



Executive Summary

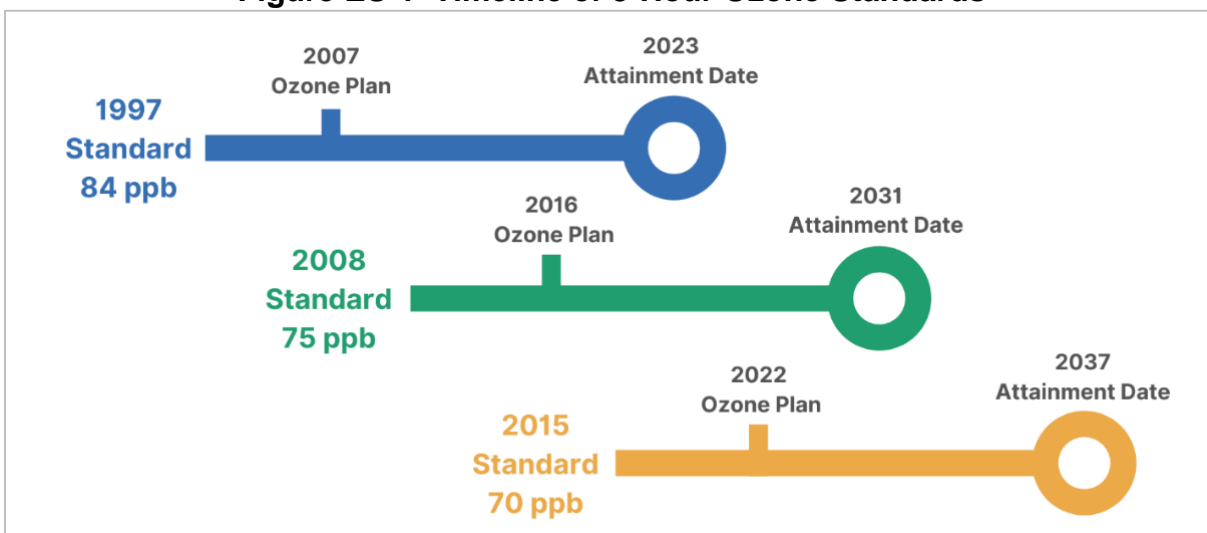
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Executive Summary

This 2022 *Plan for the 2015 8-hour Ozone Standard* (2022 Ozone Plan or Plan) uses extensive science and research, state of the art air quality modeling, and the best available information in developing a strategy to attain the federal 2015 national ambient air quality standard (NAAQS) for ozone of 70 parts per billion (ppb) as expeditiously as practicable. Building on decades of developing and implementing effective air pollution control strategies, this Plan demonstrates that the reductions being achieved by the San Joaquin Valley Air Pollution Control District (District) and the California Air Resources Board (CARB) strategy (72% reduction in NO_x emissions by 2037) ensures expeditious attainment of the 2015 8-hour ozone standard by the 2037 attainment deadline.

Over the years, the District and CARB have adopted numerous attainment plans (State Implementation Plans, or SIPs), which serve as the primary vehicles for improving air quality in the San Joaquin Valley. Each SIP builds upon the work of prior plans, while establishing the path for continued air quality improvements. Following the adoption of each attainment plan, the District implements plan strategies through regulatory development, outreach, continued research, and incentive programs. Each attainment plan is just one milestone in the District's continued effort to improve air quality in the San Joaquin Valley.

Figure ES-1 Timeline of 8-Hour Ozone Standards

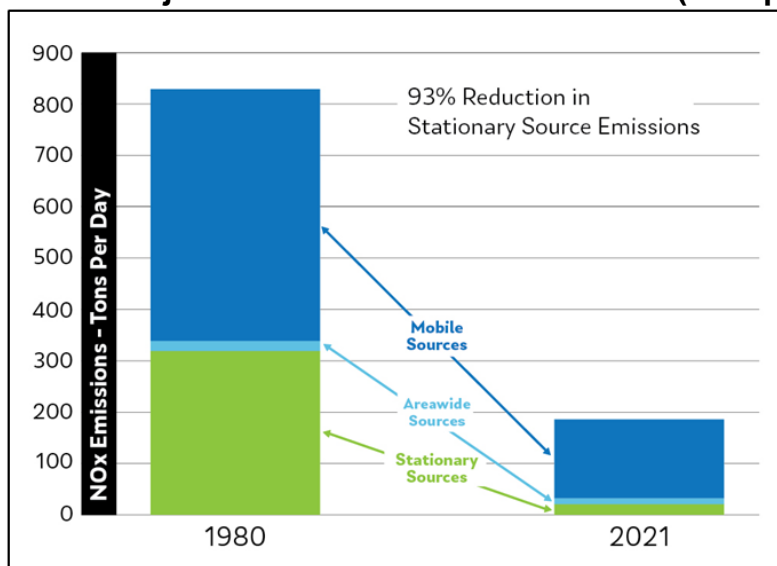


Under previous District attainment plans, the District has implemented generations of emissions control measures for stationary and area sources under its jurisdiction. Similarly, CARB has adopted stringent regulations for mobile sources. Together, these efforts represent the nation's toughest air pollution emissions controls. In addition to the stringent regulatory program, the District also operates amongst the most effective and efficient incentive grants program, 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. Due to significant investments from the District to implement strategies from past attainment plans, the Valley's ozone precursor emissions are at historically low

levels, and air quality has improved significantly, providing Valley residents with associated health benefits.

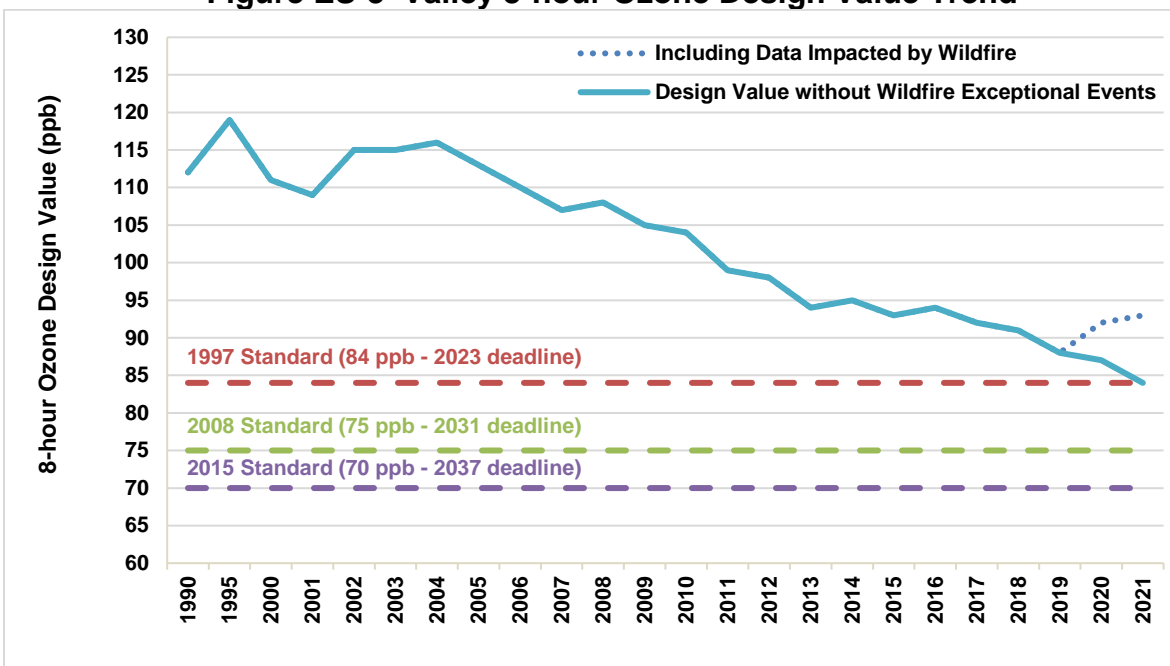
These emissions control measures have reduced nitrogen oxide (NOx) emissions (primary precursor for both ozone and fine particulate matter (PM_{2.5})) from mobile and stationary sources by over 75%, including a greater than 93% reduction from stationary sources under the District's jurisdiction (Figure ES-2). These emissions reductions correspond with tremendous reductions in the design value for 8-hour ozone (see Figure ES-3), as well as improvement in other ozone air quality metrics.

Figure ES-2 Major Reductions in NOx Emissions (tons per day)



As a part of the positive trend in ozone air quality, the Valley is also on track to meet the federal 1997 8-hour ozone standard of 84 ppb ahead of the projected 2023 attainment date included in the 2007 Ozone Plan. Additionally, the District is making progress toward attainment of the 2008 8-hour ozone standard of 75 ppb by the 2031 deadline. The U.S. Environmental Protection Agency (EPA) has also officially concurred with the District's clean data determination for the revoked 1-hour ozone standard.

Figure ES-3 Valley 8-hour Ozone Design Value Trend



Attainment Strategy

Despite the significant progress to date, more emissions reductions are needed to meet the 2015 ozone standard. This Plan builds upon comprehensive strategies already in place from adopted District plans and CARB state-wide strategies. The District's current rules and regulations reflect technologies and methods that are beyond control levels established under the Clean Air Act. Overall, the aggressive control strategy included in the *2022 Ozone Plan* will reduce NO_x emissions by 72% between 2018 and 2037, contributing to the Valley's progress toward attainment of the 2015 8-hour ozone standard. In addition to the regulatory strategy contained in the Plan, the District and state's incentive programs will also reduce emissions from mobile sources in the coming years.

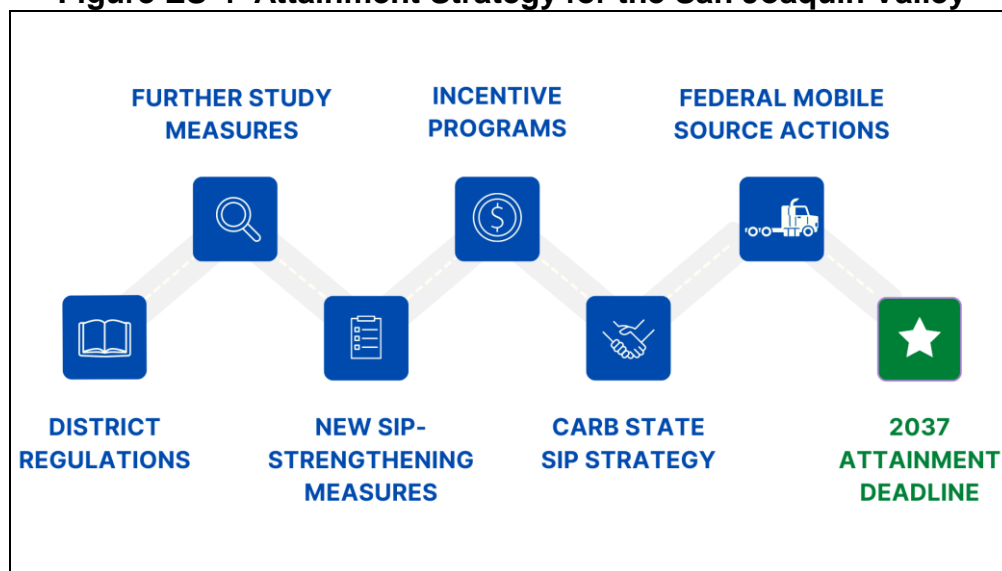
The *2022 Ozone Plan* includes a number of measures committing the District to explore and implement a variety of stationary source emission reduction opportunities. In line with recent developments at the state and federal level, the District's analysis indicates that rules for Leak Detection and Repair (LDAR) in the oil and gas sector may be strengthened through potential enhancements currently under consideration, including lower leak thresholds, more frequent LDAR inspections, use new leak detection technologies, and other potential changes. Many of these potential enhancements are impacted by recent guidance from U.S. EPA, and the District is working closely with CARB and U.S. EPA to evaluate and integrate enhancements into the District's LDAR regulations as appropriate. Additionally, recent state Best Available Retrofit Control Technology analysis indicates potential opportunities for further reducing emissions from crude oil production sumps, particularly with respect to exemption thresholds for sumps and ponds storing produced water. The rule development process for these

rules is in progress, and will be completed in 2023/2024 based on the public engagement and interagency consultation processes. These potential enhancements to the District’s regulations are included as SIP-strengthening measures.

In addition, while the District and CARB’s programs are the most aggressive and innovative in the nation, the District is committing to evaluate the next generation of innovative control technologies and seek additional emission reduction opportunities across a number of stationary and area source sectors, including residential and commercial heating, stationary NOx and VOC sources, energy and climate change programs, clean landscaping equipment and practices, and other innovative measures to pursue additional emission reduction opportunities as technologies, practices, and policies evolve in the future, as listed below.

In addition to the District’s strategies, CARB’s *2022 State Strategy for the State Implementation Plan (2022 State SIP Strategy)*, as incorporated into this *2022 Ozone Plan*, includes a number of commitments to reduce emissions from mobile sources, consumer products, pesticides, and primarily-federally and internationally regulated sources. Additionally, there is one measure from the *2016 State SIP Strategy (Zero-Emission Forklift)* that the CARB Board will be acting upon over the next year. Further, two measures from the *2016 State SIP Strategy* were recently adopted but are not yet accounted for in the baseline emissions inventory (Advanced Clean Cars II, Transport Refrigeration Unit Part 1). In total, CARB’s new measures for the Valley are estimated to reduce NOx emissions by 25.3 tons per day (tpd) by 2037.

Figure ES-4 Attainment Strategy for the San Joaquin Valley



Notably, the Valley continues to be one of California’s fastest growing regions in terms of population and vehicle miles traveled. While such growth is generally associated with increased precursor emissions, Figure ES-5 shows the significant emissions reductions that are being achieved under this plan’s strategy despite this concurrent growth. Photochemical modeling for this Plan demonstrates the significant emissions reductions

achieved under District’s current regulatory control strategy (including several recently-adopted regulations for industrial sources), coupled with CARB’s State SIP Strategy, will bring the Valley into attainment of the 2015 8-hour ozone standard by the 2037 attainment deadline.

Attaining federal health-based standards is an important milestone for improving public health. Through the strategy outlined in this plan, the Valley as a whole will attain the federal 2015 8-hour ozone standard in 2037. Under federal regulation, while every region must be demonstrated to attain the standard in order for the entire Valley to be considered in attainment, the majority of Valley residents will actually see attainment much sooner than the projected date of 2037. Figure ES-6 illustrates the Valley’s journey to attainment under this plan.

Figure ES-7 below shows the modeling results for the San Joaquin Valley, showing the air quality improvements from 2018 to the attainment year of 2037. The District and CARB will work to implement these strategies through the attainment year, which will result in public health benefits for Valley communities.

Figure ES-5 Plan Emissions Reductions as Compared to San Joaquin Valley Population and Vehicle Miles Traveled Growth

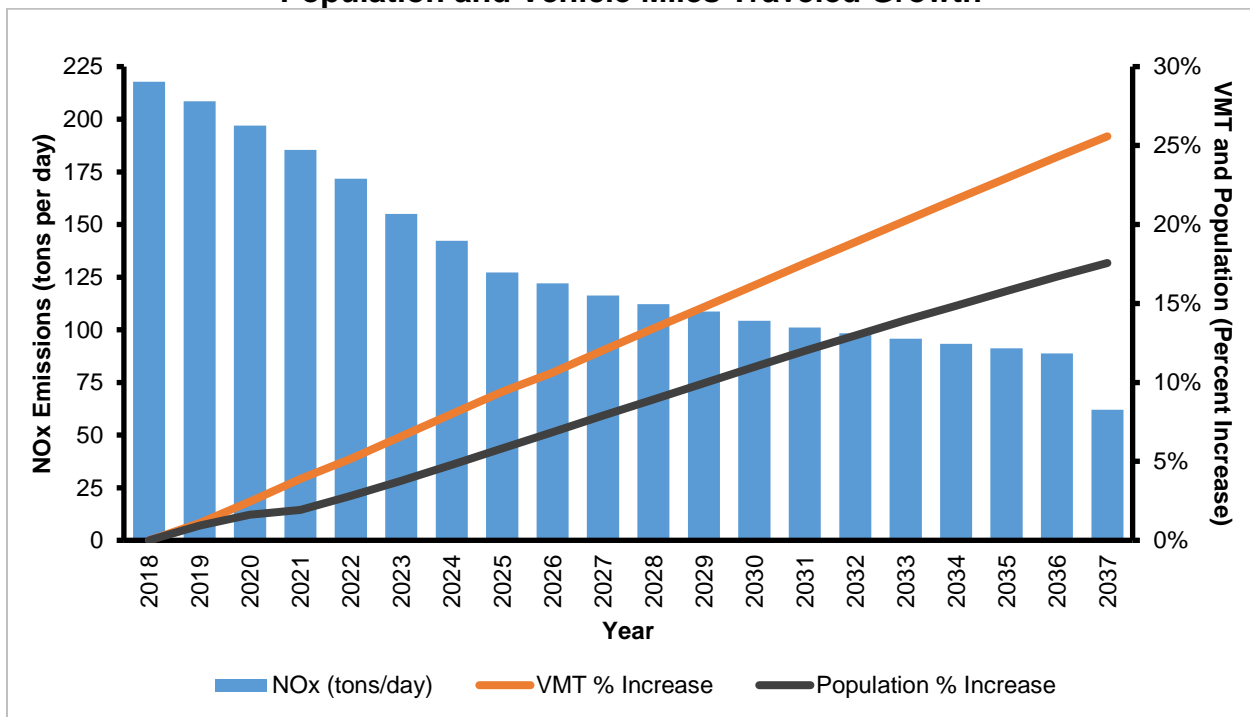


Figure ES-6 Percent of Valley Population in Attainment through Implementation of 2022 Ozone Plan

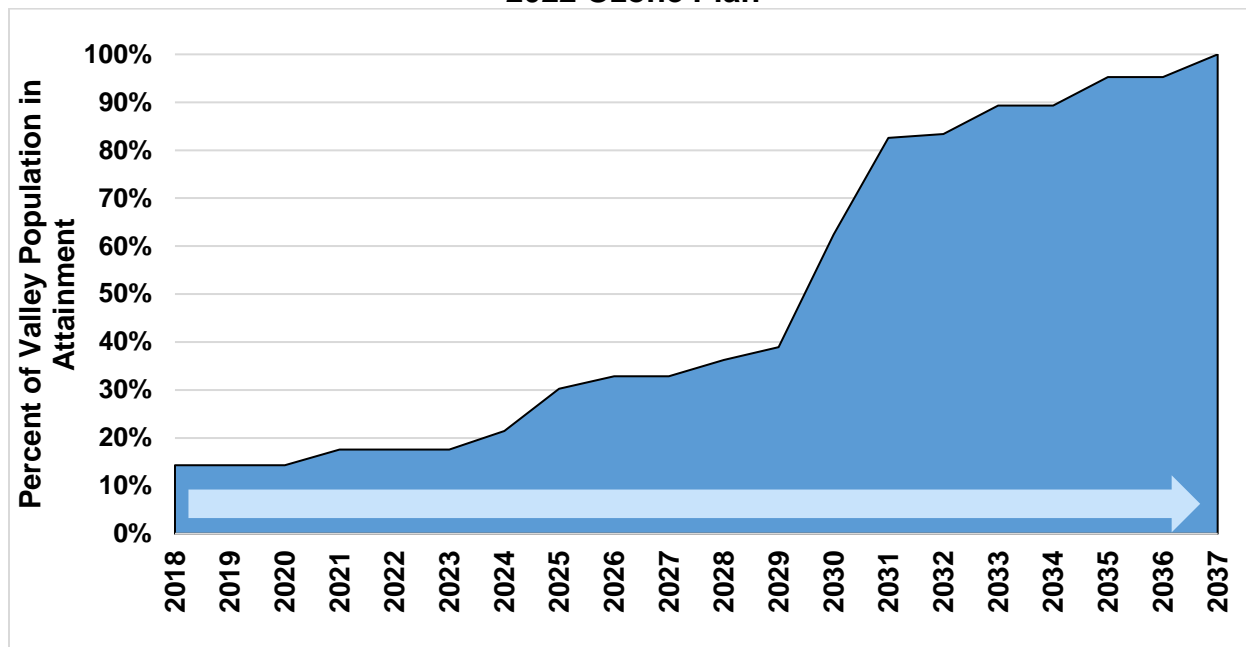
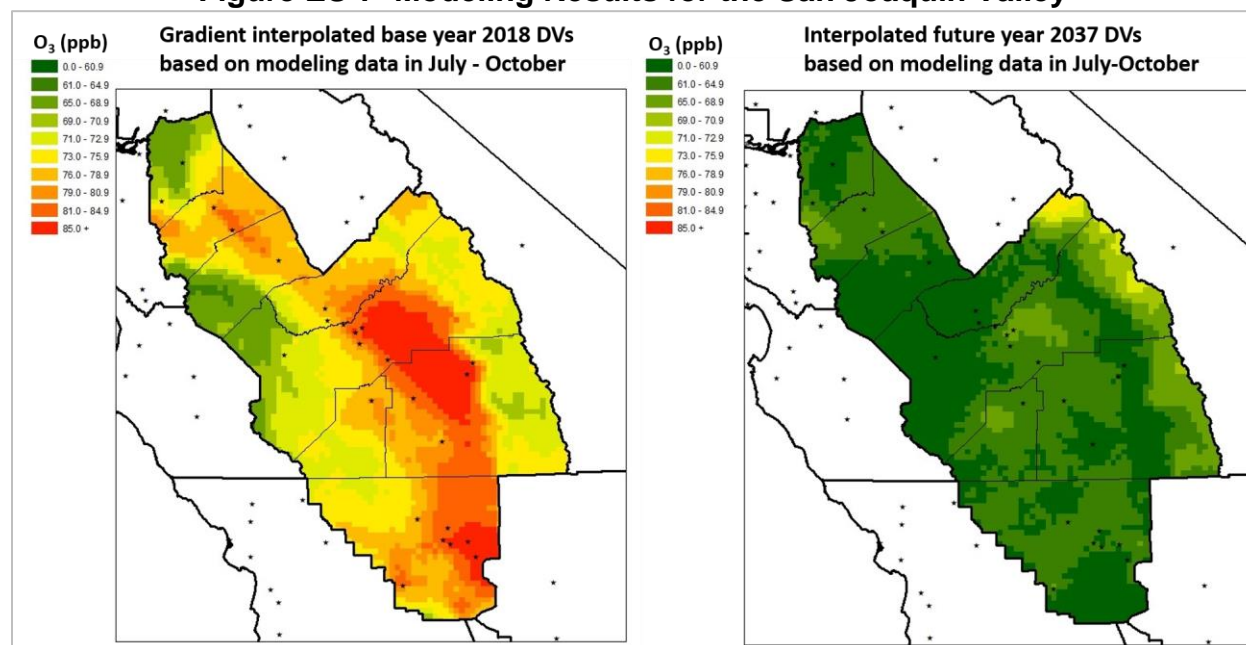


Figure ES-7 Modeling Results for the San Joaquin Valley



Source: California Air Resources Board

Importance of Federal Mobile Source Reductions

As the San Joaquin Valley and other regions continue facing challenges in meeting federal ambient air quality standards, it will be essential that U.S. 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. CARB and the San Joaquin Valley have long advocated for new heavy-duty mobile source standards, and recent federal funding actions have created unprecedented opportunities for the San Joaquin Valley to receive much needed investments to reduce emissions from mobile sources. 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 opportunities in this Plan, as well as other SIPs for Extreme ozone nonattainment and Serious PM_{2.5} nonattainment areas.

Extensive Public Process

This *2022 Ozone Plan* was prepared through an involved public process that provided multiple opportunities for the public and interested stakeholders to offer suggestions and comments for improving and strengthening the Plan, as discussed further in Chapter 1. This process provided multiple opportunities for the public and interested stakeholders to offer comments and suggestions. This process included updates at District Governing Board meetings, Citizen Advisory Committee (CAC) meetings, and Environmental Justice Advisory Group (EJAG) meetings. Additionally, the District also hosted public workshops in April 2021, July 2021, October 2021, March 2022, June 2022, and October 2022. These updates, meetings, and workshops provided opportunities for the public to provide verbal comments, and written comments have also been encouraged throughout development of this Plan.

Plan Demonstrates Attainment of Federal Standard

This Plan presents a comprehensive attainment strategy for the San Joaquin Valley that provides for a 72% reduction in NO_x emissions between 2018 and 2037. This Plan demonstrates that the District and CARB's control strategies meet or exceed federal reasonable available control technologies requirements, as discussed in Appendices C and D. The Plan incorporates sound science and strong documentation of modeling and weight of evidence, and satisfies applicable CAA requirements, including reasonable further progress and reasonably available control measures, among other requirements. Photochemical modeling and other technical analysis demonstrate that significant realized emissions reductions through the CARB and District control strategy included in the Plan will bring the Valley into attainment of the 2015 8-hour ozone standard by the 2037 attainment deadline.

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