

30th Anniversary Edition

ANNUAL REPORT *to the* COMMUNITY



San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT®

2021-22

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A message from the Air Pollution Control Officer
**COMMEMORATING 30 YEARS OF IMPROVING
 AIR QUALITY AND PUBLIC HEALTH**

On behalf of the District's Governing Board, it is my pleasure to present to all San Joaquin Valley residents this year's Report to the Community. Our goal is to provide you with a useful resource through which you can get to know the Valley's clean air efforts better, understand the current air quality reality in the Valley, and hold us accountable as an agency serving the Valley. We welcome suggestions for improvement and look for new ideas that help us better fulfill our public health mission.

This year, the Valley Air District commemorates its 30th year as a public health agency charged with the important mission of improving the health and quality of life for all Valley residents through efficient, effective and entrepreneurial air quality management strategies. Looking at our accomplishments, I want to thank Valley businesses and residents for their continued investment and sacrifice, and the Valley Air District Governing Board members for their leadership. Over these past three decades, the San Joaquin Valley has made remarkable progress in working together to develop the most innovative clean air strategies in the nation. These strategies have been grounded in a comprehensive, multi-agency air quality research program to study both ozone and particulate matter, the Valley's two most significant air quality challenges. Over these past 30 years, through multiple clean air plans developed in partnership with the California Air Resources Board, and hundreds of adopted clean air measures, the San Joaquin Valley's air pollution has been reduced dramatically, and Valley residents are now breathing much cleaner air than just several years ago. These measures have not come cheaply and must be commended, with Valley businesses, agencies, and residents investing tens of billions of dollars in clean air technologies, vehicles, and processes to help improve our Valley's air quality.

These 30 years of successfully working to improve air quality only provide stronger motivation to the Valley for continued efforts to address ongoing air quality challenges in meeting increasingly more stringent and health-protective air quality standards. In addition to the Valley's unique challenges due to its geography and impacts from mobile source activity and local sources, the Valley must now deal with increasingly devastating impacts from wildfires and water insecurity exacerbated by prolonged higher temperatures and drier climate conditions.

Looking ahead, the Valley must continue working together as a region to develop the best science and most innovative measures to tackle these challenges and ensure clean air for our residents. This includes working with our federal partners to ensure that they address emissions from federal sources such as heavy duty trucks and locomotives, and make additional clean air investments in the Valley. Additionally, the Valley's most vulnerable communities are often the most impacted by air quality and other socioeconomic and environmental burdens, and we must continue to focus efforts on these communities. In closing, I want to thank our Valley residents, businesses, public agencies, community organizations, and other partners for ongoing clean air efforts, and look forward to another year and beyond of working together 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.

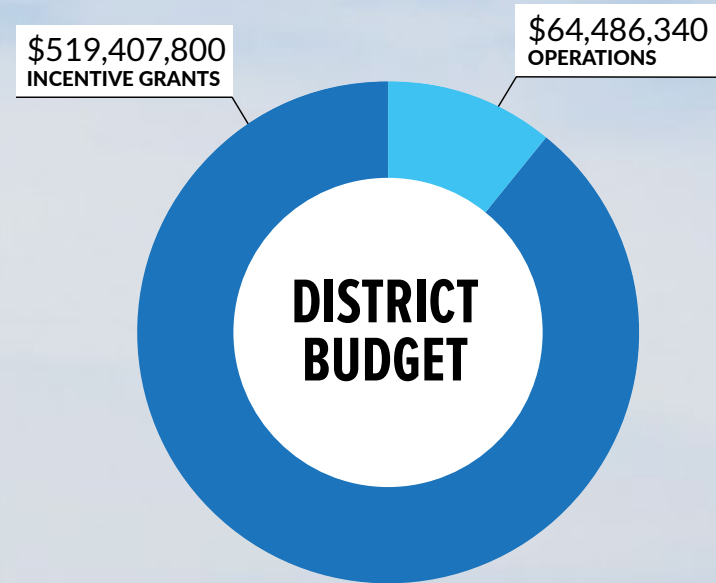
The District works with local, state and federal government agencies, the business community, community-based organizations and the residents of the Valley to reduce emissions to improve air quality.

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.



Nearly 90% of the District's overall 2021-22 budget was comprised of funds specifically for voluntary grants and incentives. The District wants to express our gratitude to our many partners that helped secure a record amount of state and federal funding for voluntary clean air projects in the Valley.

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.



District Celebrates 30th Anniversary

In 1992, the San Joaquin Valley Air Pollution Control District was formed to lead the Valley on this ongoing clear air journey, joining the eight counties of the San Joaquin Valley into one unified agency. The first steps in air pollution control in the Valley were taken around 1970 with the formation of the air pollution control district in each of the eight Valley counties. In 1990, the Unified San Joaquin Valley Air Basin Authority, a joint powers authority, was created to further formalize this regionalization of efforts being undertaken, however, since no single organization was responsible, there continued to be considerable variation between counties in their air pollution control activities. The first step in consolidation was taken by the counties of Kern, Tulare, Kings, Fresno, Madera, Merced, Stanislaus and San Joaquin in March 1991 with the formation of the San Joaquin Valley Unified Air Pollution Control District to assume all responsibility for air pollution control in the Valley. The District included the entire Valley Air Basin: seven complete counties plus the Valley portion of Kern County. In August of 1992, the California Air Resources Board certified the formation of the District and work began to improve air quality and the quality of life for Valley residents.

VALLEY'S AIR QUALITY CHALLENGES UNIQUE

The San Joaquin Valley faces significant and unique air quality challenges due to its geography, meteorology, and topography; goods movement and other emissions sources; and a fast growing population. Surrounded by

"I believe that the Unification of the San Joaquin Valley District has been a success for everyone involved"
-Jananne Sharpless, Chair,
California Air Resource Board
August 27, 1992

mountains and frequently impacted by high pressure, strong inversion, and high heat conditions, the Valley's unique conditions require a substantially greater level of emissions reductions to meet clean air targets than other regions that have more favorable conditions and relatively better air quality even with significantly greater emissions per square mile as compared to the Valley.

As required by the federal Clean Air Act (CAA), the U.S. Environmental Protection Agency (EPA) periodically reviews and adopts health-based

national ambient air quality standards for ozone, particulate matter, and other criteria air pollutants. The District and the California Air Resources Board (CARB) have collaborated to adopt numerous air quality attainment plans that identify measures needed in the Valley to attain these increasingly stringent federal standards. Over the past three decades, the District has implemented multiple generations of emissions control measures for stationary and area sources under its jurisdiction. Similarly, CARB has adopted regulations for mobile sources. Together, these efforts represent the nation's toughest air pollution emissions controls. In addition to having the most stringent air regulations in the nation, the District also operates the most effective and efficient incentive grants programs, investing over \$4.5 billion in public/private funding towards clean air projects to date that have achieved over 222,000 tons of emissions reductions.

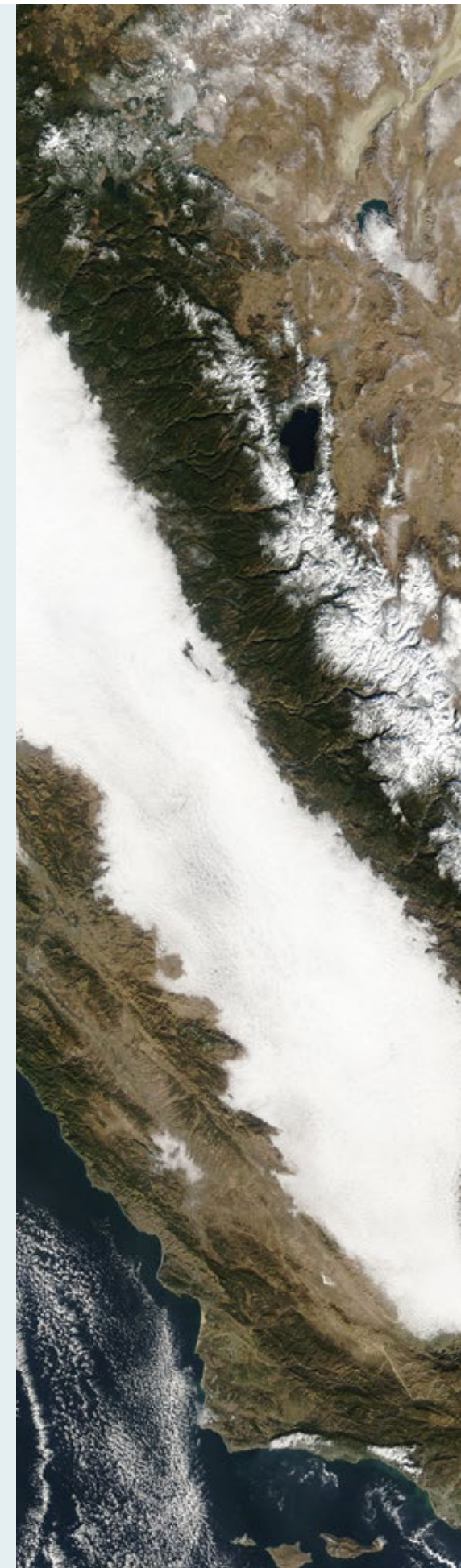
DISTRICT SETS EXAMPLE THROUGH LANDMARK RULEMAKING

Since forming in 1992, the District has demonstrated leadership in developing and implementing groundbreaking regulatory strategies to reduce emissions. The District's tough and innovative rules have set benchmarks for California and the nation. EPA has largely approved these measures as representing various required levels of control, including Reasonably Available Control Technologies (RACT), Best Available Control Measures (BACM), and Most Stringent Measures (MSM). On occasion, the District had to defend these rules in court, but ultimately prevailed in those cases.

District regulations achieve significant emissions reductions that are contributing to improved public health and continued progress towards EPA's increasingly stringent air quality standards. Concurrently, the District works to ensure its regulations are cost-effective and technologically feasible, consistent with the District's Core Values of "Active and Effective Air Pollution Control Efforts while Seeking to Improve the Valley's Economic Prosperity and Grow opportunities for all Valley Residents" and "Recognition of the uniqueness of the San Joaquin Valley."

Since 1992, the District has adopted over 650 rules to implement an aggressive on-going control strategy to reduce emissions in the Valley in order to reach attainment of the federal mandates, resulting in air quality benefits throughout the Valley. In addition to a variety of industrial regulations, some of the most noteworthy District regulations of the past 30 years are summarized below:

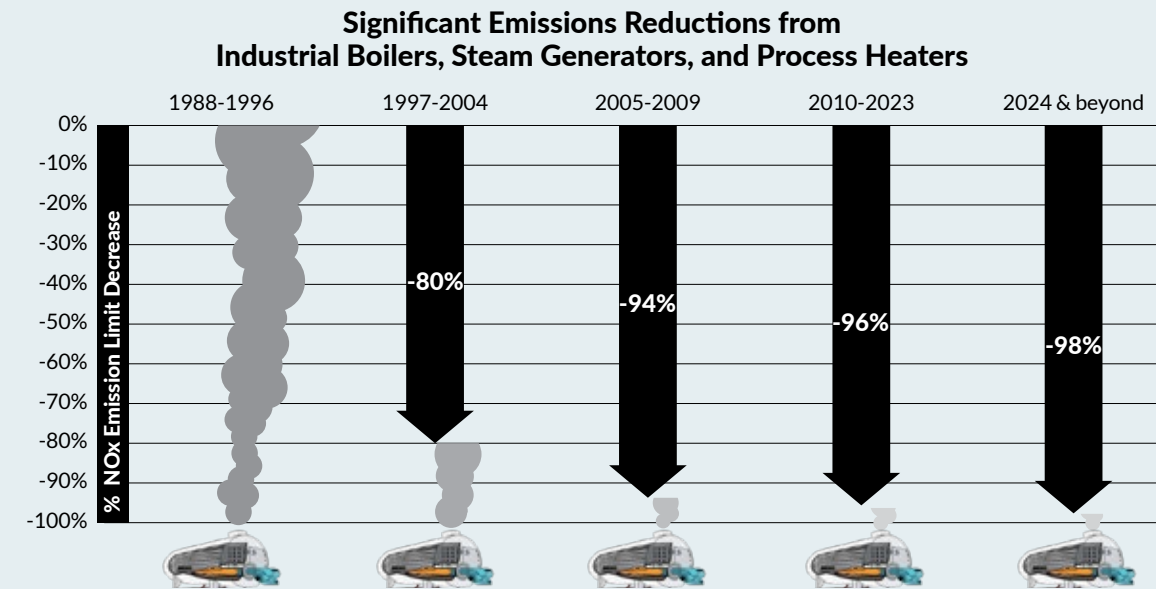
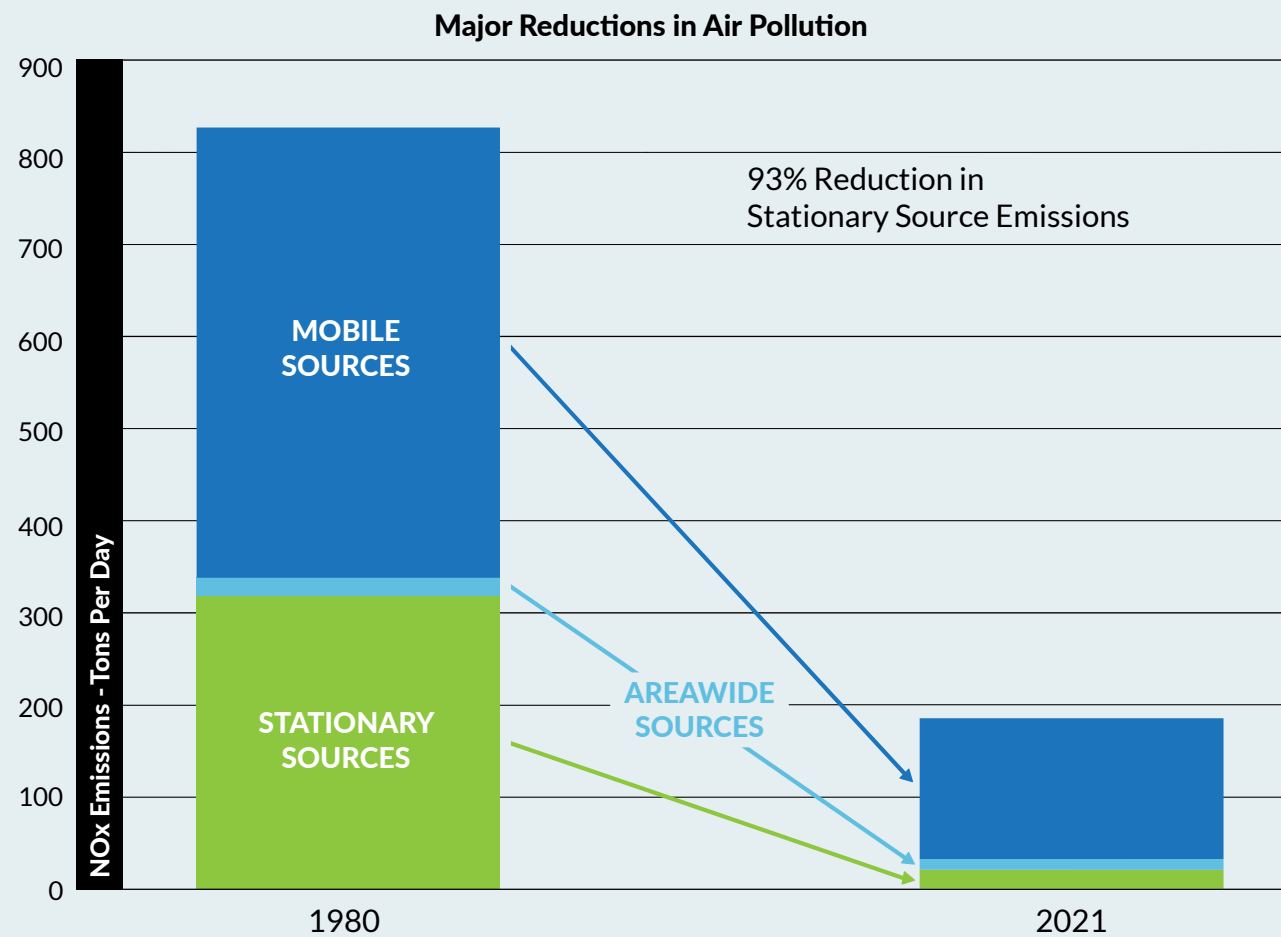
- ▶ Rule 4901 (Wood Burning Fireplaces and Wood Burning Heaters) was first adopted in 1993, and amended in 2003, 2008, 2014, and 2019. Rule 4901 limits particulate matter emissions from wood burning fireplaces, wood burning heaters, and outdoor wood burning devices by prohibiting the sale of non-certified wood burning devices and by prohibiting the use of wood burning fireplaces and heaters when PM2.5 air quality is forecast to be above concentrations described in the rule.
- ▶ Rule 9510 (Indirect Source Review, or ISR) was adopted on December 15, 2005 and amended on December 21, 2007. Rule 9510 reduces emissions of NOx and PM10 emissions from mobile and area sources associated with construction and operation of new development projects in the San Joaquin Valley. The ISR rule encourages clean air designs to be incorporated into the development project, or, if insufficient emissions reductions can be designed into the project, by paying a mitigation fee that will be used to fund off-site emissions reduction projects.
- ▶ Rule 4550 (Conservation Management Practices, or CMPs) was adopted on May 20, 2004 and readopted on August 19, 2004 to reduce fugitive dust emissions from agricultural operations. Rule 4550 was the first rule of its kind in the nation to reduce fugitive particulate emissions from agricultural operations through the required reduction in the number of passes through a field taken by agricultural equipment and through the implementation of other conservation practices. The District worked extensively with stakeholders and growers for two years prior to developing the original CMP Rule, researching and gathering information on conservation management practices, their effectiveness in reducing PM10 emissions, and variations in effectiveness varied with various soil parameters, crop and animal types, and agronomic practices. Rule 4550 established a then-unique menu approach of control techniques to accommodate the wide variability of agricultural industries found in the San Joaquin Valley, an approach that has since been duplicated by other agencies. The collaborative effort that resulted in the CMP program received the US EPA Region 9 "2005 Environmental Award for Outstanding Achievement."





Through these ongoing efforts by the District, and significant efforts by CARB to reduce emissions from mobile sources, NOx emissions across the Valley have been reduced by over 75%, while stationary source emissions, which are under the District's jurisdiction, have been reduced by over 93% since 1980. Although significant progress has been made in reducing emissions, substantial additional emissions reductions are still needed to meet all of the federal PM2.5 and ozone standards. These additional reductions will be needed across the Valley as the population across the region continues to grow, bringing additional vehicle emissions, goods movement emissions, and other emissions.

Through 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.

GROWTH OF THE GRANTS AND INCENTIVES PROGRAMS

When the District was unified in 1992, air quality improvement strategies focused on planning and rule-making, permitting and compliance. Just over \$5 million dollars was pass-through state and federal funding that went into incentive programs aimed at reducing emissions from mobile sources not under District control. Much has changed since those early days of the District as voluntary incentives have become a key part of the District's air quality improvement strategy. This past year over \$285 million dollars was invested in clean air grants by the District (coupled with \$340 million in matching funding from grant applicants) and incentive programs are one of the District's most effective ways to reduce emissions in the Valley, especially in neighborhoods and disadvantaged communities.



Importance of Cleaner Air for Public Health

Working with Valley Communities to Improve Air Quality

Given the enormity of the Valley's air quality challenges, achieving our clean air goals requires continued focus on all sources of emissions and participation by all government sectors, business entities, public agencies, community organizations and individuals throughout the Valley. The District has a strong history of bringing people to the table to find effective, efficient and innovative strategies for improving our air. As a part of this effort, the District works to protect the health of Valley residents that may be disproportionately affected by air pollution through implementation of environmental justice strategies and community-led initiatives to address inequity in health outcomes and economic opportunities.

The District's efforts to engage the public include:

- › Participating in health fairs and other outreach events throughout the Valley to share air quality information in multiple languages with Valley residents
- › Presenting key air quality information to counties, cities, business organizations, civic groups, community organizations, school classrooms and at other venues to educate the public about air quality efforts, grant opportunities and tools available for the public to be better informed about air quality
- › Convening workshops and meetings to discuss more complex issues such as air quality planning, rule-making and other key issues
- › Working with environmental justice organizations to partner on outreach events and initiatives, and better understand the needs of all Valley communities

- › Working with the District's Citizen's Advisory Committee and the Environmental Justice Advisory Group to gain insight into key issues facing the Valley's residential, environmental, business, and governmental communities
- › Addressing community concerns through town hall meetings and targeted outreach
- › Ensuring that grant funding outreach is conducted in multiple languages and targeted to the entire Valley, including those communities historically underserved
- › Responding quickly and professionally to public complaints to ensure any violations are addressed in a timely fashion and appropriate action is taken
- › Utilizing traditional media and social media to ensure the public has accurate air quality information
- › Partnering with other agencies to address multi-jurisdictional challenges

The District continues to prioritize public engagement to ensure robust and meaningful participation by residents and businesses in developing often-complex clean air plans and strategies. Building upon existing strategies, new measures to further reduce air pollution from industrial sources such as boilers, steam generators, internal combustion engines, glass manufacturing facilities, agricultural conservation management practices, and other sources have recently been adopted or are current going through a public engagement process.

The District's Core Values include respecting 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.

For the past three decades, residents of the San Joaquin Valley have consistently listed air quality as one of the top public health concerns as exposure to air pollution can affect everyone's health. The District has worked to both reduce residents' exposure to poor air quality through emissions reductions and also inform residents on episodes of poor air quality so that individuals can take steps to protect themselves.

Poor air quality impacts health in many ways, when we breathe, pollution enters our lungs and can enter our bloodstream. Air pollution can contribute to small annoyances like coughing or itchy eyes. It can also cause or worsen many diseases involving the lungs and breathing, such as asthma, chronic obstructive pulmonary disease (COPD) and cardio-vascular disease. Unhealthy levels of air pollution can lead to lost school or work days, hospitalization, or even premature death.

No matter where you live, you can be exposed to air pollution. The type and amount of exposure varies depending on your location, the time of day, and the weather. Exposure to air pollution is higher near pollution sources like busy roadways, and many of our daily activities expose us to higher levels of air pollution. Idling cars, gas-fueled yard equipment, consumer products, industrial sources, smoke from residential woodburning fireplaces or wildfires, and many other sources all contribute to overall air pollution and expose us to harmful air pollutants.

Residents in lower-income communities and communities of color tend to be disproportionately affected by air pollution. The District in partnership with local, state and federal agencies is working to improve air quality for all Valley residents, including efforts to further reduce air pollution and exposure in Valley disadvantaged communities.

Fine Particle (PM2.5) pollution can cause:

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

Fine particles can make these conditions worse:

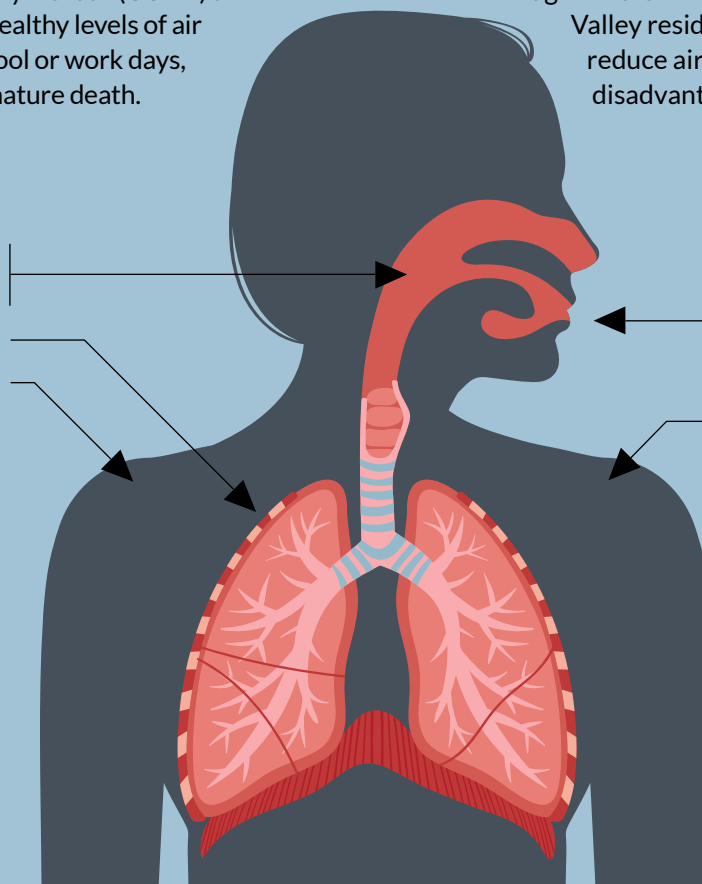
- › Cardiovascular and heart disease
- › Asthma and COPD

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



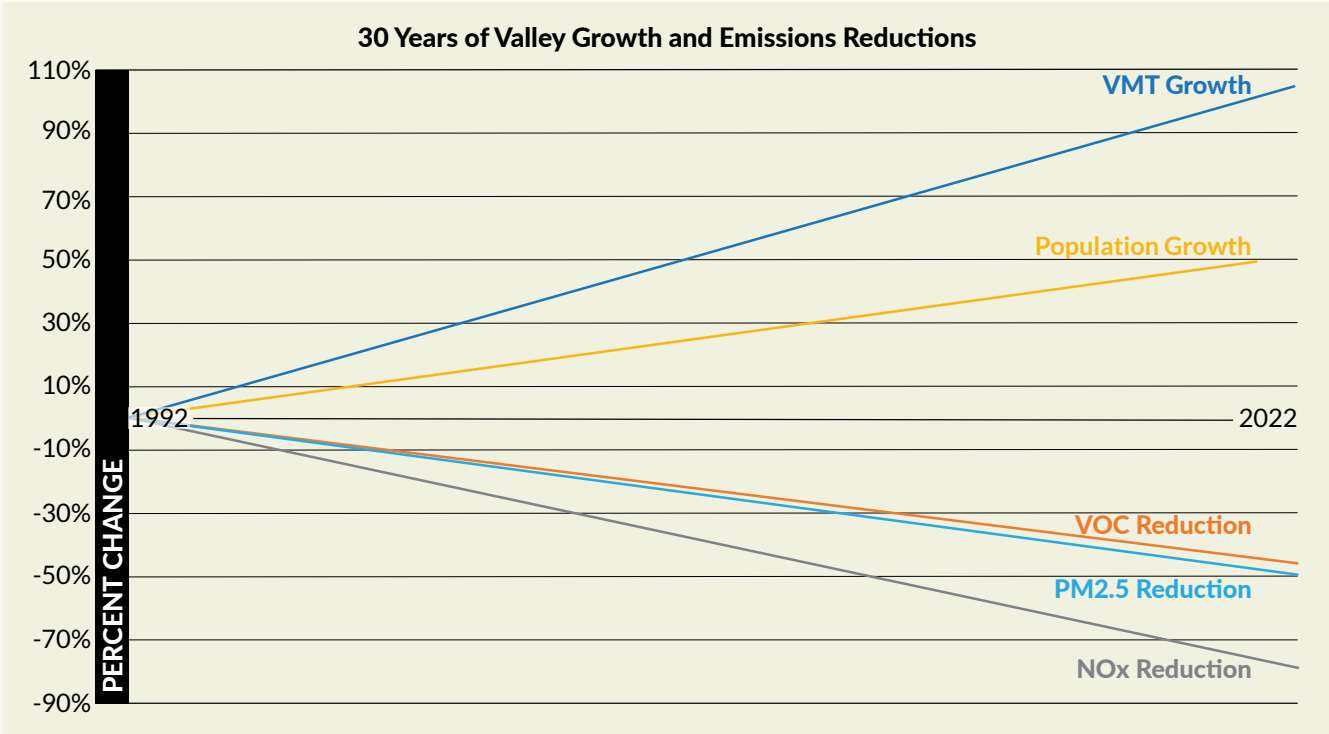


Significant Improvement in Valley's Air Quality

Through over 30 years of implementing emissions reduction measures and significant investment by Valley businesses and residents, the region's air pollution levels have declined significantly, and air quality has continued to improve throughout the Valley despite significant increases in population and vehicle miles traveled.

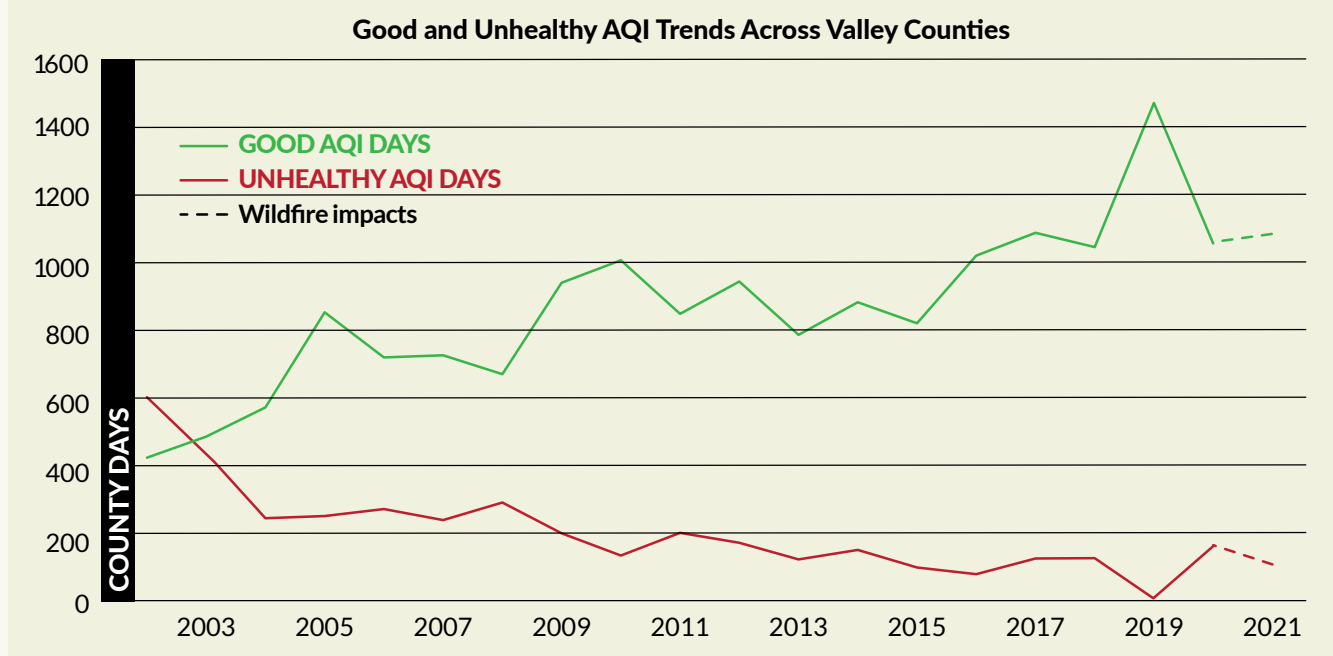
Highlighting some notable achievements over the past three decades, the Valley has already attained a number of key health-based federal air quality standards, including, federal NO2 standard, federal SO2 standard, federal CO standard, federal PM10 standard, federal 1-hour ozone standard, and the federal 24-hour PM2.5 standard of 65 µg/m³.

The District and CARB continue to work towards achieving ongoing emissions reductions through our regulatory and incentive programs. These ongoing combined efforts will assist the Valley in attaining additional federal air quality standards in the coming years.



VALLEY RESIDENTS BREATHING CLEANER AIR

A strong indicator of the Valley population's reduced exposure to higher concentration levels is the number of Good and Unhealthy Air Quality Index (AQI) days observed across all of the Valley's counties over time. As the following figure depicts, twenty years ago, the Valley's counties experienced more Unhealthy AQI days than Good AQI days, whereas in recent years, even with severe wildfire impacts, the number of Good AQI days dwarfs the number of Unhealthy AQI days.

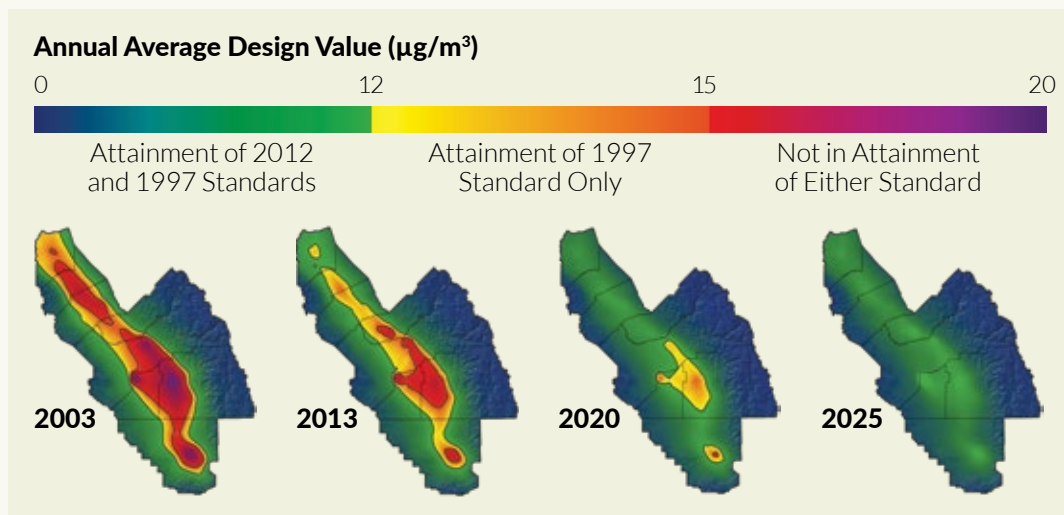
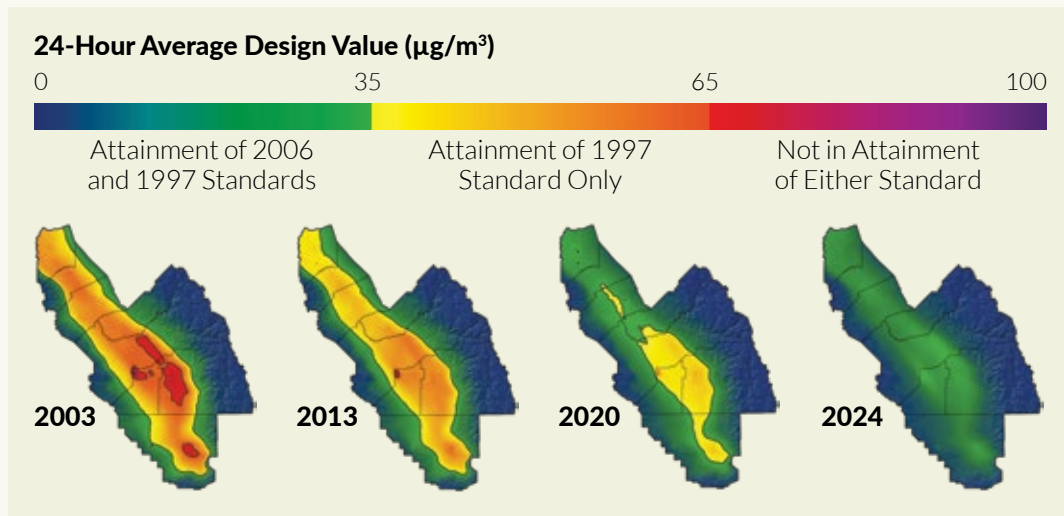


In addition to the milestones already met in bringing the Valley into attainment of the federal air quality standards, the region continues to progress towards meeting additional PM2.5 and ozone standards. The District and CARB are closely reviewing the air quality data collected for the 2019-2021 period, and, accounting for wildfire and other impacts, the Valley is likely in attainment of the annual PM2.5 standard of 15 µg/m³ and the 8-hour ozone standard of 84 ppb. Based on this analysis, a formal submission would be prepared for EPA, with recent success demonstrated through EPA's approval and finding that the Valley now meets the 65 µg/m³ standard in 2021. If the Valley is found to be in attainment of the 84 ppb standard through the 2019-2021 period, (2 years ahead of the 2023 attainment deadline), this would be the second time in Clean Air Act implementation that an area classified as "extreme nonattainment" would then go on to attain the standard.



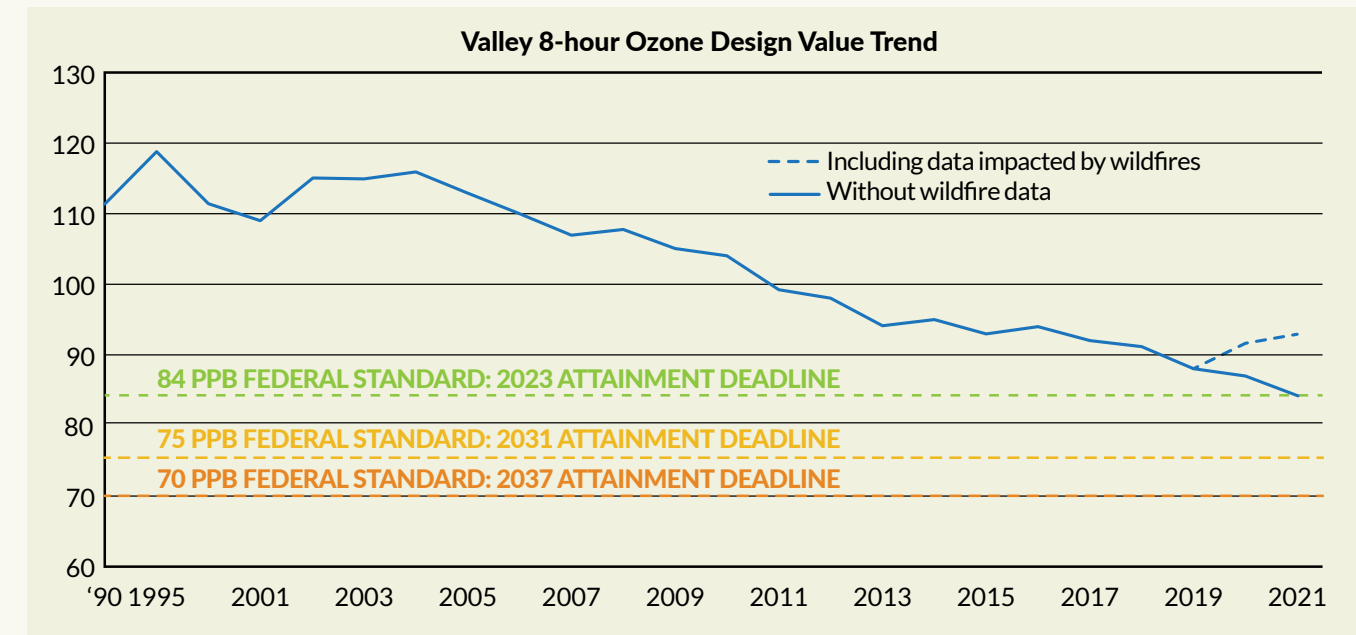
SUBSTANTIAL VALLEY-WIDE PM2.5 IMPROVEMENTS

With respect to PM2.5, compared to 20 years ago when PM2.5 was first monitored more widely across the Valley, concentrations of this pollutant have decreased dramatically, as displayed in the following figures. With ongoing emissions reductions expected over the coming years, the Valley is projected to attain the 35 $\mu\text{g}/\text{m}^3$ 24-hour standard and 12 $\mu\text{g}/\text{m}^3$ annual standard by 2024 and 2025, respectively.

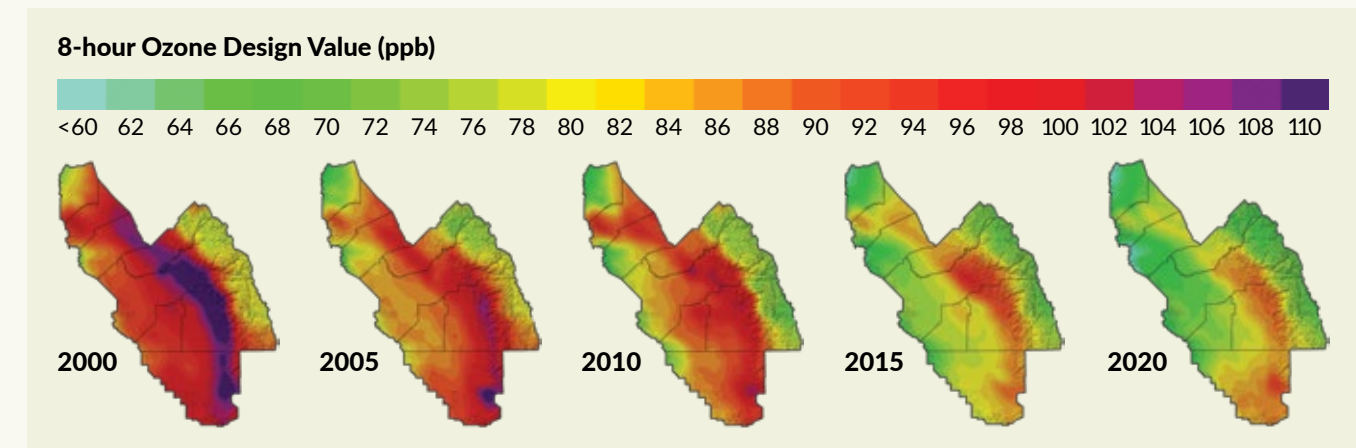


VALLEY ON THE VERGE OF ATTAINING OZONE STANDARD

With respect to ozone concentrations, significant progress has also been made, where the Valley is on the verge of attaining the 8-hour standard of 84 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 additional health-based air quality standards.



Exploring this spatial analysis further, as the Valley works to bring the entire region into attainment of an air quality standard, much of the region's population already or will soon experience air quality in attainment of these standards. As illustrated in the figure below, the Valley has seen substantially improved ozone levels throughout the Valley over the last 20 years.





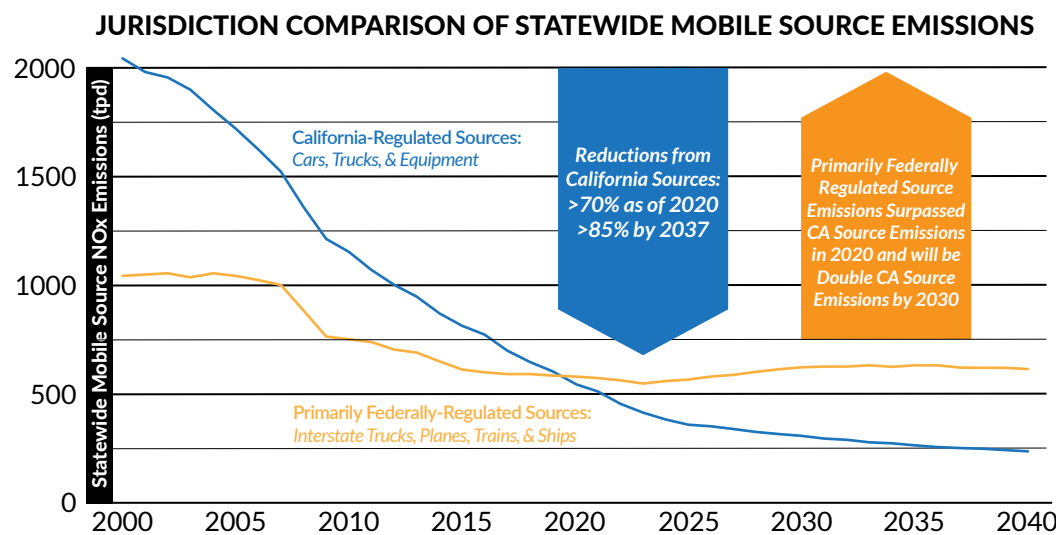
The Need to Address Federal Mobile Source Emissions

For decades, the District has promulgated and implemented measures to reduce emissions from sources of air pollution under its regulatory authority. The District has also deployed innovative measures to reduce emissions from mobile and indirect sources of air pollution that fall outside its traditional regulatory authority with stationary sources. The District continues to seek additional local emissions reductions, but the Valley has reached a point where attainment of the health-based standards established under the Federal Clean Air Act is not viable without significant quantifiable and enforceable reductions in emissions from mobile sources that fall exclusively under federal jurisdiction such as interstate heavy-duty trucks, locomotives, aircraft and other mobile sources.

The level of NOx emissions from mobile sources across the state is now dominated by federal sources under the jurisdiction of the federal EPA, highlighting the importance

of the advocacy for tighter national emissions standards for interstate sources like heavy-duty trucks, locomotives, and aircraft. Ongoing emissions reductions from these sources will be key for the Valley to improve air quality and meet the latest federal air quality standards.

With stringent planning requirements and shortened attainment timeframes under the Clean Air Act for PM2.5, securing additional NOx reductions from federal mobile sources is vital. As the District continues to work with CARB and EPA on addressing federal air quality standards, the District is also focused on a number of time-sensitive opportunities for achieving significant additional emissions reductions from mobile sources including new federal heavy-duty standards, federal infrastructure investments within the federal budget, the USDA climate smart initiative/farm bill investments, and state air quality/climate funding opportunities for clean vehicles/technologies.



Planning Efforts a Continual Focus

Over the years, the District's numerous air quality plans (State Implementation Plans, or SIPs) have been a primary vehicle for improving air quality in the San Joaquin Valley. Each plan builds upon the work of prior plans while establishing the path for continued air quality improvements. After each plan adoption, the District implements plan strategies through regulatory development, outreach, continued research, and incentive programs. Each attainment plan is just one checkpoint in this continuing effort to improve San Joaquin Valley air quality.

The District has implemented and developed numerous attainment plans over the last few decades. Among the more recent plans are the 2016 Ozone Plan for the 2008 8-hour ozone standard and the 2018 Plan for the 1997, 2006, and 2012 PM2.5 standards. As the District and the California Air Resources Board adopts the control measures committed to in those plans, there has been measurable progress in ozone and PM2.5 concentrations.

The District is also in the process of developing the 2022 Ozone Plan for the 2015 8-hour ozone standard. Preliminary photochemical modeling results available at the time of this Annual Report indicates that the Valley will attain the 70 ppb 2015 8-hour ozone standard by the 2037 deadline by adopting District control measures as well as the new State Strategy to further reduce emissions from mobile sources. The 2022 Ozone Plan will be presented to the Governing Board at a public hearing for adoption later in 2022.

Air quality plans can take two to three years to develop, and must satisfy several Clean Air Act and EPA Implementation Rule requirements, including an emissions inventory, control measure analysis, photochemical modeling, emissions reductions milestone demonstrations, transportation conformity, and contingency measures. Of these requirements, one of the most challenging to meet is contingency measures, as interpretation of this requirement has shifted over the years due to litigation.

As currently implemented, contingency measures must be fully-adopted but not-yet-implemented measures, only to be implemented after a contingency trigger occurs (such as a missed progress milestone or missed attainment deadline). Crafting such a contingency-triggered measure is extremely difficult due to the expense, technology, and planning involved in most emissions controls.

The amount of contingency reductions needed varies from plan to plan, but can be quite large. It is simply not possible to identify the level of additional emissions reductions needed to serve as contingency measures, given that the Valley is in nonattainment for multiple NAAQS, has already implemented the most stringent regulations, and has regulatory authority over a small portion of the total emissions inventory. Furthermore, withholding this level of emissions reductions would delay public health benefits. The District is collaborating with other agencies to develop updated and innovative contingency measures to prevent potential Clean Air Act sanctions.

	2021 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	Exceeding reductions by 99.9% through PM precursors



Improving Air Quality Through Regulatory Action

The District has demonstrated leadership in developing and implementing groundbreaking regulatory strategies to reduce emissions. For over 30 years, the District has implemented several generations of emissions control measures for the stationary and area sources under its regulatory jurisdiction. These control measures represent the nation's toughest air pollution regulations and have greatly contributed to reducing ozone and particulate matter concentrations in the Valley.

Tough and innovative rules, such as those for development projects, residential wood burning, glass manufacturing, and agricultural burning, have set benchmarks for California and the nation. Despite the significant progress under these regulations, greatly aided by the efforts and financial investments of Valley businesses and residents, the District continues to adopt and modify rules to achieve needed emissions reductions and advance the Valley's progress toward clean air.

In 2021 and 2022, the District made progress in evaluating and adopting regulatory measures per the commitments in the 2018 PM2.5 Plan and other requirements for the following sources of emissions:

NATURAL GAS-FIRED, FAN-TYPE CENTRAL FURNACES (RULE 4905)

The District adopted Rule 4905 in 2005 and amended it in January 2015 to lower the NOx emission limit from 40 ng/J to 14 ng/J with an associated sell through period and emission fee period to allow manufacturers time to develop new compliant furnaces. Due to the limited number of certified compliant units that would have been available by the deadline dates set in the 2015 amendment, the rule was amended in 2018 and 2020 to extend the implementation period for specific unit types. To date, manufacturers have been successful in meeting the compliance deadlines and developing ultra-low NOx furnace technologies for all unit types except manufactured home furnaces. Due to the impacts of COVID-19, multiple manufacturers reported manufacturing delays or interruptions

in the supply chain in the development of compliant units for the manufactured homes furnace category. The Governing Board approved amendments to Rule 4905 on December 16, 2021, which extended the emission fee period for manufactured home furnaces to September 30, 2023.

GLASS MELTING FURNACES (RULE 4354)

The District Governing Board adopted amendments to Rule 4354 to include more stringent NOx, PM10, and SOx emission limits for glass melting facilities operating in the Valley, based on a comprehensive assessment of the latest emission control technologies. Additionally, the amended rule adds language to clarify definitions, remove expired language, and establish compliance timelines. Glass melting operations subject to Rule 4354 are required to comply with the revised PM10, NOx, and SOx emissions limits by 2024.

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

The Governing Board approved amendments to Rule 4352 to reduce emissions of NOx, PM10, and SOx from any boiler, steam generator or process heater fired on solid fuel. These units are used in a broad range of industrial, commercial, and institutional settings. The amended rule removes the exemption for facilities with the potential to emit less than 10 tons of NOx or VOC, as well as establishing dates for the submission of authority to construct applications, and a final compliance deadline.

INTERNAL COMBUSTION ENGINES (RULE 4702)

The Governing Board approved amendments to Rule 4702 in order to reduce emissions from internal combustion engines. The rule amendment consists of lowering NOx and VOC emissions from spark-ignited IC engines and updating test methods. This amendment sets significantly more stringent emission limits from spark-ignited IC engines that estimates to reduce NOx and VOC emissions from this category by 43% and 72% respectively. The rule amendment also contains a compliance schedule that lists the documents that must be submitted to the District as well as all compliance dates that are required to be met.

OPEN BURNING (RULE 4103)

The District Governing Board, in accordance with CARB recommendations, approved the Supplemental Report and Recommendations on Agricultural Burning, which established an updated schedule for the near-complete phase-out of remaining agricultural open burning in the Valley by January 1, 2025.

UPCOMING RULE DEVELOPMENT PROJECTS

In addition to the above rule amendments, the District is beginning the public process for several major regulatory development projects. The District invites the public to be involved with these rulemaking projects by signing up for notifications on the District's website at ww2.valleyair.org/about/sign-up.

RECENT STATIONARY SOURCE REGULATIONS

MEASURE	STATUS
Rule 4901 (Wood Burning Fireplaces and Wood Burning Heaters)	Adopted by Board June 2019
Rule 4311 (Flares)	Adopted by Board December 2020
Rules 4306/4320 (Boilers, Steam Generators, Process Heaters)	Adopted by Board December 2020
Rule 4692 (Commercial Underfired Charbroiling)	Enhanced Strategy adopted by Board December 2020
Rule 4103 (Phase-out of Agricultural Open Burning)	Adopted by Board June 2021
Rule 4702 (Internal Combustion Engines)	Adopted by Board August 2021
Residential Woodstove Replacement Federally Enforceable Measure	Adopted by Board November 2021
Rule 4354 (Glass Melting Furnaces)	Adopted by Board December 2021
Rule 4352 (Solid Fuel Fired Boilers, Steam Generators, Process Heaters)	Adopted by Board December 2021





Wildfire Prevention & Response a Priority

Air pollution generated from wildfires is enormous and can well exceed total industrial and mobile source emissions in the San Joaquin Valley, overwhelming all control measures and resulting in periods of excessively high particulate matter and ozone concentrations. In addition to excessive fuel build-up in the state's wildlands due to decades of fire-suppression, 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 in the western United States.

The District's Governing Board has long supported efforts to prevent and reduce the intensity and frequency of wildfires through prescribed burning, mechanical treatment, and other measures to reduce fuel buildup in the forests. Pollutant emissions from wildfires are enormous and greatly exceed all mobile and stationary source emissions in the Valley, easily overwhelming all control measures. The District participated in four meetings in 2021 with regional land and air management agencies to discuss statewide coordination between the agencies on land management efforts that include the use of beneficial fire through planned burning projects that reduce fuel loading in the forests. In addition, the District hosted the annual cooperators meeting with local land managers to coordinate on procedures for successful completion of planned ignition projects as a part of a complete forest management program, with the goal of reducing fuels and decreasing the severity of future wildfires. The District also actively uses advanced tools such as the State of California's Prescribed Fire Information Reporting System (PFIRS) and advanced air quality, smoke, and weather models to assist with forecasting for planned ignition projects. The District continues to pursue enhanced forest management efforts at the state and federal level to address the extraordinary build-up of fuels in our surrounding forests and minimize wildfire impacts in the future.

As a consequence of historic drought conditions and forest mismanagement, California and the Western United States have seen an increase in the frequency of large wildfires over the past 10 years. In 2021, more than 8,800 wildfires were recorded in California, with over 2.5 million acres burned across the state, ending as one of the most severe wildfire seasons in California history, second only to the unprecedented and historic 2020 wildfire season. In addition, four of the "Top 20" largest wildfires in California history all occurred during the 2021 season, highlighting the severity of this past season. A new record for the largest single non-complex wildfire in state history also occurred in 2021, with the Dixie Fire in northern California alone burning over 960,000 acres. These points underscore how extreme and extensive the 2021 wildfire season was for California.

Leading to the most severe period of the 2021 wildfire season, dry conditions and hot summer temperatures continued to scorch and desiccate the Californian landscape during the summer months across the region. Major fires that adversely impacted air quality in the Valley during the August-October 2021 period included the following fires:

- › Dixie Fire (northern California counties),
- › River Complex (Trinity/Siskiyou counties),
- › French Fire (Kern County),
- › Walkers Fire (Tulare County),
- › KNP Complex (Tulare County),
- › Windy Fire (Tulare County),
- › River Fire (Mariposa County), and
- › Tiltill Fire (Tuolumne County)

Both the KNP Complex and the Windy Fire significantly and directly impacted the Valley's air quality beginning in September, when on September 9, 2021 a lightning storm passed over the Sierra Nevada. Combined, these fires in Tulare County burned over 185,000 acres and heavily impacted air quality throughout the region. These Tulare County fires were declared 100 percent contained by December 16, 2021. The Dixie Fire, and many other significant fires in northern California, severely impacted air quality in the San Joaquin Valley and across the Western U.S. during the 2021 wildfire season.

The enormous amount of wildfire smoke from these fires significantly impacted the Valley's air quality over a 2-month period, leading to very poor air quality and unhealthy conditions across the entire region for prolonged periods of time. As a result of the wildfires impacting the Valley, PM10 and PM2.5 concentrations that are typically low during the summer months increased dramatically across the Valley. Specifically, during the 2021 wildfire season, the most significant particulate matter smoke impacts occurred in September to October 2021 timeframe, where peak 24-hour average PM10 concentrations of 543 $\mu\text{g}/\text{m}^3$ and 24-hour average PM2.5 concentrations of 206 $\mu\text{g}/\text{m}^3$ were recorded during the period, both well above their respective health-based air quality standards.

In addition to particulate matter, wildfire emissions include high concentrations of ozone precursors, which can often lead to increased ozone concentrations at the Valley floor, beyond what is normally experienced. During the 2021 summer ozone season, the unprecedented wildfire activity across California directly impacted the Valley's ozone concentrations. The highest ozone concentrations in the Valley for 2021 were recorded in August 2021 when excessive smoke and ozone precursor emissions from wildfires surrounding the Valley were impacting the region's air quality.

As always, the District will work with CARB and EPA to demonstrate that any exceedances of the PM2.5 and ozone standards throughout this period were outside the District's reasonable control, should be deemed "Exceptional Events," and therefore should not count against the otherwise improving air quality record in an effort to demonstrate attainment of the federal PM2.5 and ozone standards.

When wildfire smoke impacts Valley air quality, the District's top priority is to provide accurate and timely health-protective air quality information to the public. Significant District resources are dedicated to public notification of air quality conditions and steps the public can take to protect their health, through air quality advisories, air quality alerts with the National Weather Service, direct communication with Valley schools, coordination with Valley public health officials, frequent social media alerts/information, and responding to media and public requests. The District also provides online resources including the Wildfire Prevention and Response page which offers various tools to track air quality and smoke.

IMPACTS OF WILDFIRE SMOKE



PARTICULATE MATTER (PM)

A complex mixture of extremely small particles made up of a number of components, including wildfire smoke, metals, dust and soot

How small?

HUMAN HAIR = 50-70 μm
(μm = microns in diameter)



UNHEALTHY LEVELS OF PM

The Valley's topography and stagnant, dry winters traps pollution under the inversion layer

What clears PM pollution?



CALIFORNIA IS AT RISK
for severe and intense wildfires

PM HARMS OUR HEALTH

It can trigger or worsen health conditions

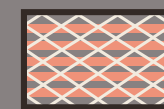
- | | |
|-----------------|------------------|
| Lung Infections | COPD |
| Asthma Attacks | Stroke |
| Heart Attacks | Acute Bronchitis |
| COVID-19 | Dementia |



HOW CAN YOU PROTECT YOURSELF & OTHERS?



STAY INDOORS
Create clean air room



REPLACE AIR FILTERS
More frequently than usual



FACE MASKS
Some masks more effective than others, check with your health care provider



CONSULT YOUR DOCTOR
If you are experiencing health impacts due to poor air quality

valleyair.org/wildfires



District Works with the Public to Communicate Air Quality Information

Providing accurate and up-to-date air quality information to Valley residents is a top priority for the District especially when wildfire emissions overwhelm all clean air measures and lead to high pollution concentrations that may be unhealthy for sensitive individuals. Under these circumstances, the best course of action is to provide notifications to Valley residents so that sensitive individuals, in particular, can take precautions to minimize exposure. The District has expended significant resources on public notification and risk prevention measures.

In recent years, a significant number of new tools have been launched by both public and private entities to provide the public with air quality information and activity recommendations. In addition, there is increasing interest and concern from the public statewide regarding air quality impacts during major wildfires and other extreme air quality events. While many of these tools rely on data being pulled from District air monitoring sites, the increasing number and variety of tools within this arena can cause confusion with the public on which tool to use and what action should be taken to best protect themselves during episodes of poor air quality. Consistent with the District's core value of continuous improvement, we continue to explore the growing availability of public-facing air quality information and potential opportunities for enhancing air quality communication tools and strategies.

The District provides current air quality information through a number of efforts and tools, including:

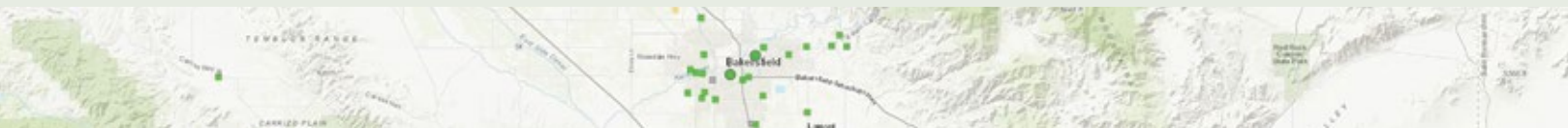
- ▶ Daily Air Quality Forecast: Includes the projected EPA Air Quality Index for the following day for each Valley county, assisting residents, schools, and businesses in making plans for outdoor activities
- ▶ Air Quality Research: The District actively tracks and supports relevant Valley air quality research to understand the sources that are impacting current air quality, leading to effective air quality improvement strategies and public notification of air quality events
- ▶ Air Quality Tools: The District makes available current air quality information on its webpage, mobile phone application, and pushes real-time data to the EPA AirNow website, and thereby making it available in a variety of other 3rd party tools, providing the public with the latest information at their fingertips

- ▶ Press Releases: During periods of prolonged poor air quality, due to wildfires or other issues, the District issues Air Quality Advisories and Alerts to the media, provides alerts to the National Weather Service, and works closely with Valley Public Health Officers to communicate with Valley residents on current air quality impacts and how residents can take steps to protect their health.
- ▶ Additional extensive multilingual outreach through traditional media, social media and website resources

The Valley public recognizes the growing availability of air quality information and activity recommendations that may often differ in approach and can lead to confusion. Consistent with the District's priority of providing timely and accurate air quality information to Valley residents, there may be new opportunities to work with Valley partners to take advantage of the latest tools, information, and best practices to enhance the public's ability to understand air quality.

Through a collaborative and ongoing process, the District will continue to work closely with health researchers, school staff and administrators, state department of education, air quality agencies, county health officers, key stakeholders and others to convene a working group to further evaluate this issue and develop potential enhancements. Through this process, some key areas of focus and consideration include:

- ▶ Evaluating and identifying opportunities for leveraging available air quality information tools (e.g. Valley Air App, EPA AirNow) to better serve the public
- ▶ Developing enhanced guidance for the general public and schools to assist in responding to extreme wildfire smoke impacts
- ▶ Reviewing recent wildfire smoke and other air quality health research to identify potential opportunities for improving tools and activity recommendations
- ▶ Reviewing outreach and communication practices and tools to identify potential opportunities for enhancing the Valley's strategies
- ▶ Supporting recent statewide efforts for developing more uniform guidance and outreach strategies in response to extreme wildfire smoke impacts



Healthy Air Living Schools Program

Youth and school outreach is a top priority for the District. This effort focuses on protecting students during episodes of poor air quality; engaging teachers and students through the K-6 kids kit and annual kids calendar; and urging action by students and parents to reduce air pollution such as the "Turn the Key, Be Idle Free" no-idling program.

District's youth and school outreach efforts are collectively referred to as Healthy Air Living Schools and the program is available to schools in the San Joaquin Valley, with tools and policies designed to protect the health of students from K-12.

The District places a huge priority on communicating to administrators, teachers and parents, with ongoing reminders that tools are available for protection from poor air quality. Additionally, the program has the following goals and objectives:

- ▶ Schools may alter outdoor activities to protect the health of students during elevated air quality conditions while maximizing opportunities for outdoor physical activity
- ▶ Schools communicate air quality information to parents, teachers, students, coaches, administrators
- ▶ Email notifications are sent to staff, students, parents
- ▶ Phone calls and text messages are sent for extraordinary actions (e.g. canceling football games for extreme air quality impacts from wildfires)

- ▶ Program engages all students including those in middle school and high school
- ▶ Program communicates Valley's air quality challenges and air quality progress to students and parents
- ▶ Program empowers/educates students to serve as air quality ambassadors to urge parents to take air friendly actions
- ▶ Schools adopt no-idling initiatives at school sites (signs, policies, education)

In response to wildfire impacts and concerns, the state has taken legislative and regulatory actions to improve agency coordination and public communication regarding elevated air quality conditions during wildfire events. Given the District's long history and experience in developing and implementing communications strategies in partnership with Valley schools, state policy-makers have increasingly looked to the District for advice and models for the implementation of state-wide approaches in response to these concerns. In fact, the District's activity guidelines were heavily relied upon in developing statewide guidance that was shared with all school districts by the California Department of Education.



COMMUNITY VOICE UNDER ASSEMBLY BILL 617

Assembly Bill (AB) 617, signed into law in July 2017, 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.



The communities of Shafter, South Central Fresno, Stockton and Arvin/Lamont have been prioritized by the District and subsequently selected by the California Air Resources Board (CARB) as communities in the San Joaquin Valley to receive clean air resources available under AB 617, based on a technical analysis of several pollution and poverty-related criteria. AB 617 provides mechanisms and resources to implement community-specific air quality monitoring networks; to develop, implement, and track emission reduction programs; to improve availability of data and other technical information; and to invest substantial funding in the community through voluntary incentive funding measures. Importantly, these measures are guided by advice and knowledge of local community members, through their input and involvement on Community Steering Committees (CSCs) for each AB 617-selected community.

ONGOING IMPLEMENTATION

The District continues to closely collaborate with each of the CSCs, made up of residents, and representatives from local non-profits, businesses, and agencies, to prioritize and implement the measures included in the District Governing Board-adopted, CARB-approved Community Emission Reduction Programs (CERPs). These efforts include engaging with Valley residents, businesses, agencies, and other stakeholders to identify and implement clean air measures and investments in the South Central Fresno, Shafter, and Stockton communities.

Since adoption of the CERPs for South Central Fresno, Shafter, and Stockton, the District has been working closely with the CSCs and local partners to implement CERP measures designed to reduce air pollution and exposure in the communities. In addition to the CERP implementation work, the District has worked diligently to implement the Community Air Monitoring Plans in consultation with the CSCs, with extensive air monitoring now being deployed and conducted in each of the communities and shared with the public on the District's community-specific webpages.

COMMUNITY INPUT ON PROCESS

CSC members throughout the Valley expressed an interest in having an open, transparent, and inclusive participatory process to consider and provide recommendations choosing a third-party facilitation team to run CSC meetings in their community. The District opened a solicitation for a facilitation team capable of meeting the high standards of creating an inclusive and open environment for community engagement efforts as part of the District's AB 617 efforts in the Valley. All CSC members were invited to participate in a process to interview the potential new facilitators by submitting questions to ask the interested parties and to hear their responses during and evening webinar.

COMMUNITY-LED SUBCOMMITTEES IN STOCKTON

Upon adoption of the Stockton CERP, the CSC and District worked together to identify how to best to move forward in implementing the CERP. The CSC worked through a facilitated exercise to identify priorities and help organize the measures in categories and subcommittees. The priorities mirror the priorities of the CSC throughout CERP development; emissions reductions from the highest-impact sources are of top priority. As priorities were identified, the CSC then went through a series of exercises, ad hoc meetings, and breakout groups to decide how to divide and conquer CERP measure implementation. CSC members decided that identifying subcommittees, technical partners, and implementation partners was the best course of action. In all, 10 subcommittees have been formed, each with a community lead or co-lead whom helps prepare agendas and facilitate discussion.

» Continued on page 25

State Community Air Protection (CAP) funds are distributed to Air Districts to be used as emission reduction incentives in disadvantaged communities, including AB 617 communities

\$92,416,070

TOTAL CAP FUNDS EXPENDED IN VALLEY TO DATE

6,366 TONS

TOTAL NOX REDUCTIONS

527 TONS

TOTAL PM2.5 REDUCTIONS

793 TONS

TOTAL VOC REDUCTIONS

IMPACTS OF CAP FUNDS TO DATE

24

NEW ELECTRIC SCHOOL BUSES

958

OFF-ROAD DIESEL VEHICLES REPLACED WITH CLEANER TECHNOLOGIES

325

GAS LAWNMOWERS REPLACED WITH ELECTRIC MOWERS

52

WOOD BURNING DEVICES REPLACED WITH NATURAL GAS

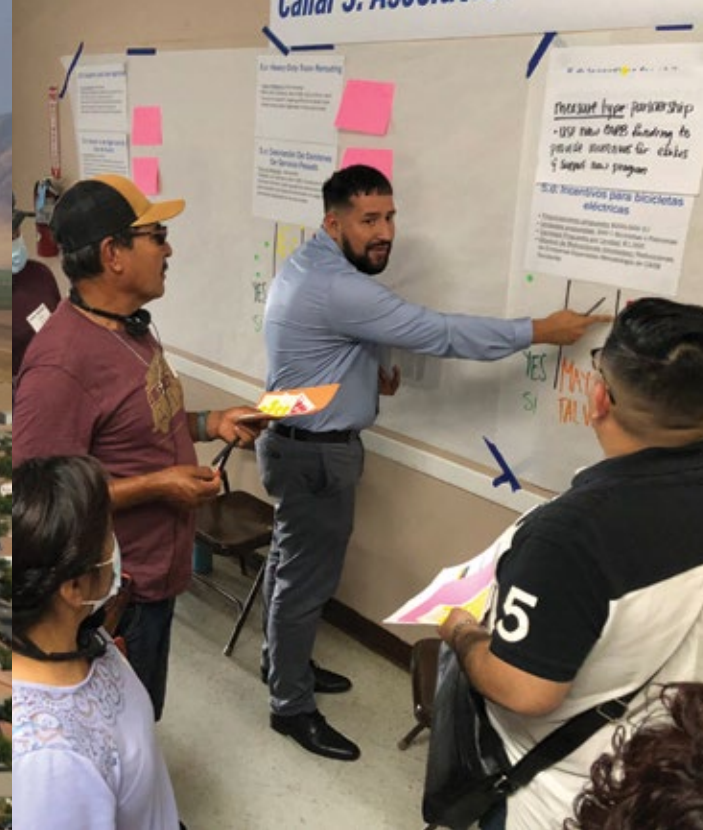


AB 617 RESIDENTS GET NEW ELECTRIC LAWNMOWERS

Almost 250 residents in Shafter and South Central Fresno turned in their old polluting mower and received a new Stihl cordless electric mower at AB 617 Lawnmower Trade-In events this past year. To participate, the residents had to live within the Shafter or South Central Fresno AB 617 boundary and bring in an old gas-powered lawnmower to crush. The event was part of the Valley Air District's AB 617 efforts to reduce emissions in each community.

Gas-powered yard care equipment presents a significant source of localized air pollution in Valley neighborhoods. These small engines contain no emission controls and pollute substantially more than newer passenger vehicles. Statistically, one gas lawnmower produces the equivalent in emissions of 12 late-model cars operating for the same time.

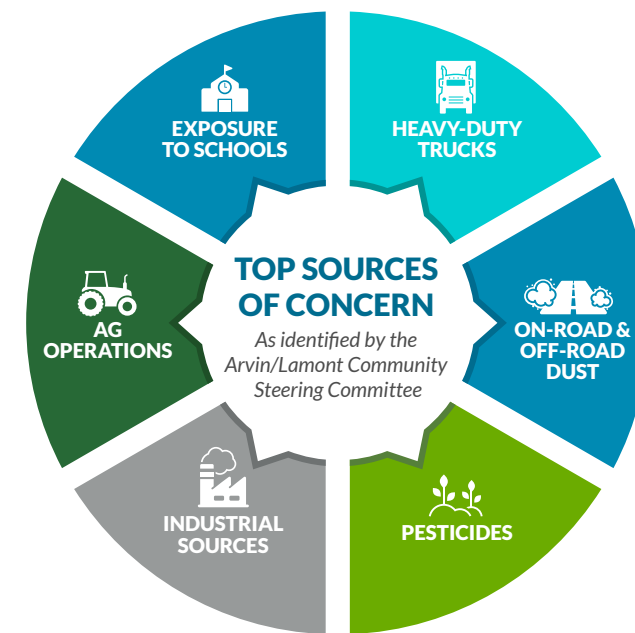
This is just one example of the great work being done in partnership with the community under AB 617. This event provided clean-air equipment directly to Valley residents which will help reduce emissions and improve air quality in neighborhoods throughout South Central Fresno and Shafter.



NEWEST AB 617 COMMUNITY: ARVIN/LAMONT

The Arvin/Lamont community in southern Kern County is the latest Valley community to be selected for AB 617 efforts. The CSC, established in consultation with community members, has been meeting regularly as a community steering committee since April 2021. Over the past year, the Arvin/Lamont CSC has met over 20 times to help direct the development of the CAMP and CERP documents. Accomplishments in 2021 include selecting the project boundaries, adopting the community steering committee charter, identifying community sources of air quality concern, discussing community air monitoring and emissions reduction program opportunities, and developing a community driven budget for CERP incentives-based measures aimed at reducing emissions and exposure in the community.

The Arin/Lamont CSC also held the state's first in-person regular CSC meeting since March 2020. Following local and statewide regulations for COVID-safe operation, over 30 Arvin/Lamont Community Steering Committee members, mostly residents, attended a dynamic CERP development meeting in April 2022 in the Arvin community. To help make the most out of the community members' time and efforts, the District provided food, activities for youth attendees, simultaneous interpretation, and bilingual outreach materials.



Community Air Monitoring

In order to meet the defined objectives, the community air monitoring network for each community was designed to measure the local impacts of a number of pollutants of concern through high-grade air monitoring technology. Through a number of consensus-building exercises, the District worked with each community to develop community monitoring networks that are scalable, portable, provide real-time data, capture sources that may be impacting the community within the geographic boundary, and rapidly react to unanticipated pollution impacts. For more information visit community.valleyair.org/community-air-monitoring.

EQUIPMENT IS COLLECTIVELY MONITORING:

PM2.5, Ozone, Black Carbon, Carbon Monoxide, Nitrogen Dioxide, Nitrogen Oxide, Volatile Organic Compounds, Sulfur Dioxide, Toxics & Meteorology



FIXED STAND-ALONE MONITORS



SEMI-MOBILE COMPACT MULTI-POLLUTANT SYSTEMS



MOBILE AIR MONITORING



SEMI-MOBILE TRAILERS

SOUTH CENTRAL FRESNO	SHAFTER	STOCKTON	ARVIN/LAMONT
Selected in 2018	Selected in 2018	Selected in 2019	Selected in 2021
46 adopted measures	51 adopted measures	31 adopted measures	31 proposed measures
COMMUNITY EMISSIONS REDUCTIONS			
1,662 tons of NOx	1,718 tons of NOx	698 tons of NOx	420 tons of NOx
278 tons of PM2.5	265 tons of PM2.5	66 tons of PM2.5	136 tons of PM2.5



Community Emission Reduction Programs

Types of emission reduction strategies in the District's AB 617 Communities



TRUCKS & TRAINS

- Reduce idling of trucks by providing charging infrastructure
- Truck rerouting
- Replace trucks with zero and near zero emission trucks
- Replace old diesel train equipment with cleaner equipment
- Replace old school buses with zero and near zero emission buses
- More enforcement of anti-idling



OLDER & HIGH POLLUTING CARS

- Host events to repair old high polluting car
- Replace old cars with electric or hybrid electric cars
- Car sharing program
- More electric vehicle charging locations
- Train electric vehicle mechanics
- Reduce car idling through education
- Promote incentives for ebikes
- Have electric cars for dial-a-ride service



AGRICULTURAL OPERATIONS

- Replace nut harvesting equipment with cleaner equipment
- Reduce exposure to pesticides
- Promote practices that reduce dust and emissions from fields and dairies
- Replace ag equipment with cleaner equipment
- Replace open burning with clean alternatives



OIL & GAS OPERATIONS

- Encourage set-backs
- Self-inspections at gas stations
- Encourage new technology
- Reduce flaring
- Reduce emissions from operations
- Increase inspections
- Address potential impacts from idle wells in the community



RESIDENTIAL BURNING

- Replace old fireplaces & wood burning devices with cleaner devices
- Reduce trash burning through enforcement
- Reduce trash burning through education
- Educate the public about wood burning
- More enforcement of "No Burn" days



INDOOR AIR QUALITY

- Promote weatherization programs for homes
- Residential air purifier program



TREES & LAWNS

- Replace old dirty residential lawn care equipment
- Replace old dirty commercial lawn care equipment
- Install vegetative barriers
- Plant more trees



INDUSTRIAL PROCESSES

- Reduce emissions from industries through regulations
- Reduce emissions from industries through new incentives



LAND-USE/INDUSTRIAL DEVELOPMENT

- Reduce high-speed rail construction emissions
- Fund bike paths
- Encourage things that reduce the need for cars
- Work with the city, county and community on land use issues



DUST & ROADS

- Increase street sweeping
- Fund road and sidewalk improvements



RESTAURANTS

- Reduce emissions from restaurant cooking



SOLAR ENERGY

- Install more solar



SCHOOLS

- Improve air filtration in schools
- Increase school participation in "Healthy Air Living Schools" program



OUTREACH

- Educate the public about how they can protect themselves from poor air quality
- Work with the community to bring more air quality funds to the community
- Educate the public about air quality

Incentive Program Leads the Nation

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 80% 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, lawnmower 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 secure emissions reductions for future progress. The following pages highlight just a few of the District's incentive programs.

Over \$243 Million in CLEAN AIR GRANTS INVESTED

Matched with \$471 Million in Funding from Applicants

\$32,758,057

AG BURN
ALTERNATIVES
1,035 PROJECTS



\$101,984,194

AG EQUIPMENT
REPLACEMENTS
1,627 UNITS



\$4,876,898

ELECTRIC DAIRY
FEED MIXERS
4 OPERATIONS



\$4,266,898

ZERO EMISSION
AG-UTVs
316 UTVs



\$9,271,500

CLEAN BURNING
DEVICES
3,727 DEVICES



\$6,017,146

PUBLIC BENEFIT
PROJECTS
321 FLEET VEHICLES



\$2,283,000

CHARGE UP!
EV INFRASTRUCTURE
79 CHARGERS



\$17,400,000

DRIVE CLEAN IN
THE SAN JOAQUIN
4,005 VEHICLES



\$584,001

ZERO EMISSION
LAWN EQUIPMENT
1,936 PIECES



\$8,001,662

LOCOMOTIVE
ENGINES
3 TRAINS



\$9,041,955

HEAVY DUTY
& AG TRUCKS
241 TRUCKS



\$9,600,000

VW MITIGATION TRUST
TRANSIT, SHUTTLE &
SCHOOL BUS FUND
37 BUSES



EMISSION REDUCTIONS

FINE PARTICULATE MATTER

↓ 6,105 TONS

NITROGEN OXIDES

↓ 10,307 TONS

VOLATILE ORGANIC COMPOUNDS

↓ 4,935 TONS



Success Bringing New State & Federal Clean Air Funds to Valley

The District once again was able to secure significant new federal and state funding for key grant programs. The District often ranks at the top of these highly competitive state and federal grant programs due to a history of success that efficiently bring quantifiable emissions reductions and air quality improvements to the Valley.

In partnership with the agricultural community and other key stakeholders, the District developed and administered a variety of innovative voluntary incentive programs targeted at reducing emissions from agricultural equipment and operations throughout the Valley. This includes funding for cleaner agricultural tractors, irrigation pump engines, zero-emission electric yard trucks and Utility Terrain Vehicles (UTVs), low-dust nut harvesters, electrification of dairy feed mixing operations, and funding for alternatives to agricultural open burning. In 2021, Senate Bill 170 appropriated \$210 million statewide to reduce emissions from the agricultural sector through the Funding Agricultural Replacement Measures for Emission Reductions (FARMER) program. The Valley, as the top agricultural producing region in the state, received 80% of the total funding. This state funding has allowed the District to expand the already highly successful agricultural tractor replacement program to include higher grant funding amounts for smaller operations, as well as funding for electric UTVs for agricultural use.

In addition to the FARMER Program funding, the District was successful at the federal level in bringing additional funding to the Valley. The District was successful in competing for and securing more than \$25.9 million in federal funding through the highly competitive EPA Diesel Emission Reduction Act (DERA) Program and the Targeted Air Shed Grant Program. In 2021, the District received \$2.7 million in funding through the DERA Program for the replacement of diesel-powered heavy-duty trucks with new near zero-emission heavy-duty trucks and \$2.7 million to replace old, high-polluting agricultural tractors with new, cleaner tractors. Through the Targeted Air Shed program, the District received \$8 million in funding to replace agricultural tractors, \$8 million to replace open hearth fireplaces and old wood stoves with cleaner-emitting burning devices and \$4.7 million to replace heavy-duty diesel trucks that have 2016 or older engines with zero and near-zero emissions heavy-duty trucks. These grants, coupled with the commitment and funding from industry, are helping to clean the Valley's air.



Valley Continues Nation-Leading Effort to Phase-out Open Burning

Under State law, remaining agricultural open burning in the Valley will continue to be phased-out over the next several years, with a near-complete phase-out of all burning becoming effective on January 1, 2025. The District has a long history of working to reduce open burning in the Valley, beginning with prohibitions on open burning of the majority of agricultural materials that commenced in 2005, per the requirements of Senate Bill 705 and the District's Rule 4103 (Open Burning). The District has significantly reduced emissions from agricultural burning to date by prohibiting the open burning of a variety of field crops, prunings, weeds, orchards, vineyards, surface harvested prunings, and other materials. In the coming years, vineyard and orchard removals will no longer be allowed to be burned in the Valley, and further prohibitions against burning prunings and raisin trays will also take effect. The District will be working closely with other agencies and the agricultural sector to develop and promote clean-air alternatives to open burning, such as chipping and soil incorporation of the woody material.

To help support the continuing transition away from agricultural open burning, the District has developed the Alternatives to Open Agricultural Burning Incentive Program. This program provides financial incentives to growers to dispose of their agricultural materials with alternative measures, such as using chipped material as mulch or soil incorporation. The incentive amounts range from \$300 to \$1,400 per acre of agricultural material removed. The growers chip or shred their material, then incorporate the material back into their soil, spread the mulch over the top or use it for a beneficial off-site re-use. To date, the District has received a strong response and has allocated over \$62 million in funding to support alternatives to open ag burning projects on over 99,000 acres in the Valley, representing 2.7 million tons of agricultural material from a wide range of crop types, including nectarines, olives, almonds, plums, citrus, grapes, walnuts and peaches.



Collaborating with Public Agencies to Set Clean Air Examples

The District has a strong history of partnering with public agencies. The District was, at its inception, a collaborative effort of Valley counties coming together to reduce emissions throughout the Valley. Over the past 30 years, public agencies have often been the first entities to adopt air friendly equipment and operations, often with funding and support from the District. Three notable recent examples of Valley agencies leading the way on clean air improvements include:

- ▶ In May 2022, the Tracy Rural County Fire Protection District took possession of a new fire engine, and while the \$393,000 engine, designed primarily for wildland fire response, wasn't in this year's budget, district directors expect the purchase will turn out to be one of their more prudent fiscal decisions. A grant from the District designed to promote clean-air vehicles for public agencies translates to a discount of about 17% on a piece of equipment that the fire district would have needed to buy eventually anyway. "In July they offered grants for emergency vehicles, so I saw it. I brought it to the rest of the board and I asked them for approval to explore it," fire district director Craig Miller said, adding that the program was designed to encourage agencies like fire departments to replace older vehicles with new, cleaner diesel vehicles.

- ▶ The District partnered with the Fresno State Police Department to demonstrate the functionality of the Ford Police Interceptor Hybrid Vehicles. Police vehicles spend a lot of time idling and the lithium ion battery on these hybrid vehicles can power the onboard electrical equipment allowing the gasoline engine to be turned off. In October 2020, the Fresno State Police Department received \$20,000 per vehicle through the District's Public Benefits Incentive Program that provides funding to public agencies for the purchase of clean air vehicles. In this case, the incentive paid for approximately 50% of the vehicle cost.
- ▶ The Fresno County Rural Transit Agency (FCRTA) provides local and regional transit service to rural cities within Fresno County and has partnered with the District to be a pioneer with electric vehicle and solar power EV charging infrastructure. FCRTA has received several grants from the District to support their efforts to provide sustainable transportation to rural communities. FCRTA's fleet includes 18 all-electric Chevy Bolts, 9 Electric Buses and 5 electric vans. All vehicles are easily accessible to disabled individuals, and intercity buses are equipped with parcel and bicycle racks for riders.

SPOTLIGHT » District Partners with Modesto City Schools

The District is excited to partner with the Modesto City School District as they make efforts to become a national leader in sustainability efforts. The District will provide \$4.3 million to install 32 electric vehicle charging stations and supporting renewable solar to assist the Modesto City School District in achieving its commitment to sustainability and emissions reductions by transporting kids with zero-emission electric school buses.

The deployment of 30 electric buses and the supporting electric infrastructure will enable the school district to rapidly convert nearly 50% of its diesel-powered bus fleet to zero-emission buses. The Modesto City School District will benefit from significant cost saving opportunities by reducing or eliminating the fuel and maintenance costs tied to the traditional cost of maintaining a diesel-powered fleet of school buses. The electric school buses can carry a maximum of 84 passengers and travel up to 120 miles on a single charge.

"We value our Partnership with San Joaquin Valley Air Pollution Control District. We appreciate all the programs that you have available to help reduce emissions in our community. We look forward to collaborating on our ESB transition, student Engagement and Community Outreach events." - **Gilbert Rosas, Director II, Sustainability & Adaptation at MCS**

In addition, Modesto City Schools is planning to:

1. Set a record for electric school bus deployment-by going from Design to construction to charging buses in less than 7 months!
2. Construct and use six SOLES-Sustainable Outdoor Learning Environments (classrooms powered by solar canopies).

3. Pursue electric vehicles for their passenger fleet vehicles.
4. Replace diesel and gas mowing equipment and landscaping tools with battery electric by using District and other grant programs.
5. Involve their students in the emission reduction process and train them for Green Career Path Choices!

Their Mission Statement says: Our sustainability initiatives are designed to: address climate change, reduce our carbon footprint, combat air pollution, and educate the next generation of students about a sustainable lifestyle-that includes renewable energy.

Modesto City School District is a great example of the many agencies and businesses working with the District to improve air quality and public health.





District Transitioning to Zero-Emission Fleet

The District strives to serve as an example to other businesses and government agencies by considering environmental impacts in procurement and operational functions to assure that sustainability is appropriately integrated into all District operations. The District has been very successful in implementing a number of sustainability measures including use of electric or manual equipment for landscaping and parking lot sweeping at District facilities, encouraging employee carpooling and ridesharing through workplace features such as order-in lunches, flex-schedules for transit riders, showers for bicycle commuters, and preferred carpool parking. Another example of the Governing Board's commitment to sustainability is the District's Bakersfield office building, constructed in 2008, that is LEED (Leadership in Environmental and Energy Design) certified by the US Green Building Council, and equipped with a 32 kilowatt solar power system.

With the rapid rise in electric vehicles and charging infrastructure in recent years, new opportunities have become available to take advantage of zero-emission vehicles. In addition to the air pollution benefits from transitioning to zero emission vehicles, there are also overall cost reductions based on reduced fuel and maintenance costs. The District operates a fleet of over 100 vehicles that are used across its operations, including enforcement, grant administration, air monitoring, outreach and

communications, and other functions. Beginning in 2001, the District began incorporating hybrid vehicles into its vehicle fleet and more recently have integrated plug-in hybrid and zero-emission electric vehicles.

Since 2020, the District has purchased plug-in hybrid vehicles and electric vehicles as part of a pilot project to assess the effectiveness of electric vehicles when conducting District business. The District's pilot deployments have found no negative impacts to the staff's ability to continue to perform their job duties and the electric vehicles have demonstrated a lower total cost of operation due to lower fuel and maintenance costs compared to traditional gasoline vehicles.

Based on the successful implementation of the electric vehicle pilot project, the District has established a goal to transition to a zero emission fleet by the 2025/26 fiscal year. In preparation for increasing the number of electric fleet vehicles, the District Board recently approved the installation of 26 electric vehicle chargers in all three District offices (six in Modesto, fourteen in Fresno, and six in Bakersfield), bringing the total chargers to 38 District-wide. This project is currently in progress, with anticipated completion by the 3rd quarter of 2022. The District will share its experience in implementing this innovative model strategy with other Valley public agencies to support fleet transitions throughout the Valley.



SPOTLIGHT » First All Electric Class 8 Trucks in Valley

In partnership with the District, the South Coast AQMD, and the California Air Resources Board, Producers Dairy became the first Central Valley business to deploy two battery-electric Class 8 heavy-duty trucks. With traditional heavy-duty diesel trucks contributing significantly to mobile source emissions in the Valley, these next generation zero-emission all electric heavy-duty trucks will need to be deployed throughout the Valley to reach air quality and climate change goals.

While these Volvo VNR Electric trucks are revolutionary in their all-electric motors, they still provide the functionality necessary for Producers Dairy to meet their delivery needs. These zero-emission trucks will service Producers Dairy fleet routes from its Fresno manufacturing facility located in the South Central Fresno AB 617 community to grocery stores in communities along the 40-mile stretch of highway 99 from Selma to Madera. Funding for these all electric heavy-duty trucks was made possible through a strong interagency partnership that included District funds and Greenhouse Gas Reduction Funds under the California Collaborative Advanced Technology Drayage Truck Demonstration Project.

"Through the deployment of its first two Volvo VNR Electrics, Producers Dairy is truly leading by example on the path to a more environmentally friendly future, which is at the core of the company's mission."
- Peter Voorhoeve, president, Volvo Trucks North America.

In addition to the clean air benefits, electric heavy-duty trucks such as these will provide the additional benefits of quieter cities, better traffic flow, and a better working environment for the driver.



Program to Establish Network of Valley Clean Air Centers to Protect Public During Wildfires

In May the District launched the new Clean Air Centers Pilot Program. The Clean Air Centers Pilot Program was established by AB 836 (Wicks, Chapter 393, Statutes of 2019) and provides the Valley Air District \$750,000 in funding for grants to provide portable air cleaners in support of creating a network of clean air centers to provide vulnerable populations a respite from wildfires and other smoke events. The guidelines established by the California Air Resources Board provide the San Joaquin Valley with resources to assist in creating 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.

In addition to implementing and enforcing air quality regulations and providing clean air grants, the District places a high priority in providing accurate and timely health protective information to the public. The District and other public health agencies throughout the Valley recommend that residents take health-protective actions to stay safe when smoke from catastrophic wildfires affects the Valley. Some of these actions include staying indoors, the use of portable air cleaners or high efficiency filters to remove fine particles from the air, planning ahead and creating a “clean room”, and if unable to use fans and air conditioning in your home, to seek a more protective location during a poor air quality episode.

During wildfire impacts, the District urges Valley residents to remain indoors, in an air-conditioned, filtered environment to escape high concentrations of PM2.5 (fine particulate matter) that exists in smoke. For individuals and families who may not be able to visit a Clean Air Center or who do not have a functioning HVAC system or freestanding air filter available at home, making your own air purifier is simple and inexpensive. Here’s how: Use an ordinary box fan and a MERV (Minimum Efficiency Reporting Value) filter, like those used in a home HVAC system, and fasten the filter to the back of the fan. MERV filters are rated from 1-20. The higher the rating, the better the filtration. A rating of 13 or higher is preferred. These devices should be used with extreme caution and not left unattended. Only use box fans manufactured in or after 2012 – these fans will have a fused plug, which will prevent electrical fires if the device is knocked over. For additional resources on protecting yourself during wildfires, visit www.valleyair.org/wildfires.

DIY Temporary Air Purifier

Materials



20 x 20" air filter
(MERV rating 13 or higher)



20 x 20" box fan
(2012 model or newer)



Duct tape

Assembly

Duct tape the air filter to the back of the box fan. Check the filter for the direction of the air flow (marked on the sides of the filter). Replace filters as needed.



District Offers Commercial Lawn & Garden Equipment Funding as State Plans for Regulations

The engines used to power lawn mowers, leaf blowers, chainsaws and other lawn and garden equipment are commonly referred to as small off-road engines (SORE). SORE used in gasoline powered lawn and garden equipment generate significant emissions of NOx, PM2.5, and VOC throughout the State while also exposing the user to toxic air contaminants. Statewide, commercial SORE used to power lawn and garden equipment represent only 10% of the small engine population, yet contribute 70% of the small engine emissions. Annually, emissions generated from SORE currently exceed the emissions from light-duty passenger vehicles operating in California and the operation of a new gas-powered lawn mower for 1 hour is equivalent to driving the average passenger car for 300 miles.

In order to meet the obligations of the 2016 State Implementation Plan and reduce emissions associated with the operation of SORE, in December 2021 the California Air Resources Board adopted amendments to the SORE regulation which will require newly manufactured equipment to be zero emission beginning in 2024. CARB expects that the new requirements will reduce summer average emissions by 7.9 tons per day (tpd) of NOx and 64.5 tpd of VOC in 2031. Battery and electric motor technology have advanced rapidly in recent years and today there are numerous brands of zero emission lawn mowers with several brands directed at commercial users. Accelerating the transition to zero emission technology will significantly reduce emissions from this equipment resulting in improved air quality and public health.

In response to the need to reduce emissions from commercial lawn and garden equipment, the District launched an innovative incentive program designed to provide commercial operators with funding to switch from gas powered equipment to zero emission technology. Eligible participants are public agencies and private entities that perform in-house commercial scale landscaping operations, or businesses that provide landscape maintenance services to residential neighborhoods, business locations and other communities.

Available incentives are based on the type of eligible equipment purchased as identified in the following funding table, with a maximum incentive cap of \$25,000 annually per participant:

ELECTRIC EQUIPMENT INCENTIVE	
<i>Edgers, Trimmers, Chainsaws, Polesaws</i>	70% OFF, up to \$200
<i>Leaf Blowers & Vacuums</i>	70% OFF, up to \$250
<i>Walk-behind Mowers</i>	70% OFF, up to \$750
<i>Ride-on/Stand-ride Mowers</i>	70% OFF, up to \$15,000
<i>Additional Batteries & Chargers</i>	100% of purchase price for up to two (2) batteries and one (1) charger per piece of equipment purchased

The District implements the program in a streamlined, easy to navigate process. Interested applicants can apply to the District for program funds, once approved they are issued a voucher identifying the eligible equipment types and incentive levels. Following purchase of the new electric equipment and destruction of the gas powered equipment, participants can submitted their claim for payment in order to be reimbursed for their purchase. Participants must also own and operate the equipment for a minimum of 3 years and provide the District reports on their annual usage.

Since July 2019, the Commercial CGYM Program has provided over \$1.1 million for the purchase of 418 pieces of equipment to help local lawn care businesses, public agencies, and private entities replace their old gas- and diesel-powered lawn care equipment with zero-emission, all-electric cleaner options. Participants who have benefitted from the Valley Air District’s program demonstrate the potential of all-electric lawn care equipment to be utilized within the industry and the San Joaquin Valley. As commercial lawn care end-users continue to participate in the Program, they also help drive the need for manufacturers to continue developing and refining zero-emission equipment to meet their requirements for commercial-grade equipment and keep these products in-use.

To date, 90 participants have been awarded funding through the program, and the types of participants vary within the industry, with public agencies such as cities, counties, and school districts representing the largest group (44%), participating in the program.



Reducing Residential Wood Smoke in Neighborhoods

The District's Burn Cleaner Program continues to be an important resource to help Valley residents make positive changes in reducing residential wood burning emissions during the winter season. Through Burn Cleaner, the District offers financial incentives for the change-out of old, high-polluting open-hearth fireplaces or uncertified devices with new cleaner, certified units. The program has provided the resources necessary for thousands of Valley residents to make positive changes in their residential wood-burning practices and is a significant part of the District's overall strategy to reduce the impacts of residential wood burning.

As a complementary strategy to the recent regulatory amendments, the District's Burn Cleaner incentive-based strategy is an important component of the District's 2018 PM2.5 Plan. The amendments approved to the Residential Woodsmoke Reduction Strategy in June 2019 supported the implementation of enhanced curtailment thresholds in Hot Spot Counties which include Madera, Fresno and Kern counties. These changes also provided residents of Hot Spot counties with increased incentive amounts while limiting incentive options to natural gas devices or electric heat pumps in areas with access to natural gas.

In October 2021, additional enhancements to the Burn Cleaner Program were approved to limit incentive options to only fund the purchase and installation of natural gas and electric heat pump devices in all Valley counties for residences with access to natural gas. This enhancement was approved to be consistent with requirements in Hot Spot areas, and

with the District's Community-Level Targeted Strategy to regulate or incentivize control measures focusing on pollution sources which cause localized community concern and the need to accelerate the deployment of cleaner technologies, expedite air quality improvements in the Valley and focus available funding on the cleanest devices. The Burn Cleaner Program also continues to offer higher incentives for low-

income households throughout the Valley to provide additional assistance towards the purchase of a new, cleaner unit.

For the 2021-2022 winter season, the District issued over 1,500 vouchers between November 2021 and February 2022 alone for a total funding amount over \$3.9 million. Of this total, 95% of the funding was provided for natural gas devices, with the remaining funds provided for EPA-certified wood and pellet devices and electric heat pumps. In addition, 73% of approved vouchers were issued to residents in Hot Spot counties. Since 2009, the District has issued over 26,000 vouchers with more than \$48.4 million in program funding allocated to date. District

staff expects strong demand for the program to continue throughout the year.

One exciting trend the District is seeing in the program is increasing interest in the incentive for electric heat pumps. The District will give residents up to \$4,000 to render inoperable their open-hearth fire or wood burning stove/insert and replace home heating with an electric heat pump. Heat pumps are generally cheaper to run and require less maintenance than gas powered devices while also helping to improve air quality and reduce greenhouse gas emissions.

"I was pleased to seal off my chimney, so it will no longer pollute the air with woodsmoke that can make my neighbors sick. With my new heat pump, my HVAC system will no longer release greenhouse gases caused by burning natural gas. Once I replace my water heater, my home will be all electric."

- Connie Young



Drive Clean in the San Joaquin Expands Vehicle Eligibility

Valley residents who are driving older polluting cars and want to take advantage of the District's popular Drive Clean in the San Joaquin Replace Program will notice two new changes when they apply. In September, the District's Governing Board agreed to expand the eligibility for vehicle model years

to 2006 and eliminate the requirement of a failed emissions test to reduce a possible barrier for low-income residents who wanted to participate. Depending on income levels and residential status in a disadvantaged community, incentives for the programs range from \$2,500 - \$9,500 depending on the type of vehicle purchased.

Since the program began in 2014, the criteria eligibility was limited to vehicles with model years 1999 and older that did not pass emissions tests during weekend Tune In Tune Up events, along with other requirements, such as residency within a disadvantaged community. These criteria allowed the program to focus limited funding sources on helping Valley residents driving the highest polluting vehicles to switch to cleaner models. The program, administered in partnership with Valley Clean Air Now,

has replaced nearly 3,800 vehicles. While vehicles built in 2006 are cleaner than those built in 1999, the 2006 vehicles are still about 4.5 times dirtier than their 2021 gas counterparts. Replacing these 2006 and older vehicles with electric or plug-in electric hybrid options will help

"Thank you Valley Air District for this amazing opportunity you are giving us. I did not have a reliable car and this vehicle is going to really help me save on gas because it is so economical. The process was easy and worth it, and we now have a safe vehicle to get around in."

- Colton Franks of Clovis who traded in his 1998 Mitsubishi for a 2019 Kia Plug-in Electric Hybrid Vehicle

the District continue to achieve needed emission reductions in the Valley. In addition to approving the change in model year and removing the failed emissions test requirement, the Governing Board accepted \$8,400,000 in funding from the California Air Resources Board to support the Drive Clean in the San Joaquin Replace Program.

Under the umbrella of the Drive Clean in the San Joaquin Program, the District also offers a repair component that helps Valley residents repair existing vehicles that have emission-related issues and a rebate component to reduce the cost of purchasing or leasing new zero- and near-zero emission vehicles. The repair program has issued more than 24,000 vouchers and more than 15,500 repairs were performed in 2021; and the rebate program has continued to be extremely well received by the public in 2021 with more than 3,800 rebates issued in the Valley.

REPLACE

3,800

OLDER POLLUTING VEHICLES REPLACED

REPAIR

15,500+

VEHICLES REPAIRED

REBATE

3,800+

REBATES FOR THE PURCHASE OF NEW ELECTRIC OR PLUG-IN HYBRID VEHICLES



New Climate Initiatives to Maximize Clean Air Opportunities

The California Global Warming Solutions Act of 2006 (AB 32) established a comprehensive, multi-year program to reduce greenhouse gas (GHG) emissions in California. As the first program of its kind in the country, AB 32 established an overall goal of restoring statewide GHGs to 1990 levels by the year 2020. In 2016, the State adopted SB 32, which builds upon AB 32, and requires the reduction of GHG to 40 percent below 1990 levels by 2030. In implementing these new mandates, the State has established new requirements for mobile sources of emissions, renewable fuels and energy standards, and a Cap and Trade program that establishes declining GHG caps and a public market for the purchase of carbon emission allotments.

Following the passage of AB 32, the District adopted climate change positions that recognized the potential impacts that changing climate conditions could have on local air quality, encouraged the state to adopt measures that reduce both criteria pollutant and greenhouse gas emissions, encouraged the state to prioritize criteria pollutant reductions when considering tradeoffs between greenhouse gas reductions and criteria pollutant reductions, and provided support to local agencies. These positions have guided the District's interactions with the State during the development of GHG reduction programs that substantially intersect with the District's mission to reduce air pollution emissions and improve air quality and public health in the San Joaquin Valley.

Consistent with the Governing Board's adopted policies, the District has long supported greenhouse gas reduction measures that provide co-benefits in reducing criteria and toxic pollutants to assist in meeting air quality public health goals. This is particularly important given that the San Joaquin Valley is home to 7 out of 10 of the state's most disadvantaged communities disproportionately impacted by socio-economic and environmental factors. Through strong collaboration with state agencies and residents, businesses, public agencies, community-based organizations, and other stakeholders, the San Joaquin Valley has served as a center of innovation for many of the state's recent transformative clean air, low carbon strategies. These strategies provide strong potential for further investment under the new state and federal initiatives.

The state and federal governments are currently working on a number of new climate initiatives. The District has been working to ensure that the Valley is well-positioned to respond to opportunities under these new initiatives in support of the District's public health mission. The following highlights some of the major climate/air quality-related initiatives currently in development and implementation, and that present opportunities for the San Joaquin Valley:

- ▶ **State Budget:** The recently enacted 2021-22 State Budget included unprecedented funding for air quality and climate investments. With another anticipated budget surplus in the coming 2022-23 budget year, the District expects additional opportunities for enhancing budget allocations for key programs in the new state budget.
- ▶ **New State Mobile Source Strategy:** CARB will be developing an updated State Mobile Source Strategy to achieve climate and air quality mandates and goals. This strategy will build upon the current Mobile Source Strategy that includes measures to reduce air pollution from a variety of mobile sources, including passenger vehicles, heavy duty trucks, off-road equipment, cargo handling equipment, and other sources.
- ▶ **CARB Scoping Plan Update:** CARB is developing an updated scoping plan aimed at addressing various state climate goals, including achieving carbon neutrality in either 2035 or 2045.
- ▶ **Federal Infrastructure Investments/Federal Budget:** The infrastructure bill and budget package currently under negotiation at the federal level has the potential for including substantial investments for a wide variety of clean mobile source and energy technologies, advanced technologies including zero and near-zero emission heavy-duty vehicles, zero and near-zero transit buses, zero-emission school buses, clean transportation corridors that support passenger and heavy duty vehicle fueling networks, and other clean air opportunities.
- ▶ **USDA Climate Smart Initiative/Farm Bill Investments:** USDA is currently developing a new Climate Smart Forestry and Agriculture Initiative that will include funding for a variety of investments in sustainable agriculture.



Advocating for Valley at State & Federal Level

The District's recent legislative activities have continued to be extremely productive. At the state level, the District advocated for continued funding for a number of programs that are key to improving air quality in the Valley, meeting obligations in our federal clean air plans, and improving public health in disadvantaged communities. The District was successful in having a number of our priorities included in the Governor's May Revised 2022-23 Budget:

- ▶ \$150 million statewide for the FARMER program (agricultural equipment)
- ▶ \$260 million statewide for AB 617 Community Air Protection incentive funds
- ▶ \$85 million statewide for the Healthy Soils Program
- ▶ \$85 million for food processor incentive program
- ▶ \$300 million for Clean Cars 4 All program
- ▶ \$6.1 billion statewide for zero-emissions vehicles/equipment (multi-year, builds on \$3.9 billion in last year's budget)

While the May revision includes significant funding, the District continues to advocate for increased funding to support sustainable agriculture (electric yard trucks, electric ATVs, electric forklifts, etc.), increased FARMER funding, and increased funding for low carbon clean vehicle and equipment technologies.

At the federal level, the District built upon our past success in securing funding through nationwide competitive programs including:

- ▶ \$5.4 million for the Diesel Emission Reduction Act (DERA) program to replace old, high-polluting agricultural tractors with new, cleaner tractors and the replacement of diesel powered heavy-duty trucks with low-NOx natural gas heavy-duty trucks
- ▶ \$20.7 million for the Targeted Air Shed program to replace old agricultural tractors, to change out open-hearth fireplaces or non-certified wood burning devices with new electric heat pumps, gas devices, or certified wood-burning devices and to replace heavy-duty diesel trucks with zero and near-zero emissions heavy-duty trucks

With stringent planning requirements and shortened attainment timeframes under the Clean Air Act for PM2.5, additional NOx reductions from federal mobile sources will be vital for the Valley to meet its attainment goals. To ensure that the Valley can meet its air quality goals, the District is pursuing a number of time-sensitive opportunities for achieving significant additional emissions reductions from mobile sources, including commenting on new national heavy duty clean truck standards, and advocating for increased federal resources through infrastructure and "climate smart" funding packages.

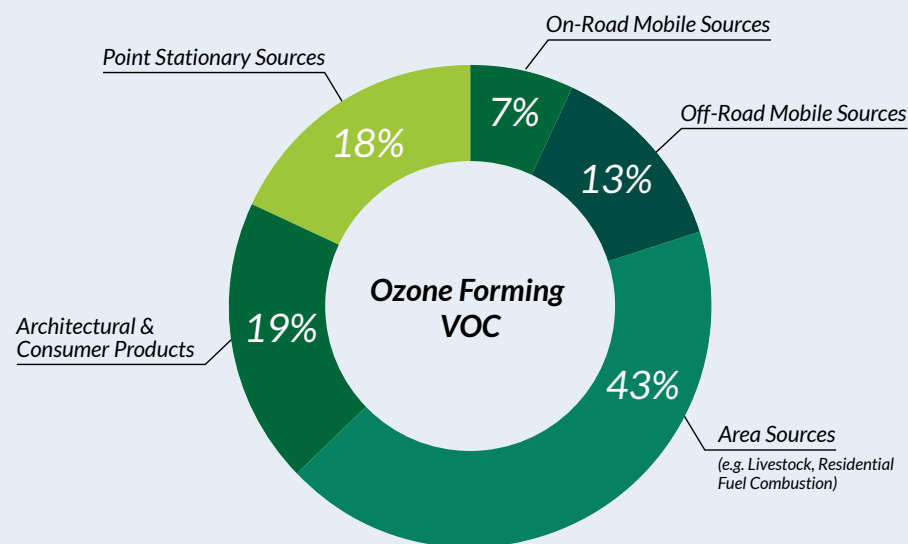
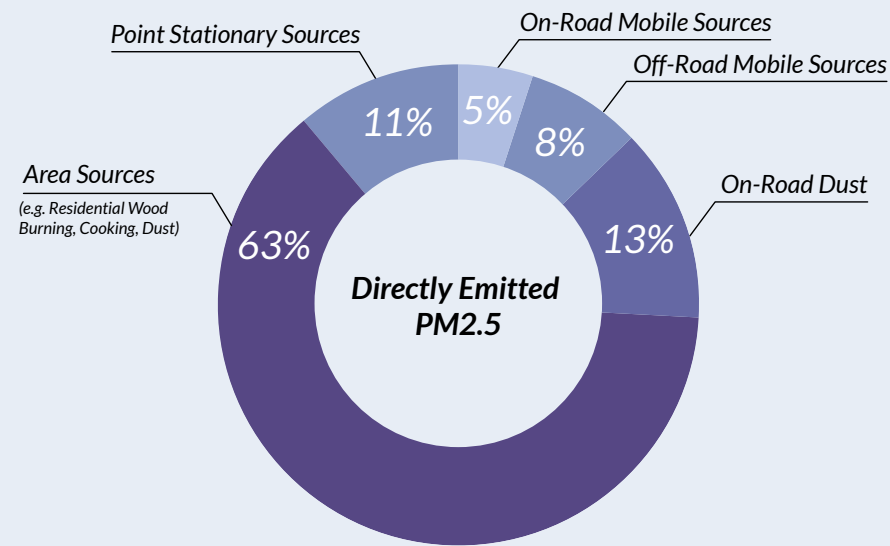
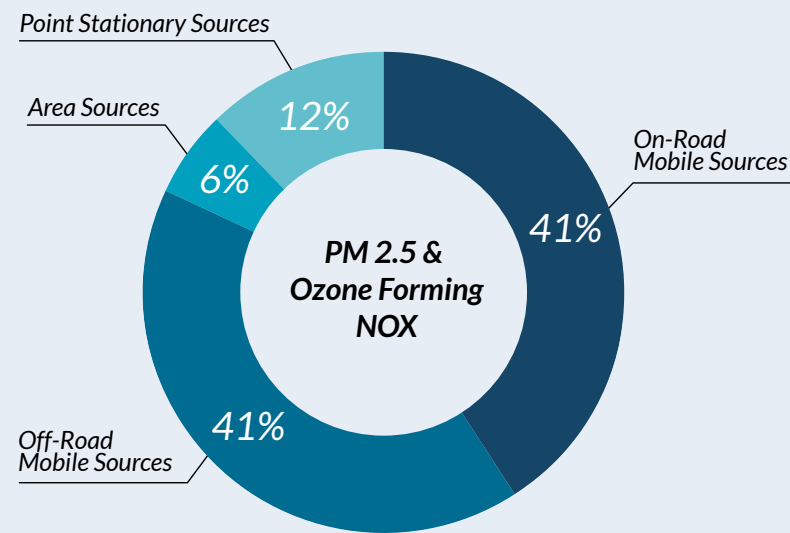
SOURCES of EMISSIONS

Each year, the District collects emissions and process data from more than 6,000 facilities and other information sources, calculates each facility's annual emissions, and reports the emissions to the California Air Resources Board. This emissions inventory is used to calculate total Valley emissions and acts as a cornerstone of the District's efforts to reduce air pollution through attainment plans and emission control strategies.

OZONE is the major component of the Valley's summertime "smog," and it affects human health and vegetation. Ozone is not emitted directly into the air, but is created by photochemical reactions between oxides of nitrogen (NOx) and volatile organic compounds (VOC) in the presence of sunlight.

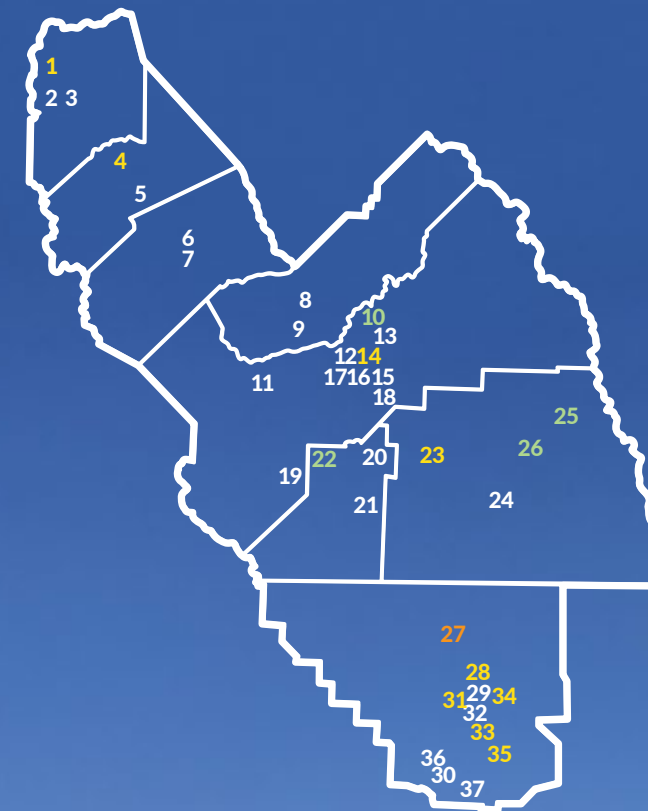
PARTICULATE MATTER (PM) consists of tiny particles of solids or liquids (except pure water) that are suspended in the atmosphere. Particulate matter includes PM2.5 (particles less than 2.5 micrometers in diameter) and PM10 (particles less than 10 micrometers in diameter). PM can be emitted directly (primary PM, such as dust or soot), and can form in the atmosphere through photochemical reactions or gaseous precursors (secondary PM). Much of the Valley's ambient PM10 and PM2.5 is secondary PM, formed in atmospheric reactions of NOx.

In the San Joaquin Valley, due to our climate and the chemical composition of air pollutants, **NOx has been a primary focus for the District and CARB to address both Ozone and PM2.5 in the Valley.**



MONITORING DATA & SCIENCE GUIDE AIR QUALITY STRATEGIES

The District operates an extensive network of air quality monitors to support its mission of improving air quality and protecting public health under the federal Clean Air Act. Using air quality readings from its real-time monitors, the District generates a daily Air Quality Index (AQI) forecast for each Valley county and hourly Real-time Air Advisory Network (RAAN) notices for schools and Valley residents. The District also rigorously analyzes collected air quality data to help chart the future path to ozone and PM2.5 attainment.



- SAN JOAQUIN COUNTY**
 - 1 Stockton-University Park: G,P,F,M,T
 - 2 Tracy-Airport: G,M,P,F
 - 3 Manteca: P,F,M
- STANISLAUS COUNTY**
 - 4 Modesto-14th St: G,M,P,F
 - 5 Turlock: G,M,P,F
- 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**
 - Other¹: 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
 - Other¹: 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
 - Other²
 - 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 Bakersfield-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



Service Teamwork Attitude Respect: The District's S.T.A.R Program Shines

The District is committed to establishing and maintaining a workforce that provides not only high-quality technical work, but also exceptional customer service. Our customers include the public, the regulated community, other agencies, and fellow employees. The principles of STAR create an atmosphere in which providing exceptional service, demonstrating effective teamwork, maintaining a positive attitude, and showing respect to others is a key part of every employee's job. To foster a culture of excellence, the District believes in continuous improvement and embraces change. Towards that end, the District empowers and encourages employees to take initiative by offering solutions and volunteering to participate in implementing desired changes.

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.

The District is committed to fostering, cultivating and preserving a culture of diversity, equity, and inclusion. 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.



Providing Essential Public Services to Valley Stakeholders

The COVID-19 pandemic continued to bring challenges for all of us in the San Joaquin Valley. As an essential public health agency and member of the Valley community, the District continued to provide essential public services while keeping our staff and our communities safe. By continuing to monitor and communicate air quality information to the public, respond to complaints, work with businesses to fulfill their air quality needs, keep our vendors and grantees paid, and maintain other essential services; the District was able to play a role in protecting the public's health and quality of life.

The District continued to take a proactive approach in responding to the COVID-19 pandemic based on directives, guidelines, and recommendations from local, state, and federal officials. Additionally, the District continued to be in close contact with health officials across Valley for up-to-date implementation of local health advisories. The District continued operations by utilizing a range of telecommuting options, including transitioning to a hybrid model, and enhanced work procedures per local and state guidance.

As a member of the Valley community, the District has continued to proactively respond to the major disruption to the Valley and nation's economy caused by the COVID-19 pandemic. Throughout the crisis, the District worked closely with the regulated community to understand the evolving situation and associated impacts, and develop options for meeting air quality obligations, including a suite of economic assistance measures adopted by the Governing Board to aid residents and businesses, in recognition of these challenges.

The District offices are back open with public health guidelines in place. Looking ahead, we will continue to work closely with the public and affected stakeholders in responding to the new realities as the nation begins to recover from the effects of the pandemic.



INSIDE THE DISTRICT

Codified in the District's Core Values, accountability is one of the most important aspects of all of the District's operations, goals and strategies.

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 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 it is cleaning the air, saving money and implementing continuous improvement in all of its undertakings, continuing 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 executed 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.

INFORMATION TECHNOLOGY SYSTEMS

The District continued working to provide efficient and effective technology tools for the public and staff. After converting to a remote workforce in 2020 due to Covid-19, the District further aligned its technologies to support an efficient and on-going hybrid workplace for all employees. Many technology upgrades and enhancement projects provided efficiency, streamlining, and prudent fiscal management. Upgrades to the Electronic Document Management System (EDMS) provided better file management and storage handling with increased capacity. Upgrades to the Labor Information System (LIS) were completed to adapt to new COVID leave regulations and codes accommodations. Air Quality Forecasting Program Conversion project consolidated multiple databases into a more efficient centralized information system and provided workflow streamlining.

Enhancements were made to allow the District to follow the EPA's Upload process for the EPA's Virtual Exchange Service (VES) system, a Microsoft's Cloud technology that allows efficient and compliant data uploading. Grant Management System was enhanced with Geo Coding to provide better geographic data for the users. An upgrade to all three offices data center backup Uninterrupted Power Supply (UPS) ensured the availability and reliability of the computer systems during power outages. A new cloud based E-mail Marketing System allowed District to provide the public air quality related information more efficiently, evaluate public response and fine-tune its marketing campaigns. A new version of the Valley Air Mobile App was released that provided performance improvements and a Spanish version of the App for Spanish speaking Valley residents.

HUMAN RESOURCES

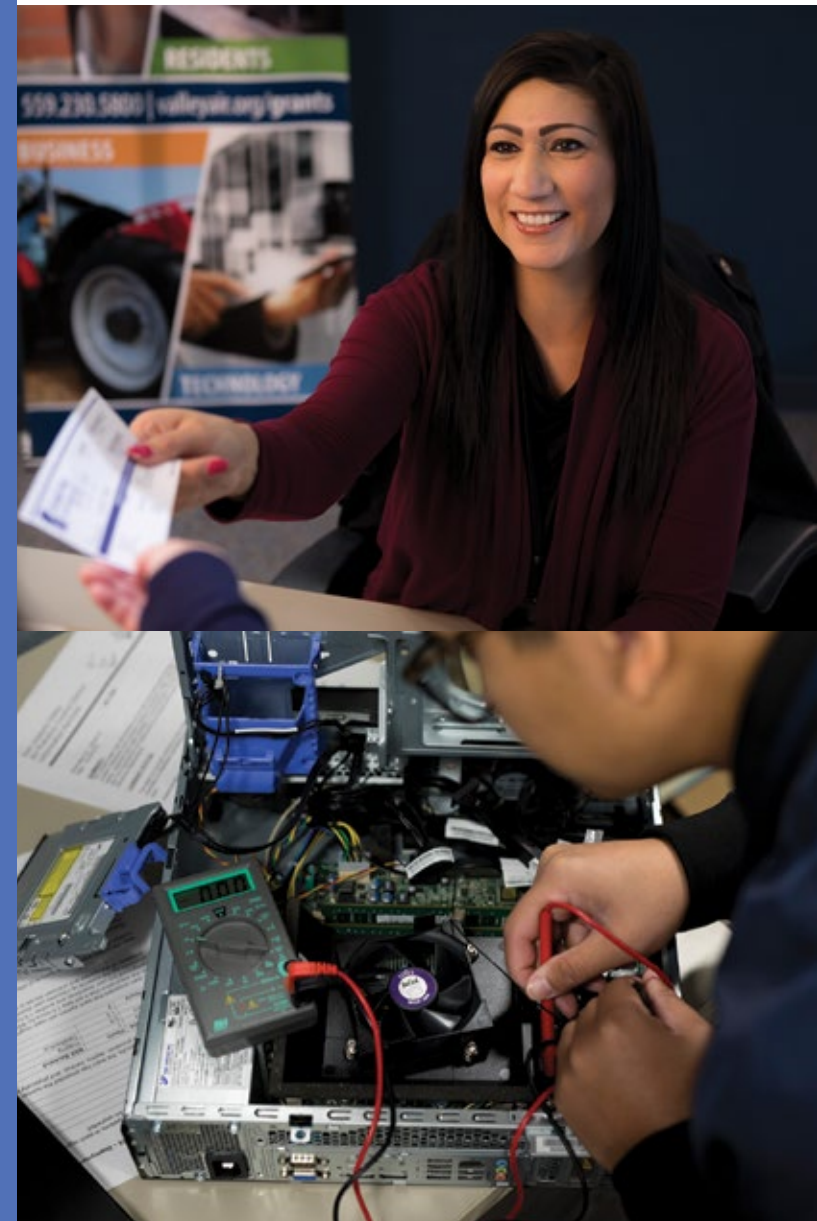
The District performs the full range of human resource support activities including the recruitment, classification and pay, records management, labor relations, training, and management/supervisory support. The District is responsible for minimizing risk through employee benefits, workers' compensation and employee wellness programs. The District continues to work in collaboration with federal, state and local health agencies to ensure adherence to all regulations related to COVID-19 for the safety and wellbeing of all District staff and the public we serve.

LEGAL

The in-house District Counsel's office has spent much of the last year supporting the Compliance Department's efforts to enforce the District's 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 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. 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.

DISTRICT ONCE AGAIN EARNS NATIONAL AWARD

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 Financial Report (AFR). 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 2019-20 AFR. 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

Working with Valley businesses and assisting them in complying with the some of the most stringent air pollution regulations in the nation. To date, the District administers permits and registrations for more than 41,000 stationary sources of air contaminants at 14,800 facilities in the Valley.

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:

1. 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.
2. 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)

As of 2021, there are 251 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 enforcing and 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 more than 6,100 facilities and other information sources, calculates each facility’s annual emissions, and reports the emissions to the California Air Resources Board. 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 only rule of its kind in the State of California and throughout the nation, the District’s ISR rule applies to new residential and non residential development projects. The purpose of this rule 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. If insufficient emission reductions cannot be designed into the project, a mitigation fee will be required 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.

PERMITS BY THE NUMBERS

1,852	Authority to Construct permits issued
77	Permit-Exempt Equipment Registrations issued
145	New Title V permits issued to 10 facilities
2,522	Title V permit renewals issued to 43 facilities
98	Title V permit modification projects finalized
610	Conservation Management Practices plans issued
111	Emission Reduction Credit certificates issued or transferred
859	Toxic air contaminant risk-management reviews performed
6,159	Annual emissions inventory statements and surveys processed
2,170	California Environmental Quality Act (CEQA) review requests processed
486	CEQA comment letters sent
228	CEQA documents prepared
344	Indirect Source Review applications approved
289	Employer Trip Reduction Implementation Plans

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.

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.

ENFORCEMENT

The District's Compliance Department performs a full suite of enforcement and compliance assistance related activities to ensure compliance with District, state, and federal rules and regulations.



COMPLIANCE & ENFORCEMENT The program objectives for the Compliance Department are set forth in federal and state law and the District's air quality attainment plans. In order to meet these program objectives, District staff perform inspections at over 14,800 permitted facilities (including 6,100 agricultural operations); annually inspect over 35,000 emission units; annually respond to approximately 3,200 public complaints; and annually verify emissions reductions at thousands of locations where emission reduction incentive projects have been implemented.

The District works in collaboration with CARB, EPA, and other, local, state, and federal agencies, including participating in state and federal joint enforcement initiatives with EPA, CalEPA, and CARB, using these initiatives as opportunities to share our expertise in enforcing stationary source regulations. Through the District's enforcement program, inspectors conduct detailed on-site review of permitted equipment including associated required records to ensure that operators are fully in compliance with all applicable local, state, and federal requirements included on operating permits. The District's enforcement staff also conducts inspections to ensure compliance with agricultural burning restrictions, residential wood burning restrictions, and other applicable regulations.

COMPLAINT RESPONSE On an annual basis, the District receives approximately 3,200 complaints for which timely responses and investigations of alleged sources of non-compliance are top priorities. Inspectors are on-call 24 hours per day and use automated voicemail and computer systems to facilitate the timely response to complaints in order to abate potential public impacts. Along these same lines, the District added the ability to easily submit complaints online, including video and photographs, via the District's website and through the District's mobile application. The District provides a bilingual (Spanish-English) telephone complaint line and also has the capability to utilize translation services to ensure that all communities and groups within the Valley are properly served.

EDUCATION, TRAINING, & COMPLIANCE ASSISTANCE The District's enforcement program emphasizes compliance assistance as an integral component of its educational approach to help Valley residents and businesses comply with a variety of air pollution regulations. Residents and businesses throughout the Valley are provided with numerous resources, individualized assistance, training opportunities, workshops and meetings, and outreach efforts. These resources include training provided to facility owners and operators during the course of inspections, developing and distributing Compliance Assistance Bulletins following Rule amendments, and offering recurring certification courses for key programs to support compliance.

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

COMPLIANCE BY THE NUMBERS

35,383	Units inspected
3,189	Public complaints investigated
1,042	Open burn sites inspected
7,815	Incentive funding units (i.e. trucks, engines) inspected
2,124	Asbestos projects reviewed and inspected
311	Employer worksites subject to the Employer Trip Reduction Implementation Plans (eTRIP) Rule
3,100	Notices of Violations Issued
\$5.1 million	Collected in settlements

SOURCE TESTING AND MONITORING

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

ENFORCEMENT OF LOCAL, STATE & FEDERAL REQUIREMENTS

Despite a robust compliance assistance and education program, the District takes over 3,000 enforcement actions each year to address non-compliance with rules or regulations. Following an enforcement action, the District's top priority is to work with entities or persons responsible for the violation to ensure their prompt return to compliance, and ongoing education to prevent future violations. In many instances, these efforts result in entities returning to compliance on the same day a violation is discovered, enhancing their comprehension of the District's rules and regulations. Disputed cases are generally handled in-house and settled through a mutual settlement process. On the rare occasion that a case cannot be settled, the case may be transferred to District Counsel for more formal action. In 2021, the District processed more than 3,100 issued notices, transferred 530 cases to District Counsel, and collected more than \$5.1 million in settlements.

HEARING BOARDS The Hearing Boards are quasi-judicial panels that act independently of the District. They are authorized by state law to provide temporary relief from District rules and regulations if strict conditions prescribed under the California Health and Safety Code are met. Any excess emissions associated with the temporary relief granted by the Hearing Boards represent only a very small fraction of the Valley's total emission inventory and cannot, by law, be likely to interfere with the attainment and maintenance of health-based air quality standards or cause a public nuisance. In 2020, 63 variance petitions were heard at 34 hearings.



OUTREACH & COMMUNICATIONS

Through innovation, creativity and effectiveness, the District strives to provide clear communication to educate the public, local businesses and media on our air quality mission, vision and outreach campaigns.

COMMUNITY OUTREACH AND EDUCATION

A high priority is placed on a robust public education and outreach strategy designed to enlist the support of residents, businesses, public agencies, local organizations, and other Valley partners. The District has developed and continually enhances its public education and outreach strategy by utilizing sound science, best industry practices, expert consulting services, ongoing analytical review of campaign reach and community feedback.

The following objectives have served to guide the District's public education and outreach efforts over the past several years:

1. Encourage and enlist the general public to support clean air efforts and take actions to improve air quality and public health for Valley residents.
2. Empower and inform the public to protect themselves during episodes of poor air quality by providing them timely air quality information as well as scientific and comprehensible information on health effects of air pollution.
3. Provide accurate and objective information about Valley efforts to reduce air pollution, measurable results and achievements, and challenges that remain.

WORKING WITH VALLEY PUBLIC HEALTH OFFICERS

The District has long engaged with the San Joaquin Valley's eight county Public Health Officers/Directors on air quality issues. During episodes of extremely poor air quality, the District has reached out directly to county health officers in an effort to ensure a uniform message, and to offer information and resources for the counties to use in addressing public concerns. With the recent extreme drought and unprecedented wildfire events, most communication with county health officers has been focused on ensuring accurate up-to-date information regarding air quality impacts throughout the Valley and informing the public about available District tools.

CONNECTING THE PUBLIC TO CLEAN AIR FUNDING

The District offers many voluntary incentive programs targeted at reducing harmful emissions throughout the Valley (check them out at www.valleyair.org/grants). These innovative grant programs provide an opportunity for Valley residents, businesses, public agencies and other organizations to make investments that positively impact the Valley's air quality. The District invests significant time and resources to inform the public of these opportunities, recruit participants, and assist with applications and execution. The District is constantly seeking new partnerships and innovative ideas to connect clean-air funding to the public for the benefit of all Valley residents.

OC BY THE NUMBERS

144 Media Calls

677 Public Calls

38 News Releases

1242 Social Media Posts

48 Presentations/Outreach Events

SOCIAL MEDIA

The District uses social media to reach a wide variety of audiences across the Valley. We actively manage accounts on Facebook, Twitter, Instagram and NextDoor. These accounts allow the District to have a real-time presence in the daily lives and conversations of Valley residents, especially during poor air quality episodes. We are able to post live or pre-schedule messages encouraging the public to use the District's tools. Additionally, the District maintains an informational video library on its "Healthy Air Living" YouTube channel and has an established professional presence on LinkedIn.

PRESS RELEASES AND MEDIA EVENTS

To support these media relationships, District staff issues dozens of press releases every year to communicate complex air quality information in a concise and easy to understand manner. District press releases are often used as the primary source of information for key air quality stories being issued by media outlets in the Valley. The District also notifies news outlets through press releases and air quality alerts when the Valley is experiencing adverse or exceptional air quality conditions.

COMMUNITY PRESENTATIONS AND EVENTS

With Covid-19 restrictions easing, District staff attended dozens of events this past year to give presentations, pass out information and connect with Valley residents. Sharing information at public events, service clubs, schools, business organizations such as Chambers of Commerce and Realtor groups, town halls, non-profits, boards of supervisors, city councils and other organizations, can be one of the best venues for communicating complex District messages. District staff is available to give presentations at almost any gathering or event, please email public.education@valleyair.org to request a speaker.



Protect ^{Public} Health

Please Don't Burn

Tania Pacheco-Werner Ph.D., Board Member

San Joaquin Valley AIR POLLUTION CONTROL DISTRICT **1-800-SMOG-INFO**



South Central Fresno Lawnmower Trade-in Event

Evento de Intercambio de Cortacésped en Centro-Sur Fresno

5.14.2022 | 8am - 11am
valleyair.org/freemower | (559) 230-6000

Download the Valley Air App

The official "Valley Air" app is designed for neighborhoods and communities in the San Joaquin Valley.

- Keep track of current air quality in your favorite neighborhoods.
- Receive hourly air quality data provided by the Real-Time Air Advisory Network (RAAN).
- Report Air Quality Complaints - submit confidential air pollution complaints
- Check Before You Burn - View the daily residential wood burning status for your county during the winter season
- Air Alerts - receive alerts during unique air quality episodes

DOWNLOAD - IT'S FREE!
valleyair.org/app



Download on the App Store | GET IT ON Google Play



Become a Healthy Air Hero!

The District offers a FREE activity book for students K-6.

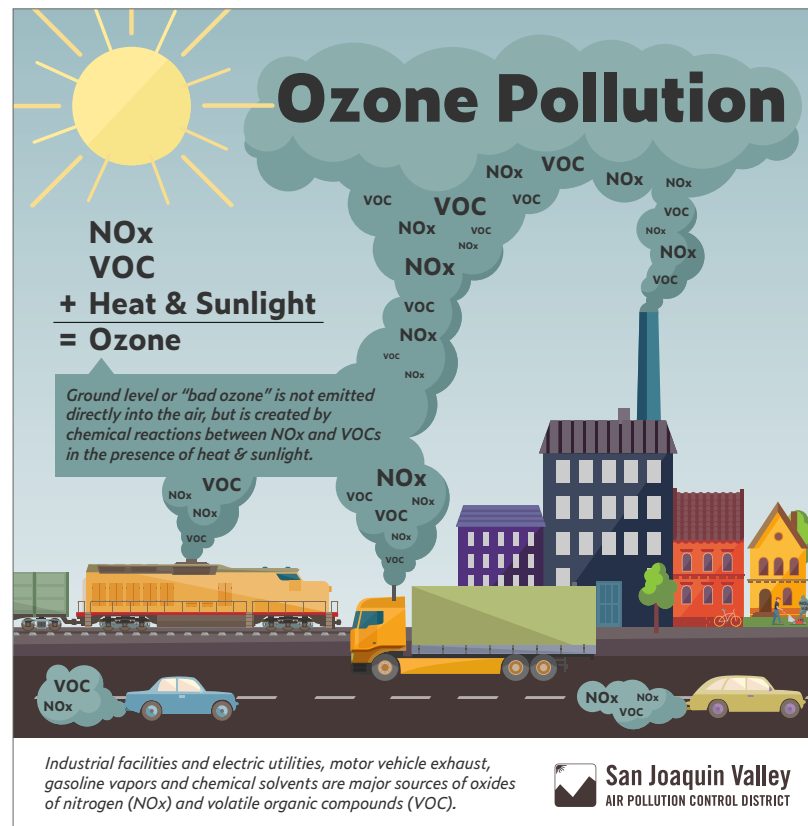
Request yours today at public.education@valleyair.org

Ozone Pollution

**NOx
VOC
+ Heat & Sunlight
= Ozone**

Ground level or "bad ozone" is not emitted directly into the air, but is created by chemical reactions between NOx and VOCs in the presence of heat & sunlight.

Industrial facilities and electric utilities, motor vehicle exhaust, gasoline vapors and chemical solvents are major sources of oxides of nitrogen (NOx) and volatile organic compounds (VOC).



San Joaquin Valley AIR POLLUTION CONTROL DISTRICT



Shafter Lawnmower Trade-in Event

Evento de Intercambio de Cortacésped en Shafter

11.7.2021 | 11am - 2pm
www.valleyair.org/freemower | (661) 392-5500

BAD SMELL? UNUSUAL SMOKE? DUST?

The Valley Air District investigates thousands of complaints each year and the public plays a key role in ensuring regulations are followed. Simply visit valleyair.org/complaints, use the "Report Air Quality Issues" feature on the free "Valley Air" app, or call one of the toll-free complaint lines.

Complaints are a high priority and are investigated as soon as possible, including after hours and on weekends.

FILE A COMPLAINT

Northern Region: 1-800-281-7003
 San Joaquin, Stanislaus and Merced counties

Central Region: 1-800-870-1037
 Madera, Fresno and Kings counties

Southern Region: 1-800-926-5550
 Tulare and the Valley portion of Kern counties

Complaints about Smoking Vehicles:
 1-800-559-9AIR or 1-800-559-9247



CALL for ENTRIES!

Students must submit artwork by Oct. 14, 2022
 For contest details visit www.valleyair.org/kidscalendar

San Joaquin Valley AIR POLLUTION CONTROL DISTRICT

GRACIAS por... Verificar la Calidad del Aire... antes de salir

AIRE LIMPIO, VIDA SANA™

San Joaquin Valley AIR POLLUTION CONTROL DISTRICT



San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

1990 East Gettysburg Ave.
Fresno CA 93726

CONTACT US:

Central Region Office 559.230.6000
Northern Region Office 209.557.6400
Southern Region Office 661.392.5500
valleyair.org | healthyairliving.com

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