

Chapter 4

Mobile Source Advocacy and Leveraging New Opportunities



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Chapter 4: 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 wide-ranging 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 with stationary sources. While the District continues to seek additional local emissions reductions, the 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 that fall exclusively under federal jurisdiction such as interstate heavy-duty trucks, locomotives, aircraft and other mobile sources.

As the San Joaquin Valley (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 San Joaquin 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 San Joaquin 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, U.S. EPA should work to more quickly finalize a strong, nitrogen oxide (NO_x)-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 San Joaquin 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 2021-22 and 2022-23 budgets include \$53.9 billion in climate-related funding. At the federal level, recent authorizations under the Infrastructure Investment Jobs Act (IIJA) and Inflation Reduction Act (IRA) provide wide-ranging 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 San Joaquin Valley. Given the Valley's air quality challenges and significant number of disadvantaged communities, it will be imperative that EPA and other federal agencies prioritize and integrate these new funding opportunities with SIPs for Extreme ozone nonattainment and Serious PM_{2.5} 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 mobile source advocacy to accelerate emissions reductions from federal mobile sources as needed to meet health-based federal ambient air quality standards.

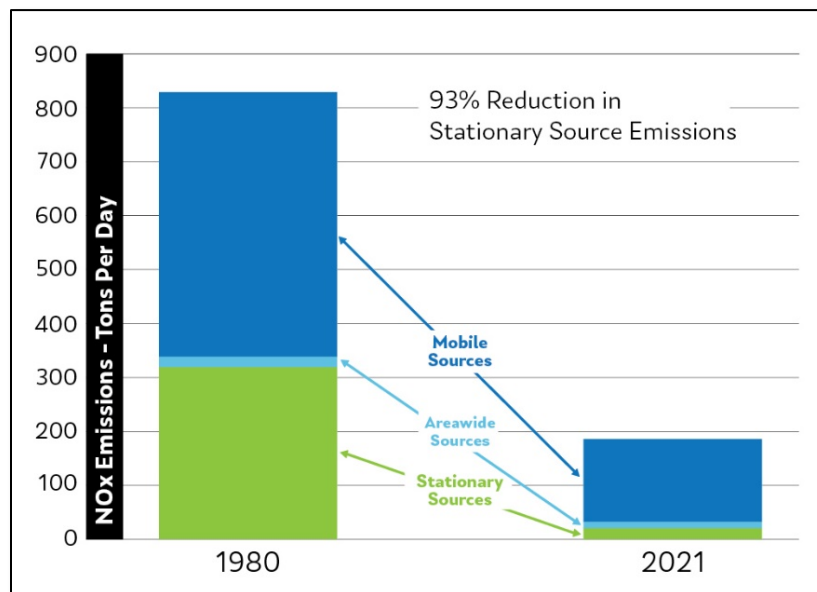
4.1 IMPORTANCE OF FUNDING

The San Joaquin Valley's challenges in meeting national ambient air quality standards are unmatched anywhere in the nation due to the region's unique geography, meteorology and topography. 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.

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 \$4.2 billion in public/private funding towards clean air projects to date that have achieved over 212,000 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 4-1). Although significant progress has been made in reducing emissions, substantial additional emissions reductions are still needed to meet all of 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 4-1 Major Reductions in Air Pollution



In addition to implementing a stringent regulatory and enforcement program, the District also operates amongst 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 NO_x 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.

4.2 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:

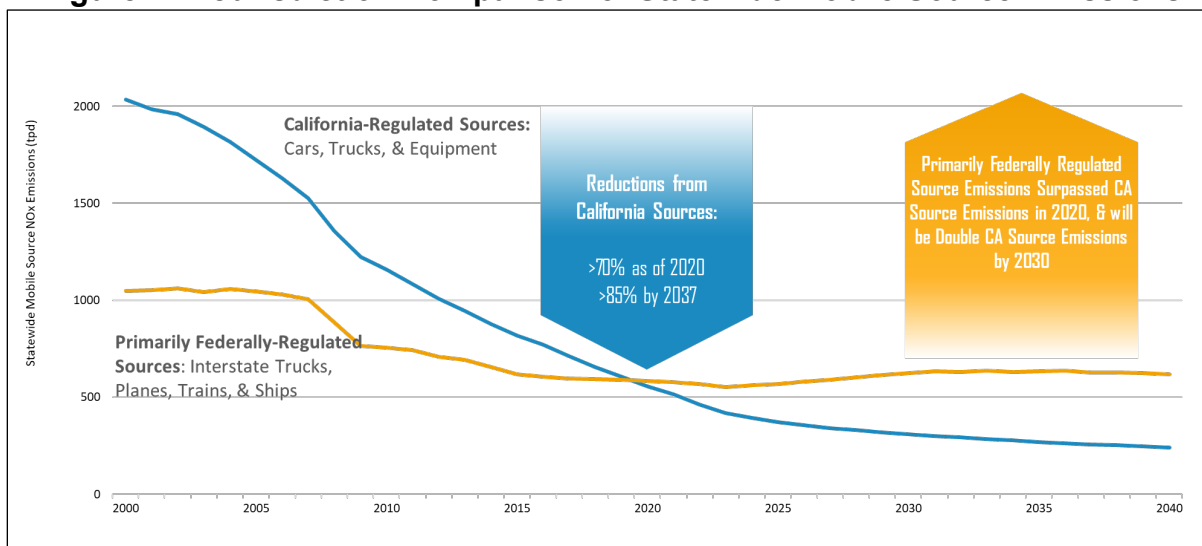
- Permitting barriers for new and expanding businesses (2:1 offset requirement)
- Loss of federal highway funds (\$2.5 billion and numerous jobs lost in the San Joaquin Valley)
- Federal takeover and loss of local control
- Expensive federal nonattainment penalties

CARB's primary regulatory authority is the regulation of mobile sources of emissions. Mobile sources are the largest contributor to criteria pollutant and air toxic emissions in

the San Joaquin 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 *2022 Ozone Plan* and other SIPs. 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. For example, the last time that EPA adopted heavy-duty truck standards was over 20 years ago in 2001.

Considering the continuing emissions reductions from sources regulated by the District and CARB, and the remaining challenges under federal ozone 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 4-2, 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 4-2 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 will become even more important.

At the beginning of each year, the District Governing Board approves the legislative platform that will guide 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 San Joaquin Valley. Securing additional state and federal funding and policies for clean air projects throughout the Valley and other 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 2015 Ozone 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 *2022 Ozone 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 2015 Ozone Standard and other national ambient air quality standards (NAAQS). A brief summary of potential opportunities include, but are not limited to:

- **New Federal Heavy-Duty Mobile Source Standards:** The District has jurisdiction over stationary and area sources, which make up less than 15% of the total NOx emissions inventory. With over 80% of the Valley's remaining ozone and PM2.5 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. In response to the District and similar petitions submitted by CARB and South Coast Air Quality Management District (SCAQMD), on March 3, 2022, EPA proposed a rule to reduce emissions from new heavy-duty trucks nationwide, and the final proposed rule is now with the White House Office of Management and Budget for review. Additionally, on November 9, 2022, EPA responded to the CARB and District petition for new locomotive standards, committing to reviewing regulatory and other options for reducing emissions from locomotives. The District is participating in these processes to continue communicating the Valley's need for emissions reductions from this sector.
- **Inflation Reduction Act:** On August 19, 2022, the Inflation Reduction Act of 2022 (IRA) was signed into law 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 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) has developed Climate Smart Forestry and Agriculture initiatives 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 recently enacted 2021-22 and 2022-23 State Budgets include unprecedented funding for air quality and climate investments. As the state determines how to allocate the budget surplus and historic cap and trade revenues included in these budgets, the opportunity exists to deploy 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, methane reduction), low carbon vehicle and equipment deployment programs (across all mobile source sectors), manufacturing and food production efficiency programs, and wildfire prevention and response programs.

The District is committed to continuing to communicate with U.S. EPA regarding needed assistance in reducing federal mobile source emissions; and working collaboratively with U.S. 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 is also committed to continuing 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 continuing to partnering 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.