



Chapter 6

MOBILE SOURCE ADVOCACY
AND LEVERAGING NEW OPPORTUNITIES

This page intentionally blank.

TABLE OF CONTENTS

6.1	Importance of Funding	6-2
6.1.1	Need for Mobile Source Emissions Reductions	6-3
6.1.2	Need for Agricultural Burning Alternatives	6-8

TABLE OF FIGURES

Figure 6-1	Major Reductions in Air Pollution	6-3
Figure 6-2	Jurisdiction Comparison of Statewide Mobile Source Emissions	6-5
Figure 6-3	Trend of Agricultural Burning Activity	6-9

Chapter 6: Mobile Source Advocacy and Leveraging New Opportunities

The San Joaquin Valley Air Pollution Control District (District) and the California Air Resources Board (CARB) have promulgated and implemented extensive measures to reduce emissions from sources of air pollution under their regulatory authority that constitute the most stringent regulatory control program in the nation. 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. While the District continues to seek additional local emissions reductions, the San Joaquin Valley (Valley) has reached a point where attainment of the health-based standards established under the Federal Clean Air Act (CAA) is not viable without significant reductions in emissions from mobile sources primarily under state and federal jurisdiction. While CARB has promulgated and should continue to implement stringent mobile source measures for vehicles and fleets in California, it is imperative that emissions are also reduced from mobile sources that fall exclusively under federal jurisdiction such as interstate heavy-duty trucks, locomotives, aircraft and other mobile sources.

As the Valley and other regions continue facing challenges in meeting federal ambient air quality standards, it will be essential that the U.S. Environmental Protection Agency (EPA) do its fair share to improve air quality and public health in the Valley by reducing emissions from sources under its control that comprise an increasingly significant portion of air pollution, air toxics impacts, and greenhouse gas emissions in the Valley, South Coast, and other areas of the state. For example, as part of supporting State Implementation Plan (SIP) efforts in California and throughout the nation, EPA should work to more quickly finalize a strong, nitrogen oxide (NOx)-focused, heavy-duty truck standard and expedite recent commitments to consider and develop new standards for locomotives.

As an important development that could play a major role in assisting the Valley and other Extreme nonattainment areas, recent state and federal budget and funding actions have created unprecedented opportunities for investing in transformational clean technology changes across the mobile source sector. At the state level, the 2023-2024 budget, building on prior years, allocates a total of approximately \$52.3 billion for climate related investments over six years. At the federal level, recent authorizations under the Infrastructure Investment Jobs Act (IIJA) and Inflation Reduction Act (IRA) provide funding for a variety of important clean technology and infrastructure programs. Notably, IRA includes an estimated \$369 billion in funding for climate and energy-related programs, and over \$20 billion in new funding for sustainable agriculture and programs of importance to the Valley. Given the Valley's air quality challenges and significant number of disadvantaged communities, it will be imperative that EPA and other federal and state agencies prioritize and integrate these new funding opportunities with SIPs for Extreme ozone nonattainment and Serious PM2.5 nonattainment areas.

In light of recent state and federal opportunities and consistent with the District Governing Board's adopted legislative and policy positions, this Chapter discusses opportunities for increased advocacy to leverage funding and accelerate emissions reductions in the Valley, especially from state and federal mobile sources, as needed to meet health-based federal ambient air quality standards.

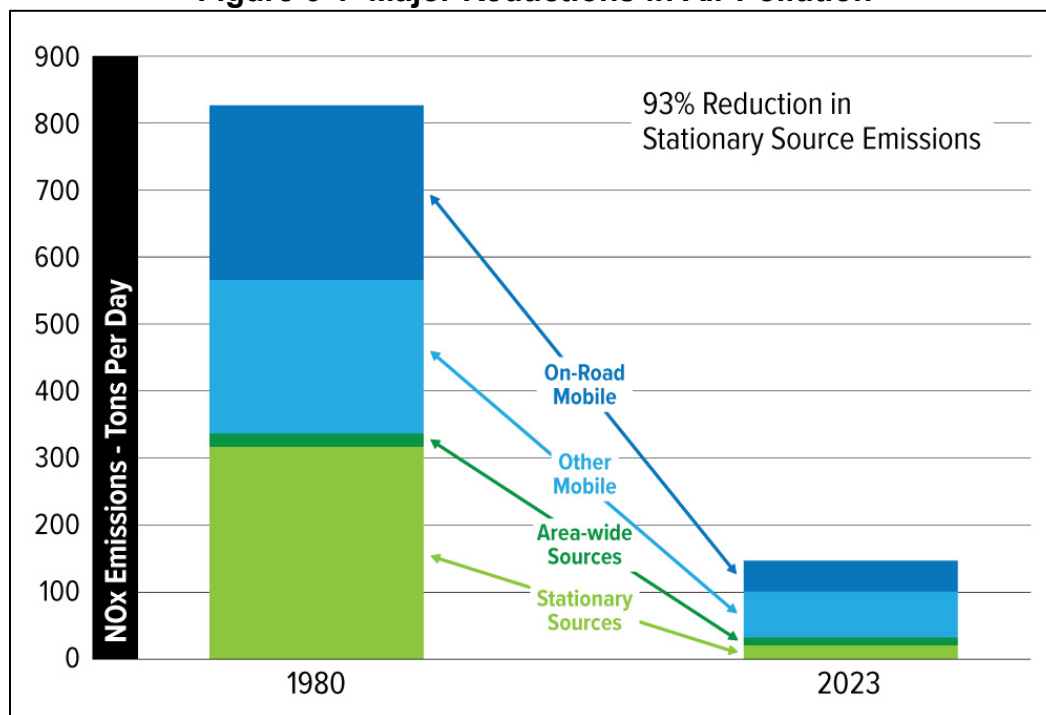
6.1 IMPORTANCE OF FUNDING

The Valley's challenges in meeting national ambient air quality standards (NAAQS) are unmatched anywhere in the nation due to the region's unique geography, meteorology and topography. Since 1992, the District has adopted over 670 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.

Over the past 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 \$6.2 billion in public/private funding towards clean air projects to date that have achieved over 268,000 tons of emissions reductions.

Through these ongoing efforts by the District, and significant efforts by CARB to reduce emissions from mobile sources, NO_x 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 (Figure 6-1). Although significant progress has been made in reducing emissions, substantial additional emissions reductions are still needed to meet the federal fine particulate matter (PM_{2.5}) 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.

Figure 6-1 Major Reductions in Air Pollution



The District's incentive programs operate amongst the most cost-effective and comprehensive in the nation, accelerating emissions reductions and achieving community level benefits through clean air grant funding for a variety of projects. These programs provide an effective way to encourage technology advancement and deployment, accelerating emissions reductions from a number of sources, 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, landscaping equipment 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.

6.1.1 Need for Mobile Source Emissions Reductions

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 CAA 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. Many nonattainment areas find themselves in similar situations, and with newly established federal air quality standards, many other regions throughout the nation will also face similar difficulties.

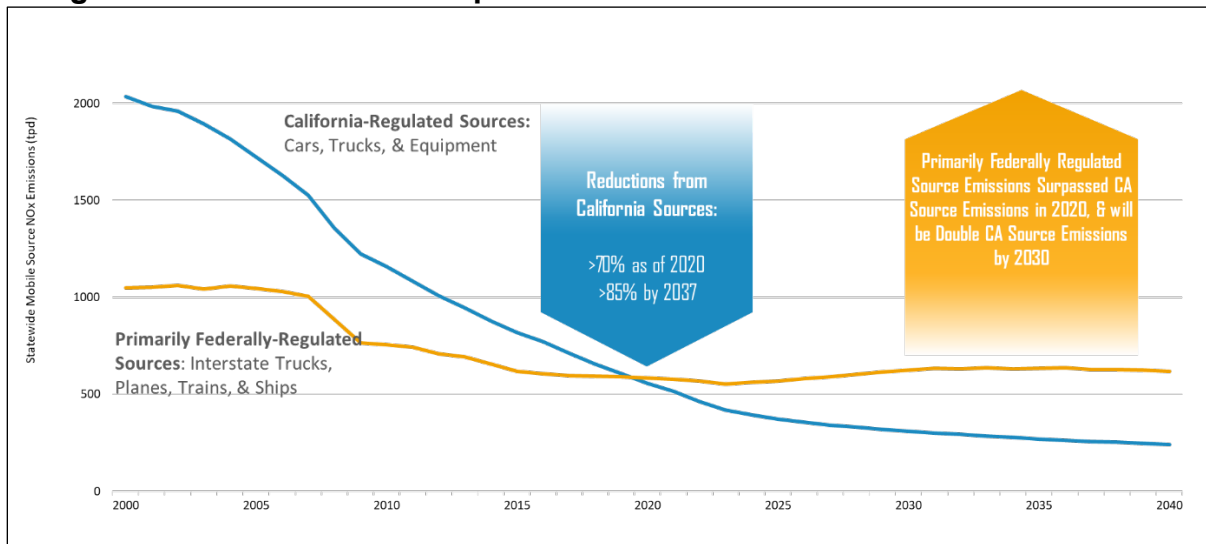
Under current law, local jurisdictions could be subject to devastating federal sanctions even though failure to attain the standards may be due to emissions from sources under federal jurisdiction. These federal sanctions include:

- Permitting barriers for new and expanding businesses (2:1 offset requirement)
- Loss of federal highway funds (\$2.5 billion and numerous jobs lost in the San Joaquin Valley)
- Federal takeover and loss of local control
- Expensive federal nonattainment penalties

CARB's primary regulatory authority is the regulation of mobile sources of emissions, which are the largest contributor to criteria pollutant and air toxic emissions in the Valley and throughout the State. CARB's progress in developing and implementing mobile source measures has contributed to the substantial improvements in Valley air quality, and will continue to do so in the future through commitments included in the *2024 PM2.5 Plan* and other SIPs. Given the significant need for emissions reductions in the coming years, the District will continue to support ongoing development of state mobile source control measures and advocate for additional state support in reducing emissions from a variety of mobile sources, including passenger vehicles, heavy-duty trucks, off-road equipment, cargo handling equipment, and other sources.

Although CARB has promulgated stringent mobile source measures for vehicles and fleets in California, emissions from interstate heavy-duty trucks, locomotives, and other federal mobile sources have not been reduced as significantly through federal measures. Considering the continuing emissions reductions from sources regulated by the District and CARB, and the remaining challenges under federal ozone and PM2.5 standards, it is increasingly critical that federal government take action to reduce emissions from sources under federal regulatory control. As an example of this, and as displayed in Figure 6-2, the level of NO_x 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.

Figure 6-2 Jurisdiction Comparison of Statewide Mobile Source Emissions



With stringent planning requirements and shortened attainment timeframes under the CAA for PM_{2.5}, securing additional NO_x reductions from federal mobile sources is vital. In light of EPA currently reviewing the PM_{2.5} standards for potential updates, and beginning another tight planning and attainment deadline cycle, increasing the stringency of federal emissions standards and funding support for interstate mobile sources is imperative in supporting States and air agencies.

At the beginning of each year, the District Governing Board approves the legislative platform that guides the District's advocacy efforts. The policy positions outlined in the legislative platform provide guidance on legislative and regulatory actions, and reflect current priorities involving air quality issues in the Valley. Securing additional state and federal funding and policies for clean air projects throughout the Valley and other Serious and Extreme nonattainment areas, with particular focus on disadvantaged communities, is a key goal of the District's adopted legislative and policy positions.

As the District continues to work with CARB and EPA on addressing the 2012 PM_{2.5} standard through this Plan as well as other federal air quality standards, there are a number of time-sensitive opportunities for achieving significant additional emissions reductions from mobile sources. As an important component of considering the 2024 PM_{2.5} Plan, EPA must evaluate opportunities for further reducing emissions from federally regulated mobile sources, and direct funding and regulatory actions to assist the San Joaquin Valley in reaching expedited attainment of the 2012 PM_{2.5} standard and other NAAQS. A brief summary of potential opportunities include, but are not limited to:

- National Standards for On-Road Heavy-Duty Trucks, Locomotives, and other Mobile Sources under Federal Jurisdiction:** The District has jurisdiction over stationary and area sources, which make up less than 15% of the total NO_x emissions inventory. With over 80% of the Valley's remaining ozone and PM_{2.5} precursor emissions now coming from mobile sources, additional reductions from

heavy-duty trucks and other mobile sources are needed for the Valley to reach federal air quality standards. The Governing Board has previously submitted petitions to the federal government requesting that they reduce their fair share of emissions in an equitable manner through more stringent national standards for heavy duty trucks and locomotives.¹

In response to the District and similar petitions submitted by CARB and South Coast Air Quality Management District (SCAQMD), on March 28, 2022, EPA proposed a rule to reduce emissions from new heavy-duty trucks nationwide, finalizing the rule on January 24, 2023.² Additionally, on November 9, 2022, EPA committed to evaluating and identifying potential regulatory actions to address emissions from locomotives,³ and on November 8, 2023, finalized changes to the locomotive preemption regulations.⁴ EPA must continue to work towards addressing harmful emissions from new locomotives and new locomotive engines, which remain exclusively under federal authority. More recently, on March 20, 2024, EPA announced a final rule for multi-pollutant emission standards for light-duty and medium-duty vehicles, to be phased in over model years 2027 through 2032.⁵ Soon after, on March 29, 2024, EPA announced a final rule for greenhouse gas emissions standards for heavy-duty vehicles, also phased in over model years 2027 through 2032.⁶ The District closely followed and participated in these rulemaking processes to advocate for the Valley's need for emissions reductions from this sector, and will continue to do so for future actions.

- **Inflation Reduction Act:** The Inflation Reduction Act of 2022 (IRA) was signed into law on August 16, 2022, and presents many new opportunities for incentive funding. The Act includes an estimated \$369 billion in funding for climate and energy-related programs, including additional funding in existing programs, such as the Diesel Emissions Reductions Act (DERA) and CAA sections 103 and 105 grants. Additionally, IRA also includes over \$20 billion in funding for a wide variety of sustainable agricultural practices and technologies. IRA also includes

¹ SJVAPCD. *Petition Requesting that EPA Adopt New National Standards for On-Road Heavy-Duty Trucks and Locomotives under Federal Jurisdiction*. Retrieved from:

https://www.epa.gov/sites/default/files/2016-11/documents/san_joaquin_valley_petition_for_hd_and_locomotive.pdf

² EPA. *Control of Air Pollution From New Motor Vehicles: Heavy-Duty Engine and Vehicle Standards; Final Rule*. 88 Fed. Reg. 4296. (January 24, 2023). Retrieved from: <https://www.govinfo.gov/content/pkg/FR-2023-01-24/pdf/2022-27957.pdf>

³ EPA. *Regulations for Emissions from Vehicles and Engines – Petitions to Address Harmful Emissions from Locomotives*. Retrieved from: <https://www.epa.gov/regulations-emissions-vehicles-and-engines/petitions-address-harmful-emissions-locomotives>

⁴ EPA. *Locomotives and Locomotive Engines; Preemption of State and Local Regulations; Final Rule*. 88 Fed. Reg. 215, pp. 77004-77009. (November 8, 2023). Retrieved from: <https://www.govinfo.gov/content/pkg/FR-2023-11-08/pdf/2023-24513.pdf>

⁵ EPA. *Multi-Pollutant Emissions Standards for Model Years 2027 and Later Light-Duty and Medium-Duty Vehicles; Final Rule*. 89 Fed. Reg. 76, pp. 27842-28215. (April 18, 2024). Retrieved from: <https://www.epa.gov/system/files/documents/2024-03/lmdv-veh-standrds-ghg-emission-frm-2024-03.pdf>

⁶ EPA. *Greenhouse Gas Emissions Standards for Heavy-Duty Vehicles—Phase 3; Final Rule*. 89 Fed. Reg. 78, pp. 29440-29831. (April 22, 2024). Retrieved from: <https://www.govinfo.gov/content/pkg/FR-2024-04-22/pdf/2024-06809.pdf>

significant funding for energy efficiency and weatherization (including funding for solar panel, electric heat pump, and home weatherization installation) and agricultural conservation.

- **Federal Infrastructure Investments/Federal Budget:** The recently enacted infrastructure bill (“BIL” or “IIJA”) and additional budget packages 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:** The United States Department of Agriculture (USDA) is implementing a new Climate Smart Forestry and Agriculture Initiative that will include funding for a variety of investments in sustainable agriculture. Additionally, leading up to the next Farm Bill re-authorization, there has been congressional interest in developing a package to provide incentives for programs to support climate smart agriculture, in addition to existing air quality programs.
- **State Air Quality/Climate Funding Opportunities for Clean Vehicles/Technologies:** The District will continue to advocate for transformative technologies across various Valley sectors, obtain environmental benefits, and provide economic stimulus. Key areas of funding focus include sustainable agriculture (e.g. FARMER, ag burning alternatives, addressing air quality impacts of drought and Sustainable Groundwater Management Act, zero-emission agricultural funding, and methane reduction), low carbon vehicle and equipment deployment programs (across all mobile source sectors), and the Community Air Protection Program.

As part of its commitment, the District maintains close communication with EPA regarding needed assistance in reducing federal mobile source emissions; and works collaboratively with EPA, CARB, SCAQMD, and other agency partners through new interagency collaborative efforts to identify opportunities for accelerating the reduction of federal mobile source emissions. The District also continues to work with state and federal legislators and agencies to ensure that the Valley is well positioned to receive significant new funding in support of transitioning fleets to zero and near-zero technologies, deploying sustainable agricultural practices and technologies, and other clean air opportunities in the Valley. Further, the District is committed to improving and strengthening its partnerships with Valley metropolitan planning organizations, municipalities, transportation agencies, school districts, other public agencies, businesses, non-governmental organizations, and other Valley partners to assist in maximizing new state and federal resources coming to the Valley in support of clean air initiatives.

6.1.2 Need for Agricultural Burning Alternatives

In 2003, state law was amended to require the District to limit open burning of agricultural material in accordance with a phased-in schedule of deadlines. The District has long worked to identify alternatives and phase-out open burning in the Valley, and the challenge has been exacerbated by significantly reduced bioenergy capacity, extreme drought, water shortages, and fluctuating crop economics. As the latest action on this issue, in June 2021, the District adopted final phase-out requirements that will prohibit the majority of remaining agricultural burning by the end of 2024. In adopting this state-mandated phase-out schedule, the District and CARB recognized that significant new state funding would be needed to support the deployment of recently emerging alternatives to burning.

To support the Valley's ongoing phase-out of agricultural open burning, in 2018, the District's Governing Board authorized the creation of the Ag Burn Alternatives Grant Program.⁷ This program provides financial incentives to commercial agricultural operations located within the District boundaries to utilize an alternative practice for the disposition of agricultural material from orchard and vineyard removals as an alternative to open burning. Alternative measures include, but are not limited to, soil incorporation of chipped material, on-site land application on agricultural land, off-site beneficial re-use (mulch, composting, land application near roadways for dust suppression, and other District approved beneficial re-use of the chipped material). Since 2018, the District Governing Board has allocated over \$65,000,000 in local and State funding to this program.

On August 19, 2021, the District accepted \$178,200,000 in additional state funding to be used in the District's Ag Burn Alternatives Grant Program.⁸ This funding is the result of significant advocacy from the District and Valley agricultural stakeholders and is designated to assist the District in developing new alternative practices, increase fleet capacity for chipping in the Valley, and offset the significant incremental cost of implementing new alternatives to open burning.

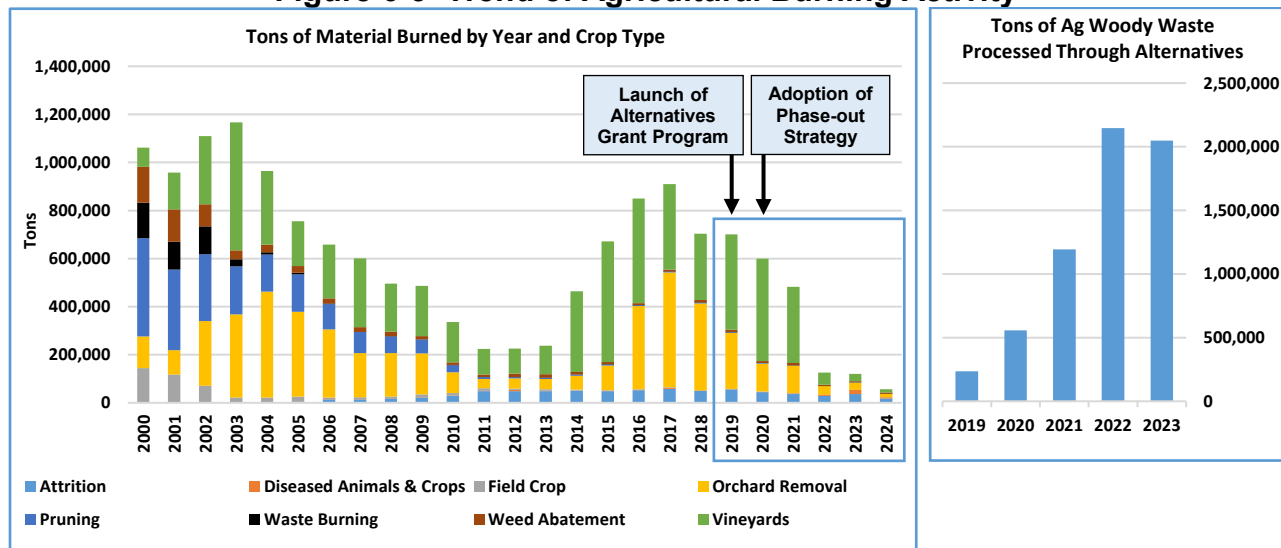
The District's agricultural open burning phase-out strategy, along with the Ag Burn Alternatives Grant Program are working effectively to reduce emissions from agricultural open burning. New alternatives to open burning have emerged and are being implemented and Valley growers are utilizing the incentive program at a high rate. As a result, the current funding expenditure rate continues to increase. The initial allocation of State funding was expected to last until the end of 2024, however, it was exhausted approximately 11 months ahead of schedule. The early exhaustion of funds resulted in the District allocating additional local and state funds to the program.

⁷ District Ag Burn Alternatives Grant Program. Retrieved from: <https://ww2.valleyair.org/grants/ag-burn-alternatives-grant-program/>

⁸ SJVAPCD. *Accept and Appropriate \$178,200,000 in State Funding and Approve Enhancements to Alternatives to Agricultural Open Burning Incentive Program.* (August 19, 2021). Retrieved from: https://www.valleyair.org/Board_meetings/GB/agenda_minutes/Agenda/2021/August/final/10.pdf

Overall, the program has resulted in the deployment of alternative practices at over 251,500 acres, for over 6,800,000 tons of agricultural materials, resulting in the reduction of 13,299 tons of NOx, 24,705 tons of PM and 21,013 tons of reactive organic gas (ROG) emissions.

Figure 6-3 Trend of Agricultural Burning Activity



Ongoing funding for the District’s program is crucial in supporting the continued transition away from agricultural open burning for the remaining crop categories. The state and federal government must continue to prioritize funding for alternatives to open burning in the Valley in order to provide cost effective alternatives to agricultural burning and to further the success of the program. The District works collaboratively with CARB, other public agencies, and agricultural industry partners to ensure adequate funds are secured and applied effectively, and to continue efforts to reduce emissions from the agricultural sector and support clean air goals in the Valley.