reductions can be used alongside regulatory-based emission reductions to meet certain federal Clean Air Act (CAA) requirements, such as demonstrating attainment, fulfilling commitments for long-term measures, meeting reasonable further progress or rate of progress emission reduction milestones, or satisfying

contingency measure requirements. Toward that end the EPA, the California Air Resources Board (ARB), the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS), and the District collaborated to ensure that emission reductions from the Valley's core emission reduction incentive programs are SIP creditable by satisfying EPA's four integrity principles of Surplus, Quantifiable, Enforceable, and Permanent.

On June 20, 2013, the District adopted Rule 9610 (State Implementation Plan Credit for Emission Reductions Generated Through Incentive Programs), which established a first-of-its-kind mechanism for the Valley to receive credit for emission reductions achieved in the Valley through incentive programs administered by the District, NRCS, and ARB. This innovative rule ensures that the significant investments made by public and private partners on clean air projects are fully recognized in the Valley's federal attainment plans.

District Administers School Bus Program for Other California Air Districts

The primary goal of the Lower-Emission School Bus Program (LESBP) is to reduce schoolchildren exposure to both cancer-causing and smog-forming pollution. In addition to administering the program in the San Joaquin Valley, the Air District administers the program for 18 other local air districts throughout the state of California. To date, the Air District has expended more than \$25 million through this program to retrofit 444 school buses and replace 150 high-emitting school buses in these other 18 air districts. Based upon the success of the Air District's administration of the Lower Emission School Bus Program the California Air Resources Board (ARB) requested the assistance of the Air District to administer the statewide school bus retrofit program for 34 air districts in the State of California. During fiscal year 2012-2013, the Valley Air District retrofitted 41 school buses and expended \$800,000. The District's implementation of this program has proven successful, and ARB has asked the District to continue running this program on their behalf through 2016.





Assisting Valley Environmental Justice Communities

The District has a history of working to ensure that residents in every corner of the Valley have access to the cleanest air possible, innovative grant opportunities and targeted communication to keep informed of District action.

Tune In, Tune Up

In 2013, the District continued its award-winning Tune In, Tune Up program, providing an additional \$4 million in funding and hosting 22 events throughout the San Joaquin Valley.

Tune In, Tune Up is 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.

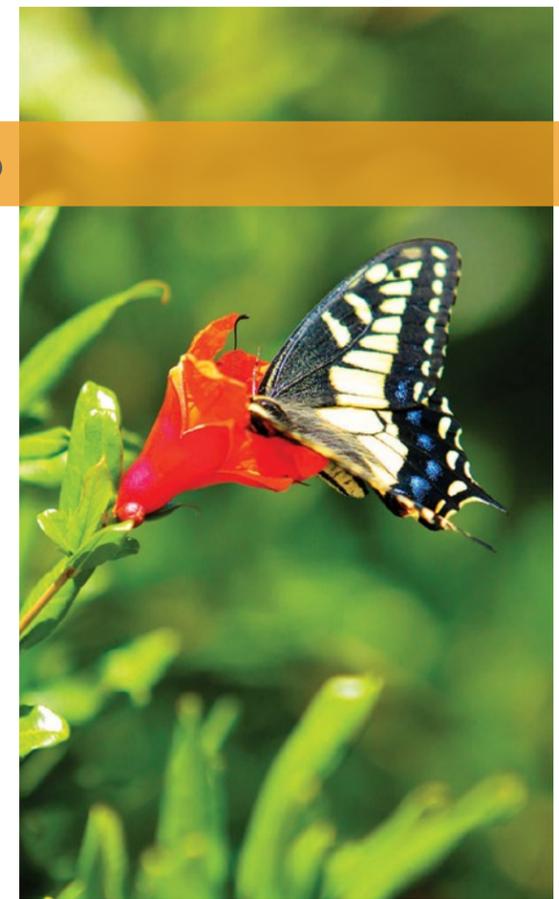
Through weekend events, participating residents have their vehicles screened to determine if they qualify for emissions-related repairs at little to no cost to them. In the Tune In, Tune Up program, vehicle owners bring their vehicles to one of the program's weekend events, where an emissions test is 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 plus the cost of smog checks and diagnostic time. Once the vehicle is repaired, confirmatory smog tests are conducted that can then be used for vehicle re-registration purposes. In 2013, more than 5,000 vouchers were issued to Valley residents through these weekend events.

2013 EVENTS			
2/9	Merced	7/13	Fresno
2/23	Lemoore	7/27	Stockton
3/9	Chowchilla	8/10	Chowchilla
3/23	Fresno	8/24	Tulare
4/6	Stockton	9/7	Bakersfield
4/20	Turlock	9/21	Merced
5/4	Bakersfield	10/5	Lemoore
5/18	Merced	10/19	Ceres
6/1	Lemoore	11/2	Fresno
6/15	Porterville	11/23	Stockton
6/29	Turlock	12/7	Madera

Environmental Justice Advisory Group

In 2007, the District adopted the Environmental Justice Strategy. One of the new initiatives of the Strategy was the formation of an advisory group, Environmental Justice Advisory Group. Since its formation five years ago the members continue to work diligently with District staff to provide guidance and input on a variety of key issues. Notably, EJAG members have provided great input on the various District incentive programs, including the Burn Cleaner woodstove change-out and truck grant programs. The EJAG also serves as a forum to gather public input and enhance public participation.

Since its formation the group had been meeting monthly, but recently decided to meet every other month. On the month that they meet, it is on the fourth Thursday at 5:30 p.m. A complete list of the new meeting dates and 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.



Enhanced Public Outreach for Permitting

In 2013, to expand the public's opportunities to take part in and comment on proposed permits, the District implemented several enhancements to its public outreach processes for permitting projects. Federal, state and local regulations require the District to post public notices of proposed permitting projects in local newspapers, but the District has also posted notices on its website (www.valleyair.org) for many years. Since early 2013, however, we have greatly enhanced this service by also posting all public permitting notices in Spanish, and by allowing people to sign up to receive notices by mail or by email. Such notices can now be requested for any permitting project requiring public notice for a specific facility in the Valley, for all permitting projects in a region of the Valley, or for all permitting projects in the entire Valley, and can be received in Spanish language or English language versions. The District provides in-house oral translation services to interested parties, often provided by District employees familiar with the permitting project and its potential air quality impacts.

To further enhance these public outreach services, the District has improved the District's Public Notice web page by improving search capability and the page's layout to make projects easier to find. To streamline requests for facility-specific information and maximize outreach while minimizing the District resources required, a new feature has been incorporated into the District's internal Permit Administration System to track and maintain these requests, and automatically generate the requested notices.

The District's state-leading public outreach efforts have been recognized by and presented to other air districts in the state, and are encouraging other agencies to look for ways to improve public outreach in meaningful ways, while also demonstrating that such efforts, if carefully planned and automated, are not necessarily resource-intensive.

District Offers Assistance to Truckers

With trucks being the largest source of smog-producing pollution in the Valley, the Valley Air District has taken a number of actions on its own to help Valley truckers reduce their emissions and comply with the ARB's truck rule. To date, the local air district has awarded more than \$114 million in truck funding, replacing more than 2,000 trucks.

Reducing emissions from heavy duty trucks through regulatory and incentive strategies is essential to addressing the Valley's air quality challenge. While the California Air Resources Board's statewide truck and bus regulation will significantly reduce emissions from heavy duty trucks over the coming years through fleet turnover requirements, small fleets and single owner/operators are struggling to overcome the resulting financial hardship.

To assist in addressing this issue, in 2013 the District Governing Board allocated an additional \$10 million in local funding to assist small fleets in replacing older, high-polluting trucks with new, much cleaner trucks.

This was in addition to another available \$29.5 million in funding for truck replacement through the Proposition 1B funded Goods Movement Emission Reduction Program. The District also broadened its eligibility criteria for the Valley's single-truck owner/operators and small fleets to receive funding that reduces nitrogen oxides emissions. This much-needed funding can provide truckers with assistance that further reduces emissions beyond mere rule compliance.

The District has provided extensive hands-on bilingual assistance to truckers seeking assistance regarding the upcoming deadlines and available incentives. Additionally, the District provided on-site grant application assistance to ensure truckers meet grant application deadlines and requirements to have the best chance of receiving funding. The District also created and implemented a comprehensive multilingual outreach campaign that included English, Spanish and Punjabi radio spots and bilingual English/Spanish signage at truck stops.



Local Concerns with the State's Truck Regulation

More Action is Needed to Avoid Economic Devastation to Valley Truckers and their Customers

The state's truck and bus regulation was adopted in 2008 to reduce particulate matter and NOx from existing diesel vehicles operating in California. In 2010, the state Air Resources Board amended the rule to provide some relief and an extension in light of the economic recession. Under this rule, most heavier trucks were required to have a particulate filter in place beginning January 1, 2012 and older trucks are required to be replaced starting January 1, 2015. In the meantime, owner/operators of small fleets became subject to a January 1, 2014 deadline to install particulate filters.

The District is extremely concerned that a large number of these small independent owner/operators were unable to comply with the requirement to install a filter by January 1, 2014. These truckers cite financial hardship and operational difficulties with filters working properly as reasons for their inability to comply. For many of the owner/operators, the retrofit cost (\$15,000 - \$20,000) exceeds the value of the truck, therefore rendering this option infeasible. Due to the economic downturn and limited access to credit, many owner/operators are not able to finance retrofits or replacements. Additionally, State delays in Proposition 1B funding due to California's fiscal crisis have reduced previous access to these funds for many fleets.

The District estimates that there are approximately 20,000 small fleet trucks registered in the San Joaquin Valley, with a high percentage of those being single owner-operators operating in rural and environmental justice communities (up to 15,000 trucks).

At the urging of the District and other stakeholders, late in 2013 the Air Resources Board granted a short

extension until mid-2014 for truckers demonstrating "good faith" efforts to comply. Although this provides some needed relief, the District is concerned that more strategic action is required to achieve the needed reductions in truck emissions while minimizing adverse economic impacts. Towards that end, the District has allocated an additional \$10 million in incentive funding to assist truckers in replacing their vehicles. The District is also offering additional recommendations to the state Air Resources Board for increased flexibility and resources to achieve the necessary reductions in emissions in a balanced fashion. These recommendations include:

- Providing more flexibility in grant eligibility requirements for truckers,
- Extending upcoming deadlines for filter installation in exchange for earlier replacement and conversion to a cleaner 2010 model truck,
- Allowing an extension for trucks that can demonstrate extreme economic hardship,
- Allowing an extension for low-use and vocational-use trucks,
- Allowing trade-up to a cleaner model in lieu of a 2010 model for some truckers (owner/operators of small fleets), and
- Providing more state funding for truck replacements.

It is also important to note that the January 1, 2014 deadline was the first of several critical deadlines, and thousands of additional trucks will become subject to additional requirements in the coming years. Early and comprehensive action is imperative to avoid future crises as we approach these difficult deadlines.

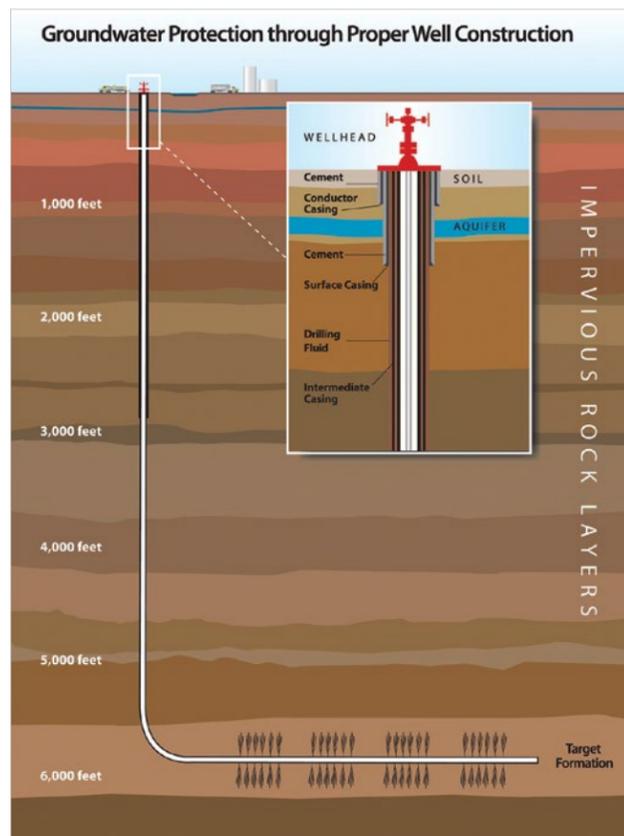
District addresses Hydraulic Fracturing in the San Joaquin Valley

Significantly increased hydraulic fracturing in the oil production industry is possible in the near future in the San Joaquin Valley. The Valley Air District regulates air emissions from oil production operations, including those associated with hydraulic fracturing, and ensures that all associated permitted oil production equipment is well-controlled and regularly inspected. However, given the potential increase in hydraulic fracturing, and an intense public interest in the subject, the District will be maintaining a strong presence in new regulatory and industry efforts associated with hydraulic fracturing.

Hydraulic fracturing has been occurring in oil production operations of the southern San Joaquin Valley for at least three decades, with approximately 500 wells hydraulically fractured per year. Hydraulic fracturing, or “fracking,” is a method to enhance the recovery of oil or natural gas from the rock layer in which the oil or gas resides, known as the producing formation. A production well is drilled through the various strata and lined with several layers of steel casing and cement. In a non-fractured well, the producing formation is sufficiently porous to allow the oil or gas to flow freely into the well. With hydraulic fracturing, “fracturing fluids” or “pumping fluids” consisting primarily of water and sand with small amounts of other chemicals, are injected under high pressure into the producing formation. This creates fissures that allow the oil or gas to move more freely from rock pores where it is trapped. The water and other fluids are extracted from the fissures, but the sand “proppant” stays behind, propping the fissures open so that the oil or gas can flow freely.

With recent discoveries relating to the Monterey Shale formation, we may see a significant increase in oil production along with associated hydraulic fracturing activities in the Valley. Recent reports of estimates of the oil contained in the Monterey Shale have concluded that it contains more than 15 billion barrels of oil (more than 80 percent of which is in the Valley), it may meet more than 60 percent of the U.S. consumption needs, and could result in the creation of tens of thousands of jobs and billions of dollars in revenues in the San Joaquin Valley.

The drilling and operation of oil and gas wells is regulated by the Division of Oil, Gas and Geothermal



Resources (DOGGR), part of the California Department of Conservation. DOGGR has the overall responsibility to ensure that well drilling and operations are carried in a manner to protect the environment, prevent pollution, and ensure public safety. According to preliminary DOGGR assessments, hydraulic fracturing in California has historically not created negative environmental impacts.

However, widely reported environmental problems with fracking associated with natural gas production in Eastern and Midwestern states have grabbed the public’s attention. Water contamination has been the most frequently expressed public concern with respect to hydraulic fracturing, but a number of other potential environmental concerns have been raised, including potential climate change and air quality impacts. There are important and significant differences in the natural gas hydraulic fracturing in eastern states, often covered by the nation media, and the oil well fracking that has been occurring in the San Joaquin Valley. For instance,

the oil reserves in the Monterey Shale are at an average of 11,000 feet below the surface, and are capped by a significant layer of less permeable “cap rock.” This cap rock has trapped the oil and gas for millennia and keeps these petroleum reservoirs isolated from the water table and earth’s surface. In California, hydraulic fracturing is principally a means of ensuring that individual, conventional wells attain maximum production, often, according to DOGGR, a preferable alternative to drilling additional wells to produce the same resources.

In some other parts of the United States, such as the Marcellus Shale gas deposits in New York, Pennsylvania, Ohio, Maryland, Virginia and West Virginia, natural gas is trapped not in a reservoir protected by cap rock, but inside uncapped rock formations much closer to the earth’s surface and the water table. In these “unconventional” cases, hydraulic fracturing is necessary to free the resource for production, but doing so in the absence of a rock cap introduces a risk of fracturing the producing formation to such an extent that the surface or water table is compromised.

According to DOGGR, there are other differences between the typical use of hydraulic fracturing in California and elsewhere. For instance, in other states the extraction of unconventional natural gas resources requires lengthy fracturing periods along long stretches of horizontally-drilled production wells. Millions of gallons of water are injected under constant pressure, a process that may take days or weeks in order to effectively open the reservoir rock. In California, much less water is used and the period of pressurizing the reservoir rock is much shorter.

Finally, most oil production in the San Joaquin Valley is relatively isolated from human habitation, while in more populous areas of the nation, production wells exist in backyards and high school football fields.

While other potential environmental impacts may deserve attention, the Air District’s focus has naturally been on air quality impacts. There are a number of potential sources of emissions of various pollutants, including emissions from diesel engines that are associated with oil well drilling and fracturing operations, the storage and handling of fluids used in the hydraulic

fracturing process and the resulting produced fluids, and fugitive dust emissions from sand handling, and from travel on unpaved roads and work areas. Hydraulic fracturing fluids contain small amounts of chemicals, some of which are known volatile organic compounds and air toxic compounds. These chemicals make up less than one percent of the fluids used in hydraulic fracturing, with the water and sand comprising more than 99 percent of the total materials injected.

While the District believes that emission sources from equipment used in hydraulically fractured wells are currently adequately regulated, given the potential for significant increase in hydraulic fracturing and heightened level of public attention and concern, it is appropriate to fully evaluate the overall air quality impact from hydraulic fracturing operations and to ensure that regulatory efforts address any potential air quality concerns.

Until recently, there were no specific laws or regulations in California pertaining to the process of hydraulically fractured wells. In early 2013 DOGGR began a rulemaking process to impose new requirements for well stimulation, including hydraulic fracturing. Subsequently, California Senate Bill 4 (SB4) – Oil and Gas Well Stimulation was signed into law in September 2013. SB4 requires DOGGR to establish interim regulations by Jan 1, 2014, study the environmental impacts of well stimulation, including air quality impacts in 2014, and approve final regulations by Jan 1, 2015.

Consistent with the District’s belief that duplicative and overlapping regulatory efforts are symptomatic of bad government, any additional regulations regarding hydraulic fracturing would be most effectively promulgated by DOGGR on a state-wide basis. District staff is committed to working cooperatively with DOGGR, the oil production industry, and other interested parties to provide technical support during studies of air quality impacts of hydraulic fracturing and will strongly advocate that DOGGR’s new regulations provide the appropriate protection of air quality. Only if DOGGR fails to protect air quality in the San Joaquin Valley will the District step in and develop appropriate and necessary regulations.



Vehicle Idling

Emissions from vehicle idling presents a significant air-quality problem in the San Joaquin Valley. The Air District has embarked on an aggressive public outreach campaign to stem these noxious pollutants.

Vehicle idling is especially prevalent during school-time traffic in mornings and afternoons, and in the use of drive-through services. In fact, vehicle idling has been shown to be a major contributor to late-summer ozone pollution in August and September.

Statistics also show that 43 percent of the students who are driven to school in private vehicles live within one mile of the campus. These vehicles linger by the curb with engines running while dropping off students, producing high levels of nitrogen oxides, particulates and volatile organic gases, all of which contribute to ozone and particulate pollution. Idling a vehicle for merely four minutes produces emissions equivalent to driving for one mile, and idling a vehicle for just 10 seconds consumes more fuel than “cutting” and restarting the engine.

The District, in conjunction with its Healthy Air Living Schools program, has created and distributes, free of charge, “no idling” signage that is displayed by many Valley schools. The “no-idling” message has also been incorporated into literature and training for school-based programs.

Instead of idling a vehicle, the District recommends:

- Organizing carpools so that fewer vehicles are being driven on a daily basis
- Avoiding the use of drive-through services
- Taking alternate transportation or walking a child to school
- Refraining from idling whenever possible



Wood Burning Assessment in Foothill Communities

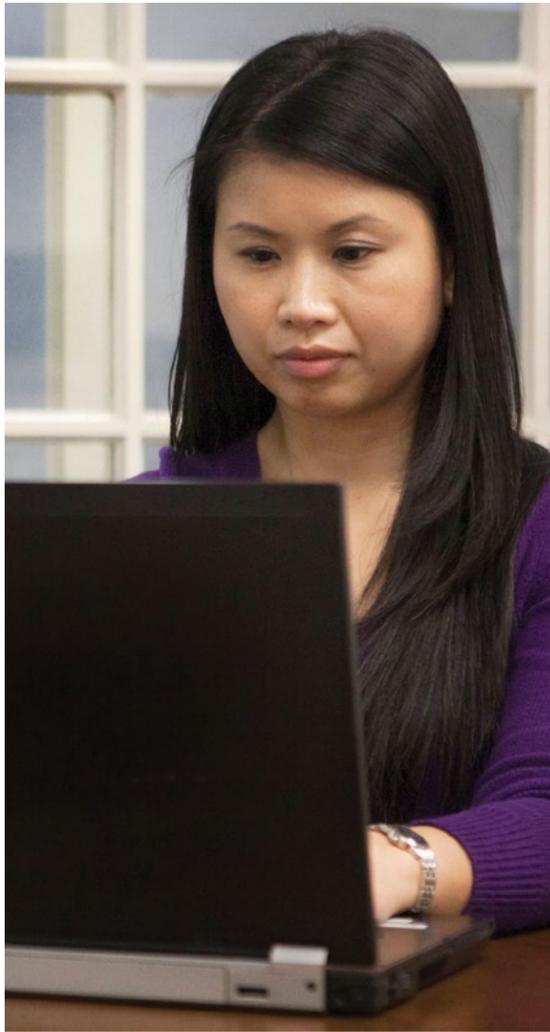
The District’s current residential wood burning Rule 4901 provides an exemption for burning in communities without access to natural gas. This exemption was provided in consideration for economic and other feasibility issues associated with non-wood burning alternatives in these communities. Additionally, the primary purpose of the current rule was to achieve PM2.5 attainment in urban areas where the Valley’s peak PM2.5 concentrations occur.

Most District communities in the higher elevations of Madera, Fresno, and Tulare Counties are not served by natural gas (e.g. Oakhurst-Coarsegold, Shaver Lake, and Three Rivers). Some foothill communities, however, are equipped with natural gas service, and are thus subject to Rule 4901 requirements. For example, the Greater Frazier Park area has access to natural gas, and the District has devised a separate forecast area for them given the cleaner air levels in the area with respect to the rest of Kern County. There is anecdotal evidence that certain foothill communities in the Valley experience high wood smoke episodes during the winter season. Consistent with the District’s Health-Risk Reduction Strategy, the Governing Board approved a field study to assess wood-smoke concentrations in the air basin’s foothill communities in order to minimize localized particulate pollution from wood burning.

While the atmospheric conditions in foothill communities are generally more favorable to

pollutant dispersion as compared to the Valley floor, localized adverse health impacts are possible. The District will conduct field inspections to identify the extent and the source of wood smoke within these communities. Foothill and mountain communities such as Shaver Lake and Oakhurst are small enough geographically to effectively and efficiently deploy inspectors to conduct surveillance during this wood burning season. Additionally, the data collected through the field surveys will be utilized to conduct dispersion modeling to quantify potential wood smoke concentrations and identify the geographic areas impacted by sources of wood smoke in these communities.

At the conclusion of this evaluation, if the District finds that residential wood smoke is a public health issue in these foothill communities, staff would bring a recommended course of action for addressing this issue through a voluntary “Please Don’t Light Tonight” outreach program in these communities. Through this voluntary strategy, residents would be encouraged to use only cleaner-burning options during these forecasted episodes and offer incentives to upgrade old, higher polluting wood burning devices with EPA-certified fire place inserts and stoves. Additionally, the District would also engage in efforts to educate foothill residents about the health hazards of wood-smoke and identify the most effective methods for notifying residents when the voluntary curtailment strategy is in effect.



Online Complaint Reporting

As an enhancement to the District's already robust complaint response program, air pollution problems can now be reported to the District using a new online complaint reporting system at www.valleyair.org/complaints.

The District's new online reporting system is easy to use. Once in the system, users are prompted to enter relevant information about the problem, such as the type of problem (odor, smoke, dust, etc.), a description of the problem, and date, time and location it occurred. There is also an option for users to attach a picture or video to the complaint. The system will also allow users to automatically receive an electronic copy of the investigation report via email.

The new online complaint system adds to the many existing ways the public can report air quality problems to the District. In addition to the new online system, the public can also report complaints on one of the District's three toll-free hotlines, the bilingual (Spanish-English) telephone complaint line or use the District's iPhone app for smoking vehicle complaints.

All complaints received are referred to a District inspector for follow-up and handling. 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.



District Expands Innovative, Air-friendly Business Model Throughout Valley Cities

The District adopted the "Fast Track" action plan to pursue non-regulatory measures to assist the Valley in accelerating attainment of the federal ozone standard. One component of the "Fast Track" plan is to pursue energy efficiency and air quality friendly changes at local businesses.

The District has partnered with the Greater Stockton Chamber of Commerce to share their award winning "Green Team San Joaquin" model with other communities around the San Joaquin Valley. The program is designed to address environmental and economic development issues as it relates to the cost of doing business. A main component of the program is conducting on-site business assessments designed to reduce energy consumption, waste, and air pollution while improving the bottom line for businesses. With funding from the District the Stockton Chamber has met with over 20 communities around the Valley. As a result of these efforts, a number of "Green Teams" have been established around the Valley.

Formerly Known as the Risk-Based Strategy

In 2013, the District's Risk-Based Strategy was renamed as the Health-Risk Reduction Strategy. This change was made to more simply and forcefully describe the overarching goal of the strategy which is prioritizing public health.

The Risk-Based Strategy is aimed at giving top priority to reducing health risk rather than the singular focus on reducing the mass of emissions, which has been the conventional approach under the federal Clean Air Act. This was done in recognition of the fact that health benefits or risk are not always proportional to the mass of pollutant emissions. This new strategy relies on sound science, which indicates that differences in toxicity, particle size, precursor potency and actual exposure are the key drivers that must be understood in devising strategies that can best reduce public health risk. Therefore, this approach can better be described as the District's Health-Risk Reduction Strategy. This strategy is now the guiding principle by which the District develops and executes plans, regulations and incentive-based

strategies to attain health-based air-quality standards in the quickest, most health-protective and cost-effective manner.

In response to rapidly expanding body of scientific research, the risk-based approach is also gaining support from both U.S. EPA and the scientific community. In fact, in their proposed implementation rule for the 8-hour ozone standard, EPA incorporates a number of proposals suggested by the District under the Health-Risk Reduction Strategy. Industry representatives have largely embraced the strategy even though it targets certain sources for new air pollution control strategies. This is largely due to the fact that the Health-Risk Reduction Strategy provides an assurance of effective controls that produce real air quality benefits as opposed to the "shotgun approach" under the conventional mass-based strategy.



District Takes Early Steps to Improve Residential Wood Burning Regulation

In December 2012, the Governing Board adopted the 2012 PM 2.5 Plan and accelerated the process for lowering the threshold for daily residential wood burning prohibitions during winter seasons. This measure will assist the Valley in further reducing PM2.5 emissions during the critical winter season, with additional resulting health benefits. A critical component of this new strategy includes allowing residents that have invested in cleaner burning devices to burn during certain wood burning prohibitions, and increasing incentives for clean wood burning devices provided through the District's Burn Cleaner incentive program.

In anticipation of amending the District's pioneering Residential Wood burning Rule (Rule 4901) in mid-2014, the District began working with stakeholders and gathering information to better inform the amendment process. The District held five meetings with Valley hearth retailers to begin discussions regarding potential rule amendments and enhancements to the Burn Cleaner woodstove change-out incentive program. After receiving valuable input from the retailers, the District re-launched the grant program in October and provided retailers with in-store signage and materials. The stakeholder meetings also provided important on-the-ground information which will be used to help craft the upcoming rule amendments.

In addition, the Governing Board approved a bilingual telephone survey to be performed in early 2014 to assess the wood burning habits of Valley residents. Although the survey will include questions related to driving habits and lawn care, the main focus of the survey is wood burning. The survey will include urban, suburban and rural households with both cellular telephones and land lines.

The District plans to begin a robust public process in early 2014 to communicate the results of the survey and gather comments on the proposed changes to the rule. Upon approval by the Governing Board, the District will communicate any rule changes in preparation for the 2014-15 winter PM season.





District Advocates for Action at State and Federal Levels

The District continues to partner with Valley stakeholders and elected officials to advocate for state and federal policies and resources that will assist the Valley in meeting its air quality objectives.

At the state level, this past year, significant effort was put into developing a broad-based coalition that was successful in advocating for the re-authorization of the funding for the Carl Moyer and AB 118 incentive programs. These funding programs are critical to the continued reduction of mobile source emissions and for the development of advanced technologies that will allow for reductions into the future.

At the federal level, the District continued to advocate, through Congress and the EPA, for legislative and policy changes to address outdated provisions of the Clean Air Act. These efforts have been productive, as EPA included many of the District's suggestions in their proposed implementation rule for the 8-hour Ozone Standard which was recently published for public comments.

In the coming year, the District will continue to advocate on air quality issues that impact the Valley. Some of the priority issues include:

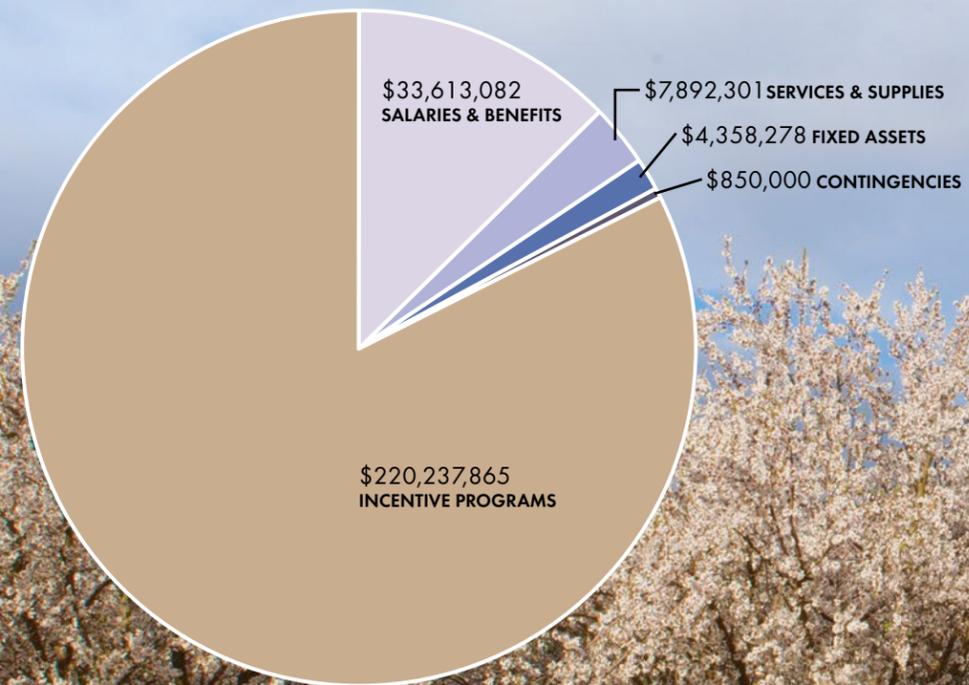
- FEDERAL** Seek common sense improvements to the Federal Clean Air Act
- STATE/FEDERAL** Advocate for additional resources for mobile source reductions
- FEDERAL** Seek continued air quality funding in the farm bill
- STATE** Seek revenue from the Cap and Trade program
- STATE/FEDERAL** Seek additional resources for air quality monitoring instruments
- FEDERAL** Continued push for air quality empowerment zone legislation
- STATE/FEDERAL** Pursue energy efficiency and alternative energy measures
- STATE/FEDERAL** Support for adequate resources/policies to reduce the air quality impact of wildfires
- STATE** Support California Environmental Quality Act (CEQA) reforms that will streamline the process

Overview of THE DISTRICT'S OPERATIONS

Codified in the Air District's Core Values, accountability is one of the most important aspects of all of the District's operations, goals and strategies. Our organization is accountable to the public for every dollar spent and every regulation adopted. We're accountable for demonstrating quantifiable progress toward clean air. And we're accountable for conducting our day-to-day business in the most effective, efficient and innovative ways possible.

Our track record demonstrates these values. We're given the highest marks by auditors and other agencies. We consistently set a high bar for air-quality improvements that other air management agencies emulate. And we also set the gold standard for customer service.

We offer you the following operational information about how the District is cleaning the air, saving money and implementing continuous improvement in all of our undertakings, continuing the tradition of excellence that the Valley's stakeholders have come to expect.



Streamlining and Efficiency

ADMINISTRATIVE SERVICES

The financial workload of the District remains high, in part due to the District's successful incentive grant programs. Overall departmental staffing remained level as the District continues to absorb workload through new efficiencies gained from improved technology and work flow processes. The District budget is now fully compiled electronically, saving significant staff time. Utilizing this new internally developed software not only expedites budget development, but improves the accuracy and flexibility of budget reporting.

ELECTRONIC PAYMENTS

The District is now accepting electronic payments 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.

AUTOMATED PAYROLL FUNCTIONS

The District has successfully automated its time tracking and payroll processing functions. This automated process 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.

AUTOMATED REPORTS

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 has provided more timely and accurate information and decreased the time necessary to prepare interim monthly budget reports, perform grant reporting and to close the fiscal year and prepare annual financial reports.

DEPARTMENTS COORDINATION

The District's centralized Operations and Program Support staff provides important clerical and administrative support for operations and programs allowing staff in those departments to focus on technical work. Operations and Program Support section continues to assume and coordinate increased responsibilities from the operating departments ensuring that support activities are handled in the most efficient and cost effective manner.

ELECTRONIC DOCUMENT MANAGEMENT SYSTEM

The District continues to invest in electronic document conversion and go Green. In order to streamline operations, archive hardcopy documents and conserve resources, many paper documents are scanned 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.

ONLINE FACILITY PORTAL

The District released the initial test-version of the Online Facility Portal to a small group of permitted facility operators in 2013. These operators are now able to access all permitting information associated with their facilities, from up-to-date status of pending permit applications to historical permitting documents. The Facility Portal concept was approved by the Board during the 2013 Board Study Session and is intended to give easier, quicker access to permit holders for viewing and submitting information. When fully developed, in addition to 24-7 access to permit information, the system will also provide finance information, online bill payment, electronic report submittal, and electronic application filing capabilities.

RENTAL IRRIGATION ENGINES

The District, working with the Valley's agriculture industry, has developed an innovative permitting approach that allows rental agricultural irrigation engines to be replaced on a seasonal basis with as-clean or cleaner engines without first having to obtain a modified permit. Permit modifications must be sought within seven days after such a "routine replacement" – a timeline that allows the fast-paced agricultural industry unparalleled permitting flexibility while also continuing to improve air quality by reducing emissions from the irrigation engine fleet.

AGGREGATE PROCESSING

The District worked with the aggregate processing industry to develop first-of-its-kind streamlined permitting procedures for fast-track processing of permits for new construction and infrastructure improvement projects at aggregate processing facilities. The expedited processing of these projects will contribute to the recently seen economic recovery in the Valley, while simultaneously providing improved air quality through reduced reliance on diesel internal combustion engines at these facilities.

IMPLEMENTATION OF DISTRICT RULE 2410 – PREVENTION OF SIGNIFICANT DETERIORATION

During 2013, the District developed various streamlining tools to enable the District to implement its new Prevention of Significant Deterioration (PSD) permit processing role at a much quicker pace than previously experienced by applicants under EPA's program. PSD is a preconstruction permitting program for new and modifying major sources of attainment pollutants, and is required by the federal Clean Air Act (CAA). Historically PSD permitting projects within the Valley were evaluated by the US EPA, in a process that often took over two years to complete, drastically impacting Valley businesses' ability to expand. The District has been able to use these permit streamlining tools to reduce the PSD permitting timeline to four to six months.



Streamlining and Efficiency

ELECTRONIC PERMITTING AUTOMATION

The District continues to enhance 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. With the successful launch of this electronic tool, during 2013 the District was able to significantly decrease the time it takes to convert an Authority to Construct permit to a Permit to Operate and reduce the number of pending conversions. Enhancements to the change order automation are expected to be fully implemented in 2014.

METHANE EMISSIONS FROM LANDFILLS

In 2010, the California Air Resources Board (CARB) adopted a regulation designed to reduce methane from the state’s landfills. While the state anticipated implementing this regulation on its own, the District, after consulting with the Valley’s landfill operators, has entered into a memorandum of understanding with CARB to implement and enforce the rule on a local level. District implementation and enforcement of these requirements, as opposed to state implementation, will result in a better use of government funds as the District already regulated landfills under its air quality permitting programs, and will provide a higher level of service to the Valley’s regulated landfills.

AIR MONITORING AUTOMATION, REMOTE CONNECTION AND MODERNIZATION

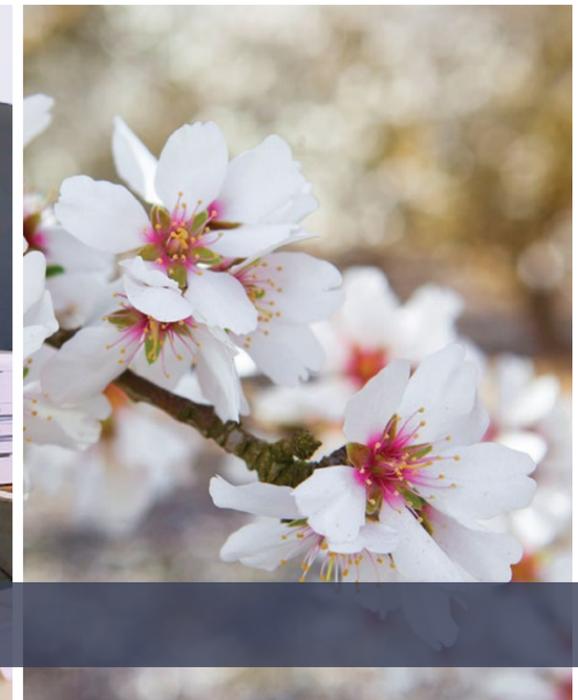
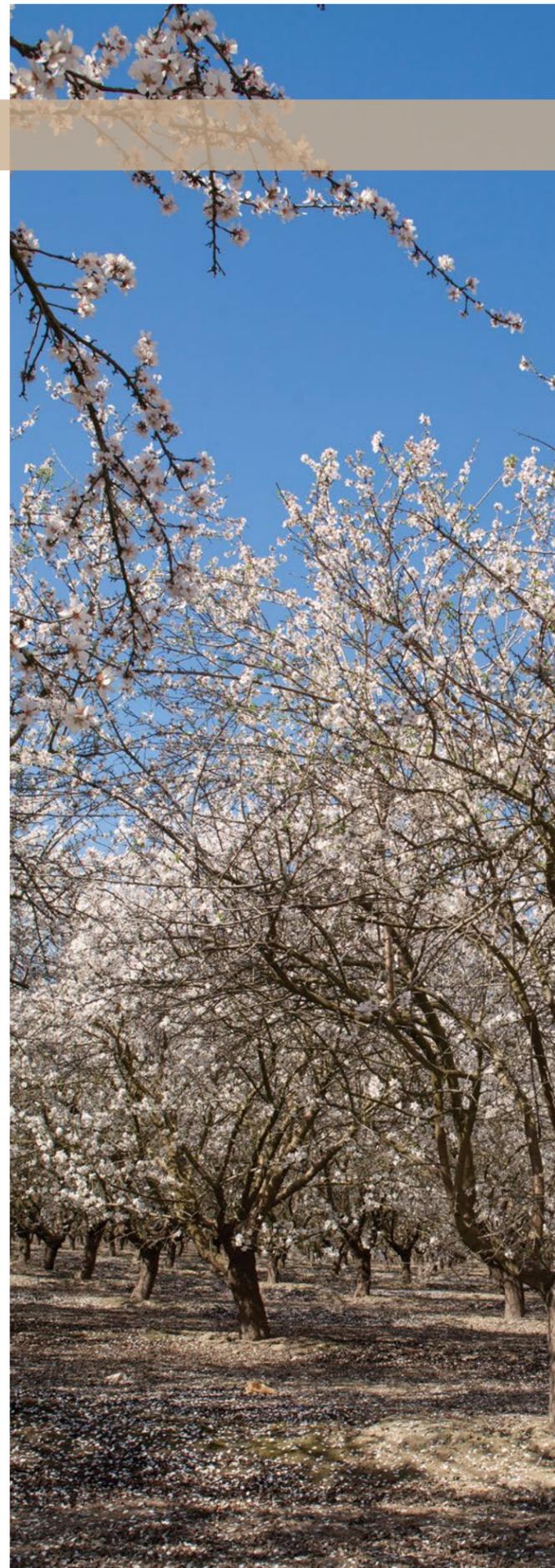
A modernization project to enhance air-quality monitoring automation is in final stages of the testing phase. When fully implemented, the new systems will reduce travel, equipment maintenance and data review time.

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 TECHNOLOGIES IN INSPECTION PROGRAMS

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.



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 is the Senior Policy Advisor, who supports the APCO in advocacy efforts advancing Board-adopted legislative priorities and positions.

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.

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.

DEFINITIONS (RULE 1020)

Amended in February, Rule 1020 defines terms used in other District rules. This rule is periodically updated to reflect definition revisions by the U.S. Environmental Protection Agency (EPA). Amendments added dimethyl carbonate and propylene carbonate to the District's list of exempt compounds within the definition of volatile organic compounds (VOCs). This amendment was a response to EPA findings that these two compounds have a low potential to form ozone in the atmosphere. By exempting these compounds, manufacturers of coatings and solvent cleaning materials have additional options with which to formulate low-VOC coatings and cleaning materials in the Valley. Additional amendments clarified existing requirements for methyl formate and tertiary-butyl acetate.

STATE IMPLEMENTATION PLAN CREDIT FOR EMISSION REDUCTIONS GENERATED THROUGH INCENTIVE PROGRAMS (RULE 9610)

Adopted in June, new Rule 9610 provides an administrative mechanism to formally recognize emission reductions from incentive programs in attainment plans. Through Rule 9610, the District will receive credit from the EPA in State Implementation Plans (SIPs) for emission reductions achieved in the Valley through incentive programs administered by the District, the United States Department of Agriculture Natural Resources Conservation Service (USDA-NRCS), and the California state Air Resources Board (ARB). When given SIP credit, incentive-based emission reductions can be used alongside regulatory-based emission reductions to meet certain federal Clean Air Act (CAA) requirements, such as demonstrating attainment, fulfilling commitments for long-term measures under CAA section 185(e)(5) ("black box reductions"), meeting reasonable further progress or rate of progress emission reduction milestones, or satisfying contingency measure requirements.

The District submitted its first Annual Demonstration Report with new Rule 9610 to EPA. This report serves as an annual accounting of the SIP-creditable incentive-based emission reductions.

BOILERS, STEAM GENERATORS, AND PROCESS HEATERS—0.075 MMBTU/HR TO LESS THAN 2.0 MMBTU/HR (RULE 4308)

Rule 4308 is the District's point-of-sale rule for boilers, steam generators, and process heaters sized 0.075 to less than 2.0 million British thermal units per hour (MMBtu/hr). In the District's 2012 PM2.5 Plan, the District identified an opportunity to further reduce emissions from this source category by lowering the NOx emission limit for natural gas-fired instantaneous water heaters (also known as tankless water heaters) with a rated heat input of 0.075-0.4 MMBtu/hr. The November amendments to this rule lowered the NOx emission limit for instantaneous units from 55 parts per million by volume (ppmv) to 20 ppmv, effective on and after January 1, 2015. This amendment satisfied the commitment in the 2012 PM2.5 Plan and will contribute to the Valley's progress towards attainment of federal air quality standards for PM2.5 and ozone by reducing 1.82 tons per year of NOx emissions upon full rule implementation.

Additional amendments were administrative in nature and clarified existing rule applicability and requirements through the addition of an exemption for hot water pressure washers, the removal of redundant and expired language, and other clarifying language.

INTERNAL COMBUSTION ENGINES (RULE 4702)

Amended in November, amendments to Rule 4702 were administrative in nature and clarified existing rule requirements. To ensure clarity regarding rule requirements and to minimize potential confusion with affected sources, the District added a line item to clearly specify the existing 65 ppmv NOx emission limit for waste gas fueled lean-burn engines. Other amendments included the removal of the word "stationary" from Section 5.2 of the rule and the addition of several other minor changes to provide further clarification. Rule amendments were administrative clarifications that do not affect existing emission limits or result in a detrimental impact on air quality.



GASOLINE TRANSFER INTO STATIONARY STORAGE CONTAINERS, DELIVERY VESSELS, AND BULK PLANTS (RULE 4621)

Amended in December, language in Rule 4621 was updated to make it consistent with ARB testing standards. The amendments removed ARB certification requirements for the aviation gasoline bulk loading operations and required these operations to be equipped with a vapor recovery system that would meet a minimum volumetric control of 90 percent. Amendments also included other minor corrections and removed redundant or expired language. These amendments to Rule 4621 were administrative clarifications that do not result in a detrimental impact on air quality.

GASOLINE TRANSFER INTO MOTOR VEHICLE FUEL TANKS (RULE 4622)

Amended in December, amendments to Rule 4622 incorporated an exemption from requiring Phase II vapor recovery systems for E85 (85 percent ethanol and 15 percent gasoline) fuel dispensing facilities based on EPA and ARB guidance that Phase II is not required for E85 fueling. Amendments also incorporated requirements consistent with ARB's guidance for certified Phase II vapor recovery systems and reduced the frequency of the Dynamic Back-Pressure Test from once every 12 months to once every 5 years, which is consistent with EPA's guidance on minimum test frequencies. This amendment will reduce the resulting emissions inherent from performing the test. The District also incorporated other minor revisions and removed redundant or expired language. These amendments to Rule 4622 were administrative clarifications that do not result in a detrimental impact on air quality.

2013 EMISSION REDUCTIONS

	Plan Commitments	Emission Reductions Achieved	Goal
NOx	9.33 tons per day	14.96 tons per day	60.3% above target
VOC	33.47 tons per day	46.02 tons per day	37.5% above target
SOx	0.92 tons per day	4.79 tons per day	420% above target
PM2.5	6.7 tons per day	12.08 tons per day of PM equivalent	Exceeding reductions by 80% through PM precursors

Permitting

WORKING WITH BUSINESS

The District issues or denies permits, registrations and plan approvals for businesses 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 & 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.

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. The District

was the first in the state to modify their ERC Banking Rule to allow the banking of voluntary reductions of greenhouse gases. In 2013, the District issued greenhouse gas ERCs totaling more than 12,000 metric tons per year (carbon dioxide equivalents, or CO₂e). District issued greenhouse gas emission reduction credits will be listed on the District's website and on the California Air Pollution Control Officers Association Greenhouse Gas Reduction Exchange. Such emission reductions could be potentially used as a source of mitigation for land use or other projects subject to the California Environmental Quality Act (CEQA) or for other greenhouse gas mitigation needs.

AIR TOXICS PROGRAM

The District performs a number of tasks aimed at reducing the risks of hazardous (or toxic) air contaminants. The District implements state and federal air toxic control regulations, maintains an inventory of toxic emissions from Valley sources, and assures that those emissions, and any proposed 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 processes data from as many as 5,000 facilities and other information sources, calculates each facility's annual emissions, and reports the emissions to the ARB. This inventory then acts as a cornerstone of our attainment plans.

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 CEQA. CEQA is the state law that requires projects' environmental impacts, including greenhouse gases, be assessed and publicly disclosed, and that any significant impacts be mitigated 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 county-wide communities. These inventories are needed by cities and counties as they develop planning documents and climate change action plans, and the District is offering 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, but may not directly emit pollution. The District's ISR group analyzes applications to assess the potential indirect emissions created by a development project, quantifies the mitigation proposed by the applicant, and may assess a development mitigation fee if insufficient mitigation is proposed by the applicant. An annual report of ISR activity, and the emission reductions generated by the program, is published by the District each year.

EMPLOYER BASED TRIP REDUCTION (ETRIP)

Rule 9410, Employer-based Trip Reduction, requires employers with more than 100 eligible employees at a single location to submit and implement plans designed to encourage carpooling and other trip-reduction efforts by employees. The District has developed an easy-to-use online eTrip Plan submittal and reporting program, saving significant time for both eligible employers and the District. www.valleyair.org/Programs/Rule9410TripReduction/eTRIP_main.htm

SMALL BUSINESS ASSISTANCE (SBA)

The District operates an effective SBA program to provide assistance to help 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.

PERMITS BY THE NUMBERS 2013

3918	Authority to Construct permits issued
133	New Permits to Operate issued
426	Permit-Exempt Equipment Registrations issued
801	New Title V permits issued to 14 facilities
940	Title V permit renewals issued to 10 facilities
1308	Title V permit modifications
586	Conservation Management Practices plans issued
329	Emission Reduction Credit certificates issued or transferred
878	Toxic air contaminant risk-management reviews performed
5670	Annual Emissions Inventory statements and surveys processed
169	Facilities evaluated under District toxics program (AB 2588)
1602	California Environmental Quality Act review requests processed
1000	CEQA comment letters and 80 CEQA documents prepared
257	Indirect Source Review applications processed
345	eTRIP plans

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 monetary penalties 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 2013, the District processed nearly 2,100 issued notices, transferred 115 cases to District Counsel, and collected approximately \$3.8 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 2013, 124 variance petitions were heard at 52 hearings.

COMPLIANCE BY THE NUMBERS 2013

31,779 Units inspected

3,187 Public complaints investigated

1,938 Open burn sites inspected

5,187 Incentive funding units inspected

972 Asbestos projects reviewed and inspected

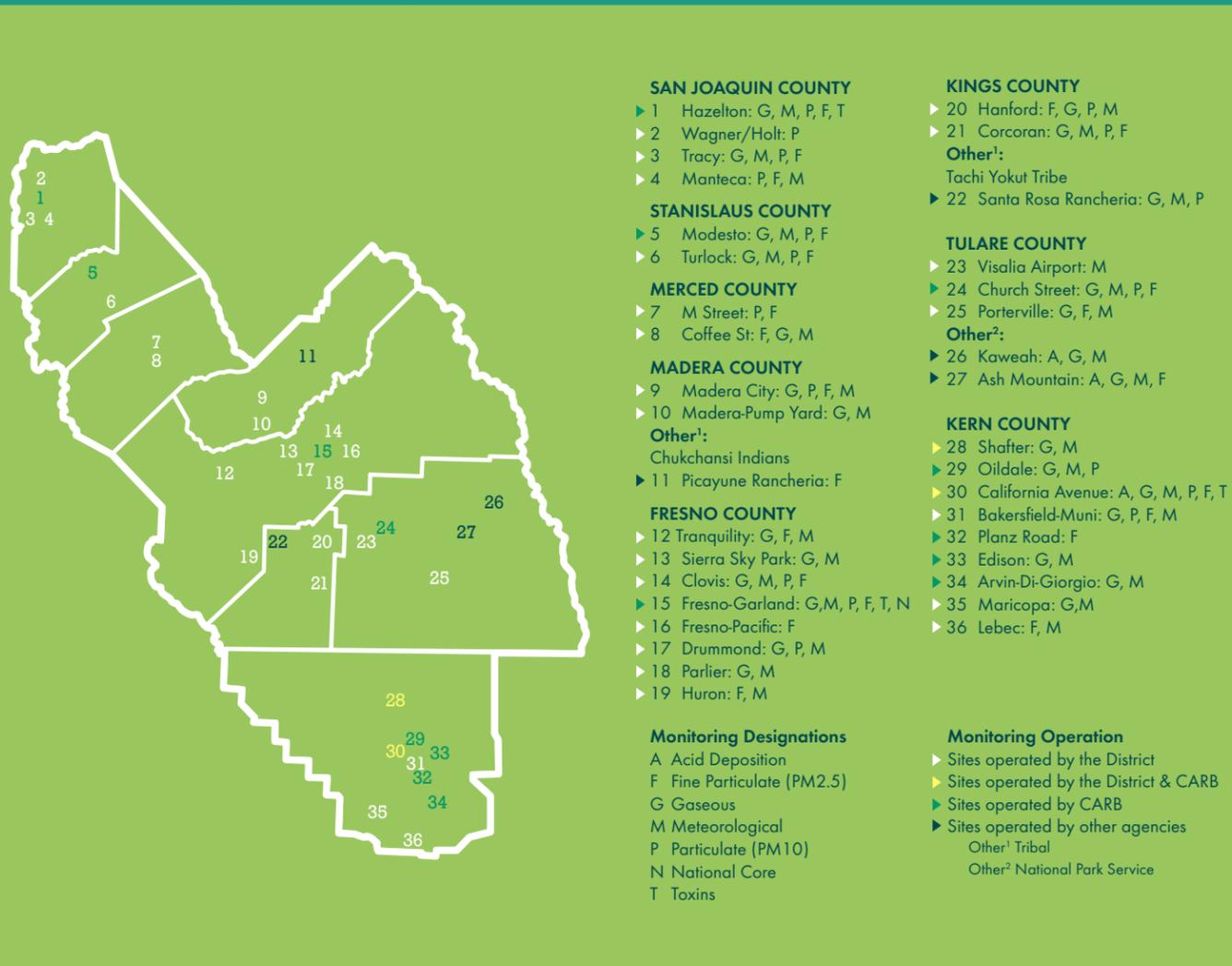
AIR MONITORING

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 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



Legal Activities

DISTRICT PREVAILS IN CHALLENGE TO ITS PERMITTING RULES DESIGNED TO ELIMINATE DUAL PERMITTING REQUIREMENTS

This was a challenge to EPA's approval of District Rule 2410, enabling the District to assume from EPA administration of the permitting program for Prevention of Significant Deterioration. Petitioners sought to return permitting authority to EPA, with the potential for imposing cumbersome and inefficient dual permitting requirements on regulated facilities. This suit was successfully resolved on October 8, 2013, when Petitioners dismissed their Petition following the filing of the District's brief.

DISTRICT DEFENDS ITS RULES EXEMPTING MINOR AG SOURCES FROM PERMITTING

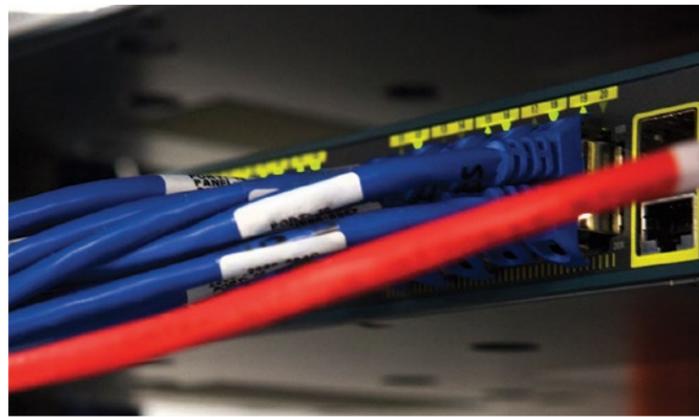
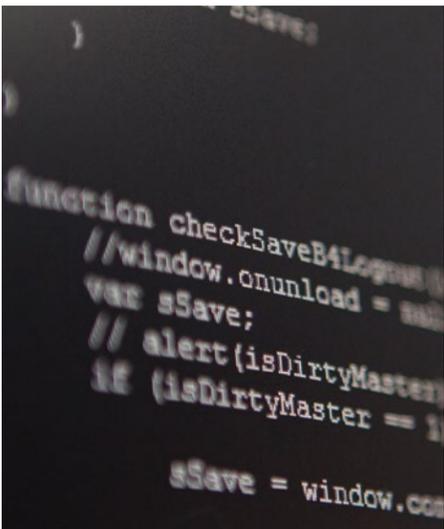
In September 2013, an environmental group filed a petition in the Ninth Circuit Court of Appeal to challenge EPA's approval of District rules clarifying that "minor" agricultural sources are exempt from the District's offset authority. The District has intervened in order to defend the validity of its rules. Briefs will be due in early 2014.

DISTRICT AWAITING ORAL ARGUMENT IN CHALLENGES TO OZONE, PM 2.5 PLANS

These two, similar cases involve a challenge to EPA's approval of the District's 2008 PM2.5 Plan and the District's 2007 8-Hour Ozone Plan. The challenges focus almost entirely on CARB's "State Strategy" portion of the Plan. In order to protect the region's interests, the District intervened to defend the entirety of the plans, including those adopted exclusively by CARB. The case is fully briefed and awaiting oral argument.

ENVIRONMENTAL GROUPS CHALLENGE THE DISTRICT'S METHOD OF COLLECTING NONATTAINMENT PENALTIES

This suit involves a challenge to EPA's recent approval of District Rule 3170, which the District adopted in May 2011 to implement section 185 "nonattainment penalties" required by the Clean Air Act for the District's failure to timely meet the 1-hour ozone standard. The District moved to intervene in the case to defend its method of implementing section 185 penalties. This case has been fully briefed and is awaiting oral argument.



Information Technology

The District strives to use technology to provide the highest level of customer service and to be an example of efficiency. The District investment in technology paid dividends over the past year increasing efficiency and saving money.

PAPERLESS AGENDA CONSORTIUM (PAC)

Over the past year, the District established and sponsored the PAC in order to provide a forum for interested government agencies in the San Joaquin Valley to share paperless agenda resources, ideas, solutions, and technical knowledge. The PAC has a vision to facilitate efficient and cost-effective implementation of paperless agenda systems, enabling members of governing bodies to use common mobile devices for multiple agency agendas. The PAC now has over 50 members and includes representatives from all eight counties and many of the 59 cities in the San Joaquin Valley. The PAC has a good mix of members with technical backgrounds and government operations experience.

REDUCING COMPUTER FACILITY ENVIRONMENTAL IMPACT

In order to reduce the environmental impact of District computer facilities, the District set out to decrease electrical power, air conditioning and computer hardware requirements for its computer rooms. This effort has resulted in a reduction of 45 computer servers, which represents over 50 percent of the District's total. In addition, the server reduction allowed the District to avoid an air conditioning system upgrade that was estimated to cost over \$100,000. This project proves that it is possible to save money while doing something good for our environment.

Outreach & Communications

In 2013, the District's Outreach and Communications team both embraced new challenges and disseminated historic good news about the air basin's never-before-achieved attainment of the federal 1-hour ozone health standard.

The team, a highly skilled group of communications professionals with expertise in public relations, media, graphics, web design and audio-video production, plays a critical role in providing bilingual information about current and expected air quality, grants programs, and educational and public information campaigns and programs, through a vital traditional and social-media outreach program.

This past year, the team elevated its presence on Facebook and Twitter, growing the number of followers and ensuring more people than ever before have access to important air-quality messaging. The team also ramped up its video production activities and continued to see increased participation in the District's Real-Time Air Advisory Network subscription program. The recently launched free iPhone app also continued to gather increased interest.

NEWS EVENTS

The historic attainment of the 1-hour ozone standard generated an exceptional amount of public and media attention. News conferences in all three regions announced the accomplishment in November. New partnerships and funding into the consumer Clean Green Yard Machines electric lawn mower trade-in program were the topics of news conferences in all regions during summer. The program is the most popular consumer incentive program in the District's history.

OC BY THE NUMBERS 2013

209	Media Calls
1,025	Public Calls
43	News Releases
49	Presentations/Outreach Events

Outreach & Communications

AIR ALERTS

A single Air Alert was called in September and regional news conferences ensured that Valley residents got the message. And, judging by the subsequent announcement of 1-hour ozone attainment, it appears they did.



CHECK BEFORE YOU BURN

After a relatively slow start to the Check Before You Burn wood burning curtailment season in November, air quality took a challenging turn in December, resulting in a string of back-to-back, Valley-wide curtailments. The outreach team fielded many calls from residents seeking information and from media focused on the statewide story of unusually warm temperatures and stagnant atmospheric conditions.



BURN CLEANER

The Burn Cleaner wood stove change-out program received a boost from additional funding and renewed commitments from the District's hearth retailer partners, resulting in more generous incentive amounts, increased funding to the much-needed low-income component, and a noticeable increase in applications for assistance from Valley residents in their purchases of cleaner wood burning devices, all of which directly benefitted winter air quality.



AIR QUALITY FLAG PROGRAM

The popular school-based program for educating and informing the Valley's students and school staffs continued its trajectory of increased participation. With a new partner on board – the Central California Asthma Collaborative – the flag program continued to receive a high number of enrollment requests.

REAL-TIME AIR ADVISORY NETWORK (RAAN)

Interest remained strong for enrollment in this important, free tool that keeps Valley residents informed of current, localized air quality. Available since 2012 through a free iPhone app, RAAN shows no sign of diminishing in its popularity or impact.

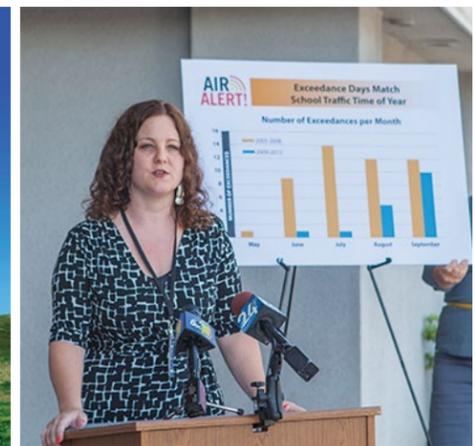
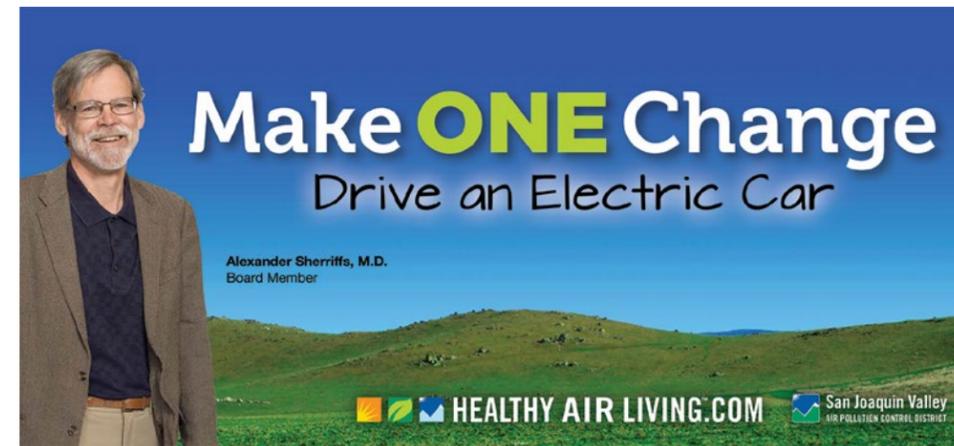


"BLUE SKY, BROWN SKY ... IT'S UP TO YOU!"

This free air-quality curriculum is sought after in both schools and by Valley parents and caregivers through a continued partnership with Valley Public Television. The colorful, educational curriculum is available in two grade levels tailored for elementary-school students.

HEALTHY AIR LIVING KIDS CALENDAR

The most-anticipated project of the year, the Kids Calendar, was produced in-house for the second consecutive year and the District quickly depleted its supply of 20,000 calendars. Distributed throughout the Valley to health care organizations, nonprofits, schools and individuals, the Kids Calendar continues to set the standard for engaging the Valley's children in an ongoing air-quality discussion.



APPLYING IS EASY!

Clean Green YARD MACHINES
www.valleyair.org/lawnmowers

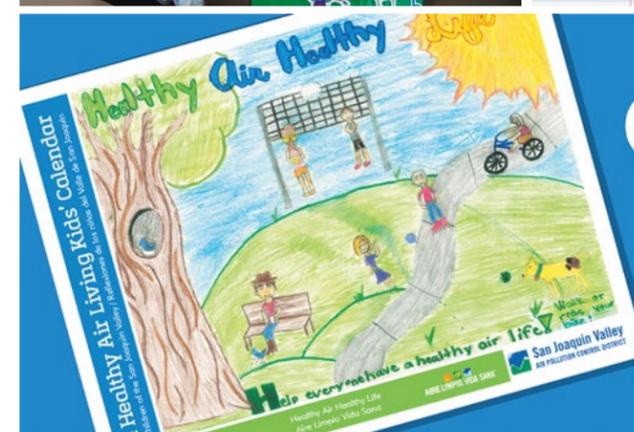
SAVE UP TO \$250!
On a New Electric Lawnmower



Protect Students' Health!
With these free healthy air living tools!

RAAN
Real-Time Air Advisory Network
Actual, real-time air-quality data taken directly from the nearest air monitor to help you evaluate air quality and determine the right time for outdoor activities. RAAN also provides Real-Time Outdoor Activity Risk (ROAR) guidelines based on five different air-quality levels.

AIR QUALITY FLAGS
Air Quality Flag Program
Each day, a colored flag is raised that correlates with the air-quality forecast. These flags help grab students' interest in air-quality issues and launch school-based instruction on air quality and health.



CALL for ENTRIES!

Students must submit artwork by Oct. 6, 2014!

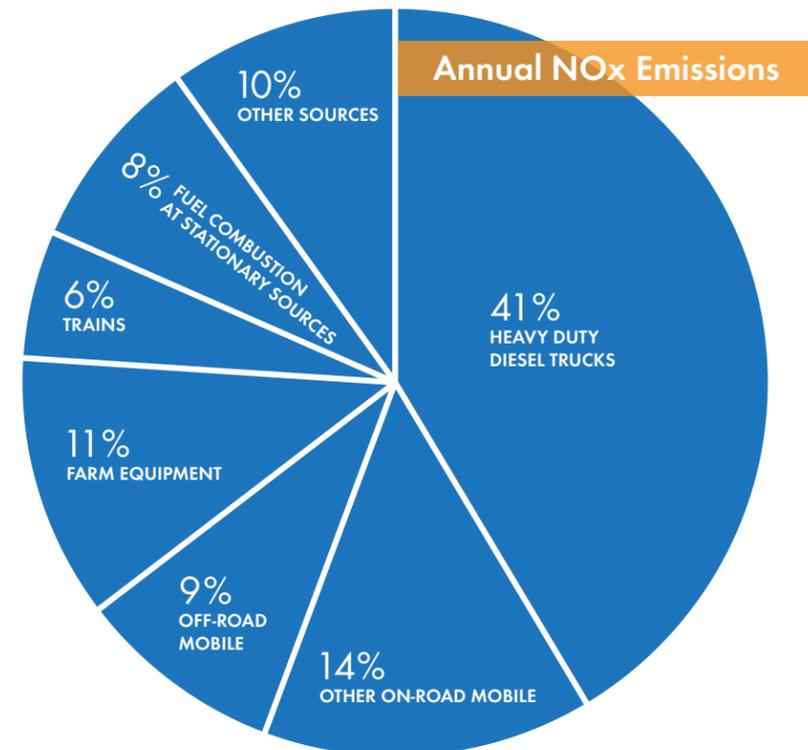
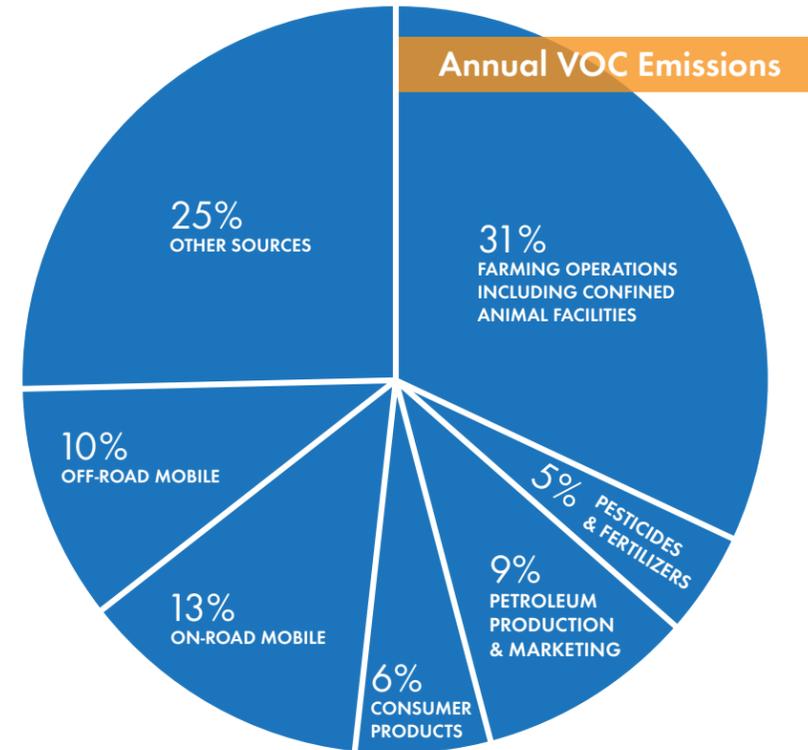
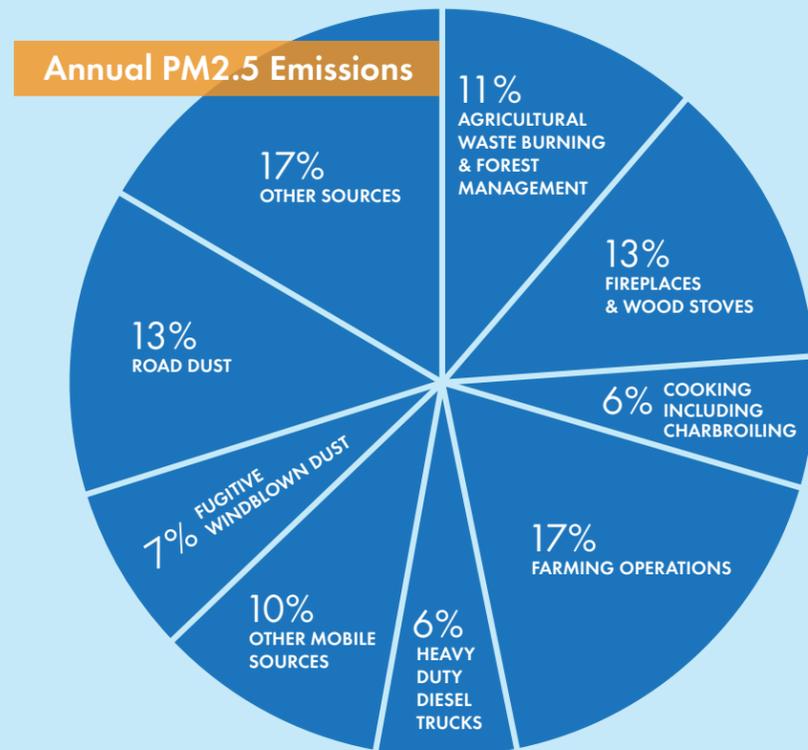
www.valleyair.org/kidscalendar

SOURCES OF POLLUTION

Despite major improvements in air quality, the Valley still faces significant challenges in meeting the federal, health-based, 8-hour ozone and particulate matter standards. These challenges are the result of the Valley's unique geography, topography and climate, which create ideal conditions for forming 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). PM 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.





District Employees Give Back to the Community

In 2013, nine nonprofit organizations benefited from District staff's time, energy and resources in the third year of District-sanctioned community service.

Each year, District staff selects its own projects, and coordinates and organizes activities. These projects demonstrate the many ways that District employees contribute not only to the betterment and health of their communities during working hours, but during their own free time, as well.

In the southern region, a tri-tip feast in September generated financial assistance for the Bakersfield Homeless Shelter, as well as gathered clean, gently used clothing, diapers and non-perishable food items for the shelter. In November, a lunch raised money and items for the Miriam Jamison Children's Center. And staff literally gave of themselves in a blood drive for the Houchin Community Blood Bank.

In Modesto, northern region staff gave of their sweat to build a home for a family selected by Habitat for Humanity and their blood in a drive for Delta Blood Bank.

In the central region, staff selected three organizations: Fresno's Bringing Broken Neighborhoods Back to Life, a broad coalition of community and civic groups; Rescue the Children, a transitional living environment for formerly displaced women and their children; and the Central California Blood Center. A Thanksgiving lunch hosted by the region's Information Technology section and attended by about 80 employees exceeded the donation goal of collecting 244 household items and toys valued at about \$3,500. All three regions donated items.

Staff participation is voluntary and activities take place during non-working hours. Organizations are nominated by regional staff.

On the Radar

With the historic accomplishment of attaining the 1-hour ozone standard still fresh, the Air District is invigorated in 2014 to continue finding innovative solutions in ensuring that our regulations and grants programs evolve to meet the Valley's changing needs.

The District is making important changes to Rule 4901 (Wood Burning Fireplaces and Wood Burning Heaters) that will encourage the use of cleaner wood burning devices. Public workshops will begin this spring. And to make it even easier for Valley residents to switch to cleaner devices, the District is revising its Burn Cleaner wood stove change-out program to provide additional monetary incentives.

New standards established by the U.S. EPA for ozone and particulate matter are coming even closer to encroaching on the Valley's background pollution concentrations. As the District develops air quality attainment plans that show compliance with these standards by the required deadlines, it is critical that we use ingenuity and skill to formulate necessary strategies in collaboration with Valley businesses and residents.

We will also continue to pursue common-sense adjustments to the federal Clean Air Act. Our strategy requires laying the foundation for short-term administrative changes through EPA and pursuing legislative action when possible.

Most importantly, the District will continue to expand and enhance our Public Benefits Grants program, along with other programs to ensure that cities, counties, agencies, businesses and residents receive assistance in their ongoing efforts to clean the air. We will continue to have programs that encourage cleaner vehicles, low-emission lawn-care equipment, cleaner wood burning devices, innovative technology, and improvements in mass transit and alternative commuting options.

Achieving the notable progress that we have thus far has required cooperation and collaboration among all the Valley's stakeholders. To continue our progress toward our common goal of clean air, it is imperative that we continue to work together.



San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT

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