



# 2023 ANNUAL REPORT *to the* **COMMUNITY**

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*An award-winning publication from the*



**San Joaquin Valley**  
AIR POLLUTION CONTROL DISTRICT.

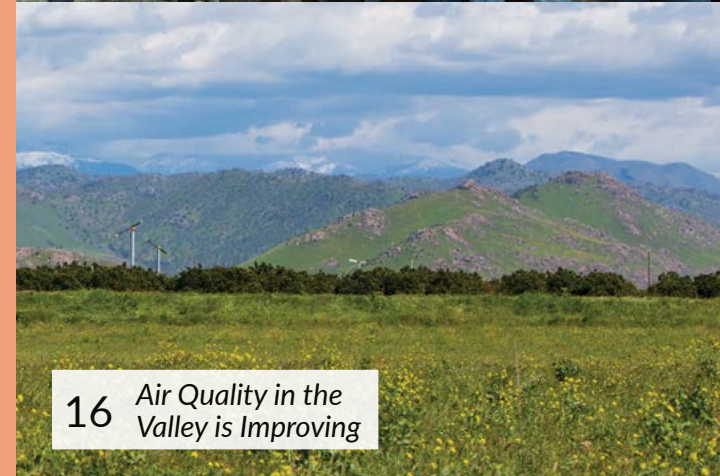
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## A message from the Air Pollution Control Officer

On behalf of the Valley Air District, we are excited to share the 2023 Report to the Community, a comprehensive overview of the Valley's air quality progress and our ongoing efforts to improve air quality and enhance public health. The goal of this award-winning report is to offer an account of the District's work over this past year, while welcoming input from all corners of the Valley moving forward.

In 2023, the San Joaquin Valley continued to build on our ongoing clean air progress, recording the cleanest air on record across a number of key metrics for both summertime ozone and wintertime particulate matter, our two key seasonal air quality challenges. Valley residents experienced the highest number of "Good" air quality days on record, and the entire Valley, including those remaining areas with the most persistent air quality challenges, is closer than ever to meeting federal health-based air quality standards.

This ongoing clean air progress would not be possible without strong collaboration and support from Valley residents, businesses, local agencies, and state and federal partners. We would like to thank those of you who make daily clean air choices and are working with us to improve air quality throughout the Valley. This past year, the San Joaquin Valley continued to serve as a model through our effective, efficient and entrepreneurial air quality management programs, and we are proud to highlight the national recognition received for the Valley's collaborative air quality efforts in this report. Some notable examples include, national recognition of the historic achievement by the Valley's agricultural sector in reducing air pollution from agricultural equipment, nation-leading efforts to protect communities from wildfire smoke and other air quality impacts, and national recognition of the District's Healthy Air Living Schools program as a "Best Practice" in air quality management, the second year in a row our Valley has been bestowed this prestigious national award.

After decades of implementing the most stringent measures for stationary and state mobile sources in the nation, emissions in the Valley will need to be reduced even further to meet the new more stringent federal air quality standards and meet public health goals. Critically, strong federal support will be essential to ensuring that the Valley and regions throughout the nation are successful in addressing the standards through strong investments and reasonable measures. Additionally, the Valley's air quality challenge is made more difficult by ongoing wildfire risk, limited water supplies, changing climate conditions, and our central role as a region in the nation's busiest freight trade corridor. With all of these challenges come many opportunities for continuing to move forward our clean air mission. As a key priority in the coming years, we must work closer than ever with Valley communities to ensure that transitions to new cleaner technologies are equitable and maximize community public health benefits.

We are committed to working collaboratively with all our partners to ensure the Valley continues to receive much-needed funding and resources at the state and federal levels, in support of our clean air mission, especially in light of a challenging budget year. We look forward to engaging with Valley residents and other stakeholders and hearing your suggestions and ideas as we continue to improve the Valley's air quality.

**SAMIR SHEIKH**  
Executive Director, Air Pollution Control Officer

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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 of the San Joaquin Valley air basin: San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare and the Valley air basin portion of Kern.

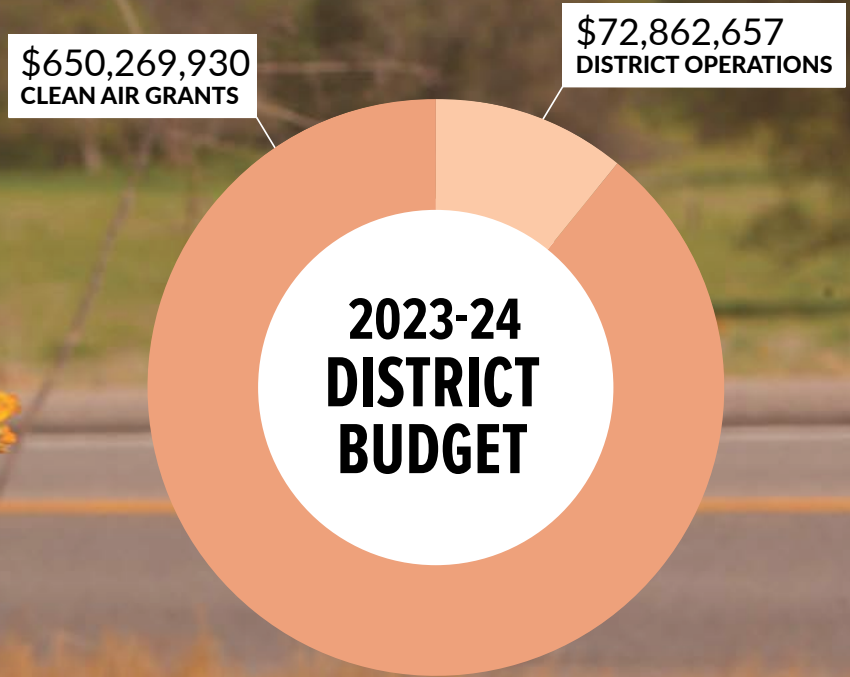
The District works with local, state and federal government agencies, the business community, community-based organizations and the residents of the Valley to reduce emissions to improve air quality.

### 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. Our Core Values have been designed to ensure that our mission is accomplished through commonsense, feasible measures that are based on sound science.

### 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 fiscal year runs from July 1st through June 31st. In the past fiscal year, nearly 90% of the District's overall budget contained funds specifically for voluntary grants and incentives for Valley residents, businesses, municipalities and others. This significant state and federal funding for voluntary clean air projects would not be possible without the many District partners.*

## CORE VALUES

### PROTECTION OF PUBLIC HEALTH

The District shall continue to strive to protect the health of Valley residents through efforts to meet health-based state and federal ambient air-quality standards, based on science and prioritized where possible using health-risk reduction strategies.

### ACTIVE AND EFFECTIVE AIR POLLUTION CONTROL EFFORTS WHILE SEEKING TO IMPROVE THE VALLEY'S ECONOMIC PROSPERITY AND GROW OPPORTUNITIES FOR ALL VALLEY RESIDENTS

District staff shall work diligently to adopt and fully implement cost-effective air pollution-control measures, provide meaningful incentives for reducing emissions, and develop creative alternatives for achieving emissions reductions.

### OUTSTANDING CUSTOMER SERVICE

District staff shall work to provide excellent customer service for stakeholders in activities including: rule and plan development; permitting and emissions inventory functions; compliance activities; financial and grant-funding transactions; and responses to public complaints and inquiries.

### INGENUITY AND INNOVATION

The District values innovation and ingenuity in meeting the challenges we face. Examples of this spirit of innovation include developing programs that provide new incentives for emissions reductions, and providing alternate compliance strategies that supplement traditional regulatory efforts and generate more emissions reductions than could otherwise be reasonably obtained.

### ACCOUNTABILITY TO THE PUBLIC

The District serves, and is ultimately accountable to, the people of the Valley for the wise and appropriate use of public resources, and for accomplishing the District's mission with integrity and honesty.

### OPEN AND TRANSPARENT PUBLIC PROCESSES

The District shall continue to provide meaningful opportunities for public input and be responsive to all public inquiries.

### RECOGNITION OF THE UNIQUENESS OF THE SAN JOAQUIN VALLEY

The Valley's meteorology, topography and economy differ significantly from those in other jurisdictions. Although it is valuable to review and evaluate efforts of other agencies, we must consistently look for solutions that fully consider the Valley's unique needs.

### CONTINUOUS IMPROVEMENT

The District works to continually improve its internal operations and processes, and strives to streamline District operations through optimally utilizing information technology and human resources.

### EFFECTIVE AND EFFICIENT USE OF PUBLIC FUNDS

The District shall continually strive to efficiently use all resources and to minimize costs associated with District functions.

### RESPECT FOR THE OPINIONS AND INTERESTS OF ALL VALLEY RESIDENTS

The District shall respect the interests and opinions of all Valley residents and fully consider these opinions, seeking collaboration with federal, state, and local agencies, agriculture, businesses, community groups and residents in carrying out the District's mission.

### ROBUST PUBLIC OUTREACH AND EDUCATION ON VALLEY AIR QUALITY PROGRESS AND CONTINUING AIR QUALITY EFFORTS

As we move forward in achieving our mission, the District shall continue its ongoing efforts to educate the public about air quality, and the significant clean air investments and air quality progress that have been made in the Valley.



## Cleaner Air = Better Health

The District prioritizes enhancing air quality across the Valley to protect public health. Extensive research highlights the negative health impacts of poor air quality, including respiratory issues like asthma and chronic obstructive pulmonary disease. Air pollutants, such as particulate matter and ozone, exacerbate respiratory conditions and increase the risk of cardiovascular diseases, like heart attacks and strokes. Emerging studies also suggest neurological effects, such as dementia, from air pollution exposure.

Air pollution affects everyone, with factors like location, time of day, and weather conditions influencing exposure levels. Sources like transportation and industry, contribute significantly to pollution levels, impacting surrounding communities. Unfortunately, lower-income and minority communities often bear a disproportionate burden of pollution.

The District collaborates with local, state, and federal agencies to address air quality disparities, especially in disadvantaged communities. Collective efforts aim to reduce pollution and minimize exposure, ensuring improved health outcomes for all Valley residents.

### EFFECTS OF AIR POLLUTION

#### Fine Particle (PM2.5) pollution can cause:

- » Shortness of breath
- » Chest pain
- » Wheezing, coughing
- » Fatigue

#### Fine particles can make these conditions **worse**:

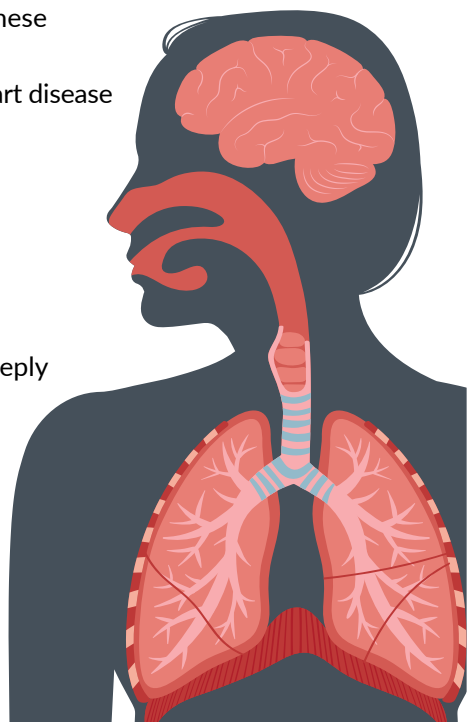
- » Cardiovascular and heart disease
- » Asthma and COPD
- » Dementia
- » Neurological Disorders

#### Ground-level Ozone pollution can cause:

- » Difficulty breathing deeply
- » Shortness of breath
- » Sore throat
- » Wheezing, coughing
- » Fatigue

#### Ozone can make these conditions **worse**:

- » Asthma and COPD
- » Emphysema



## Thank You San Joaquin Valley: Milestone Year of Cleaner Air

Over the past two decades, the Valley has made significant strides in improving air quality, evident in the increasing number of days when air quality standards are met across all counties. Despite challenges like wildfires, recent years have seen a notable increase in the days where the Valley's air meets health standards compared to days when it exceeds them. In fact, 2023 marked a record-breaking year with the highest number of days meeting health standards, signaling continued positive progress in air quality improvement. The District looks to build upon this milestone year in reducing pollution even further to bring even cleaner air to the residents of the Valley and ensure that every community is meeting air quality goals.

### CONTINUED IMPROVEMENT IN AIR QUALITY

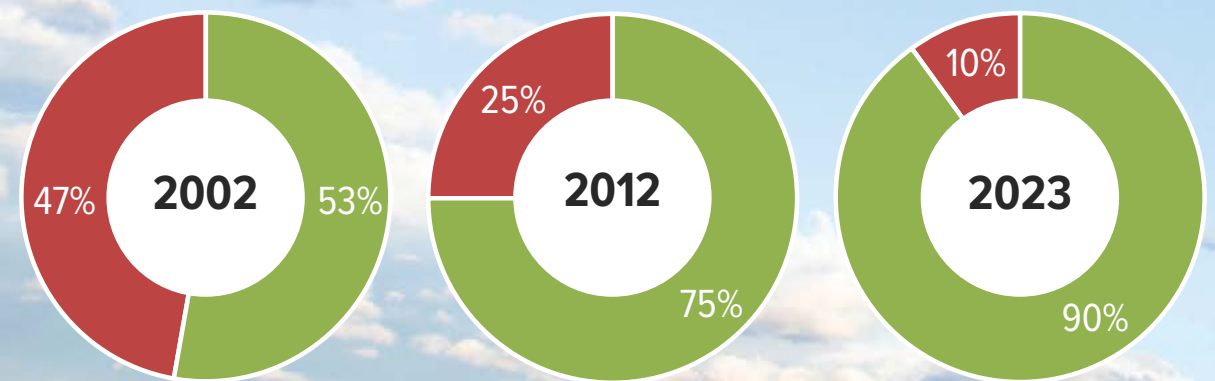
Through these improvements, the Valley has been steadily making progress in meeting the stringent PM2.5 and ozone standards required for federal air quality attainment. Despite occasional setbacks from events like wildfires, recent data analysis by the District and the California Air Resources Board (CARB) indicates that the Valley is nearing attainment of key federal air quality standards for PM2.5 and ozone. These improvements are being realized in both rural communities and large urban areas in the Valley like Stockton, Modesto, Fresno, Visalia, and Bakersfield, where air quality in these areas is significantly better than previous years.

As the Valley nears the attainment of these standards, the Valley has witnessed a significant decline in air pollution levels—thanks to over three decades of concerted efforts in emissions reduction and substantial investments from residents, businesses, agriculture, agencies, and other partners. This improvement has persisted despite notable increases in population and vehicle miles traveled. Notable achievements include meeting key health-based federal air quality standards such as NO<sub>2</sub>, SO<sub>2</sub>, CO, PM<sub>10</sub>, 1-hour ozone, and the 24-hour PM<sub>2.5</sub> standard of 65 µg/m<sup>3</sup>.

### LOOKING AHEAD

As detailed in this report, the San Joaquin Valley has continued to see significant and measurable improvements in air quality and public health in recent years. While this progress has been notable, the Valley's air quality challenges continue to be profiled at a national level due to ever-growing impacts from increasingly severe wildfire seasons and other challenges. This ongoing conversation only highlights the urgency for continuing to reduce air pollution through strong partnerships at every level. The District and CARB remain committed to further reducing emissions through innovative strategies in partnership with Valley communities to meet additional federal air quality standards in the coming years, ensuring cleaner air for residents across the region.

### DAYS MEETING vs DAYS EXCEEDING THE HEALTH STANDARDS YEAR-ROUND





## SPOTLIGHT | Collaborative Efforts Result in Historic Reductions in Ag Emissions

In November of 2023, representatives from the District, CARB, Natural Resources Conservation Service (NRCS), and US EPA Region 9 came together to sign a proclamation lauding the successful efforts to reduce agricultural-related air quality emissions in the San Joaquin Valley. The proclamation stated, **“that through the emissions reductions achieved by the District, CARB, and NRCS grant program partnerships, the agricultural industry has met their commitment to accelerate turnover of agricultural equipment in the San Joaquin Valley to cleaner equipment and achieved over 11 tons per day of NOx emission reductions in 2024”**. To meet the District’s attainment plan commitments—through the Carl Moyer Memorial Air Quality Standards Attainment Program (Carl Moyer), Funding Agricultural Replacement Measures for Emissions Reductions (FARMER) Program, Diesel Emission Reduction Act (DERA), Targeted Airshed Grant (TAG), and NRCS Environmental Quality Incentives (EQIP) programs—the agricultural industry turned over and destroyed over 12,800 pieces of older agricultural equipment in the San Joaquin Valley, of which over 7,300 were the oldest Tier 0 agricultural equipment with no emissions controls.

While the San Joaquin Valley has some of the most challenging fine particulate matter and ozone air quality issues in the nation, the Valley has a long history of collaboration with Valley agricultural stakeholders, partner agencies, state and federal legislators, and the California Governor. This collaboration has led to the accelerated turnover of older agricultural equipment to lower-emitting equipment. The total public (District, CARB, NRCS, and U.S. EPA) and private investment in agricultural equipment in the San Joaquin Valley since 2015 has equated to over \$1.6 billion, more than half of which was spent by farmers and others in the agricultural industry.

*“The agricultural sector in the San Joaquin Valley is an economic powerhouse for the state. Moving towards the cleanest available technology in this sector continues to be critical to improving the air in the Valley...We all have a role to play in building a healthier, more sustainable California, and today’s event shows what we can achieve when we work together.”*  
- Liane Randolph, Chair, CARB

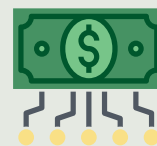
*“NRCS California is proud to have helped our farmers replace more than 6,000 old, polluting tractors since 2008, with an emission’s reduction equivalent of removing 1.5 million cars off California’s roads. But we didn’t do this alone – a robust partnership of agriculture and governmental partners have teamed with us for more than a decade working together to make our air cleaner and healthier for Central Valley communities.”*  
- Carlos Suarez, California State Conservationist, NRCS

*“We commend our state and local partners and the agricultural community for their years of collective efforts to improve the air our Valley communities breathe, and pledge to continue this partnership. Emissions from agricultural equipment are the largest source of nitrogen oxide in the Valley and will require continued innovation and strategies for reducing air pollution – including via the \$10 million grant for a low-dust nut harvester that we are announcing today.”*  
- Martha Guzman, Regional Administrator, EPA Region 9

The San Joaquin Valley, through interagency partnerships with the agricultural sector, has been forward-looking and innovative through its continued efforts to use the best practices possible to reduce agricultural emissions through air quality management strategies. These strategies include Conservation Management Practices, turnover of agricultural pumps including electrification of thousands of pump engines, replacement of conventional harvesting equipment with low-dust nut harvesters, phase-out of agricultural open burning, deployment of thousands of zero-emission agricultural utility terrain vehicles, and the turnover of thousands of tractors with the cleanest technologies available.

*“The District applauds the leadership of local and state legislators, as well as Valley farmers in recognizing the public health and climate benefits provided throughout California from clean air investments. The San Joaquin Valley agricultural sector feeds the world and coordinated multi-agency efforts like this must continue to support farmers’ ongoing transition to sustainable and air-friendly practices.”* - Samir Sheikh, Executive Director/Air Pollution Control Officer, Valley Air District

**\$1.6 Billion**  
Invested in new  
ag equipment  
since 2015



**12,800+**  
Pieces of older  
ag equipment  
replaced



**TOTAL EMISSIONS REDUCTIONS**  
**11 tons of NOx per day**

## Low-Dust Nut Harvester Program Benefits Valley Communities

The District continues to take actions to reduce exposure to localized sources of particulate matter. As nut harvesting activities can be the cause of localized air quality impacts due to dust emissions, in 2017, the District Governing Board established the Community-Level Targeted Strategy, which led to the development of the first-in-the-nation Low-Dust Nut Harvester Replacement Program in partnership with Valley Agriculture. Through success in competing for and leveraging local and federal funds, the District has been successful in replacing nut harvesters throughout the Valley with lower-dust alternatives, leading to significant emission reductions from these activities, and reducing dust exposure in nearby communities.

The District Governing Board has long supported efforts to conduct research and evaluate technologies to reduce emissions in the San Joaquin Valley, including dust from nut harvesting operations. In line with this priority, the District, in partnership with other agencies and the agricultural industry, has conducted studies to demonstrate that low-dust harvesting technology can be effective at reducing localized PM emissions associated with harvesting activities, with results showing reductions of localized PM emissions by more than 40%, and in some cases up to nearly 80%.

The Low-Dust Nut Harvester Replacement Program, to date, has successfully obligated over \$16.7 million to replace 202 pieces of nut-harvesting equipment with low-dust nut harvesting equipment, which has resulted in the reduction of more than 11,000 tons of PM10 and 1,400 tons of PM2.5. In May 2023, District Governing Board accepted EPA’s award under the Targeted Airshed Grant Program which included an additional \$10,000,000 in funding to deploy this new equipment, which reflects the District’s ongoing commitment and success in working with Valley agriculture to accelerate the deployment of cleaner technologies through innovative locally-developed programs.

Moving forward, to continue progress in reducing emissions from nut harvesting, the District will advocate for additional funding, and evaluate potential enhancements to the program to ensure that this program remains effective, and to ensure that small growers have equitable access to available incentive funding. Additionally, the District will support and evaluate potential research opportunities as technology advances, and evaluate potential opportunities to conduct a Valley-wide survey to further understand the number of harvesters operating in the Valley.



## Success at Phasing Out Open Agricultural Burning

The San Joaquin Valley boasts the world's most productive farmland, cultivating over 250 crop types from over 4.5 million acres of cropland. Collaborating with Valley agriculture and CARB, the District has devised a comprehensive strategy to address remaining agricultural open burning before January 1, 2025. Dating back to 2005, the District has initiated measures to curb open burning, in compliance with Senate Bill 705 (Florez) and District Rule 4103 (Open Burning).

Over the past two decades, concerted efforts with the agricultural community have led to significant reductions in emissions from agricultural burning. Various materials, including field crops, prunings, orchards, vineyards, and others, have been phased out from open burning. In the forthcoming year, vineyard and orchard removals, along with prunings and raisin trays, will be prohibited from burning. Collaborative research with agencies and the agricultural sector is underway to explore cleaner alternatives, such as beneficial reuse, composting and biochar.

To facilitate the transition away from agricultural open burning, the District has introduced the Ag Burn Alternatives Grant Program. This initiative offers financial incentives to commercial agricultural operations to chip orchard/vineyard removal material instead of burning it. The program offers various options for the chipped material, including soil incorporation, land application on grower property, or other agricultural land, as well as beneficial reuse alternatives like mulch, composting, and land application for dust suppression near roadways. Incentive amounts range from \$300 to \$1,700 per acre of agricultural material removed.

To date, the response to the Ag Burn Alternatives Grant Program has been robust. The District has allocated over \$169 million in funding, supporting alternative projects on over 244,000 acres in the Valley. This initiative has diverted 6.6 million tons of agricultural material from open burning, encompassing a wide array of crop types, including almonds, nectarines, olives, plums, citrus, grapes, walnuts, and peaches.

## Partnering with Valley Ag to Highlight Success of Innovative Equipment

In August, Valley leaders toured two local farms to showcase the District and Valley agriculture's commitment to using alternatives for open burning, particularly for smaller farming operations.

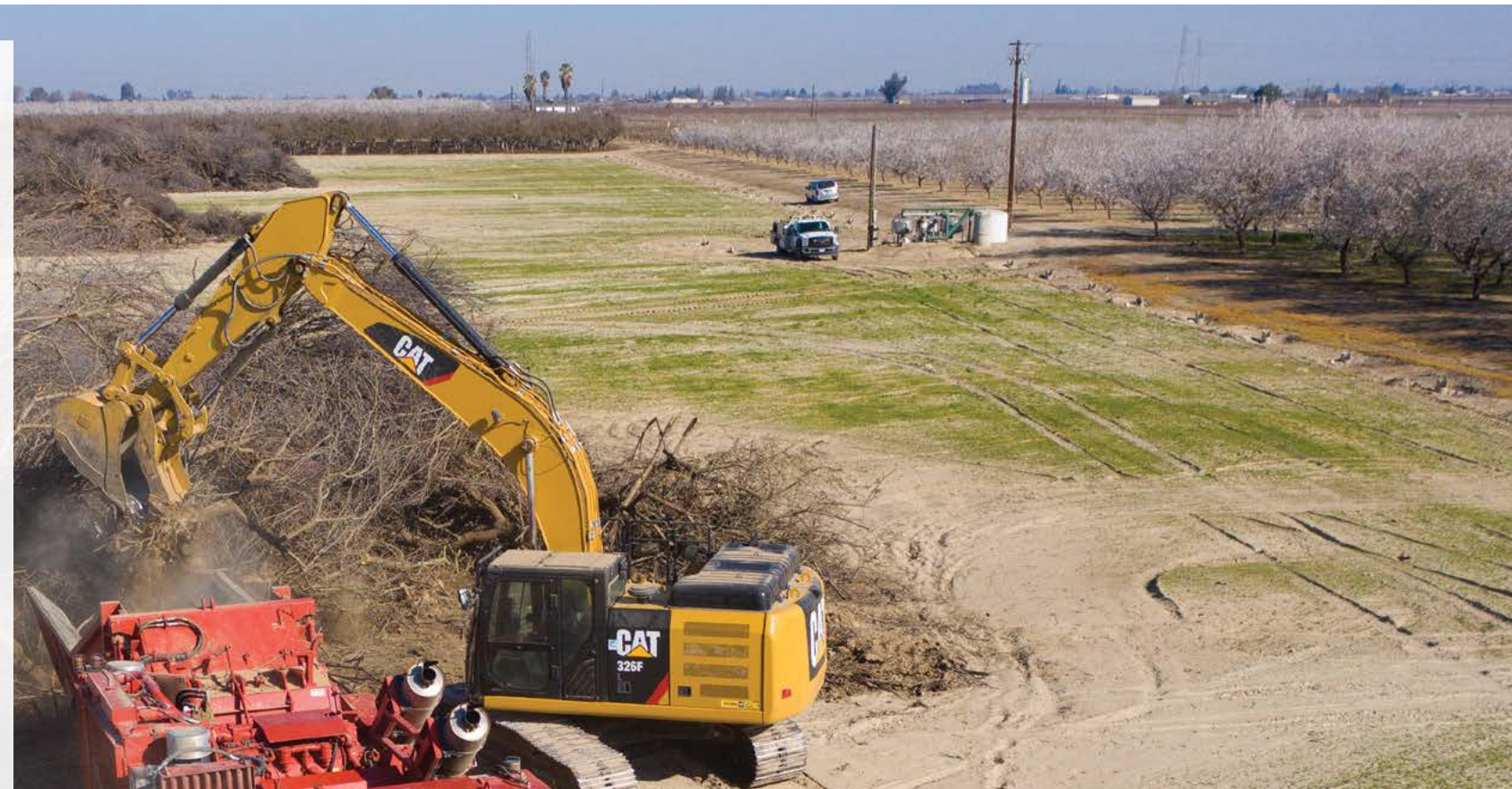
The tour visited a Fresno area farm to demonstrate the Hammel vineyard chipping equipment funded in part through the District's Ag Burn Alternatives Grant Program. The equipment is unique as it can fully chip vineyard material that contains embedded wire and stakes reducing the laborious and costly process of removing by hand. This grant program incentivizes open burning alternatives in preparation for the January 1, 2025 near complete phase out of agricultural open burning in the Valley.

The tour also visited a Kerman area farm to demonstrate the Tenias low-dust nut harvester equipment, which is a shaker/sweeper combination unit that shakes the almonds into a catcher, and then drops the nuts into windrows in one pass. This equipment, incentivized by the District through the Low-Dust Nut Harvester grant program, is pivotal in reducing localized air quality impacts stemming from nut harvesting.

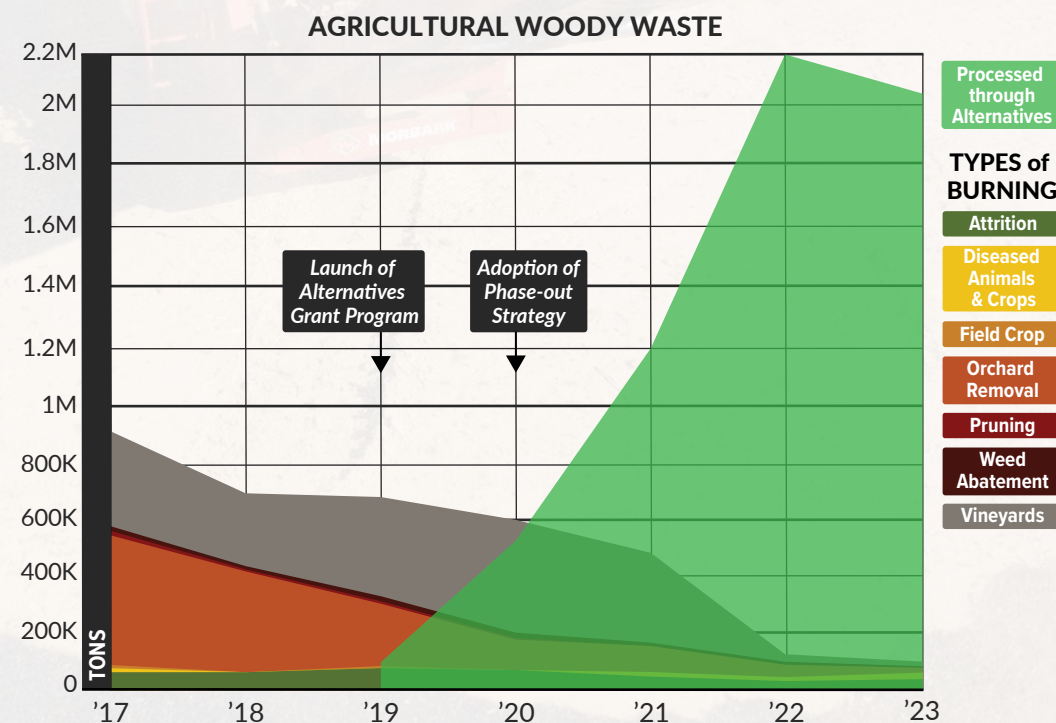
Highlighting the effectiveness and success of these programs, prominent leaders from the Valley's agricultural sector, including the Nisei Farmers League, California Cotton Ginners Association, Western Agricultural Processors Association, Fresno County Farm Bureau, and other ag groups, provided the tour to state and local officials, from U.S. EPA-Region 9, CARB, USDA-NRCS, and representatives from state and federal elected officials.

“Given that the agricultural community is key in helping the Valley meet clean air goals, these programs must remain relevant and responsive to the needs in the field. We must ensure all farmers, especially small farmers, have an opportunity to receive District funding to replace their older equipment and practices with effective, cleaner options.” - Vito Chiesa, Supervisor, Stanislaus County / Chair, Valley Air District

Through these and other joint efforts, the open burning of over 194,000 acres (nearly 5,400,000 tons of woody waste) has been eliminated through non-burning alternative practices including chipping and soil incorporation.



“Agriculture has helped to clean up the Valley air. Today we are showing elected officials and federal and state agencies the innovative technology currently being used in the fields to reduce particulate matter, especially in almond harvesting activities. The agriculture community is continuing to look at new technologies to help further reduce emissions from its activities.” - Manuel Cunha Jr., President, Nisei Farmers League



## State FARMER Funding Reducing Emissions in the Valley

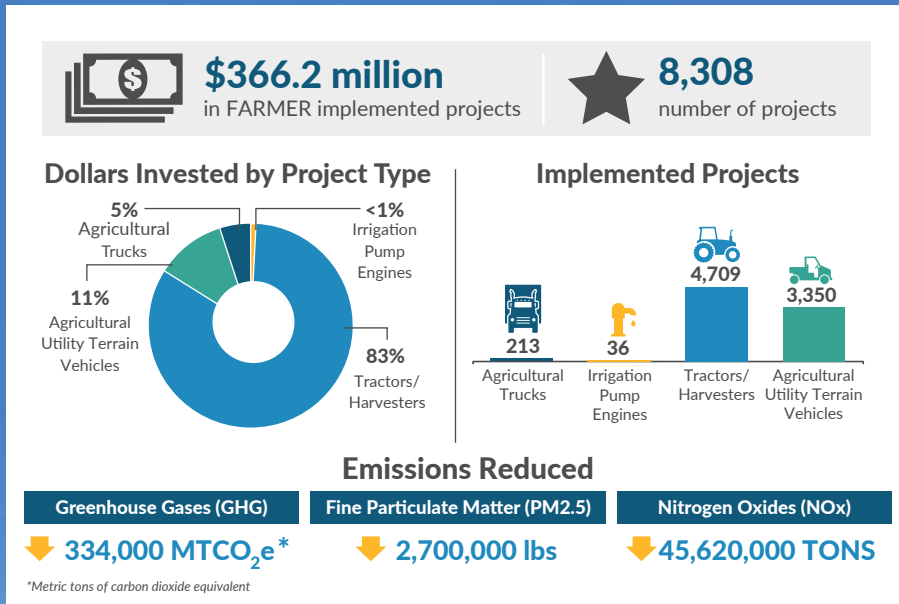
The Funding Agricultural Replacement Measures for Emission Reductions (FARMER) Program, administered by CARB and funded through local air districts, expedites the turnover of high-emitting agricultural equipment, like tractors, harvesters, pumps and utility terrain vehicles for cleaner and zero-emission equipment. Investments through this program have the benefit of supporting farmers in the move to clean, low carbon technologies and practices, and providing for immediate community health and air quality benefits across the San Joaquin Valley.

*“This is one of the District’s most cost effective programs, reducing emissions throughout the Valley while helping some of our smallest farmers transition to cleaner equipment. We appreciate the state’s support of great programs like this one, and hope for continued investments in these programs in this year’s budget.”*  
 - Samir Sheikh, Executive Director/APCO, Valley Air District

Since 2017, investments through the FARMER program matched with investments from Valley growers have resulted in the reduction of 185,000 metric tons of carbon dioxide equivalent and 22,210 tons of harmful air pollutants such as particulate matter and nitrous oxide. Reducing these pollutants expedites the delivery of cleaner air in the San Joaquin Valley where residents experience some of the highest adult and childhood asthma rates.

FARMER is one of the most cost effective and timely ways in which the state can advance collective air quality and climate goals in order to improve air quality, lessen adverse health impacts, and advance carbon neutrality. Realizing the vision of a more equitable and healthy future requires follow through with targeted and strategic investments that leave no one behind.

In addition to the FARMER and local programs, the Natural Resources Conservation Service (USDA-NRCS) provides a wide suite of programs aimed at supporting agricultural transition to sustainable practices. Through this combined local, state, and federal partnership, the San Joaquin Valley has served as the national leader in the deployment of clean air technologies and practices.



*In March, the District and local agricultural leaders hosted a Clean Agricultural Equipment Showcase demonstrating the air quality benefits of replacing high-polluting equipment.*

## Collaboration Key to Addressing Complex Air Quality Challenges

In a region with diverse environmental challenges such as unique topography, meteorology, severe wildfire impacts, and emissions from mobile and industrial sources, collaboration among local, state, and federal agencies is essential for developing effective strategies to combat air pollution.

One key advantage of collaboration is the pooling of resources, expertise, and technology from different entities. The District prioritizes working with local, state and federal agencies, local policy makers, community organizations, local businesses, residents and other stakeholders to leverage each other’s strengths to develop more robust

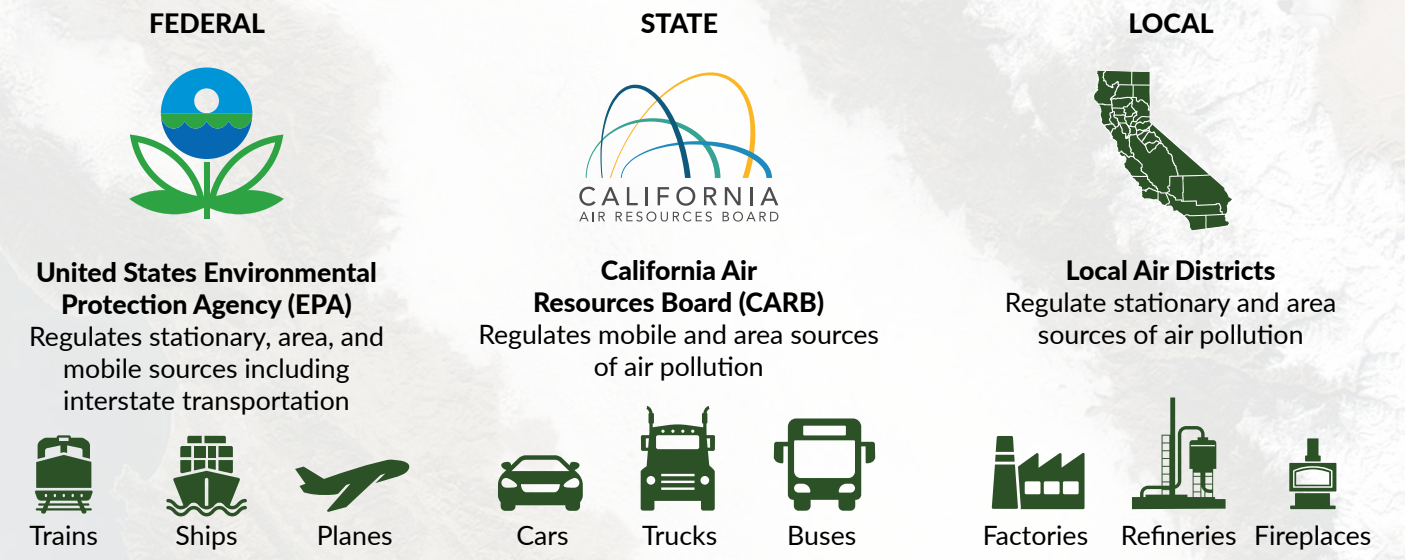
solutions for addressing air quality challenges. By working together, the District has been able to adopt a comprehensive approach that tackles the root causes of pollution, including transportation, industry, agriculture, and residential activities.

Moreover, collaboration facilitates the development and implementation of sound air quality policies and regulations that address the very complex scientific nature of the Valley’s air quality challenges. Engaging in dialogue ensures that strategies are science-based, feasible, and equitable.

Public engagement and awareness are also vital components of collaborative

efforts. By involving community-based organizations (CBO’s), environmental justice organizations and the public, the District has been able to raise awareness about air quality issues, educate the public about the health impacts of pollution, and mobilize support for action.

By working with our many partners, the District is developing comprehensive strategies, sharing resources and expertise, engaging the public, and driving innovation and research, ultimately leading to cleaner air and healthier communities.



## Stakeholder Engagement Key to District’s Ongoing Clean Air Efforts

**CITIZENS ADVISORY COMMITTEE (CAC)**  
 The CAC consists of 24 primary and 24 alternate members. There is one unpaid representative each for the Industry/Ag, Environmental, and City interest groups in Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare counties. Consistent with state law, the Governing Board of the District established the CAC for the purpose of receiving public comments related to the actions and decisions of the District. Since its creation, the CAC has been invaluable in relaying information to Valley residents and businesses and in providing District staff and the Governing Board with important insight on critical issues impacting the Valley.

**ENVIRONMENTAL JUSTICE ADVISORY GROUP (EJAG)**  
 EJAG celebrated its 15th year of service in 2023. Since its inception, membership, meeting attendance and community participation in EJAG meetings have steadily increased. The EJAG’s mission is to advise the District on how to integrate environmental justice principles into all programs, policies, and activities. One critical function of EJAG is to provide input on the implementation of the District’s incentive programs to make them more accessible to Valley communities, including the Fireplace and Woodstove Change-out Program, Drive Clean in the San Joaquin, and a number of other incentive programs.



## Air Quality in the Valley is Improving

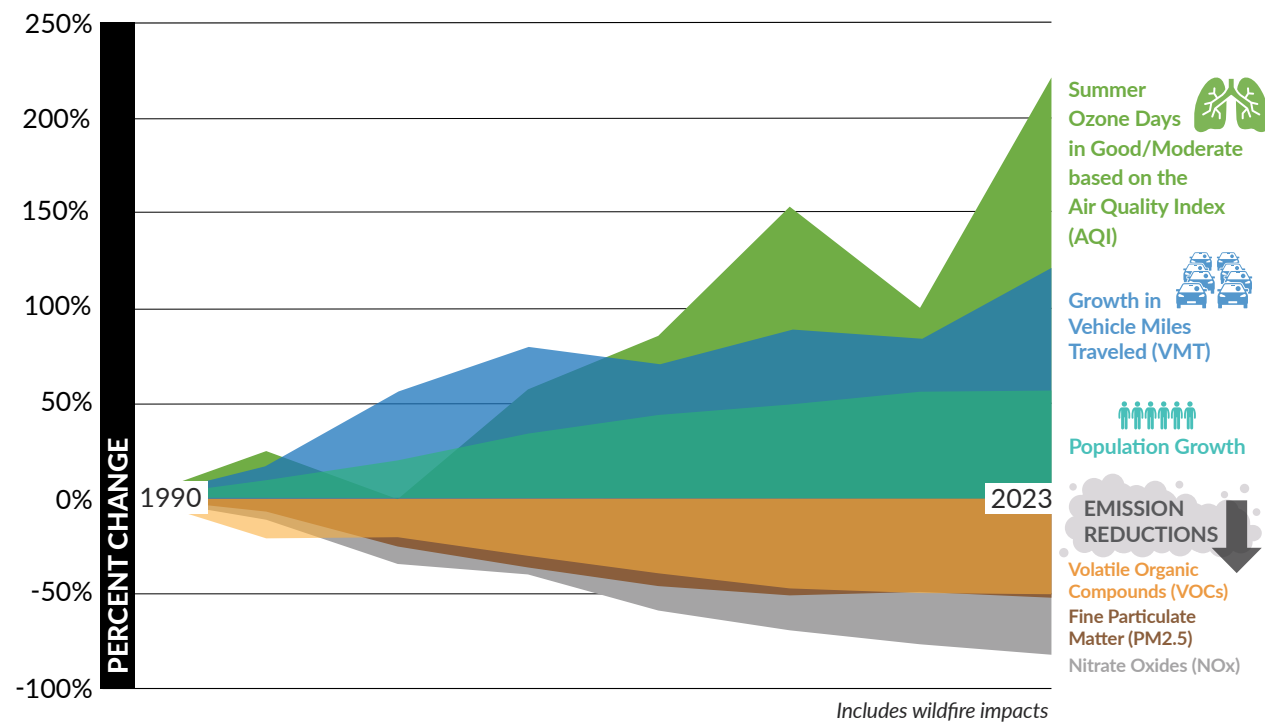
Over the span of more than three decades, the Valley has made remarkable strides in reducing emissions and enhancing air quality. Thanks to the concerted efforts of businesses and residents, coupled with significant investments, pollution levels have plummeted despite a surge in population and vehicle usage.

The region's commitment to environmental stewardship has yielded tangible results. Noteworthy accomplishments include meeting several crucial federal air quality benchmarks. The Valley has surpassed expectations by achieving compliance with

standards for pollutants such as Nitrogen Dioxide (NO<sub>2</sub>), Sulfur Dioxide (SO<sub>2</sub>), Carbon Monoxide (CO), PM<sub>10</sub>, 1-hour ozone standard, and the 24-hour PM<sub>2.5</sub> standard of 65 µg/m<sup>3</sup>.

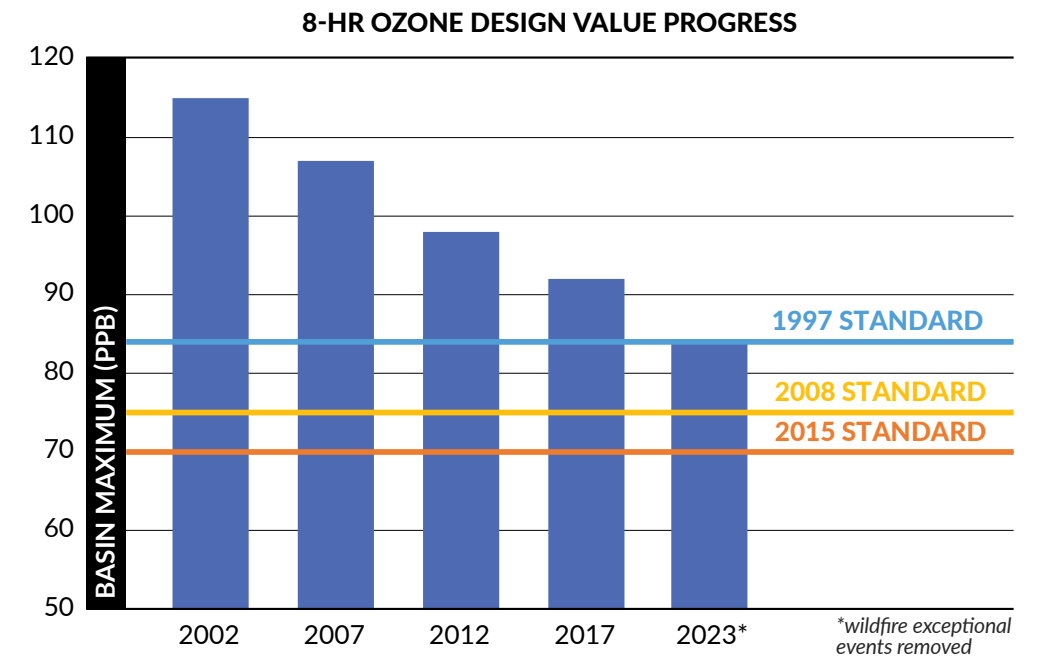
Continuing this trajectory, both the District and CARB remain committed in their pursuit of further emissions reductions. Through a combination of regulatory strategies and incentive programs, ongoing collaborative efforts aim to propel the Valley towards meeting additional federal air quality standards in the foreseeable future.

### AIR QUALITY IMPROVES EVEN WITH DRAMATIC GROWTH

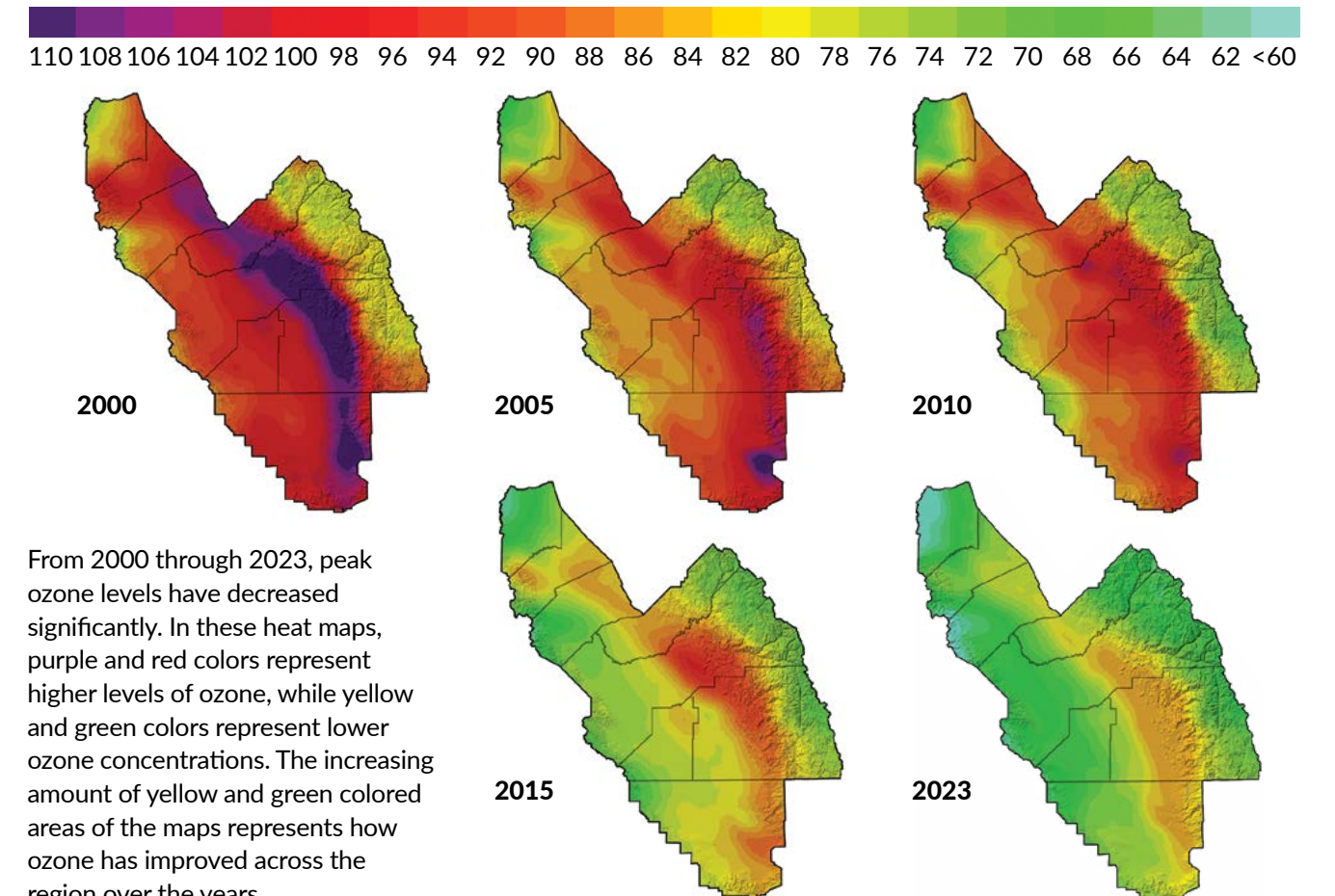


## Ozone Levels Continue to Decline

Significant progress has been made with respect to ozone concentrations. Excluding wildfire impacts, the Valley is on the verge of attaining the 8-hour standard of 84 parts per billion (ppb), while progressing towards the more stringent standards of 75 ppb and 70 ppb. The following figures depict how far the region has come in reducing peak ozone values, bringing the Valley even closer to attaining the health-based air quality standards.



### 8-HOUR OZONE DESIGN VALUE (PPB)



From 2000 through 2023, peak ozone levels have decreased significantly. In these heat maps, purple and red colors represent higher levels of ozone, while yellow and green colors represent lower ozone concentrations. The increasing amount of yellow and green colored areas of the maps represents how ozone has improved across the region over the years.



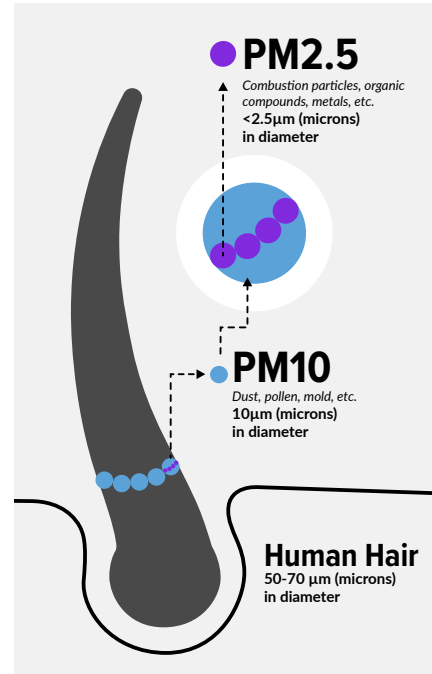
## The Complexity of Valley PM2.5

The composition and origin of PM2.5 in the San Joaquin Valley are quite complex. This fine particulate matter is smaller than 2.5 microns and made up of various materials including aerosols with solids, liquids, nitrates, sulfates, organic carbon, black carbon, soil particles, and trace metals. PM2.5 in the Valley comes from both human activities, like vehicles and industry, and natural sources.

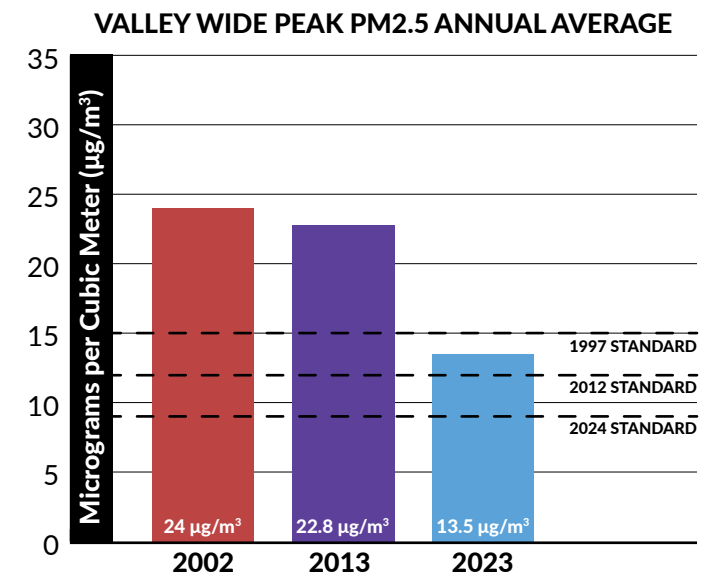
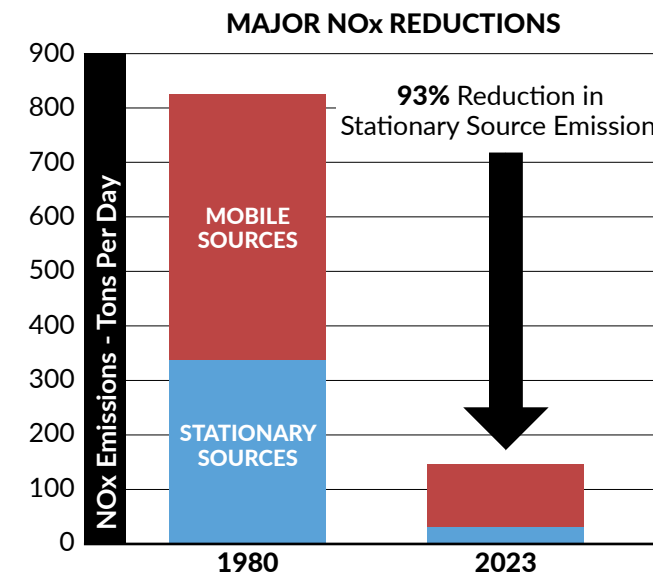
Among these particles, organic carbon and ammonium nitrate are the most significant contributors. Organic carbon mainly stems from activities such as burning wood, cooking, and emissions from like cars and trucks. Ammonium nitrate forms when ammonia reacts with NOx emissions, primarily from fuel combustion in mobile and industrial operations.

Over the years, concerted efforts by the District to enhance air quality have yielded significant reductions in both organic carbon and ammonium nitrate. This has been achieved through multifaceted strategies targeting emissions from wood burning, industrial operations, comprehensive incentive programs, and broader state initiatives aimed at curbing vehicle emissions. Consequently, these reductions have translated into decreased concentrations of PM2.5 overall, thereby contributing to improved public health outcomes within the region.

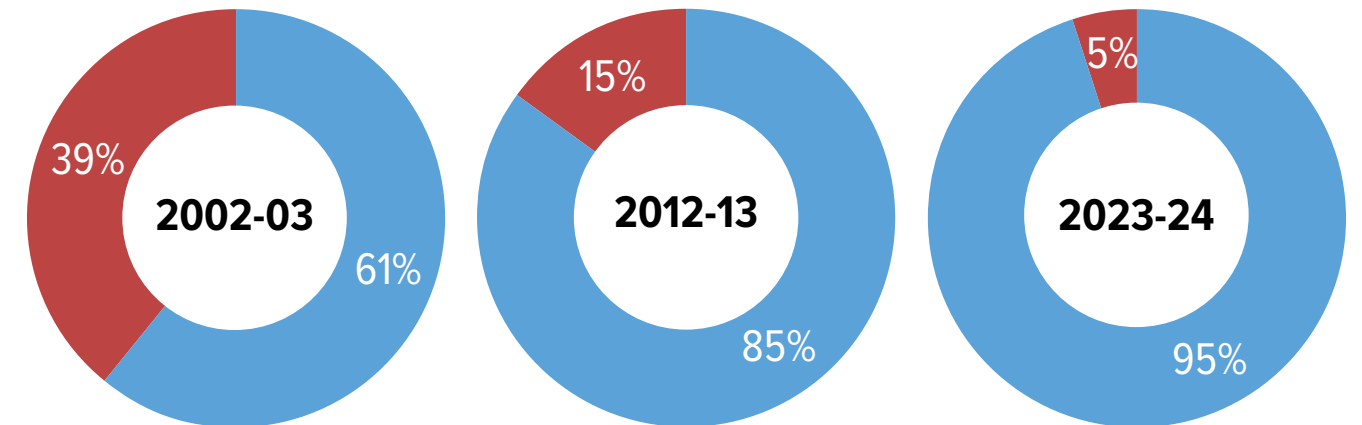
Recently, EPA announced a new 2024 Annual PM2.5 Standard, lowering it from 12.0 µg/m³ to 9.0 µg/m³. As a result, this change will trigger a new timeline for planning actions, including requirements for the District to prepare an attainment plan for the new standard, building upon previous PM2.5 attainment efforts. This change necessitates new planning actions, including the preparation of an attainment plan by the District, building upon previous efforts. Achieving attainment requires significant reductions in emissions from mobile sources under state and federal jurisdiction, including heavy-duty trucks and locomotives. The District continues to advocate for state and federal action to reduce emissions from these sources and seeks additional funding opportunities for emission reductions at the local level.



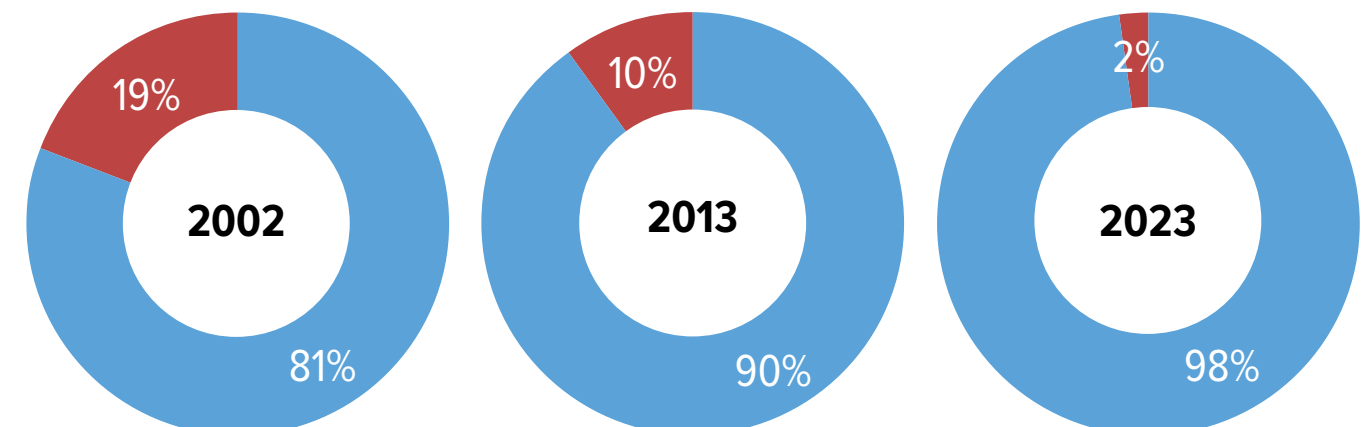
## Particulate Matter & Key Precursors Continue to Decline



### DAYS MEETING vs DAYS EXCEEDING the DAILY PM2.5 STANDARD DURING WINTER MONTHS (NOV-FEB)



### DAYS MEETING vs DAYS EXCEEDING the DAILY PM2.5 STANDARD EACH YEAR



## Winter Residential Wood Smoke Reduction Strategy Key to PM2.5 Reductions

The District's Residential Wood Smoke Reduction Strategy includes wood burning curtailments implemented through District Rule 4901 (Wood Burning Fireplaces and Wood Burning Heaters), in conjunction with the District's incentive grant program for fireplace and woodstove change-outs, and robust public education and outreach efforts. This approach is designed to improve public health by reducing wood smoke emissions in Valley neighborhoods during the peak PM2.5 winter season (November through February), and has proven to be extremely effective in advancing the District's objectives to attain the PM2.5 federal standards and protect public health.

District analysis also found that Rule 4901 requirements are the most stringent wood-burning curtailment thresholds in the nation, as recognized by EPA in their February 2020 evaluation of Best Available Control Measures (BACM) and Most Stringent Measure (MSM) for the 2006 PM2.5 NAAQS. Most recently in May 2023, the District amended Rule 4901 to include a contingency provision for the 1997, 2006, and 2012 PM2.5 standards. The amended contingency measure establishes progressively more stringent curtailment level(s) within Rule 4901 if EPA were to determine that the Valley failed to meet one of the contingency elements as required by the Clean Air Act.

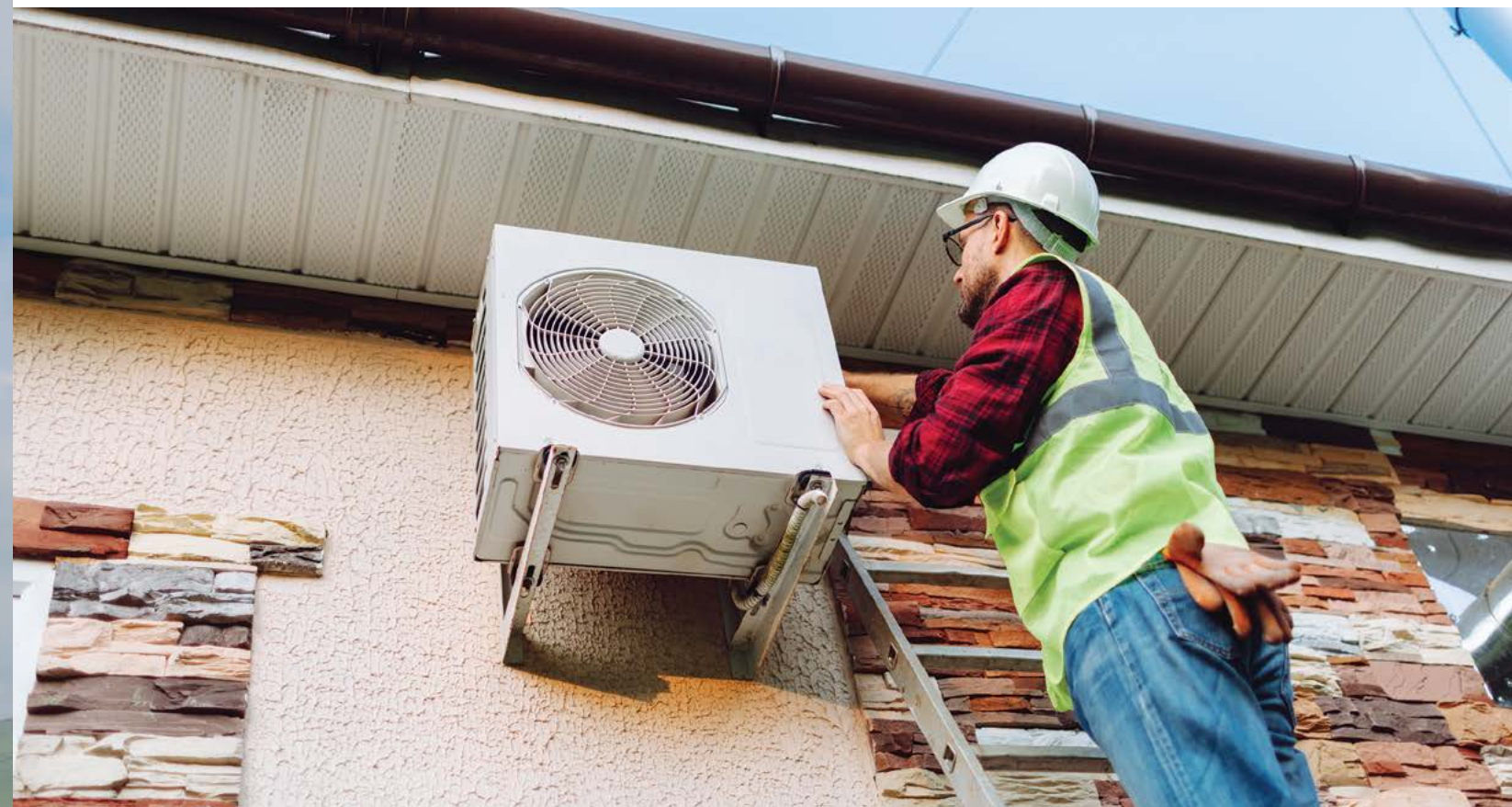
### FIREPLACE & WOODSTOVE CHANGE-OUT

Through the Fireplace and Woodstove Change-Out Program, the District offers financial incentives for the change-out of old, high-polluting open-hearth fireplaces or uncertified pellet and wood-burning devices with new, cleaner natural gas devices or electric heat pumps. The program has provided resources to thousands of Valley residents to make

positive changes by cutting down or eliminating their use of residential wood burning. Over the life of this program, the District has provided more than \$56 million to help replace over 28,000 wood-burning devices across the Valley with cleaner alternatives.

Through the program, eligible residents can receive up to \$5,000 for an electric heat pump, up to \$4,150 for a new natural gas device, and up to \$1,000 for a new certified wood device in areas without access to natural gas. Enhanced incentives are provided to residents located in "Hot Spot" areas (Counties of Madera, Fresno, and the Valley Air Basin portion of Kern) which have stricter residential wood-burning curtailments under District Rule 4901, and to AB 617 selected communities where additional measures to reduce air pollution in disadvantaged communities are most needed. For all other areas in the San Joaquin Valley, the program continues to support participation from low-income residents by providing an additional \$1,500 for qualified residents, and allowing these residents the ability to apply the incentive at the point of purchase to reduce their out-of-pocket costs with participating retailers. These benefits help make it possible for low-income residents to take advantage of the program, and keep their homes warm during winter months with cleaner heating options.

In lieu of replacing a current wood-burning fireplace or device, Valley residents can instead choose to decommission it and permanently eliminate its use. Under this option, residents can receive up to \$750 towards eligible costs associated with the decommissioning of the old fireplace or device. The decommissioning option is open to residents who currently have an open-hearth fireplace or wood-burning device such as an insert or stove.



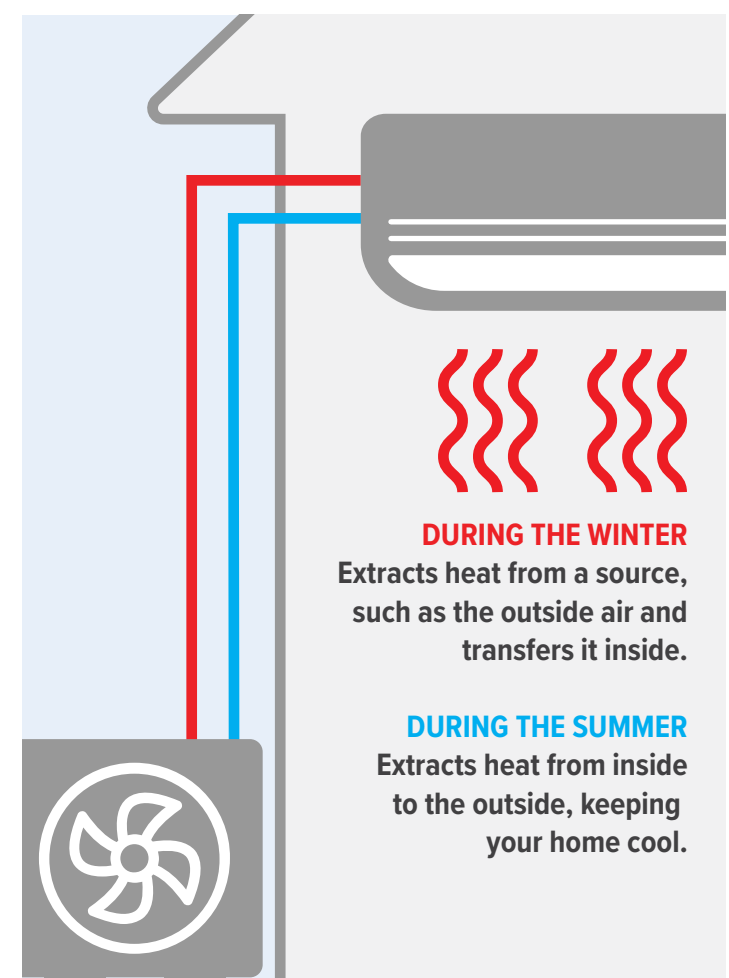
### ELECTRIC HEAT PUMPS A SMART OPTION FOR HOMES

The District has continued to work collaboratively with Valley hearth retailers and HVAC companies to promote electric options for residents willing to swap out their residential wood-burning devices. Through the Fireplace and Woodstove Change-Out Program, residents can receive up to \$5,000 to install an electric heat pump in their home. An electric heat pump is a device that transfers heat from one area to another using electricity. Unlike traditional combustion-based heating systems, such as wood-burning devices, heat pumps do not rely on burning fossil fuels, making them more environmentally friendly and sustainable.

One of the key advantages of electric heat pumps is their high efficiency. They can produce up to three times more heat energy than the electrical energy they consume, making them an energy efficient alternative for heating residential spaces. Additionally, heat pumps can also provide cooling functionality during the summer months, acting as both a heating and cooling solution year-round.

By incentivizing the installation of electric heat pumps through the Fireplace and Woodstove Change-Out Program, the District aims to promote the adoption of energy-efficient and environmentally friendly heating solutions. This initiative not only benefits individual residents by providing them with financial assistance but also contributes to the larger goal of reducing particulate matter emissions and improving air quality in the Valley.

### HOW HEAT PUMPS WORK



## Prioritizing Public Health: District's Response to Wildfire Smoke

When wildfire smoke enters Valley skies, the District works to provide vital updates on air quality conditions and recommends precautionary measures to the community. The District ensures widespread awareness through various channels, including air quality advisories, alerts shared with the National Weather Service, direct outreach to Valley schools, collaboration with local public health officials, media engagement, and social media outreach. Online platforms such as the wildfire resource page [valleyair.org/wildfires](http://valleyair.org/wildfires), [myraan.com](http://myraan.com) and EPA's [AirNow.gov](http://AirNow.gov) serve as valuable resources for air quality information.

The past decade has witnessed a surge in large wildfires across California and the western United States. In addition to excessive fuel build-up in the state's wildlands due to decades of fire suppression and widespread drought-driven tree mortality, changing climate conditions, including higher temperatures and drier conditions in recent years, have contributed to extended and more intense wildfire seasons. The unprecedented scale of these wildfires severely impacted air quality in the Valley, highlighting the urgency of the District's response efforts.

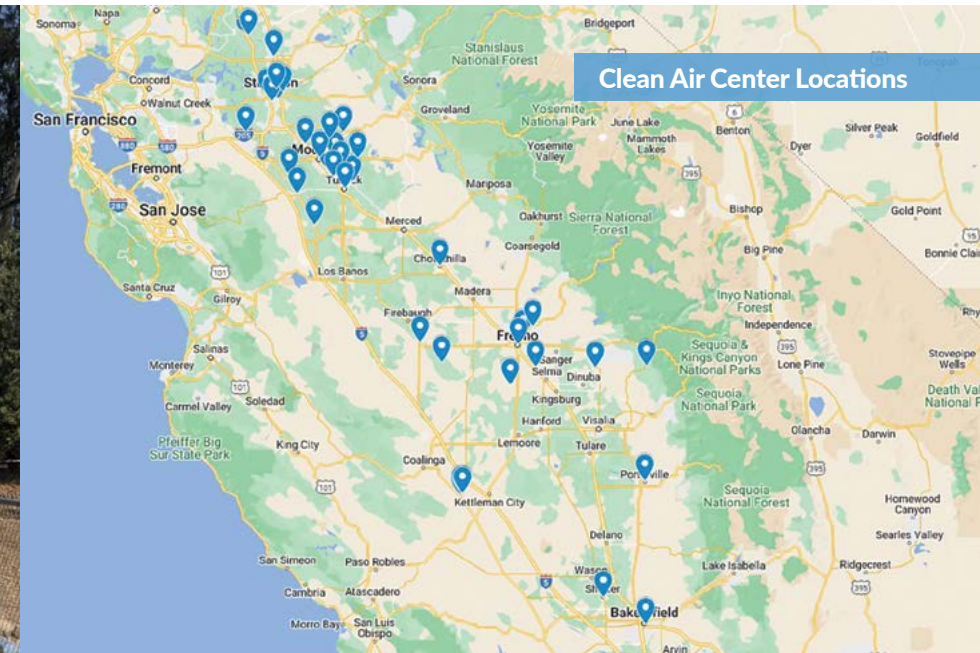
Key to the District's Wildfire Risk Reduction Strategy is to work collaboratively to reduce fuel load in our foothill and mountain areas. One important way residents in our foothill and mountain communities

prepare for wildfire season is by requesting a burn permit to reduce the flammable vegetation around buildings or structures. In 2023, the District and CAL FIRE entered into a Memorandum of Understanding (MOU) to provide an "online one-stop shop" streamlining the process for residents looking to obtain a burn permit.

The District also works with land managers to approve well-designed prescribed burning projects throughout our mountain areas, and when wildfires do occur, staff works with public land managers to see if more firefighting resources can be put in place and to deploy portable monitoring equipment in areas being impacted by smoke.

In 2023, the District's collaborative efforts were recognized through the Francis H. Raymond award from the Board of Forestry and Fire Protection for participation in the Fresno County Tree Mortality Task Force, whose purpose was to coordinate between agencies the clean-up and removal of dead hazard trees around communities and along major roadways.

In the face of these challenges, the District remains committed to its mission of protecting public health by promptly addressing the impacts of wildfire smoke on air quality, ensuring the Valley's residents are well-informed and equipped to mitigate risks to their well-being.



## Helping Residents Breathe Easier During Wildfires

In an effort to address the growing concern over wildfire and other smoke event impacts on the most vulnerable populations, Assembly Bill 836 (Wicks, Chapter 393, Statutes of 2019) was adopted. This bill led CARB to establish the Wildfire Smoke Clean Air Centers for Vulnerable Populations Incentive Pilot Program (Clean Air Centers Pilot Program) and provided the District with \$750,000. The District has been distributing this funding to upgrade ventilation systems and provide high-efficiency portable air cleaners in public buildings to create a network of accessible clean air centers to provide vulnerable populations protection from wildfire smoke. The guidelines established by CARB provide the District with the discretion and flexibility to create clean air centers at schools, community centers, senior centers, sport centers, libraries and other publicly accessible buildings that would most effectively protect our vulnerable populations during wildfire smoke events. Over the past year, the District has coordinated with local partners to launch the Clean Air Centers program in over 50 locations throughout the San Joaquin Valley.

To further protect residents from wildfire impacts, the District Governing Board authorized the launch of Clean Air Rooms program. This initiative aims to provide off-

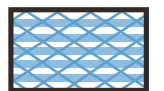
the-shelf residential air filtration devices to residents in disadvantaged communities and low-income communities across the Valley. In recent years, the District has been actively promoting the use of air filtration devices during wildfires through various channels such as air quality alerts, media engagements, and social media campaigns. These devices help create "clean air rooms" within homes, ensuring dedicated spaces with safe indoor air quality during smoke events.

By partnering with local organizations to disseminate information to Valley communities, the District has been able to successfully distribute over 1,200 devices directly to the most vulnerable populations across the Valley free of charge. Building upon the past success of the Clean Air Rooms program and concurrent efforts within several Valley AB 617 communities, the District sought and received an additional \$3 million in 2023 from CARB and EPA to continue the Valley-wide distribution of indoor filtration devices.

### PROTECT YOURSELF



**STAY INDOORS**  
create clean air room  
with air purifier



**REPLACE AIR FILTERS**  
more frequently than usual



**WEAR FACE MASKS**  
some masks are more effective  
than others, check with your  
health care provider to see which  
is the best for you



**CONSULT YOUR DOCTOR**  
if you are experiencing health  
effects due to poor air quality





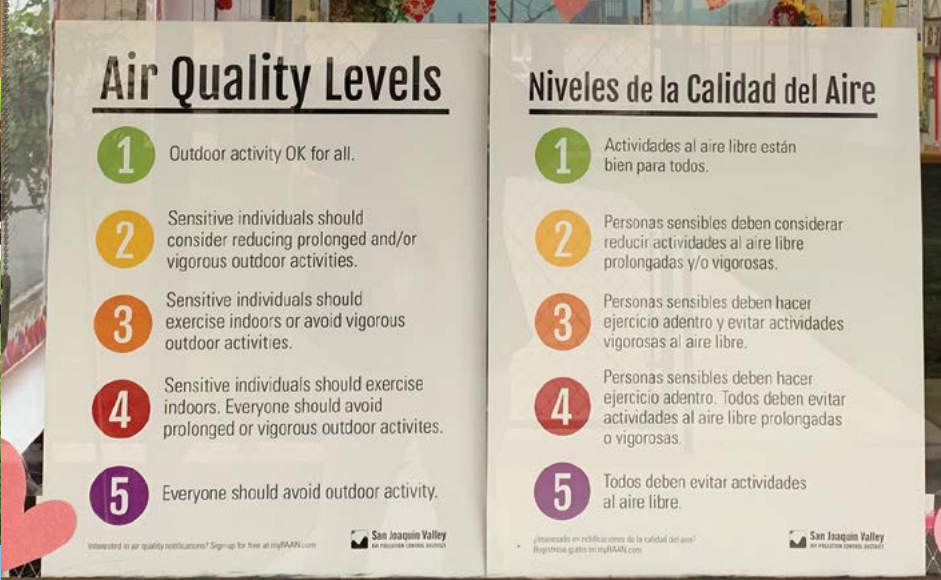
## Working with Valley Schools to Protect Student's Health

Promoting youth well-being and fostering a healthy learning environment are key priorities for the District. Collectively known as Healthy Air Living Schools, this award winning District program is designed to empower educators with the information needed to make informed decisions about outdoor activities for students. This comprehensive effort revolves around safeguarding students during periods of poor air quality, engaging both teachers and students through specialized activity kits and classroom presentations, and mobilizing action from students and parents to combat air pollution.

In collaboration with thousands of schools across the Valley, the District is actively addressing the issue of vehicle idling pollution on school premises. By supplying bilingual “No Idling” signs and other resources, the program reminds parents to switch off their engines during drop-offs and pick-ups, thus minimizing unnecessary emissions. Moreover, Healthy Air Living Schools entails training school staff and ensuring parents are informed about the various public tools to monitor air quality, such as the District’s Real-time Air Advisory Network (RAAN) and EPA’s AirNow. These tools provide hourly air quality data and corresponding recommendations for outdoor activities, serving as a crucial tool in protecting student health especially during episodes of poor air quality related to wildfire smoke.

Recognizing the importance of direct engagement, the District conducts in-person outreach to Valley schools, particularly those in underserved communities, by providing educational materials on vehicle idling, wildfire impacts, and grant opportunities. The District delivers this information through classroom presentations and direct conversations with parents during drop-off and pick-up times. These face-to-face interactions provide an opportunity for personal conversations about air quality concerns.

Through these multifaceted strategies, the District strives to foster a culture of awareness and responsibility among students, educators, and parents alike, ensuring a healthier and safer learning environment for all.



The District received a national award in 2023 as a “Best Practice in Air Pollution Control” for its administration of the Healthy Air Living Schools program.



## SPOTLIGHT: DISTRICT'S HEALTHY AIR LIVING SCHOOLS PROGRAM WINS NATIONAL AWARD

The District received recognition from the Association of Air Pollution Control Agencies (AAPCA)—a national organization focused on assisting state and local air quality agencies with implementation and technical issues associated with the federal Clean Air Act—for its Healthy Air Living Schools Program, designed to assist educators in making informed decisions regarding outdoor activities for students.

At the Association’s 2023 Fall Business Meeting, the District presented on the Healthy Air Living Schools program and received the Best Practices in Air Pollution Control award.

This program aims to protect students from poor air quality by:

- » *Adjusting outdoor activities based on real-time air quality data*
- » *Implementing no-idling initiatives*
- » *Collaborating with Valley school districts to adopt policies addressing outdoor activity*
- » *Actively engaging staff, students, and parents in air-friendly activities*
- » *Providing continuous communication with the community about changing air quality levels through various channels*

Through this program, the District has built relationships with over 1,000 schools, representing 71% of Valley schools. Among them, 297 actively communicate real-time air quality information displayed on public web pages.

Additionally, the program offers training to school staff and educates parents on using myraan.com (which provides hourly air quality data and outdoor activity recommendations to protect student health) as well as AirNow.gov.

Residents can also access current, localized air quality by downloading the free Valley Air app.



## District Awarded EPA Environmental Justice Grant

In November, the District was selected to receive the EPA's Environmental Justice Government-to-Government Program (EJG2G) Grant for \$1,000,000 to build outreach and community engagement capacity in grassroots organizations throughout the Valley and work with these organizations to provide free residential air purifier devices to approximately 3,700 residents living in under-resourced and underserved communities throughout the Valley.

Poor air quality, especially during wildfire season, can disproportionately affect the Valley's most vulnerable populations. After decades of work, the District has found that one of the best ways to ensure that clean air messages reach the populations in need is to work directly with grassroots, community-based outreach organizations.

Through this environmental justice grant, the District has partnered with four community-based organizations, including: Environmental Justice Coalition for Water, Binational of Central California, Fresno Street Saints and Centro la Familia. All of the identified community partners bring a unique background and perspective to the project, allowing for a community-centered and regionally-targeted outreach approach. These organizations will work directly in their communities to teach residents about the District's clean air programs and how to protect themselves from poor air quality, including providing them with a free indoor air purifier.

*“Binational of Central California is honored to be selected for this grant and to work with the Valley Air District to provide crucial air quality information and much-needed resources, like air purifiers, to the communities we serve throughout the Central Valley. This grant will allow us the ability to expand our reach and capacity to continue serving low-income, immigrant, and farmworker communities. This opportunity will keep our mission moving forward to help our community rise.”*

*- Ricardo Castorena, Executive Director, Binational of Central California*

These committed community partners will receive subawards to support their work and help build their capacity, making them the District's first Clean Air Program Ambassador (CAPA) organizations. The District expects to launch the effort with collaborating community-based organizations in 2024 and aims to begin air purifier distribution ahead of the summer season.



### SPOTLIGHT: MULTILINGUAL OUTREACH AND COMMUNICATION TO ALL VALLEY COMMUNITIES

The District has prioritized engaging Valley communities in multiple languages to foster inclusivity and accessibility, and to ensure that all residents can access information and resources. Conducting outreach in Spanish, Hmong or other languages when appropriate allow all Valley residents the ability to be a part of the District's programs and activities.

*Busque este Informe Anual para la Comunidad en Español!*

### SPOTLIGHT: SHOW & TELL EVENTS EDUCATE THE PUBLIC

This year, District staff worked with various stakeholders throughout the Valley to hold numerous Show-and-Tell events for the Fireplace Change-out and Zero-Emission Landscaping Equipment programs and host Tune-in Tune-up events. For example, for the Fireplace Change-out Show-and-Tell event, the District coordinated with community members to hold workshops across the Valley to educate local residents on the benefits of cleaner home heating and available grant opportunities to assist in the transition to cleaner technology. During the event, local hearth retailers were available to answer questions, show physical examples of gas inserts and discuss the various cleaner options to change-out wood- or pellet-burning devices to heat a home. District staff were also on hand to help residents who were ready to start their Fireplace & Woodstove Change-Out application and answer questions about the program.

## Meaningful Community Engagement

The District has a long history of building partnerships to find effective, efficient, and innovative strategies for improving air quality and protecting the health of the Valley's most vulnerable populations. Ensuring Valley residents have equitable access to all District programs and resources is crucial to the District's mission of improving public health in the Valley. To support these efforts, the District continuously seeks community input in the implementation of environmental justice strategies to help communities disproportionately impacted by economic and environmental inequities.

The District has committed to continuously work closely with Valley residents and stakeholders to help communities disproportionately impacted by economic and environmental inequities by forging new partnerships with businesses, and identifying and leveraging clean air opportunities. This past year, the District has prioritized outreach efforts in communities most in need by building partnerships with schools and community based organizations, attending community events, and ensuring engagement materials and presentations are available in multiple languages. To truly provide equitable access to the District's programs, the District has continued to work directly in impacted communities and ensure events are accessible to those that need it most.

Staff regularly attend local events in Valley communities, including the Arvin Clean Energy Fair, National Farmers Day in Lodi, an EV Ride and Drive event in Tulare County, the *Comité Lost Hills en Acción* Community Meeting in Lost Hills, and the *Avenal Confía* Community Event. Additionally, every year the District implements a highly successful program with its program partner Valley Clean Air Now that includes hosting local Tune-in Tune-up events that provide free emissions testing and vouchers for emissions related repairs. During these community activities, the District and community program partners provides multilingual activity kits for children, flyers and brochures regarding various incentive funding opportunities for residents and businesses. Additionally, to support the development of local community emissions reduction programs funded through CARB's Community Air Grants, the District has attended numerous meetings in Modesto, Terra Bella, Delano, and other communities to answer questions and provide information on various District regulatory, enforcement, and incentive programs.





## Partnerships for Greener Communities

In 2017, Assembly Bill (AB) 617 initiated a statewide effort to monitor and reduce localized air pollution, and highly improve public health, in communities that experience disproportionate burdens from exposure to air pollutants through new community-focused and community-driven actions. This led to the development of Community Steering Committees (CSCs)—comprised of residents, local organizations, local business, and other community stakeholders—that have been working together across four communities in the Valley to develop and implement a clean air plan to reduce air pollution emissions and exposure. As a part of their adopted plan in each community, the CSCs supported allocating funding for Urban Greening, a clean air measure that would provide more tree canopy to Valley communities to reduce urban heat islands and provide a healthy environment for vulnerable residents.

In 2023, the District and the South Central Fresno CSC were successful in identifying partners to implement the measure in their community. Over the past year, Tree Fresno, in partnership with the Central California Environmental Justice Network, area schools, and local agency partners, have begun planting trees throughout the South Central Fresno community.

Tree Fresno, a nonprofit urban tree planting organization who is celebrating nearly 40 years in the community, is using the funding to support planting 500 trees in community spaces across the South Central Fresno community, establishing a variety of community tree-planting events across area schools, community centers, and on other public land in partnership with Fresno Unified School District, Fresno Housing, Caltrans and the High Speed Rail Authority. The second project is an Adopt-A-Tree program, led by Central California Environmental Justice Network (CCEJN), where 1,200 trees are available to residents and business owners, along with tools and information to ensure proper care and irrigation.

The District is excited about the progress being made to implement the measure in all the communities and has identified potential partners.

“Tree Fresno is honored to have been selected as a recipient of funding from the AB 617 Urban Greening program to improve air quality for those who work and reside in South Central Fresno. Under the grant, Tree Fresno combines multiple decades of experience expanding the urban tree canopy across the Central Valley with the expertise of CCEJN, which specializes in community outreach and engagement of diverse communities. This partnership increases Tree Fresno’s capacity to outreach to homeowners and those who control properties in the Boundary Area of AB 617 about the value of expanding the urban tree canopy and to provide resources to plant new trees.”

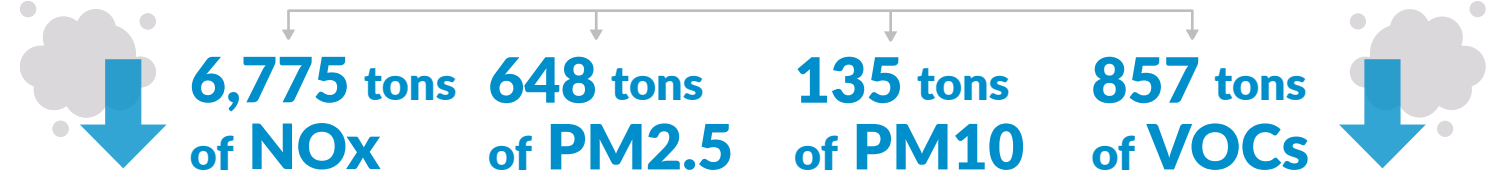
- Mona Cummings, CEO, Tree Fresno

## District’s Community Air Protection Program

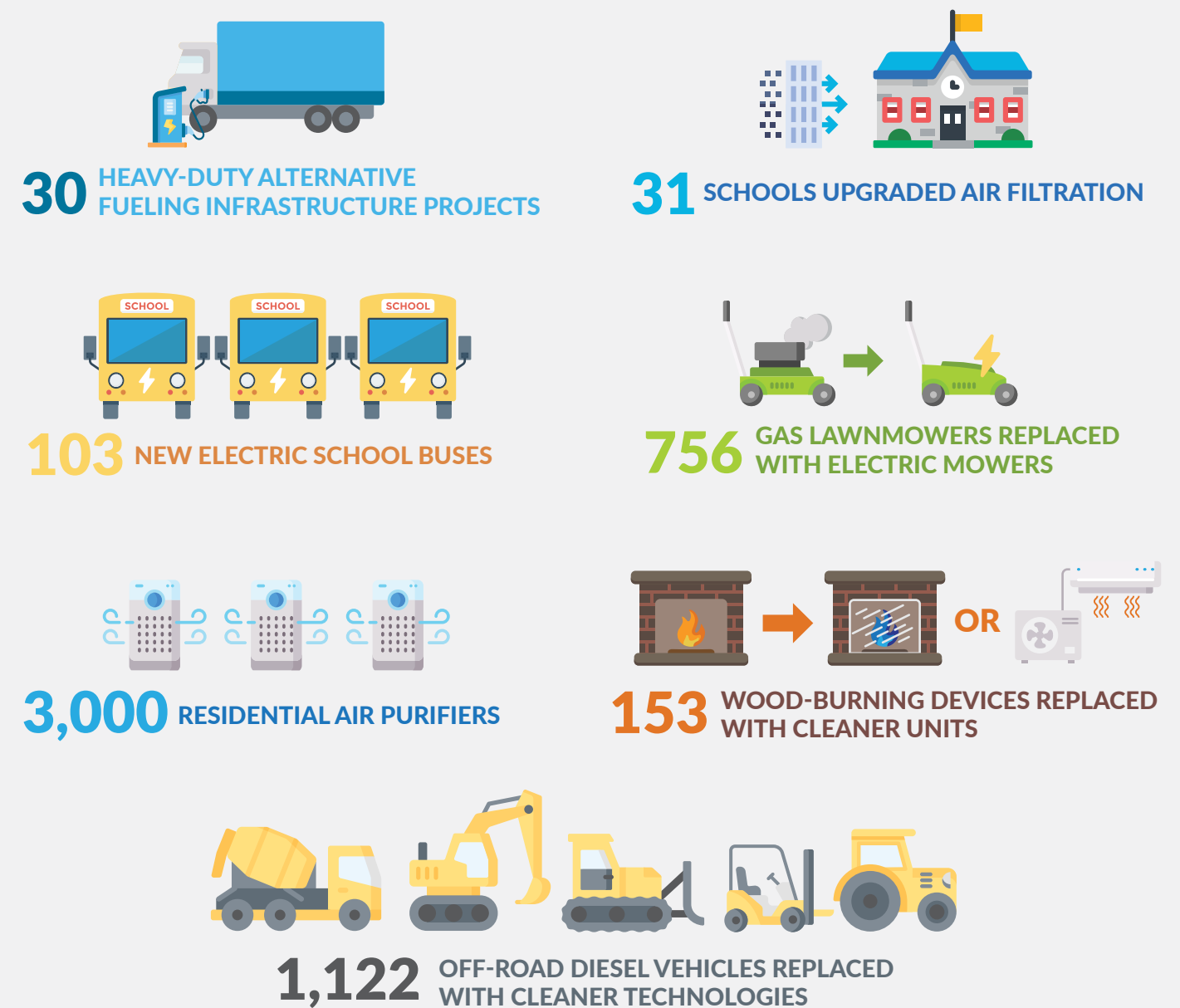
TOTAL FUNDING EXPENDED TO DATE

**\$303,808,461**

TOTAL REDUCTIONS TO DATE



EXAMPLES OF FUNDING TO DATE

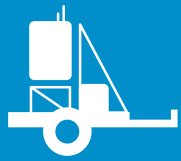


# Community Air Monitoring

The District is committed to understanding air quality concerns of communities throughout the Valley. In addition to a robust permanent federal referenced and mandated monitoring network that tracks air quality progress throughout the Valley, the District has a variety of temporary and mobile monitoring equipment providing real-time data and capturing sources that may be impacting the community. As a part of these efforts, this last year the District began operating an additional refinery community air monitoring system, which provides local air quality information in real-time, along with the available fence-line air monitoring data at the nearby facility. All of this community-level air monitoring data is available online for residents to view as needed. Through these efforts, the District is able to quickly address community concerns by placing this equipment in areas where an air quality issue might be taking place or in communities where there is an additional focus. For more information visit [community.valleyair.org](http://community.valleyair.org).

## EQUIPMENT IS COLLECTIVELY MONITORING

PM2.5, Ground-level Ozone, Black Carbon, Carbon Monoxide, Nitrogen Dioxide, Nitrogen Oxide, Volatile Organic Compounds (VOCs), Sulfur Dioxide, Toxics and Meteorology.



SEMI-MOBILE COMPACT MULTI-POLLUTANT SYSTEMS



FIXED STAND-ALONE MONITORS



MOBILE AIR MONITORING



SEMI-MOBILE TRAILERS



## Strategic Collaborative Planning for a Cleaner Future

Over the years, CARB has embarked on a series of initiatives aimed at enhancing air quality in the Valley, primarily through the adoption of State Implementation Plans (SIPs). These plans serve as pivotal frameworks for driving improvements in air quality. Following the adoption of each SIP, the District diligently implements plan strategies through regulatory development, extensive outreach, ongoing research, incentive programs, and enforcement efforts. Each attainment plan represents a significant milestone in the District's ongoing mission to enhance air quality across the Valley.

Under previous attainment plans, the District has implemented successive generations of emissions control measures for both stationary and area sources within its jurisdiction. Similarly, CARB has enacted stringent regulations targeting mobile sources. Together, these efforts constitute some of the nation's most robust air pollution emissions controls.

These concerted endeavors have yielded substantial improvements in air quality within the Valley. Notably, in January 2022, the EPA determined that the Valley had achieved the 1997 24-hour PM2.5 standard by the 2020 deadline. In response, the District is preparing a maintenance plan to demonstrate the ongoing maintenance of this standard, thereby seeking redesignation of the attainment status. Additionally, preparations are underway for a second

PM10 maintenance plan to ensure continued compliance with the 1987 PM10 standard through 2030.

Currently, the District is evaluating its attainment status regarding the 1997 PM2.5 and 8-hour ozone standards for the year 2023, while also assessing any necessary exceptional events documentation. Efforts towards attaining other PM2.5 and ozone standards remain ongoing, with the recent adoption of the 2022 Ozone Plan aiming to achieve the 2015 8-hour ozone standard by 2037.

Furthermore, the District and CARB are developing a revised attainment plan for the 2012 annual PM2.5 standards, demonstrating their commitment to further improve air quality in the Valley by 2030. Addressing previous EPA disapprovals, the District and CARB submitted a SIP revision and rules in 2023 to satisfy contingency measure requirements for PM2.5 standards. EPA's proposed approvals of these measures convey significant progress in meeting regulatory obligations.

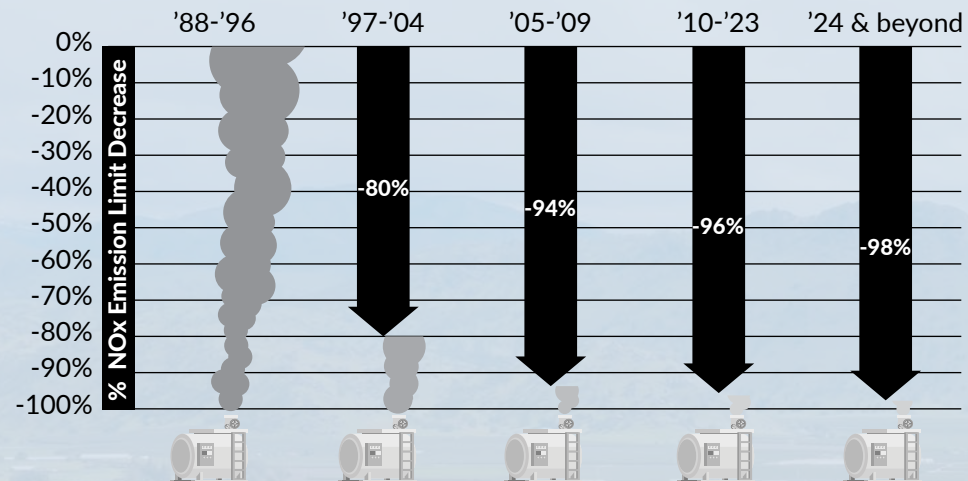
As the District and CARB continue their efforts to improve air quality, ongoing support for and tracking of relevant technical and policy-oriented research will be imperative. This ensures that air quality strategies remain grounded in sound scientific principles as the journey towards cleaner air in the Valley progresses.

2023 EMISSION REDUCTIONS			
	PLAN COMMITMENTS	REDUCTIONS ACHIEVED	PERFORMANCE
NOx	9.48 tons per day	18.97 tons per day	100% above target
VOC	40.46 tons per day	47.32 tons per day	17% above target
SOx	0.83 tons per day	4.85 tons per day	484% above target
PM2.5	7.60 tons per day	15.19 tons per day of PM equivalent	99.9% above target including precursors



## Improving Air Quality Through Regulatory Action

For over three decades, the District has spearheaded the development and implementation of groundbreaking regulatory strategies aimed at curbing emissions. Throughout the history of the District's regulatory program, emissions from a variety of industries and area sources have been aggressively reduced compared to uncontrolled levels, with emissions reduced by well over 90% for various industrial stationary sources. For example, with respect to boilers, steam generators, and process heaters, the following illustration summarizes the significant emissions reductions achieved relative to baseline emissions levels.



The stringency of the District's stationary source regulatory program has been affirmed through state and federal approvals of District plans and regulations, including establishing the District as implementing all feasible measures, best available control measures, most stringent measures, best available retrofit control technology, and other applicable requirements

These measures have played a pivotal role in mitigating ozone and particulate matter levels in the Valley, significantly improving air quality. Through innovative strategies tailored to diverse sectors such as development projects, residential wood burning, glass manufacturing, and agricultural activities, the District has established benchmarks not only for California but also for the entire nation.

Despite the considerable strides achieved through these regulations, the District remains steadfast in its pursuit of improvement. The District continuously evaluates and adjusts its rules to achieve the necessary reductions in emissions while working collaboratively with Valley residents and businesses to achieve these reductions as efficiently as possible.

## RECENT REGULATORY ACTION

In 2023, the District made progress in evaluating and adopting regulatory measures per the commitments in the 2018 PM2.5 Plan, 2022 Ozone Plan, and pursuant to other requirements for the following sources of emissions:

RECENT CHANGES		
RULE	AMENDMENT	STATUS
Rule 1020 (Definitions)	Added a definition for PM2.5 and revised definitions for PM10 and VOCs	Adopted by Board April 2023
Rule 2201 (New and Modified Stationary Source Review Rule)	Replaced the yearly demonstration with a permit-level time-of-ATC issuance demonstration for PM10, PM2.5, and SOx, and addressed U.S. EPA comments	Adopted by Board April 2023
Rule 2301 (Emission Reduction Credit Banking)	Clarified definitions for shutdown and emission reduction credit (ERC), discontinued the banking of new greenhouse gas (GHG) emission reductions, and added administrative requirements for using unbanked shutdown emission reductions from stationary sources	Adopted by Board April 2023
Rule 4901 (Wood Burning Fireplaces and Wood Burning Heaters)	Lowered the curtailment thresholds, pending EPA approval	Adopted by Board May 2023
Rules 4401, 4409, 4455, 4623, 4624 (Leak Detection and Repair, LDAR)	Enforced stricter LDAR leak thresholds, repair times, and inspection frequencies	Adopted by Board June 2023
Rule 8051 (Open Areas) Contingency Measure	Lowered the rural acreage threshold and mandate dust control practices for affected properties, pending EPA approval. The rule now includes provisions for fire prevention activities on rural parcels between 1 to 3 acres.	Adopted by Board Sept. 2023
Rules 3171, 3172, 3173 (Federally Mandated Ozone Nonattainment Fee- 1997, 2008, and 2015 8hr Standard)	Implements penalty fee programs when the EPA determines that the District has not achieved one of the 8-hour ozone standards	Adopted by Board Dec. 2023
Rule 4402 (Crude Oil Production Sumps)	Lowered the VOC exemption threshold for produced water in sumps and ponds	Adopted by Board Dec. 2023

## LOOKING AHEAD

The District has also initiated the rule development and public process for several major regulatory development projects that have been ongoing. The District invites the public and strongly encourages their participation in rulemaking projects at [ww2.valleyair.org/about/sign-up](http://ww2.valleyair.org/about/sign-up). Updates to the following rules are forthcoming:

FUTURE CHANGES		
RULE	PROPOSED AMENDMENT	STATUS
Rule 4905 (Natural Gas-Fired, Fan-Type Central Furnaces)	Extend the emission fee period for manufactured home furnaces due to technological limitations preventing compliance with the 14 ng/J limit	Before Governing Board in 2024
Rule 4550 (Conservation Management Practices)	Undergoing a thorough rule evaluation with industry stakeholders, USDA-NRCS, and other agencies to cut emissions from fallowed land	Rule development ongoing
Rule 2520 (Federally Mandated Operating Permits)	Remove emergency affirmative defense provisions from Section 13.4.1 to align with recent EPA actions and maintain consistency with federal regulations	Rule development ongoing
Rule 4692 (Commercial Charbroiling)	Explore further emission reduction options	Rule development ongoing

## Success in Securing Funding for Valley Projects

In 2023, the District's legislative efforts yielded significant success in bringing state and federal funding to the region. Advocating at both levels of government, the District has prioritized programs crucial for improving air quality, fulfilling federal clean air obligations, and enhancing public health, particularly in disadvantaged communities.

### STATE FUNDING ACHIEVEMENTS

The District's advocacy efforts resulted in several key allocations in the state's enacted 2023-24 Budget:

**\$75 million statewide** for the FARMER program, focusing on replacing older, high-polluting agricultural equipment

**\$234 million statewide** for AB 617 Community Air Protection incentive funds, aimed at addressing air quality concerns in communities

**\$250 million for various transportation equity projects**, including initiatives to replace older, high-polluting vehicles with electric or hybrid alternatives

### FEDERAL FUNDING SUCCESS

The District's advocacy efforts resulted in key Federal allocations through nationwide competitive programs, including:

**\$10 million** replacing nut harvesters with low-dust alternatives

**\$8.6 million** upgrading wood-burning devices with electric heat pumps or gas alternatives

**\$56 million** from the Federal Highway Administration (FHWA) Charging & Fueling Infrastructure (CFI) for heavy-duty charging stations along the Valley's freight network

While these allocations represent significant funding for Valley projects, the District remains committed to advocating for additional support. Key areas of focus include sustainable agriculture initiatives, increased FARMER funding, investment in low-carbon clean vehicle technologies, and alternatives to agricultural burning.

*The District actively participates in the San Joaquin Valley's Regional Policy Council—which serves as a forum for regional decision-making on various critical issues, ensuring a unified vision for the entire Valley—and advocates for Valley resources to support air quality and transportation improvements.*



## State & Federal Climate Initiatives Bring Opportunities for Addressing both Climate and Air Quality Impacts in the Valley

Changing climate conditions and increasing temperatures have led to more frequent extreme weather events, such as floods, and droughts, which have increased the frequency and severity of wildfires affecting Valley air quality. The District's adopted positions recognize these potential impacts that changing climate conditions could have on local air quality and support greenhouse gas (GHG) reduction measures that provide co-benefits in reducing criteria and toxic pollutants to assist in meeting air quality public health goals. These positions have guided the District's interactions with the state and federal governments in the development of GHG reduction programs given the strong connection with the District's mission to improve air quality and public health in the San Joaquin Valley.

In the San Joaquin Valley, this robust collaboration among state agencies, businesses, public agencies, community-based organizations, and stakeholders has fueled innovative clean air and low-carbon strategies, positioning the region as a hub for these types of transformative initiatives.

With new state and federal climate initiatives on the horizon, there's significant potential for further investment in these endeavors, bolstering clean air resources in the Valley. Here's an overview of key climate initiatives:

### CARB'S AB 32 SCOPING PLAN

This plan, mandated by the California Global Warming Solutions Act of 2006 (AB 32), outlines California's approach to reducing greenhouse gas emissions. The 2022 update emphasizes carbon neutrality and includes actions to accelerate the transition to clean energy, zero-emission transportation, energy-efficient homes, sustainable agriculture, and resilient forests.

### CALIFORNIA NATURAL RESOURCES AGENCY WORK

**Adaptation and Resiliency:** The agency's 2021 State Adaptation Strategy focuses on enhancing climate resilience across sectors and regions, uniting efforts to address climate change impacts.

### INFRASTRUCTURE INVESTMENT & JOBS ACT (IIJA)

Signed into law in 2021, IIJA allocates significant funding for clean mobile source and energy technologies, public transportation, sustainable agriculture, electric vehicle infrastructure, and port development.

### INFLATION REDUCTION ACT (IRA)

Enacted in 2022, IRA offers substantial funding for climate and energy-related programs, including Diesel Emission Reduction Act (DERA) initiatives, Clean Ports Program, Clean Heavy-Duty Vehicle Program, and Sustainable Agriculture.

### CLIMATE POLLUTION REDUCTION GRANTS (CPRG)

EPA's CPRG aims to support climate action plans and implementation projects. The District collaborates with CARB to ensure Valley priorities are incorporated into the statewide plan, enhancing opportunities for local agencies to secure funding. Additionally, the District is coordinating with local agencies eligible for program funding to assist in developing competitive proposals.

### FARM BILL

The 2023 Farm Bill presents opportunities to address climate change, potentially through new provisions. The District monitors these developments and seeks funding opportunities for emission reduction projects in agriculture.

### SUPPORT OF CLIMATE RESEARCH & LOCAL EFFORTS

The District collaborates with researchers to assess climate change impacts in the Valley and supports local agencies in developing emission inventories and implementing mitigation measures.

Through strategic partnerships and proactive engagement, the San Joaquin Valley is poised to capitalize on funding opportunities and drive forward its commitment to environmental stewardship and sustainable development.

## Nation-Leading Clean Air Grant Programs

In addition to implementing a stringent regulatory and enforcement program, the District also operates the most cost effective and comprehensive emissions reduction incentive programs in the nation to accelerate mobile source reductions and achieve community level benefits through clean air grant funding for a variety of projects. These programs provide an effective way to accelerate emissions reductions and encourage technology advancement, particularly from mobile sources primarily under state and federal jurisdiction. Given that over 85% of the NOx emissions in the Valley come from mobile sources, these successful voluntary incentive grant programs help the Valley achieve highly cost-effective emissions reductions that are surplus of regulatory emissions reductions.

The District's incentive programs offer grant funding in a number of areas, including agricultural irrigation pump engines, agricultural equipment replacements, off-road equipment repowers, alternatives to agricultural open burning, heavy-duty trucks, school bus retrofits, school bus replacements, lawn mower replacements, fireplace change-outs, locomotive replacements, new alternative-fuel light-duty vehicles, bicycle infrastructure projects (bike paths), light-duty vehicle repairs, high-emitting vehicle replacements, alternative fuel infrastructure (EV charging, etc.), and more. These programs and efforts have achieved significant additional emissions reductions that go beyond local and state regulations, which have all contributed to the Valley's air quality progress to-date, and will continue to play a role in reducing emissions in the future. The following pages highlight just a few of the District's incentive programs.

### STATE AUDITS CONFIRM EFFECTIVE & EFFICIENT INCENTIVE PROGRAM ADMINISTRATION

As part of the State's oversight responsibilities, CARB recently conducted a comprehensive review of the state incentive programs implemented by the District. The CARB program review was supplemented by a fiscal compliance audit of the same programs conducted by the Office of State Audits and Evaluations (*within the California Department of Finance, DOF*) during the same time frame. This review was the largest air district-focused incentive program review conducted by CARB to date, spanning 11 fiscal years, nine distinct incentive programs and represents almost 13,500 individual incentive projects, totaling more than \$623 million in funding. The CARB program review concluded, "The nine District incentive programs reviewed are achieving their emissions reduction and program objectives in an effective and efficient manner." CARB identified no findings needing to be addressed in their program review. Likewise, the DOF fiscal compliance audit resulted in no findings and concluded that DOF had obtained reasonable assurance that "the incentive programs' revenues, expenditures, and resulting balances were in compliance with applicable grant agreements, guidelines, and statutes."

## Over \$1.159 Billion in Clean Air Investments

\$334 Million in District Funding Matched with \$825 Million in Applicant Funding

### HIGHLIGHTS OF THE YEAR

**\$59,000,049**  
AG BURN  
ALTERNATIVES  
**1,443 PROJECTS**



**\$142,844,547**  
AG EQUIPMENT  
REPLACEMENTS  
**1,367 UNITS**



**\$10,512,732**  
HEAVY DUTY  
& AG TRUCKS  
**94 TRUCKS**



**\$9,247,500**  
ZERO-EMISSION  
AG UTVs  
**685 UTVs**



**\$11,217,650**  
CLEAN BURNING  
DEVICES  
**3,058 DEVICES**



**\$4,638,134**  
PUBLIC BENEFIT  
PROJECTS  
**256 FLEET VEHICLES**



**\$1,121,962**  
CHARGE UP!  
EV INFRASTRUCTURE  
**110 CHARGERS**



**\$28,961,000**  
DRIVE CLEAN IN SJV  
REBATES  
**9,807 VEHICLES**



**\$2,014,846**  
ZERO-EMISSION  
LAWN EQUIPMENT  
**3,636 PIECES**



**\$3,294,285**  
LOCOMOTIVE  
ENGINES  
**1 TRAIN**



**\$14,811,999**  
VW MITIGATION TRUST  
TRANSIT, SHUTTLE &  
SCHOOL BUS FUND  
**59 BUSES**



### EMISSION REDUCTIONS

FINE PARTICULATE MATTER

↓ 8,492 TONS

NITROGEN OXIDES

↓ 10,383 TONS

VOLATILE ORGANIC COMPOUNDS

↓ 7,179 TONS



## Driving Clean Vehicles in the San Joaquin Valley Gets Easier

For over a decade, the District has led the charge in passenger vehicle repair and replacement programs, particularly targeting disadvantaged communities, setting a benchmark for similar initiatives statewide. Through the Drive Clean in the San Joaquin Program, the District aids Valley residents in reducing vehicle emissions via vehicle repairs (Tune In Tune Up) and replacing older, high-emission vehicles with newer, cleaner models.

The District's success in engaging low-income residents has garnered recognition from UCLA's Luskin Center for Innovation, serving as a model for other agencies. A 2021 report from the Luskin Center highlights the District's focus on reaching low-income and communities of color in the Valley, with participation from 95% of disadvantaged communities compared to lower rates in other districts.

Since 2015, the District has secured over \$87 million in state Enhanced Fleet Modernization Program and Clean Cars for All funding for the Drive Clean in the San Joaquin vehicle replacement program. Combining these funding sources offers incentives ranging from \$7,000 to \$12,000, based on income level, residential status in a disadvantaged community, and the type of replacement vehicle chosen. Priority incentives are provided to applicants with the lowest income residing in disadvantaged communities, opting for the cleanest vehicle options like plug-in hybrids or battery

electric vehicles. Participants may also stack other available rebates to maximize funding for their vehicle replacement purchases. To date, the District has replaced over 5,330 high-polluting vehicles with newer, cleaner, and more fuel-efficient models.

The District's Drive Clean in the San Joaquin Vehicle Repair program complements its vehicle replacement efforts by offering Valley residents a chance to reduce emissions effectively through vehicle repairs. This program has seen significant success in serving low-income residents, with a high participation rate from disadvantaged communities.

The Repair program is designed to assist vehicle owners who fail initial smog screenings. It provides them with vouchers worth up to \$850 for emissions-related repairs, necessary smog checks, and diagnostics. Participating in the program is simple: vehicle owners can reach out to Valley Clean Air Now, the District's program partner, to schedule appointments with participating smog shops for emissions testing. Alternatively, they can attend one of the many weekend events held throughout the Valley. Regardless of the participation method, vehicles failing the emission test receive vouchers for emissions-related repairs. In the last year, 16,101 repairs were done through the direct participation method, while 3,405 individuals were able to participate by attending one of the many weekend events.



## Improving Air Quality & Safety with Fireworks Alternatives

Historically, the San Joaquin Valley has grappled with poor air quality during evenings with significant fireworks activity, notably on the 4th of July and New Year's Eve. During such events, meteorological conditions can exacerbate air quality issues, leading to elevated concentrations of PM2.5 and toxic pollutants emitted by fireworks.

On evenings like the 4th of July, air quality can rapidly decline as fireworks displays commence. Diurnal profiles of PM2.5 concentrations across monitoring sites in the Valley show a marked increase during these events, reaching levels ranging from Unhealthy to Very Unhealthy on the Air Quality Index. The lingering effects of these elevated pollutant levels persist into the following day, requiring time for dispersion.

Firework emissions, rich in fine and ultrafine particles, pose health risks as

they can penetrate deep into the lungs. Studies have revealed that fireworks emit a variety of heavy metals and elements, such as potassium, magnesium, lead, and copper, which can trigger inflammation in lung tissue and pose risks to public health.

Aside from air quality impacts, residential fireworks contribute to noise pollution, safety hazards, and environmental damage. Instances of injuries, burns, and accidents are common, and the debris generated poses risks to wildlife and the environment. Additionally, the sensory impact on individuals with sensitivities and pets further compound the negative effects.

To address these concerns, the District adopted a new pilot program incentivizing the use of fireworks alternatives, including drone light shows, laser shows, etc. Drone shows, powered by LED lights, offer a visually stunning and eco-friendly

entertainment option. Cities across the country have embraced this modern alternative, citing environmental and safety considerations.

The District's pilot incentive program offered funding of up to \$50,000 to entities within the Valley to support non-firework alternatives, during celebrations such as the 4th of July or New Year's Eve. The aim is to reduce the reliance on fireworks displays and promote safer and more sustainable forms of entertainment.

By encouraging the adoption of alternatives, the District seeks to mitigate the adverse impacts of fireworks on air quality, public health, and safety while fostering innovative and environmentally conscious celebration practices in the community.

### FIREWORK SMOKE = AIR POLLUTION = HEALTH IMPACTS

*Firework smoke includes particulate matter (PM2.5) and toxic metals like strontium, barium and lead.*



**Exposure to PM2.5 can trigger health issues, especially for children, older adults and those with respiratory diseases.**

- › Coughing, wheezing
- › Throat, lung, sinus irritation
- › Shortness of breath, asthma attacks

## Transforming the Landscape with Zero-Emission Equipment

The District's Zero-Emission Landscaping Equipment grant program is dedicated to aiding landscape maintenance professionals in the replacement of their current gas or diesel-powered equipment with new electric zero-emission alternatives. Supported by over \$6 million in state Carl Moyer Program funding from CARB, this initiative aims to swap existing commercial-grade lawn and garden equipment with zero-emission alternatives in the Valley. Open to commercial landscape maintenance professionals, school districts, cities, counties, special districts, and other businesses and commercial entities, this program encourages the shift from gas-powered to zero-emission electric options. Since its inception in May 2023, the program has allocated over \$2 million to replace more than 860 pieces of outdated landscaping equipment.

Small businesses and public agencies may qualify to receive up to 100% of the cost of new equipment, while large businesses may be eligible for up to 85%, with a minimum 15% cost-share requirement. Participants can receive varying amounts of funding, including up to \$15,000 for ride-on mowers, \$1,500 for walk-behind mowers, \$1,400 for leaf blowers and vacuums, and \$700 for edgers, string trimmers, hedge trimmers, chainsaws, pole saws, and brush cutters. There is no limit to the total funding a participant can receive.

Gas-powered yard care equipment is a significant contributor to localized air pollution in Valley neighborhoods, as these small engines lack emission controls and emit substantially more pollutants than newer passenger vehicles. This grant program seeks to assist landscape maintenance professionals in transitioning to electric landscape equipment, thus reducing air pollution and promoting environmental sustainability.

USING A MOWER FOR  
**1 HOUR**

DRIVING A CAR FOR  
**300 MILES**  
(from L.A. to Las Vegas)



## Making Lawn Care Air Friendly & Affordable

The District is easing the burden of lawn care expenses for residents by offering rebates of up to \$250 back when they trade in an old gas-powered lawn mower for an electric one. Moreover, residents can also receive \$50 for the purchase of electric lawn care equipment without having to trade in an old piece.

Gas-powered yard care equipment is a significant contributor to localized air pollution in Valley neighborhoods. These outdated engines lack emission controls and pollute far more than newer passenger vehicles.

### OPTION 1: REPLACING OLD LAWN MOWER

Purchasing a new electric lawn mower and destroying an old gas-powered mower at participating dismantler.

Purchase Price	Rebate Amount
\$200 or Less	Up to \$100
\$201 to \$350	\$150
\$350 or more	\$250

*\*Applicant will be responsible for a minimum of 50% of the purchase price for mowers priced \$200 or less. Limit one rebate per address for every two consecutive years.*

### OPTION 2: SIMPLY PURCHASING

Purchasing new lawn care equipment and not destroying old equipment

Eligible Equipment	Purchase Price	Rebate Amount
Lawn Mower, Edger, Trimmer, Chainsaw and Pole Saw	\$100 or Less	Up to \$25
	More than \$100	\$50

*\*Blowers are not eligible. Applicants are responsible for a minimum of 50% of the purchase price. Limit one rebate per equipment type per address for every one year.*



## Zero-Emission Heavy-Duty Vehicle Infrastructure: Challenges & Opportunities

As heavy-duty vehicle technology progresses towards zero and near-zero emissions, the San Joaquin Valley faces the need to expand infrastructure to support these advancements. A robust network of fueling and charging stations is crucial to accommodate advanced technology vehicles such as school buses, trucks, agricultural equipment, and others, aligning with the state's strategy to reduce emissions from mobile sources and meet federal air quality standards.

The Valley's unique topography, climate, and geography, compounded by heavy traffic along major transportation corridors, present significant air quality challenges. A large percentage of the Valley's population resides in disadvantaged communities, particularly along Interstate 5 and Highway 99, further emphasizing the importance of addressing emissions from heavy-duty vehicles, the largest contributor to NOx emissions in the region.

Despite progress in reducing emissions and improving air quality, meeting federal standards remains a challenge. Transformative changes, including widespread adoption of zero and near-zero emissions technologies, are necessary to achieve ozone and particulate standards.

To support this transition, the District has implemented various strategies and incentive programs to incentivize clean vehicle technologies and fueling infrastructure. The California Air Resources Board's (CARB) regulations, such as the Advanced Clean Trucks and Advanced Clean Fleets regulations, set targets for zero-emission vehicle deployment, projecting significant adoption of zero-emission trucks by 2035.

Other state agencies, including the California Public Utilities Commission (CPUC), Governor's Office of Business and Economic Development (GO-Biz), California Transportation Commission (CTC), and California Energy Commission (CEC), play critical roles in planning and implementing infrastructure upgrades to support technology deployment.

In 2023, the District's Governing Board heard from the state agencies that are coordinating to ensure that the necessary utility upgrades and fueling infrastructure are planned for and deployed in the coming decades, and to discuss how the District can play a role in that effort. Key questions and considerations include:

- » *Policy and legislative barriers and opportunities needed to be addressed at the local, state, and federal level to ensure that California is able to successfully accomplish established aggressive zero-emission goals*

- » *Are existing processes and requirements sufficient to ensure that investor and other public utilities move forward with needed infrastructure enhancements?*
- » *How does this transition happen in an equitable manner, particularly for small businesses and disadvantaged and rural communities that are at risk of being left behind in the transition?*
- » *What investments need to be made in the short term to ensure that this transition is successful?*
- » *What role do different vehicle and equipment technologies play in the zero-emission transition?*
- » *What can the District and other regional and local agencies do to continue to support the transition to zero-emission technology?*

To ensure successful achievement of aggressive zero-emission goals, addressing policy barriers, enhancing infrastructure, promoting equity, and making necessary investments are essential. The District will continue to collaborate with state agencies, utilities, and local stakeholders to support the transition to zero-emission technology and ensure a sustainable future for the San Joaquin Valley.

## Clean Locomotives for the Valley

The Locomotive Incentive Program facilitates the replacement of outdated, high-polluting locomotives and switchers with cutting-edge clean technology. This technology includes zero-emission battery-electric switchers, railcar movers, multi-engine switchers, electric-hybrid locomotives, and the most environmentally friendly Tier 4 units.

Multi-engine switchers typically harness the power of two or three small off-road engines, while electric hybrids utilize a small diesel engine to charge batteries that subsequently power the locomotive. This year, the District allocated funding to replace an antiquated, high-polluting unit with the latest Tier 4 technology.

Specifically, the District provided funding for the replacement of a 1976 diesel locomotive, previously uncontrolled, with the cleanest diesel-powered locomotive technology available globally (Tier 4). This initiative, undertaken for the California Northern Railroad Company in Tracy, exemplifies the District's commitment to advancing economically and environmentally sustainable transportation solutions.





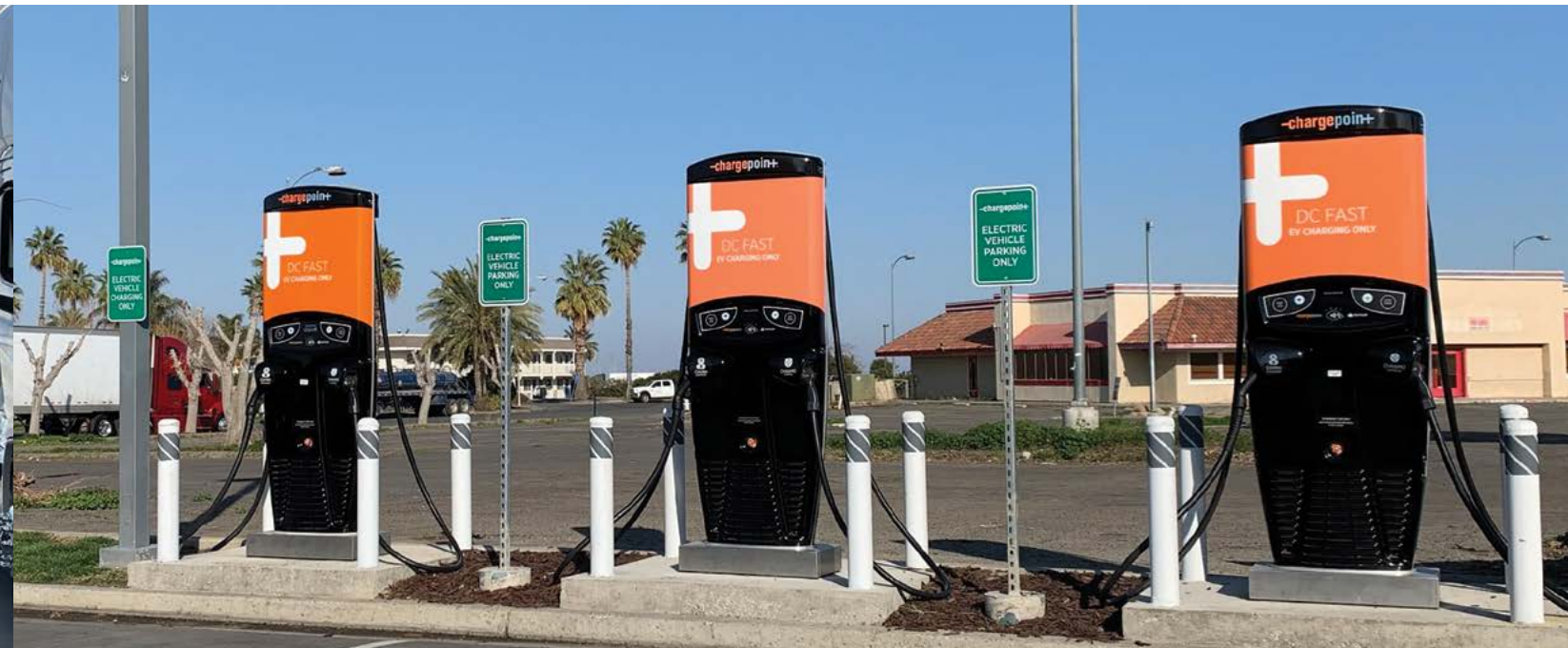
## Cleaner Trucks Hit Valley Roads

The District's Truck Replacement Program provides fleets the opportunity to replace their existing diesel powered equipment with zero and near-zero emission technology. While incentive amounts may vary depending on fleet size, usage of the old equipment and the type of new equipment to be purchased, the District's Truck Replacement Program offers up to \$410,000 towards the purchase of a new zero-emission heavy duty truck. Although the District has no regulatory authority over mobile sources of emissions, the Truck Replacement Program is a key strategy in reducing NOx and PM2.5 emissions in the Valley. In addition, the program provides fleets the opportunity to get ahead of regulatory requirements to transition their fleet to new zero-emission technology.



### SPOTLIGHT ON OK PRODUCE

In 2023, the District funded 10 all-electric Freightliner trucks for OK Produce to deploy into their fleets in order to demonstrate the capability of this new technology within their operations based in the San Joaquin Valley. The deployment of zero-emission trucks paired with supporting charging infrastructure will provide vehicles the capacity for a full day of work and ability to recharge overnight. These projects will be critical to understanding the challenges and benefits associated with the adoption of zero-emission technology across the Valley.



## District Awarded \$56 million to Build Electric Truck Charging Network

The District was awarded \$56,008,096 in funding from the highly competitive Federal Highway Administration (FHWA) Charging and Fueling Infrastructure (CFI) Program to develop high-power electric vehicle charging stations at key locations along the national freight network within the San Joaquin Valley. This award is the highest in California and is the third largest grant awarded in the entire nation. This influx of infrastructure funding is critical to support the ongoing effort to transition the heavy-duty transportation and goods movement sector in California to zero-emission and improve air quality in the San Joaquin Valley.

With this funding award, the District will be partnering with WattEV to build two state-of-the-art truck charging sites along the Interstate 5 (I-5) corridor within the San Joaquin Valley. WattEV is an industry leader in supporting heavy-duty fleet transition to zero-emissions, and has a proven track record of accelerating the transition to zero-emission transportation through the development of several public heavy-duty vehicle charging sites in the Southern San Joaquin Valley and Southern California.

Funding from this grant will support the construction of two charging stations along the I-5 corridor in Taft (Kern County) and Gustine (Merced County). The I-5 corridor is recognized as one of the nation's busiest freight corridors connecting Southern California to Northern California and beyond. Both sites will offer a variety of publically-accessible high-powered charging options for both heavy-duty vehicles as well as passenger vehicles. In addition, the sites will offer amenities for travelers such as public bathrooms, a rest area and free parking. Both sites will include a collective 63 acres of solar panels and 5.5 MW of battery electric storage systems to provide grid stability.

Mobile sources account for the single largest source of ozone and PM2.5 forming NOx, toxic diesel particulate matter, and greenhouse gas emissions in the Valley. Reducing emissions from these mobile sources, including both heavy-duty and light duty vehicles, is a critical component of the District's overall strategy to attain stringent health-based federal air quality standards. With 45% of the truck traffic in California occurring in the San Joaquin Valley, projects such as these are critical in improving air quality in the region.

*“We're proud to be leading the build-out of the West Coast's 'electric highway' from San Diego to Seattle, and the San Joaquin Valley is a critical link in the network. We're delighted to be in partnership with the Valley Air District on these projects in Taft and Gustine. The District's far-sighted leadership in the mission of transitioning our commercial freight sector to zero-emission technology is essential. We truly appreciate it, and look forward to continuing our work together.”* - Salim Youssefzadeh, CEO, WattEV

*“We appreciate the leadership of WattEV, and strong support of the Federal Highway Administration, in helping to move forward nation-leading efforts to deploy the next generation of zero-emissions freight infrastructure in the San Joaquin Valley. This funding award is a significant milestone for the region and state as a whole, and is a testament to the Valley Air District's commitment to reducing air pollution, improving public health, and supporting the Valley's economy.”*

- Samir Sheikh, Executive Director/  
Air Pollution Control Officer, Valley Air District

## Getting a Charge in the San Joaquin Valley

To further the adoption of zero-emission heavy-duty vehicles for businesses and public agencies, and to support the growing number of zero-emission passenger vehicles in the San Joaquin Valley, the District offers incentives for the construction or expansion of EV infrastructure throughout the San Joaquin Valley through its Clean Vehicle Fueling Infrastructure Program and Charge Up! Program.

As heavy-duty vehicle technology has advanced in recent years to include increased utilization of zero and near-zero emission vehicle technologies there is a corresponding need to build or expand infrastructure options for these vehicles. To support the deployment of advanced technology vehicles in the San Joaquin Valley, including school buses, trucks, forklifts, agricultural equipment and other heavy-duty vehicles, a network of fueling and charging infrastructure will be required. The Clean Vehicle Fueling Infrastructure Program provides incentives for installation, conversion, and expansion of existing stations for hydrogen fueling and battery charging of heavy-duty vehicles. Public and private entities are eligible to apply, with school bus infrastructure projects potentially being funded up to 100% of eligible costs.

To support the growing number of clean plug-in electric passenger vehicles and plug-in hybrid electric passenger vehicles in the San Joaquin Valley, the District offers its Charge Up! Program to provide funding for public agencies, businesses, and property owners of multi-unit dwellings (i.e. apartment complexes, condominiums, etc.). The goal of this program is to further strengthen the Valley's plug-in vehicle charging network to ensure the technology's sustainability in the region and ease "range anxiety" that concern many existing and potential electric vehicle owners. Through the program, the District strives to build a robust charging network throughout the Valley which will support CARB's goal of ensuring 100% of new cars and light trucks sold in California by 2035 are zero-emission or plug-in hybrid electric vehicles. In 2023, the District awarded more than \$1.2 million in incentives for the installation of 75 Level 2 and 34 Level 3 plug-in vehicle chargers.



## Clean Rides for Young Riders: Zero-Emission School Bus Program

The District's Zero-Emission School Bus Replacement Incentive Program offers financial incentives for replacing current diesel school buses that transport public school children to and from school with zero-emission school buses. This initiative targets disadvantaged or low-income communities within the District's boundaries. Eligible applicants include public school districts, Joint Power Authorities (JPA), and privately-owned school buses contracted with a public school for student transportation. Notably, the District's Electric School Bus Program operates independently from the VW Mitigation Trust state program, and applications are presently being accepted.

## VW Mitigation Trust is Electrifying Buses in the Valley

The Volkswagen Environmental Mitigation Trust, a nationwide initiative, allocated \$423 million to California to fully offset the excessive nitrogen oxides (NOx) emissions stemming from VW's use of illegal emissions testing defeat devices in VW diesel vehicles. California's share of the funding is directed towards advancing technology in vehicles and equipment, expediting the transition to zero-emission heavy-duty fleets. Over 50% of the total project funds are earmarked to benefit disadvantaged or low-income communities.

This program aims to replace older, high-polluting transit, school, and shuttle buses with new battery-electric or fuel-cell buses. First launched in 2019, the program offers bus owners two installments of \$65 million each. The program grants up to \$480,000 for a new zero-emission bus, with funding still available for shuttle and transit buses for both public and private entities. While the program has reached capacity for school bus replacements and is no longer accepting applications, it continues to welcome applications for transit and shuttle buses. Through the VW Mitigation Trust, over 160 zero-emission school buses are being deployed in California, including over 30 in the Valley. For transit and shuttle buses, over 240 zero-emission vehicles are anticipated to be deployed statewide, with over 21 in the Valley.



### SPOTLIGHT ON MODESTO CITY SCHOOLS

Through the Clean Vehicle Fueling Infrastructure program, \$4 million was granted to Modesto City Schools for the installation of 30 Level 2 single port chargers and 2 Level 3 single port DC Fast Chargers. In addition to zero-emission fleet technologies, on-site renewable energy generation (solar photovoltaic) was installed to better support the transition to zero-emission vehicles. This project will help further reduce emissions within the community and sets a precedent for others to follow. The District is a proud partner of Modesto City Schools and will continue to provide support in order to achieve the eventual goal of replacing all of the school's diesel-powered school busses to zero-emission technology.

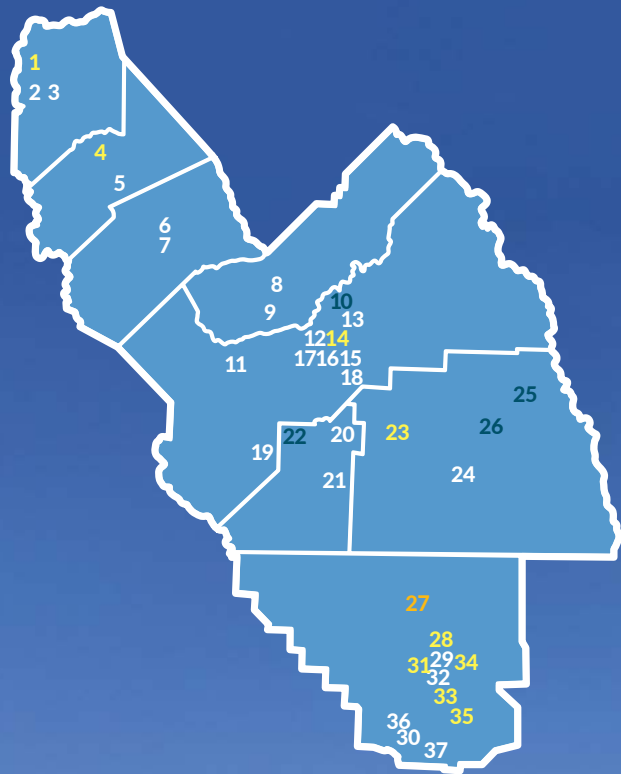


# The Science Behind Air Quality Monitoring

In pursuit of its mission to enhance air quality and uphold public health standards mandated by the federal Clean Air Act, the District administers a comprehensive array of air quality monitors. These monitors form a robust network, furnishing vital data essential for informed decision-making.

Leveraging data from these real-time monitors, the District issues daily Air Quality Index (AQI) forecasts for each county within the Valley. Additionally, hourly real-time notifications are sent to schools and Valley residents, ensuring timely awareness of air quality conditions.

Furthermore, the District undertakes thorough analysis of the collected air quality data. This detailed examination serves as a cornerstone in the creation of strategies aimed at achieving ozone and PM2.5 attainment goals. By scrutinizing trends and patterns, the District navigates the course toward a future marked by improved air quality and public health outcomes.



## SAN JOAQUIN COUNTY

- 1 Stockton-University Park: G,P,F,M,T
- 2 Tracy-Airport: G,M,P,F
- 3 Manteca: P,F,M

## MERCED COUNTY

- 6 Merced-M St: P,F
- 7 Merced-Coffee: G,F,M

## MADERA COUNTY

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

## FRESNO COUNTY

- Other<sup>1</sup>: Monache Tribe/Foothill Yokut Indians
- 10 Table Mountain: G,F,P,M
- 11 Tranquility: G,F,M
- 12 Fresno-Sky Park: G,M
- 13 Clovis: G,M,P,F
- 14 Fresno-Garland: G,M,P,F,T,N,L
- 15 Fresno-Pacific: F
- 16 Fresno-Drummond: G,P,M
- 17 Fresno-Foundry Park Ave: G,M
- 18 Parlier: G, M
- 19 Huron: F, M

## MONITORING OPERATION

- Sites operated by the District
- Sites operated by the District & CARB
- Sites operated by CARB
- Sites operated by other agencies: 1: Tribal, 2: National Park Service

## KINGS COUNTY

- 20 Hanford: G, F,M,P
- 21 Corcoran: F,M,P
- Other<sup>1</sup>: Tachi Yokut Tribe
- 22 Santa Rosa Rancheria: G,M,P

## TULARE COUNTY

- 23 Visalia-W.Ashlan Ave: G,P,F,M
- 24 Porterville: G,F,M
- Other<sup>2</sup>
- 25 Lower Kaweah: A,G,M
- 26 Ash Mountain: A,G,M,F

## KERN COUNTY

- 27 Shafter: G,M
- 28 Oildale: G,M,P
- 29 Bakersf-Golden/M St: F,P
- 30 Bakersf-Westwind: G, M
- 31 Bakersf-Calif Ave: A,G,M,P,F,T
- 32 Bakersf-Muni: G,M
- 33 Bakersf-Airport (Planz): F
- 34 Edison: G,M
- 35 Arvin-Di-Giorgio: G,M
- 36 Maricopa: G,M
- 37 Lebec: F,M

## MONITORING DESIGNATIONS

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

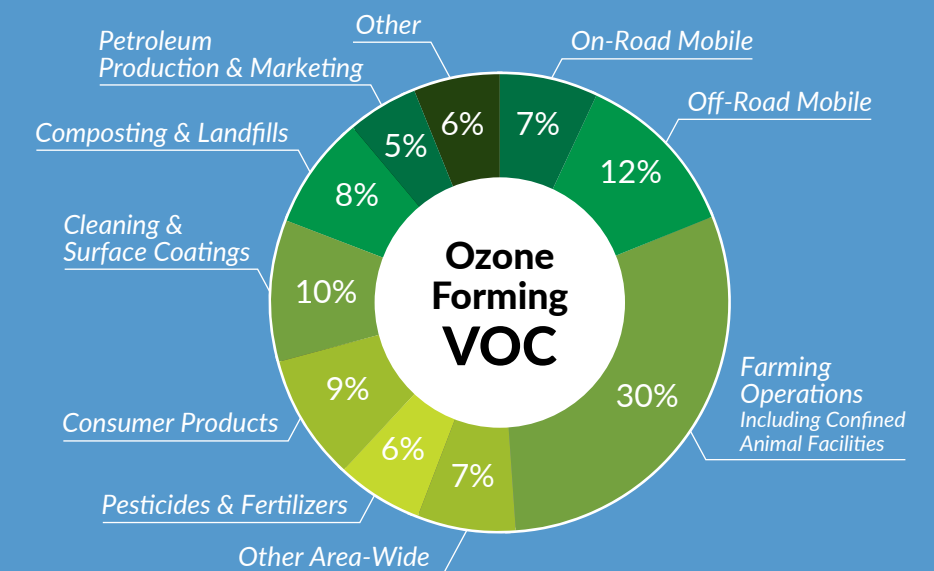
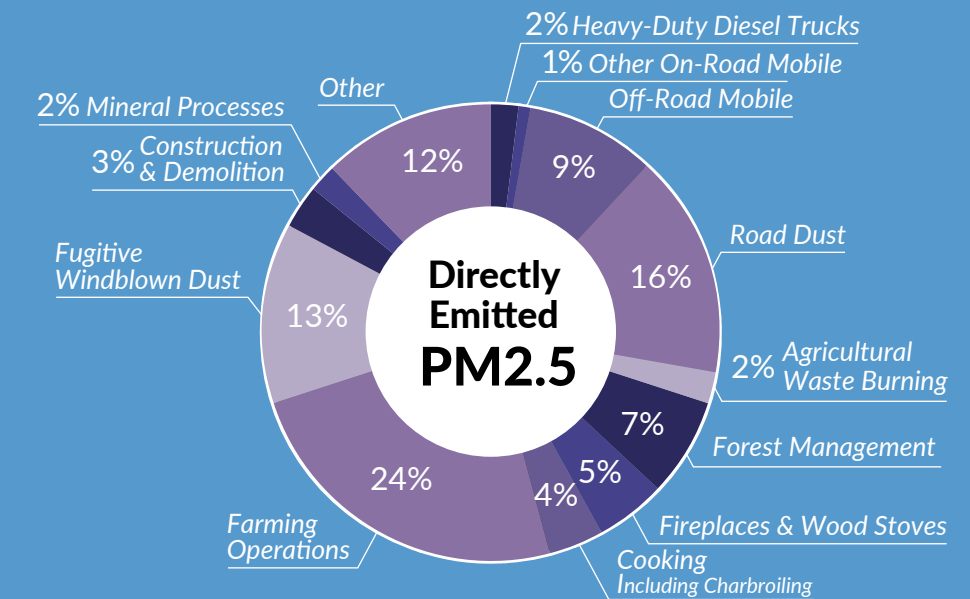
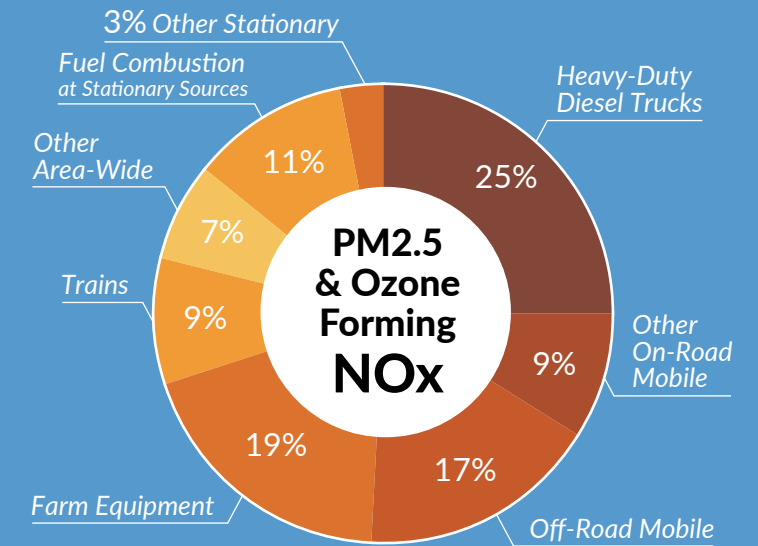
# Sources of Emissions

Yearly, the District must gather emissions and process data from over 6,000 facilities and other relevant sources. This information is then used to determine the annual emissions for each facility, which are subsequently reported to the California Air Resources Board (CARB). This comprehensive emissions inventory serves as a cornerstone in the District's endeavors to combat air pollution through the formulation of attainment plans and emission control strategies.

**OZONE** a key component of the Valley's summertime "smog," poses significant risks to both human health and vegetation. Unlike other pollutants, ozone isn't directly emitted into the atmosphere but is instead formed through photochemical reactions involving oxides of nitrogen (NOx) and volatile organic compounds (VOCs) in the presence of sunlight.

**PARTICULATE MATTER (PM)** encompasses minute particles of solids or liquids suspended in the air, excluding pure water. This category includes both PM2.5 (particles less than 2.5 micrometers in diameter) and PM10 (particles less than 10 micrometers in diameter). PM can originate directly from sources like dust or soot (primary PM) or form in the atmosphere through chemical reactions or gaseous precursors (secondary PM). In the San Joaquin Valley, a significant portion of ambient PM10 and PM2.5 is secondary PM, resulting from atmospheric reactions involving NOx.

Given the Valley's unique climate and the chemical composition of air pollutants, NOx has emerged as a primary target for both the District and CARB in addressing challenges related to Ozone and PM2.5. Efforts to mitigate NOx emissions are crucial in combating these air quality issues and protecting the health and well-being of Valley residents.





## Inside the District

Accountability is one of the most important aspects of all of the District's operations, goals and strategies, as codified in the District's Core Values. The District is accountable to the public for every dollar spent and every regulation adopted. It is accountable for demonstrating quantifiable progress toward clean air, and it is accountable for conducting day-to-day business in the most effective, efficient and innovative ways possible. The District's track record demonstrates these values. The District is often given the highest marks by auditors and other agencies, and consistently sets a high bar for air quality improvements that other air management agencies emulate. The District also sets the gold standard for customer service. In addition to the sections presented earlier in this report regarding air quality improvement strategies, air quality trends and voluntary incentive grants, the District offers you the following operational information about how the District is working to clean the air, be a good steward of public funds and continue the tradition of excellence that the Valley's stakeholders have come to expect.

### ADMINISTRATION

The District ensures that all fiscal and general service related functions are accomplished with full transparency and accountability. 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 and grants financial management, including state and federal grant reporting. The general service functions include responsibility for facilities management, fleet management, purchasing, and risk management. The District has fully implemented the option to receive online electronic funds via e-checks, debit, and credit cards. The online portal allows permitted facilities to view their current outstanding invoices, submit a payment, and receive their payment confirmation instantly. Many of the District's processes such as application submissions, payment requests, contract execution, and billing adjustments were converted to electronic processing, eliminating the need for paper submission, and handling.

### ITS

The District's Information and Technology Services (ITS) department holds the primary responsibility of identifying and implementing new technology. With an ongoing mission to analyze existing systems and seek out opportunities to integrate automated tools into District programs. The focus remains on enhancing internal efficiencies and processes while consistently delivering top-tier customer service to both the public and District staff.

Among these endeavors is the Public Records Request (PRR) Program, which enables the District to efficiently handle thousands of public records requests. To streamline this process, the District has adopted Next Request by Granicus, a software solution that not only benefits users but also improves internal workflows, enhances project assignment, and ensures compliance with state law—all while significantly reducing staff resource requirements.

Another notable advancement is the transition to GovDelivery, a cloud-based solution replacing the outdated internally-developed public email notification system. Leveraging GovDelivery, the District enhances stakeholder communications by delivering compliance assistance bulletins, promoting new grants programs, and announcing workshops and hearings.

Recognizing the importance of an online presence, the District is currently redesigning its website. This initiative aims to modernize public-facing services, bolster security standards, and improve user experience. As part of this redesign, the District plans to transition its website from its current .org domain (valleyair.org) to a .gov top-level domain (TLD), positioning the District website as an official and trustworthy source of information for the public.

Furthermore, the District has embraced Geographic Information System (GIS) software, specifically ESRI ArcGIS. This software has enabled the District to present information to the public and stakeholders in a more meaningful, transparent, and accessible manner. Continuously expanding their use of GIS, the District is currently testing and prototyping a new solution internally, with plans for a full launch in the near future.

As the District continues to grow, managing hundreds of millions of dollars in pass-through federal and state incentive program funds across more than 50 programs, maintaining robust accounting practices is paramount. To uphold the highest standards of accountability and control, the District's Governing Board has hired a financial software consultant to develop a comprehensive Request for Proposal (RFP) outlining the District's needs in budgeting, general ledger management, financial document workflows, procurement, grant management, fixed assets, position control, and benefit management. The District plans to select a suitable software package and aims to complete the transition during the 2024-25 fiscal year, ensuring continued efficiency and accountability in their operations.

### LEGAL

The District Counsel's office intervenes on behalf of the District where necessary to defend the District's rules, policies and attainment plans against legal challenges in state and federal courts, and to ensure that the District's unique circumstances are taken into account when courts reach decisions that impact the Valley's air pollution control strategies. The District Counsel's office also supports the Compliance Department's efforts to enforce District rules and regulations designed to achieve and maintain healthy air quality for our Valley. Under

state law, violations of a District rule by a business or individual residents can incur significant civil monetary penalties, and even criminal punishment. If the penalties for a violation are not settled through the informal mutual settlement process, the case will be transferred from the Compliance Department to the District Counsel's office which will make a last attempt to resolve the matter without the need for court intervention. If the penalties for violating a District rule cannot be settled informally, the District Counsel's office will file a civil suit in court to seek the full measure of civil penalties. The public is encouraged to respond to communications from the District's Counsel's office. Most violations can be resolved informally for less than if the case were to go to court. In some cases, installment payments of the penalty can be arranged.

### HUMAN RESOURCES

The District performs the full range of human resource support activities including the recruitment, classification and pay, records management, labor relations, training, and management/supervisory support. The District is responsible for minimizing risk through employee benefits, workers' compensation and employee wellness programs. In addition, the District administers and interprets human resources related laws, rules and regulations in order to properly manage and direct its workforce.

The District does not discriminate on the basis of race, color, national origin, ethnic group identification, ancestry, religion, age, sex, sexual orientation, gender identity, gender expression, genetic information, medical condition, or mental or physical disability, or any other attribute or belief protected by law. For more information, visit valleyair.org.

### DISTRICT EARNS NATIONAL AWARD FOR FINANCIAL EXCELLENCE

Once again, the District was awarded the Government Finance Officers' Association of the United States and Canada (GFOA) Certificate of Achievement for Excellence in Financial Reporting for its comprehensive Annual Comprehensive Financial Report (ACFR). GFOA is an internationally recognized organization that offers guidance and support to local and state government budget and finance professionals throughout the United States and Canada. In July, GFOA presented the "Certificate of Achievement for Excellence in Financial Reporting," the GFOA's highest form of recognition in governmental accounting and financial reporting, to the District for its fiscal year 2022-23 ACFR. Receiving this award represents a significant recognition by an expert independent authority of the District's commitment to meeting the highest principles of governmental reporting and transparency to the public, and excellence in exercising fiduciary responsibilities.



## Permitting

The District works closely with Valley businesses to ensure compliance with the region's stringent air pollution regulations. Overseeing more than 41,000 permits and registrations for 15,200 facilities, the District plays a pivotal role in protecting air quality.

### AUTHORITIES TO CONSTRUCT & PERMITS TO OPERATE

Stationary sources of air pollution, from dry cleaners and auto body shops to power plants and oil refineries, must obtain air permits from the District before constructing or operating. The permitting process involves two major steps:

The applicant must first apply for an Authority to Construct (ATC) permit. The application review process is an important opportunity for all interested parties—the project proponent, the District, and the interested public—to assess a project's compliance with federal, state, and local air pollution regulations prior to beginning construction. To obtain an air permit in the Valley the Air District requires the best available air pollution control equipment as well as mitigation of emission increases.

Once the District determines that the applicant has properly installed the equipment and is operating in compliance with the conditions on the ATC, a Permit to Operate is issued.

### FEDERALLY MANDATED OPERATING PERMITS (TITLE V)

There are 250 facilities in the District that are subject to Title V permits. Federal law requires major sources to obtain Title V permits, which 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 updating approximately 6,000 CMP plans designed to reduce air pollution emissions from on-field agricultural operations.

### EMISSIONS INVENTORY

Each year, the District collects emissions and process data from nearly 7,000 facilities and other information sources, calculates each facility's annual emissions, and reports the emissions to the California Air Resources Board (CARB). This emissions inventory then acts as a cornerstone of the District's efforts to reduce air pollution through attainment plans and emission control strategies.

### CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

CEQA is the state law that requires projects' environmental impacts to be assessed and disclosed to the public, and that significant impacts be mitigated to a less than significant level when feasible. District staff carefully reviews land developers' project proposals, proposed permits for stationary sources of pollution, and attainment plans and rules, for compliance with CEQA requirements.

### INDIRECT SOURCE REVIEW (ISR)

The District's ISR Rule (Rule 9510) first rule of its kind in the State of California and throughout the nation, which applies to new residential and non-residential development projects. The purpose of Rule 9510 is to reduce growth in both NOx and PM10 emissions from mobile and area sources associated with construction and operation of new development projects in the Valley, by encouraging clean air designs to be incorporated into the development project, or, if insufficient emission reductions cannot be designed into the project, by paying a mitigation fee that will be used to fund off-site emissions reduction projects.

One hundred percent of the mitigation fees received by the District are used to fund emission reduction projects on behalf of project developers.

### EMPLOYER BASED TRIP REDUCTION (ETRIIP)

The purpose of the District's eTrip Rule (Rule 9410) is to reduce vehicles miles traveled from private vehicles used by employees to commute to and from their worksites to reduce emissions of NOx, VOC and PM10. Rule 9410 requires employers with 100 or more "eligible" employees at a worksite to establish an Employer Trip Reduction Implementation Plan (eTrip Plan) that encourages employees to reduce single-occupancy vehicle trips, thus reducing pollutant emissions associated with work commutes. An eTrip Plan is a set of measures an employer chooses that will encourage employees at the worksite to use alternative transportation and ridesharing for their commutes. Employers have the flexibility to choose the options that work best for their worksites and their employees.

### SMALL BUSINESS ASSISTANCE (SBA)

Exceptional customer service is more than just a core value of the District; it is ingrained in our work culture. A great example of this is the District's SBA team, whose mission is to provide dedicated assistance to Valley businesses who lack the resources or expertise needed to efficiently obtain air permits or otherwise comply with District requirements. Our SBA staff provides expert advice on technology options, application processes, cost efficient methods to comply with District requirements, as well as many other air quality issues. Interested parties can contact the District SBA staff directly through dedicated hotline telephone numbers: Fresno - (559) 230-5888, Modesto - (209) 557-6446, and Bakersfield - (661) 392-5665.

### PERMITTING BY THE NUMBERS

2,740	Authority to Construct permits issued
4	Initial Title V permits projects processed
57	Title V permit renewal projects processed
158	Title V permit modification projects processed
45	Emission Reduction Credit banking or transfer projects processed
86	Permit-Exempt Equipment Registrations projects processed
379	Conservation Management Practices plans processed
786	Toxic air contaminant risk management reviews processed
6,777	Facility emissions inventory projects processed
1,210	California Environmental Quality Act (CEQA) review requests processed
324	CEQA comment letters sent to Valley agencies
279	Indirect Source Review applications processed
318	Employer trip reduction plans processed



## Enforcement

District staff conduct inspections at over 15,200 permitted and regulated facilities (including approximately 6,100 agricultural operations) annually, inspecting over 35,000 emission units, responding to thousands of public complaints, and verifying emissions reductions at numerous locations with implemented emission reduction incentive projects.



As a vital component of the District's regulatory program, the Compliance Department conducts a range of enforcement and compliance assistance activities to ensure adherence to District, state, and federal regulations. These activities align with program objectives outlined in federal and state laws as well as the District's air quality attainment plans.

Collaborating with agencies like the California Air Resources Board (CARB), EPA, and others, the District participates in joint enforcement initiatives, leveraging expertise in enforcing stationary source regulations. Inspectors ensure compliance with operating permits and regulations through detailed on-site reviews of permitted equipment and associated records, including inspections for agricultural and residential burning restrictions.

### COMPLAINT RESPONSE

Thousands of complaints received annually prompt timely responses and investigations by District inspectors. Inspectors are on-call 24 hours per day, 7 days a week, and the District facilitates complaint submission through automated voicemail, mobile app, online portal, and a bilingual telephone line, ensuring accessibility for all Valley residents.

### EDUCATION, TRAINING, AND COMPLIANCE ASSISTANCE

Emphasizing compliance assistance, the District offers resources, individualized assistance, training opportunities, workshops, and outreach efforts to help residents and businesses comply with air pollution regulations. Training sessions during inspections, Compliance Assistance Bulletins, and certification courses support compliance efforts.

### INSPECTIONS

Routine inspections ensure compliance at new and existing facilities across various sectors, including petroleum refining, manufacturing, agriculture, and more. Activities such as asbestos demolition, construction, and idling diesel trucks are also inspected.

### SOURCE TESTING AND MONITORING

The District employs various methods, including specialized monitoring equipment and certified staff, to monitor emissions from facilities. Timely tests aid in identifying and correcting non-compliance. Testing also supports permitting, rule development, planning, and technology advancement efforts.

### ENFORCEMENT OF REQUIREMENTS

Despite compliance assistance efforts, enforcement actions address non-compliance with rules and regulations. The District prioritizes prompt return to compliance and ongoing education. Disputed cases are settled through mutual agreements, with rare cases transferred to District Counsel for formal action. In 2023, the District issued nearly 3,000 notices and transferred 469 cases to District Counsel.

### HEARING BOARDS

Quasi-judicial panels known as Hearing Boards provide temporary relief from District rules and regulations when specific conditions are met. Any excess emissions granted by Hearing Boards represent a small fraction of the Valley's total emissions. In 2023, the District received 84 variance petitions and held 28 Hearing Board meetings.

#### COMPLIANCE BY THE NUMBERS

35,780	Units inspected
2,406	Public complaints investigated
374	Open burn sites inspected
8,818	Incentive funding units (i.e. trucks, engines) verified
1,707	Asbestos projects reviewed & inspected



## Community Outreach & Education

*Through innovative approaches and creative initiatives, the District implements a robust public education and outreach strategy aimed at securing support from Valley partners to advance its clean air objectives. District personnel are steadfast in their commitment to engaging and educating San Joaquin Valley residents, businesses, schools, media outlets, public agencies, and local organizations about District programs, air quality challenges, substantial investments in clean air initiatives, protective steps the public can take, and the progress achieved in enhancing air quality within the Valley.*

### SOCIAL MEDIA

The District utilizes various social media platforms to connect with Valley residents who naturally follow its pages. Staff actively oversee accounts on Facebook, X, Instagram, Threads, NextDoor, and LinkedIn. Additionally, paid social media ads are strategically used on specific platforms to reach particular audiences when necessary. This engagement on social media enables the District to actively participate in daily conversations with Valley residents.

The District also maintains an informational video library on its YouTube channel. Videos include a variety of different commercials, grant promos, educational videos and published meeting recordings. Commercials are directed and produced in-house and are often used as paid media and air on TV, cable, and digital channels in English and Spanish.

### PRESS RELEASES AND MEDIA EVENTS

To establish robust relationships with reporters, news directors, and media partners, District staff actively engage in effective communication practices in both English and Spanish. This involves issuing numerous bilingual press releases annually, which serve as concise and easily understandable sources of complex air quality information. Media outlets in the Valley often rely on District press releases as the primary source for key air quality stories. Additionally, the District promptly notifies news outlets through press releases and air quality alerts when the Valley encounters adverse or exceptional air quality conditions. By collaborating closely with media outlets, the District ensures that accurate information reaches the public, thus advancing our mission of promoting air quality awareness and education within the community.

### COMMUNITY PRESENTATIONS AND EVENTS

Throughout the past year, the District participated in dozens of outreach events aimed at delivering educational presentations, distributing informative materials, and engaging with residents across the Valley. Public events have proven to be exceptional platforms for effectively communicating key District messages while encouraging positive behavior changes to improve air quality in the Valley. To request an English or Spanish speaker, presenter, or an educational booth, please reach out to us via email at [public.education@valleyair.org](mailto:public.education@valleyair.org).

### PUBLIC HEALTH PARTNERSHIPS

The District has forged lasting partnerships with the health departments of the eight counties in the San Joaquin Valley to tackle air quality issues efficiently. During periods of notably poor air quality, the District takes proactive measures to collaborate with county health officers. This collaboration ensures a unified message and equips them with pertinent information and resources to address public concerns effectively.

The District values these partnerships as we strive to keep the public well-informed about the effects of air quality and provide them with the necessary tools and resources available from the District. Health departments are trusted messengers and often

collaborate with the District to share various messages. With California experiencing significant rain and snowpack, the Valley has seen an increase in vegetation. This has raised concerns for potential wildfire impacts and led to our collaboration with trusted partners like county-based health leaders, to amplify our message about wildfire prevention and response.

Together, we are committed to safeguarding the well-being of Valley residents and cultivating a shared understanding of protecting and maintaining air quality by reducing health disparities and inequities, regardless of where they live, learn, work, or play.

### CONNECTING THE PUBLIC TO CLEAN AIR FUNDING

It is essential for the District to communicate that improving air quality is a shared responsibility, and each individual's involvement and commitment make a significant difference. The District offers a range of voluntary incentive programs that specifically target the reduction of harmful emissions throughout the Valley. Recognizing the significance of these programs, the District dedicates substantial time and resources to educate the public about these opportunities, seek new partnerships and foster the connection between clean-air funding and the public, further amplifying the positive impact on air quality.

### HEALTHY AIR LIVING KIDS' CALENDAR

Annually, the District organizes a calendar contest aimed at spotlighting youth artwork and engaging them in efforts to enhance air quality. This past year, the District's Governing Board proudly recognized the exceptional artistic talents of 14 students from across the San Joaquin Valley that are featured in the District's 2024 Healthy Air Living Kids' Calendar. This bilingual, full-color wall calendar serves as an effective educational tool, pairing clean-air messages with engaging drawings. These messages aim to inspire and inform the public about adopting healthy air practices and making lifestyle changes to actively reduce and improve air pollution throughout the Valley.

The calendars are provided free of charge and are distributed while supplies last, to schools, community groups, healthcare facilities, churches, civic organizations, non-profits and individuals.

OUTREACH BY THE NUMBERS	
99	Media calls
836	Public calls
27	News Releases
1,101	Social Media Posts
157	Presentations/Outreach Events



## Embracing Excellence; The District's STAR Culture

The District has long been committed to establishing and maintaining a workforce that not only produces innovative, effective, and high quality technical work but also provides exceptional customer service to the public, the regulated community, and others we encounter while conducting District business. In addition, the District is committed to fostering, cultivating and preserving a culture of diversity, equity, and inclusion. We embrace and encourage our employees' and community members' differences and characteristics that make everyone unique. Towards that end, the District has developed and implemented STAR (Service, Teamwork, Attitude and Respect), a District-wide work culture program aimed at creating an atmosphere in which providing exceptional service, demonstrating effective teamwork, maintaining a positive attitude, and showing respect to others are an intrinsic part of each employee's job.

The District STAR work culture is advanced through an ongoing and systematic approach to promote excellent customer service and continuous improvement while enhancing employee performance, morale, and interpersonal skills. Key elements of the District STAR work culture include engaging and empowering employees to identify and solve problems; setting and maintaining high standards for customer service, employee performance, attitude, and behavior; ongoing staff training and development; and consistently recognizing and reinforcing positive employee contributions. The District's Governing Board's vision, leadership, investment, and commitment to STAR have resulted in tremendous achievements and successes for which the District can be proud.

### SERVICE

We strive to provide excellent service in our relations with all our internal and external customers.

### TEAMWORK

We work for the District as a team and not just for a program, department, or region.

### ATTITUDE

We strive to be pleasant in our relations with coworkers, subordinates, superiors and all our customers.

### RESPECT

We respect the opinions and interest of all Valley residents, and fully consider their opinions in our efforts to carry out the District's mission. We always speak positively and respectfully about our fellow District employees, the organization, and those we serve.

We serve the public with integrity, honesty, and full accountability and take pride in our effective and efficient use of resources. As part of the District's STAR work culture, these principles are promoted in the workplace and externally with those that we serve to help ensure that we do our best to provide the best service possible with integrity and accountability.

## District Gives Back

In November 2023, the Northern Region collected food, clothing, and hygiene products for The Food Initiative of Greater Stanislaus. As a result of the staff's overwhelming generosity, we were able to collect a sizable amount of food and personal items. Nearly 100 pounds of food and various items were dropped off to help those in need.

The Central Region District office was able to spread holiday joy and make a difference in the lives of those in need in our community by sponsoring a Holiday Giving Tree for many students at Golden Charter Academy a local elementary school. District staff provided holiday gifts to over 60 students experiencing homelessness or in foster care. Additionally, the central region office sponsored a blanket drive where District staff collected over 40 blankets for the Fresno Mission. This blanket drive was a community service initiative aimed at collecting blankets to distribute to individuals or families in need, particularly during cold weather months.

The Southern Region participated in two community service projects over the past year. The first, Make a Difference Day organized through Keep Bakersfield Beautiful, involved a morning of planting cheerful flowers at the City of Bakersfield's welcome center located in the heart of downtown. This event was a fun opportunity to connect with other city residents and co-workers as we brightened up this corner of town. The second service project was a food drive through Golden Empire Gleaners. The Gleaners is a food bank that serves over 7,500 families and individuals within Kern County. Together, District staff filled a bin of non-perishable food for our neighbors in need.





**San Joaquin Valley**  
AIR POLLUTION CONTROL DISTRICT

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Fresno CA 93726

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