San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

May 14, 2021

Dr. Michael Benjamin, Chief
Air Quality Planning and Science Division
California Air Resources Board
1001 I Street
P.O. Box 2815
Sacramento, CA 95812

RE: Comments on Revised Draft CARB 2020 Mobile Source Strategy

Dear Dr. Benjamin:

The San Joaquin Valley faces one of the most significant air quality challenges in the country due to its unique topography and geography, and is currently in nonattainment of the latest federal ozone and PM2.5 standards. The Valley's topography, climate, geography, and the presence of two major transportation corridors connecting Northern and Southern California all contribute to the region's air quality challenges. This difficult air quality challenge creates a significant public health challenge for Valley residents. Air quality analysis shows that over 85% of emissions of oxides of nitrogen (NOx), the major precursor for both ozone and PM2.5 formation in the Valley, comes from mobile sources. As such, emission reductions from mobile sources are critical for the Valley to attain the federal air quality standards and associated benefits to public health.

The San Joaquin Valley Air Pollution Control District (District) appreciates the opportunity to review the proposed Revised Draft 2020 Mobile Source Strategy (2020 MSS) and supports California Air Resources Board's (CARB) ongoing work to adopt innovative mobile source measures that assist the Valley in meeting our collective air quality and public health goals. District staff also appreciate CARB's recognition of the need for near-term emissions reductions in the San Joaquin Valley and South Coast air basins in portions of the 2020 MSS. However, District staff are concerned that the 2020 MSS does not sufficiently address the near-term emission reductions necessary to achieve attainment of federal health-based air quality standards in the San Joaquin Valley, as committed to by CARB in the federally-approved San Joaquin Valley State Implementation Plans for the PM2.5 standards. Additionally, near-term reductions are critical to addressing the disproportionate toxics impacts associated with diesel particulate matter on disadvantaged communities throughout the Valley and state.

Samir Sheikh
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: (661) 392-5500 FAX: (661) 392-5585

www.valleyair.org www.healthyairliving.com

The District thereby requests that CARB include additional evaluation and inclusion of measures in the 2020 MSS consistent with existing SIP commitments as needed to assist the Valley reach attainment of the health-based federal air quality standards by the applicable federally mandated deadlines, and in support of continued efforts to reduce diesel particulate matter to address air toxics impacts to California communities.

Valley Residents Face Significant Health Impacts from Nonattainment of the Health-based Federal Air Quality Standards

The health risks associated with exposure to PM2.5 have been linked to a variety of health issues, including aggravated asthma, increased respiratory symptoms (irritation of the airways, coughing, difficulty breathing), decreased lung function in children, development of chronic bronchitis, irregular heartbeat, non-fatal heart attacks, increased respiratory and cardiovascular hospitalizations, lung cancer, and premature death. Even short-term exposure of less than 24 hours can cause premature mortality, increased hospital admissions for heart or lung causes, acute and chronic bronchitis, asthma attacks, emergency room visits, respiratory symptoms, and restricted activity days.[1] Children, older adults, and individuals with heart or lung diseases are the most likely to be affected by PM2.5.

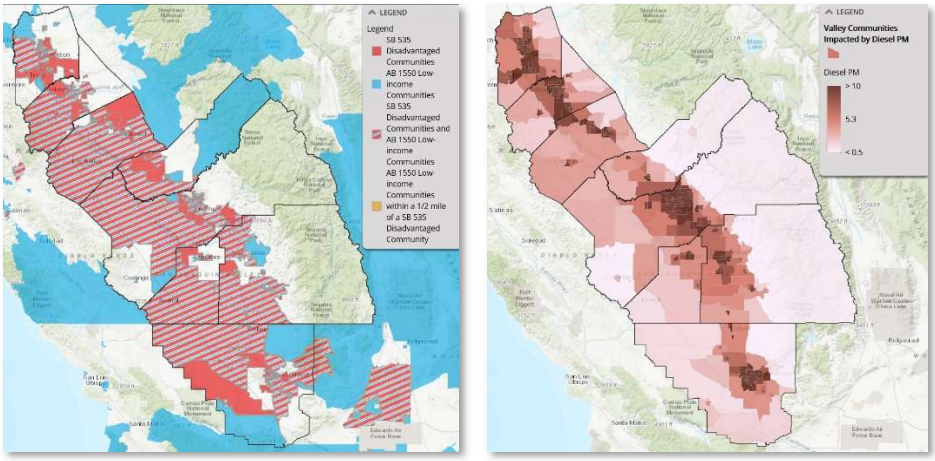
In addition to the overall health impacts of PM2.5, diesel PM is a toxic air contaminant and CARB has estimated that about 70% of total known cancer risk related to air toxics in California is attributable to diesel PM. As heavy-duty truck emissions are a major contributor of diesel PM, residents and communities near mobile source emissions are disproportionately impacted, thereby affecting their health to an even greater extent. Mobile source emissions are also critical contributors to the Valley's ground level ozone, which also has a number of associated health problems such as difficulty breathing, inflammation and damage of the airways, aggravation of lung diseases, increased frequency of asthma attacks, and increased susceptibility to respiratory infections.

As recent research indicates, there is a disproportionate health impact of PM2.5 exposure to people of color[2], and the burden of mobile sources to the Valley contribute significantly to these health effects. The State's CalEnviroScreen[3] 3.0 tool indicates that a significant number of communities in the Valley are among the most disadvantaged in California for a number of indicators, including overall pollution burden, and diesel PM exposure (Figure 1). In fact, 20 of the top 30 most disadvantaged communities in California are within the San Joaquin Valley. As emissions from mobile sources contribute a significant portion to the overall pollution burden in these disadvantaged communities, achieving emissions

[1] "Inhalable Particulate Matter and Health (PM2.5 and PM10)." *California Air Resources Board*, 2020, ww2.arb.ca.gov/resources/inhalable-particulate-matter-and-health.
[2] "PM2.5 polluters disproportionately and systemically affect people of color in the United States" Tessum *et al*., *Sci. Adv.* 2021
[3] https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30

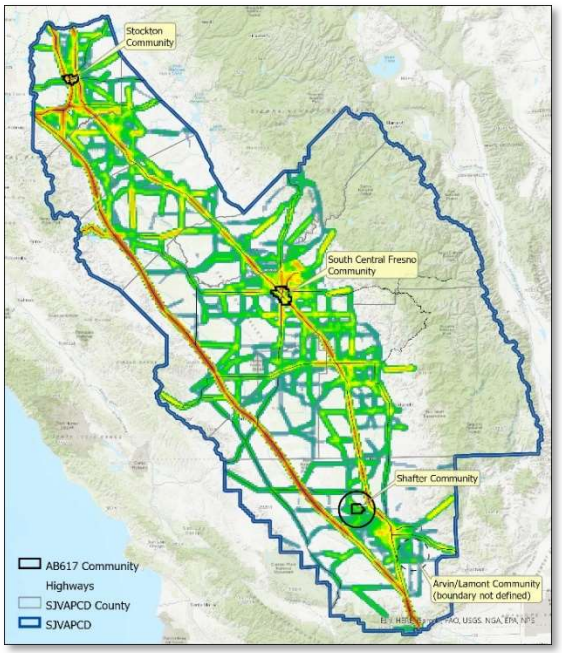
reductions from mobile sources is paramount to improving the health of the most impacted residents in the State.

Figure 1 – Valley Disadvantaged Communities and Diesel PM Exposure



To further illustrate this issue, Figure 2 shows the distribution of heavy-duty truck traffic and the associated emissions in the Valley, revealing its concentration in goods movement corridors and proximity to priority communities, including those identified by the AB 617 process.

Figure 2 – Concentration of Heavy-Duty Truck Traffic in the San Joaquin Valley



Mobile Source Emission Reductions are Critical to Valley Attainment of Health-based Federal Air Quality Standards

Building on past air quality improvement efforts, the District, in partnership with CARB, recently adopted the *2018 Plan for the 1997, 2006, and 2012 PM2.5 Standards (2018 PM2.5 Plan)* that outlines the actions necessary for further improving the Valley's air quality and meeting the federal air quality standards for PM2.5 by the applicable deadlines of 2024 and 2025. Meeting these federal standards will not be possible without transformational technology deployment across all mobile sources, particularly from heavy-duty vehicles and equipment, which now make up the majority of emissions and toxics impacts in the San Joaquin Valley. Given the severity of the Valley's air quality challenges and the need for ongoing emission reductions, CARB and the District have worked together to adopt the most stringent mobile and stationary source emissions control strategy in the nation. Planning for attainment of the latest federal 8-hour ozone standards will necessitate even further control of NOx emissions from mobile sources.

As a part of recent attainment planning efforts for the federal PM2.5 standards, the State committed to reduce an aggregate 32 tons per day (tpd) of NOx and 1 tpd of PM2.5 by 2024/2025 in the Valley. These commitments were included in the *San Joaquin Valley Supplement to the 2016 State Strategy for the State Implementation Plan (2018 Supplement),* adopted by CARB on October 25, 2018, and were approved by U.S. EPA into the State Implementation Plan on June 30, 2020.

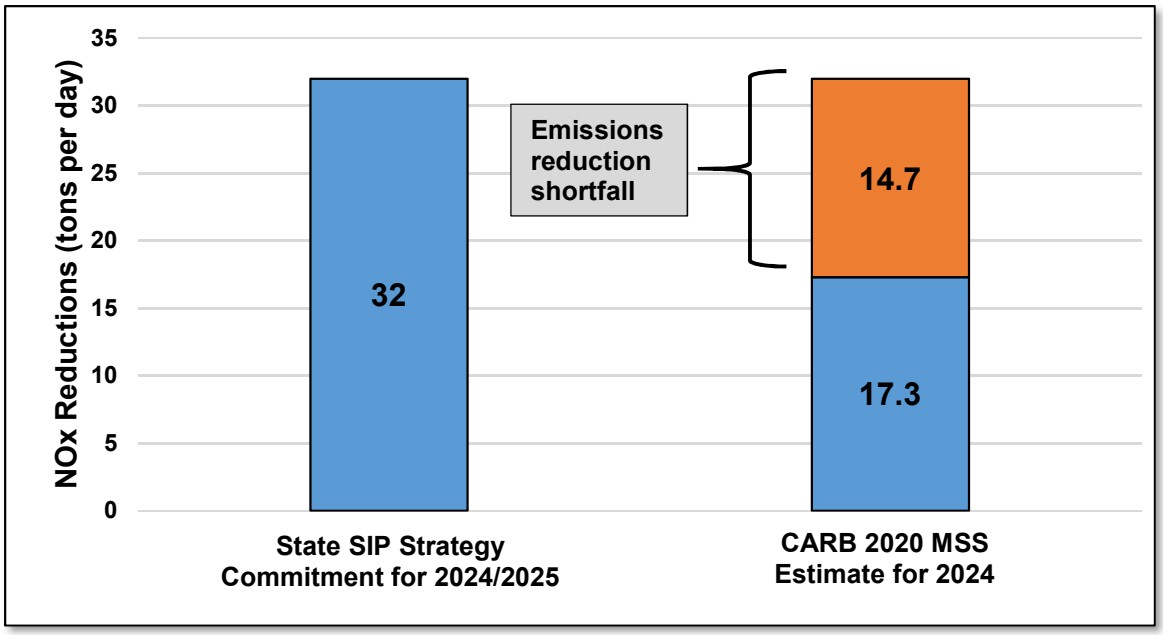
Proposed 2020 Mobile Source Strategy does not Achieve Necessary Emission Reductions to Attain Federal Air Quality Standards by Mandated Deadlines

The District appreciates CARB staff efforts and the opportunity to review the proposed 2020 MSS, and supports CARB adoption of mobile source measures that assist the Valley in meeting our collective air quality and public health goals. District staff also appreciate CARB's recognition of the need for near-term emissions reductions in the San Joaquin Valley and South Coast air basins in portions of the 2020 MSS. The District has significant concerns because the 2020 MSS does not sufficiently address the near-term emission reductions necessary to achieve attainment of federal health-based air quality standards in the San Joaquin Valley, as committed to by CARB in the federally approved San Joaquin Valley SIP and *2018 Supplement*.

As an example, Table 8 of the 2020 MSS displays the NOx emissions reductions expected to be achieved in the San Joaquin Valley by the key years of 2024/2025, which are the Valley's attainment deadlines for the 2006 and 2012 federal 24-hour PM2.5 standards, respectively. Although the *2018 Supplement* committed to a total NOx reduction of 32 tpd by 2024/2025, Table 8 shows an

estimate of only 17.3 tpd of NOx reductions being achieved, resulting in a 14.7 tpd shortfall from CARB's commitment in the *2018 PM2.5 Plan* (Figure 3).

Figure 3 – Valley NOx Reduction Commitments and Estimated Reductions



On August 25, 2020 the District submitted comments on the CARB Proposed Heavy-Duty Engine and Vehicle Omnibus Regulation. In those comments, the District urged CARB to consider accelerated timing to meet the commitment in the *2018 Supplement*, or to identify emission reductions to ensure the aggregate commitment would be met. With this revised 2020 MSS, the 2024 emissions reduction gap between the State's SIP commitments and this new strategy widens even further.

In addition, the 2020 MSS does not display a NOx emissions reduction estimate by 2024 for the key emissions reduction measure of incentivizing the turnover of old heavy-duty diesel trucks to cleaner near-zero technologies. For this specific measure, the *2018 Supplement* committed to a NOx emissions reduction of 10 tpd by 2024, however, this measure is not listed in Table 8 as an expected measure to be implemented. The District understands that CARB's upcoming Advanced Clean Fleets regulation is meant to address emissions from heavy-duty trucks, through requiring this equipment to use zero emission technology by 2045; however, this does not provide the near-term emissions reductions needed in the Valley, as the original commitment from the *2018 Supplement* included.

The District understands that the Governor's recent Executive Order N-79-20 regarding zero emission vehicles is driving much of CARB's updated mobile source strategy, however, areas like the San Joaquin Valley greatly need near-term emissions reductions to achieve the federal PM2.5 standards by their

applicable deadlines. As zero emission technology is still being developed for many types of vehicles and equipment, the promotion of currently available clean near-zero emission technologies, including the use of renewable natural gas, will still play a critical role in achieving the needed emissions reductions to meet California's near-term air quality goals as the state continues to transition to zero-emissions technologies.

Additionally, the 2020 MSS relies heavily on a new Heavy-Duty Truck Inspection and Maintenance program to achieve the majority of mobile source-related emissions reductions by the Valley's 2024 attainment deadline. Specifically, this measure is projected to achieve 11 tpd of NOx emissions reductions in 2024, out of 17.3 tpd NOx in emissions reductions from all mobile source measures in the Valley. Given the significance of this measure, it will be vitally important that the role that this measure plays in addressing the Valley's attainment needs is fully understood.

District Requests CARB to Develop Additional Near-Term Mobile Source Emission Reduction Measures to Help Valley Attain Federal Health-based PM2.5 Standards, as Committed to in State Implementation Plan

The District appreciates the scenario details provided in the 2020 MSS, and how California can take steps towards zero emission technologies by 2035. As summarized in the strategy, reaching these zero emission technology goals by 2035 will significantly reduce NOx emissions across the State, bringing the entire region improved air quality as a result. Nevertheless, to fill the gap needed between CARB's commitments in the *2018 Supplement* and the 2020 MSS, the District requests that CARB consider and include in the 2020 MSS additional measures that could be adopted and implemented by 2024, in order for CARB to meet its emission reduction commitments as included in the *2018 PM2.5 Plan*.

In addition to more expeditiously addressing heavy-duty truck emissions consistent with existing SIP commitments, we support and urge CARB to consider additional opportunities to reduce emissions from in-use locomotives, and appreciate CARB's recent efforts in this area. Given our air quality challenge, strong federal action will also be needed to expedite emissions reductions for key mobile sources including heavy-duty trucks and locomotives (please note that the Valley Air District submitted petitions to U.S. EPA in 2016 to adopt more stringent standards for heavy-duty trucks and new and in-use locomotives, in parallel with CARB's petitions[4][5]).

With CARB planning to use the 2020 MSS to inform its formal update of the State SIP Strategy in 2022, the careful consideration of the near-term needs, balanced with the long-term needs, in this current strategy document will be valuable,

[4] https://www.epa.gov/sites/production/files/2016-11/documents/san_joaquin_valley_petition_for_hd_and_locomotive.pdf
[5] https://ww2.arb.ca.gov/sites/default/files/2020-07/final_locomotive_petition_and_cover_letter_4_3_17.pdf

especially as CARB and local air districts work towards fast-approaching PM2.5 standard attainment dates, along with planning for meeting the latest federal 8-hour ozone standard of 70 ppb by 2037 (for areas with Extreme classifications).

The District thanks CARB for the opportunity to provide comments on the 2020 MSS, and for CARB's ongoing efforts to further reduce emissions from mobile sources operating within the San Joaquin Valley and across the State. If you have any questions, please contact Jessica Coria, Program Manager, at (559) 230-6000 or jessica.coria@valleyair.org.

Sincerely,

Jonathan Klassen
Director of Air Quality Science and Planning