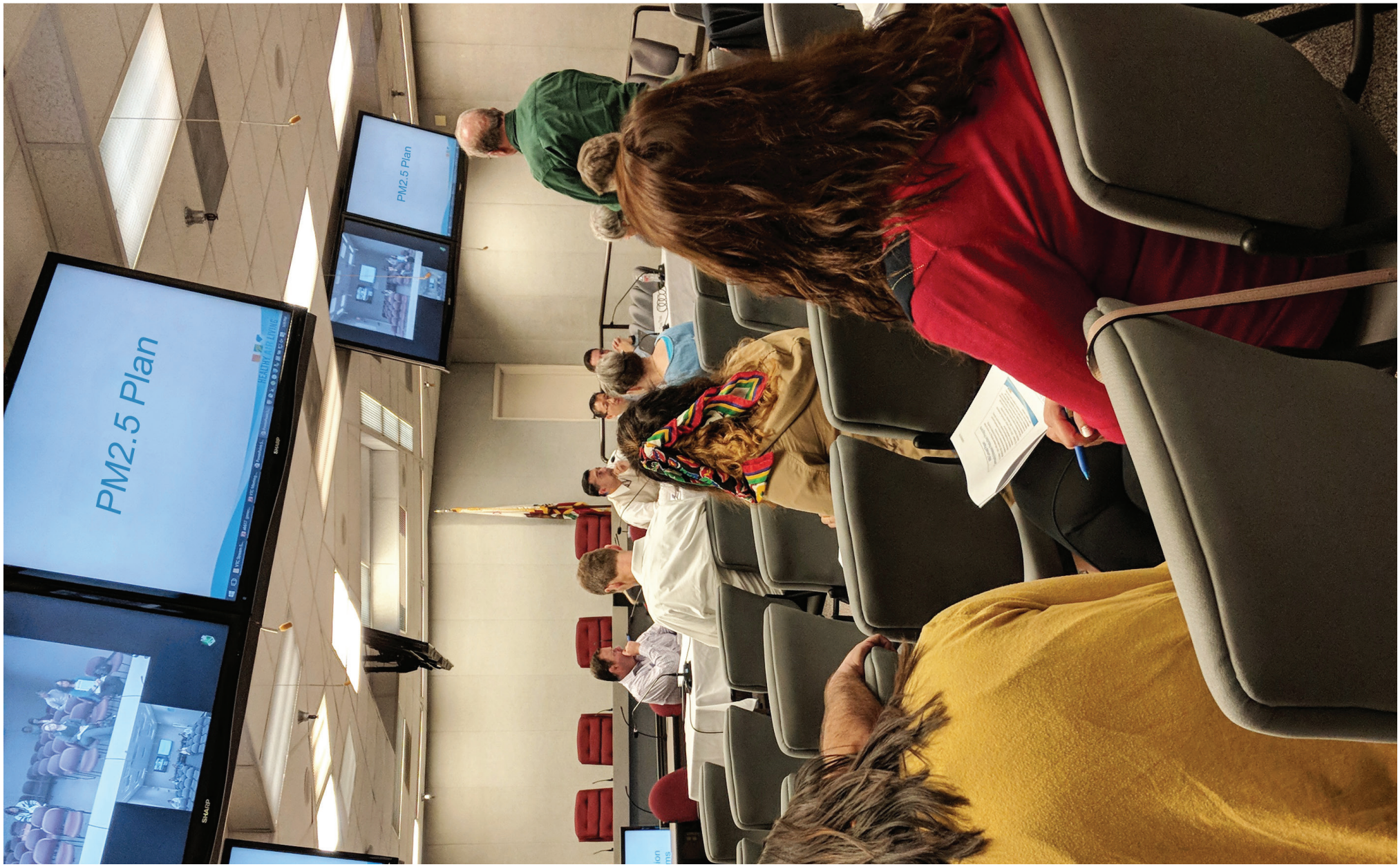
Appendix M

Summary of Significant Comments and Responses



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SUMMARY OF SIGNIFICANT COMMENTS AND RESPONSES
2018 PLAN FOR THE 1997, 2006, AND 2012 PM2.5 STANDARDS

COMMENTERS:

Association of Irritated Residents (AIR)
AERA, John Haley (AERA)
Agricultural Organizations Coalition (AOC)[i]
Almond Alliance of California (AAC)
Alving, Loren (Alving)
Becker, Jack (Becker)
California League of Food Producers (CLFP)
Californians for Pesticide Reform (CPR)
Central California Environmental Justice Network (CCEJN)
Central Valley Air Quality Coalition (CVAQ)
Clark, Lucy (Clark)
CVAQ, et. al. group comment letter (CVAQ, et. al.)[ii]
Cunha, Manual, Nisei Farmers League (NFL)
Dairy Cares, (DC)
Dietz, Janet (Dietz)
E & J. Gallo Winery (Gallo)
Enstrom, James E. PhD, MPH, FFACE (Enstrom)
Franz, Tom (Franz)
Gipe, Paul (Gipe)
Glass Packing Institute (GPL)
Hamilton, Kevin (Hamilton)
Isom, Roger, California Cotton Ginners and Growers Association (CCGGA)
Jensen, Tess (Jensen)
Johnson, Scott (Johnson)
Kern-Kaweah Chapter Sierra Club (Sierra Club)
Manufacturer's Council of the Central Valley (MCCV)
Markham, Brenda (Markham)
Menz, Tom (Menz)
Modesto Public (MP)
Molina, Anthony (Molina)
National Parks Association, et. al. group letter (NPA, et. al.)[iii]
National Parks Conservation Association (NPCA)
Nielsen, Karen (Nielsen)
Oldam, Joseph (Oldam)
Portugal, Raul (Portugal)
Southern California Gas Company (SoCalGas)
Statham, Clare (Statham)
Taylor, Larry (Taylor)
Tristao, Dennis, J.G. Boswell Company (Boswell)
Western States Petroleum Association (WSPA)
Young, Connie (Young)

Conservation Management Practices

1. **COMMENT:** The PM2.5 fraction of PM10 emissions from agriculture needs more research so it can accurately be regulated by the District. (CCGA, AOC, AIR)

   RESPONSE: The District agrees that continued air quality research to better understand agricultural PM2.5 emissions that builds on existing research efforts would assist in the development of additional strategies. For example, in the Plan, to further develop the District's understanding of the effectiveness of CMP measures on controlling PM2.5 emissions in the Valley, the District is committing to undertaking scientific research on the PM2.5 content, constituents, and stability during wind events of the many soil types found throughout the Valley. This research would be conducted in close coordination with USDA-NRCS, agricultural sources, and researchers through established processes including the San Joaquin Valleywide Air Pollution Study Agency, Policy Committee, and Agricultural Technical Subcommittee. Please refer to Appendix C, Rule 4550 (Conservation Management Practices) for further information.

2. **COMMENT**: The Almond Board of California has done extensive research into mechanical and cultural changes that reduce dust, resulting in a well-developed set of recommendations and suite of "Toolkit" outreach products for farmers. These dust reduction recommendations came out of extensive research, and would potentially be appropriate benchmarks for new CMPs under Rule 4550 revisions. (AAC)

   RESPONSE: The District appreciates the ongoing efforts of the Almond Board of California to reduce dust from harvesting operations, and looks forward to working with agricultural stakeholders to design, evaluate, and implement measures to further reduce dust from agricultural operations.

3. **COMMENT**: The CMP rule needs to be amended to reduce direct PM2.5 emissions. Specific requirements and incentives should be added to reduce dust from the almond harvest. There should be a speed limit for vehicles traveling on dirt roads. Dust plumes from agricultural operations should be prohibited based on visible opacity. (AIR, Sierra Club)

   RESPONSE: The District's CMP rule (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. 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, which approach has since been duplicated by other agencies. The selected CMPs are listed on application forms that are submitted

to the District for approval as a CMP Plan. Approved CMP plans are enforced through onsite inspections and operators are required to submit applications to modify their plans when changing their conservation management practices. Agricultural operations are then required to maintain detailed records verifying use of the approved Conservation Management Practices. There are five CMP categories for the cropland source category, four CMP categories for the dairy source category, four CMP categories for the feedlot source category, and five CMP categories for the poultry source category. Posting speed limits is also an option as part of the suite of measures that can be selected. Through this rule, PM10 emissions have been reduced by 35.3 tons per day, which is approximately a 24% reduction for this source category.

The District is committing to further evaluate ways to promote conservation tillage practices and to reduce dust from agricultural operations to the extent that they are found to practicably reduce PM2.5, using the following process. The District will work with the Agricultural Technical Committee (AgTech) to evaluate the feasibility and effectiveness of requiring the selection of additional control measures to achieve additional PM2.5 emissions reductions from tilling and other land preparation activities based on research discussed in Appendix C. More widespread implementation of conservation tillage practices such as cover cropping, no till, low till, strip till, and precision agriculture, through additional incentives under Rule 4550, may help to further limit PM2.5 in the Valley. To this end, the District will evaluate measures to promote the selection of conservation tillage as a CMP for croplands.

The District will evaluate the feasibility and effectiveness of CMPs on fallow lands that are tilled or otherwise worked with implements of husbandry, to reduce windblown PM2.5 emissions from disturbed fallowed acreage. This evaluation will rely on additional research in coordination with USDA-NRCS and agricultural stakeholders that recognize the Valley's unique soil characteristics and agricultural practices to ensure that Valley-specific solutions are considered in this process.

The San Joaquin Valleywide Study Agency, in partnership with the Almond Board of California and Texas A&M University, supported a 2017 research study on PM emissions from different models of nut harvesting equipment. Information from this study and other sources will be used, as appropriate, to develop an incentive program for low-dust technology nut harvesting equipment, as further discussed in Appendix E.

Open/Agricultural Burning

4. **COMMENT:** The District should ban all open burning in the Valley. (CVAQ, Menz, CCEJN, Franz, NPCA)

   RESPONSE: The District, in adherence with applicable state laws instituted under SB705 (2003 Florez), has the toughest restrictions on agricultural burning in the state. District regulations have banned the burning of all field crops (with the exception of rice), almost all prunings and almost all orchard removals. The District also operates a comprehensive Smoke Management System (SMS) to manage open burning and only allow the limited amount of burning that is still permissible to take place on days with favorable meteorology and in amounts that will not cause a significant impact on air quality.

   Until 2014, restrictions imposed by the District resulted in an 80% reduction in open burning of agricultural waste. The exceptional drought conditions that the Valley experienced and the demise of the biomass power industry has resulted in an increase in the open burning of wood waste and threatens the District's ability to continue to maintain broad restrictions on open burning of agricultural waste into the future under SB705.

   The District intends to continue to undertake efforts aimed at the development and deployment of feasible alternative technologies and practices to reduce open burning in the Valley. District efforts will be conducted in close coordination with USDA-NRCS, agricultural sources, and researchers through established processes such as the Agricultural Technical Subcommittee. These efforts include pursuit of the following:
   Continued implementation of the District's Smoke Management System safeguards to ensure no adverse air quality impact from authorized agricultural open burning.
   Exploring the feasibility of utilizing air curtain burn boxes subject to the District's Smoke Management System safeguards as an extension of agricultural operations.
   Continued support for state and federal financial assistance to promote cleaner alternatives for the disposal of agricultural waste.
   Development of new incentive programs to promote the development and deployment of emerging cleaner alternatives to the open burning of agricultural waste. In designing these programs, priority will be given to on-the-farm and scalable technologies including soil incorporation, advanced gasification technologies, and other alternatives, considering the full life-cycle of criteria pollutant emissions and associated impacts on air quality when assessing the feasibility of alternatives to open burning.

5. **COMMENT:** There are several thousand different soil types in the Valley. Some can't sustain high carbon content that would result from incorporating mulch into the soil, and there are insects that thrive in that soil and cause damage to, and

destroy entire crops. The District should not require farmers to incorporate the wood chips into the soil. (NFL)

RESPONSE: The District recognizes that there are many factors that limit the ability of agricultural operations to incorporate mulch, wood chips, or other materials into the soil, including soil composition and potential disease or pest infestations. The District is not proposing to require farmers incorporate wood chips into the soil. The District intends to continue to undertake efforts aimed at the study, development, and deployment of feasible alternative technologies and practices to reduce open agricultural burning in the Valley. District efforts will be conducted in close coordination with USDA-NRCS, agricultural sources, and researchers through established processes such as the Agricultural Technical Subcommittee.

6. **COMMENT:** The District should increase enforcement of agricultural open burning requirements during the peak PM2.5 season and during exceptional events. (CVAQ, NPCA, CVAQ, et. al.)

RESPONSE: The District operates a comprehensive and innovative Smoke Management System (SMS) to manage emissions from agricultural open burning in the Valley. On a daily basis, the District analyzes projected local meteorology, the air quality conditions, the atmospheric holding capacity, the amount of burning already approved in a given area, and the potential impacts on downwind populations. Through the results of this daily analysis, the District uses the SMS to manage 97 Valley burn zones and allocates daily burning allowances if appropriate. This approach ensures the District limits the distribution of air pollutant emissions from open burning temporally and spatially, minimizing the impact on the public. Properly managed burning allocations under the SMS ensures that air quality, health impacts, and public nuisance from open burning of agricultural materials are minimized to the fullest extent feasible. During periods of elevated PM2.5 concentrations, such as during episodic wood burning curtailments and exceptional events, agricultural open burning is not authorized in impacted areas.

Once allocations are set, agricultural operations can only burn if they receive daily authorization from the District. In addition to managing and minimizing the impacts from agricultural burning, SMS also serves as an effective enforcement tool because it provides immediate access to District enforcement staff to determine which burns, if any, have been authorized on a given day in a given location. On a daily basis, SMS allows approximately 60 field-based enforcement staff members to efficiently and effectively respond to complaints and surveil for illegal open burning as they traverse all corners of the Valley to conduct their daily inspections. Additionally, the District operates an on-call program to conduct surveillance and complaint response activities outside of normal business hours. As always is the case, the District will continue to look

for ways to enhance its enforcement efforts to ensure efficient and effective use of enforcement resources.

7. **COMMENT:** The District should deter open agricultural burning and promote cleaner alternatives through an incentive program. The plan should include a feasibility study of whole orchard soil incorporation as an alternate to open agricultural burning. (CVAQ, Sierra Club, NPCA, AIR, CVAQ, et. al., Alving, Young)

   RESPONSE: Historically, the practice for disposing of agricultural materials has been through the open burning of the materials in the field. Burning agricultural materials provided an economically feasible method for the timely disposal of these materials, helped prevent the spread of plant diseases, and controlled weeds and pests. The air quality impacts from open burning in the Valley have long been a significant concern for the District, and numerous measures have been successfully implemented over the years to minimize these impacts.

   The Valley has the toughest restrictions on agricultural burning in the state. Unlike other areas of the state that are prohibited from banning agricultural burning, the District has phased-out most categories of agricultural burning in accordance with CH&SC §41855.5. In addition to the requirements of CH&SC §41855.5, state law requires the District to postpone the burn prohibition dates for specific types of agricultural material if the District makes three specific determinations and CARB concurs. The determinations are: (1) there are no economically feasible alternatives to open burning for that type of material; (2) open burning for that type of material will not cause or substantially contribute to a violation of an air quality standard; and (3) there is no long-term federal or state funding commitment for the continued operation of biomass facilities in the Valley or the development of alternatives to burning.

   The District conducts a comprehensive analysis of the feasibility of alternatives to open burning for each crop category and opportunities to further restrict the open burning of the remaining crop categories at least once every five years. Since 2010, the District has prepared three reports which have been approved by CARB. The next report will be conducted in 2020. As with previous reports, this analysis will contain a comprehensive analysis of the feasibility of alternatives to open burning for different crop categories, including costs and availability of emerging technologies.

   The District also utilizes its SMS to manage open burning and only allow the limited amount of burning that is still permissible to take place on days with favorable meteorology and in amounts that will not cause a significant impact on air quality. Due to the management of open burning under the District's comprehensive SMS, modeling conducted as part of this Plan demonstrates that this source category does not significantly contribute to attainment of the applicable PM2.5 standards. Despite this fact, recognizing the current lack of

available economically and technologically feasible alternatives to the open burning of agricultural materials, the District is actively working to pursue the development and implementation of cleaner alternatives to open burning.

As a part of the District's efforts to identify and advance cleaner alternatives to open burning of agricultural waste, the District convened the Central Valley Summit on Alternatives to Open Burning of Agricultural Waste in November 2017 to bring together Valley growers, researchers/experts, representatives from the biomass power industry, representatives from new and developing technology vendors, and Valley stakeholders. Building off of the lessons learned at the Summit, the District is in the progress of developing new incentive programs to promote the development and deployment of emerging cleaner alternatives to the open burning of agricultural waste. In designing these programs, priority will be given to on-the-farm and scalable technologies including soil incorporation, advanced gasification technologies, and other alternatives, considering the full life-cycle of criteria pollutant emissions and associated impacts on air quality when assessing the feasibility of alternatives to open burning.

Agricultural Irrigation Pumps and Engines

8. **COMMENT:** All agricultural pumps should be converted to electric, where electricity is available. The District needs to meet with PG&E and the PUC to fix the high costs of electricity charges on farmers. The District should facilitate through incentives the placement of solar panels to power the pumps (Hamilton, Sierra Club, AIR)

   RESPONSE: The District has long worked with the agricultural community to replace their existing agricultural irrigation pump engines with electric motors. In particular, the implementation of the initial AG-ICE program achieved great success and provided significant NOx emissions reductions by replacing approximately 2,000 engines to electric motors. It is important to note that there are many challenges to converting agricultural pumps to electric motors, including but not limited to access to electricity services, electrical infrastructure, load capacity, and high cost of electricity. That said, the District will work with agricultural sources to further reduce NOx emissions through an incentive-based/regulatory approach as technologically and economically feasible. Potential emission reduction opportunities for further evaluation are described in Appendix C.

9. **COMMENT:** New electricity lines for electric agricultural engines are not feasible for the agricultural fields, and the grid can't handle the load. Standby charges are too high for farmers to afford and it takes a year to install electric engines. High infrastructure costs and easement rights issues of power pole installation need to be considered. (NFL, Boswell, CCGA)

RESPONSE: The District recognizes that there are multiple challenges when replacing engines with electric motors and is therefore primarily proposing an incentive-based approach to reducing emissions from agricultural pump engines. In addition, the District will work closely with agricultural stakeholders through a robust public process and conduct a technological feasibility and economic analysis prior to adopting new requirements.

10. **COMMENT:** We support incentive based measures but we oppose regulatory measures. Agricultural operators have made significant investments in reducing emissions. Agriculture operations must comply with multiple regulations from multiple agencies including replacement of truck fleets and tractors. The added costs of a new potential measure on agricultural irrigation pump engines will only serve to further put pressure on already beleaguered industry. (AAC, AOC)

    RESPONSE: The District recognizes the multitude of regulations that impact agricultural operators and substantial investments to significantly reduce emissions. The District is proposing primarily an incentive-based approach to reducing emissions from agricultural pump engines. In addition, the District will work closely with agricultural stakeholders through a robust public process and conduct a technological feasibility and economic analysis prior to adopting new requirements.

Boilers/Steam Generators

11. **COMMENT:** Steam generators and boilers have been subject to many generations of District regulations, significantly reducing NOx emissions. New units may be capable of achieving NOx emissions lower than those currently required. However, existing units were never designed, engineered, or constructed to meet such emissions levels and may require extensive retrofits that would not be cost effective, if even technologically feasible. Solar-powered steam generators are not feasible, and do not exist due to limitations, process, logistics and cost. The District should perform thorough and accurate cost and technological feasibility analyses, and consider safety costs before amending rules. (MCCV, Gallo, CLFP, Boswell, WSPA, AERA, SoCalGas, CLFP)

    RESPONSE: The District recognizes the significant investments made by businesses to significantly reduce emissions from boilers and steam generators across a broad range of industries to comply with decades of increasingly stringent regulations. As demonstrated in Appendix C, some technologies may not be cost-effective or feasible at this time, including solar-powered steam generators. However, given the enormity of reductions needed to demonstrate attainment with the latest PM2.5 standards, the District will work with affected operators to further reduce NOx emissions from boilers, steam generators, and process heaters to the extent that such controls are technologically and economically feasible.

12. **COMMENT:** The District should require renewable energy/solar-powered steam generators and boilers. (CVAQ, Hamilton, Young, CVAQ, et. al., NPCA)

    RESPONSE: As discussed in Appendix C, solar powered oilfield steam generators are not yet feasible and still face significant challenges, including economic viability, land availability, and the variability of solar steam generation output. The District will continue to work with operators of boilers, steam generators, and process heaters to develop, demonstrate, and deploy new emission control technologies. This includes developing innovative strategies to address challenges like the variable load issues for solar steam generators that may cause individual steam generators to exceed current permitted limits. The District has committed to continue evaluating all potential opportunities to reduce NOx from boilers as technologies become technologically and economically feasible.

13. **COMMENT:** Covanta plant emissions have a large local impact. The District should act to reduce or stop those emissions. (CVAQ, MP, CCEJN)

    RESPONSE: The District is committing to lower NOx emissions from the Covanta plant as part of this plan (see Appendix C). The District also recently issued an Authority to Construct permit to the Covanta plant to install controls on their operation that would achieve early emission reductions.

14. **COMMENT:** The District should consider the use of electrification for steam boilers and glass melting. (Franz)

    RESPONSE: The District worked with industry to evaluate the feasibility of electrification of steam generators and glass melting furnaces, and determined that electric steam generation is not feasible at this time because electric steam generators that meet typical oil production specifications (i.e., unable to provide sufficient pressure for steam generation) are not currently available and the electricity needed to meet current steam demand would be more than twice the amount of electricity used by all of the residences in the Valley.

    Due to technological constraints, no industrial glass furnace powered solely on electricity is capable of producing the level of heat necessary to manufacturer flat and container glasses at the high industrial rate that is currently being produced by Valley glass manufacturers.

15. **COMMENT:** The District should expand rule applicability of Rules 4306 and 4320 to include sources below 5 MMBtu/hr limit. (NPCA)

RESPONSE: The District already has the following regulations in place to address smaller boilers, steam generators, and process heaters:

- Rule 4307 - Emissions From Boilers Steam Generators And Process Heaters-2.0 MMBtu/hr To 5.0 MMBtu/hr
- Rule 4308 - Emissions from Small Boilers, Steam Generators, and Process Heaters- 0.075 MMBtu/hr to less than 2.0 MMBtu/hr
- Rule 4902 - Residential Water Heaters

Refer to Appendix C for the evaluation of these source categories.

Flares

16. **COMMENT:** Ultra-low NOx flares are appropriate in certain situations. In general, flares are a very minor source of emissions that are already subject to a complex regulatory scheme. The District has concluded (2015 Flare Study) that Low-NOx flare technology may not feasible for "emergency flares" due to the rapid swings in flowrate during emergency events. (AERA)

    RESPONSE: The District's current and ongoing rule amendment process for amendments to Rule 4311 (Flares) is investigating a variety of control options, including consideration of low-NOx flare technologies. The District has committed to require low-NOx flares to the extent they are demonstrated to be technologically and economically feasible.

Glass Melting Furnaces

17. **COMMENT**: The Draft Plan proposes to lower the allowable NOx emission rates to between 1.0 and 1.2 lb/ton, based on a monthly rolling average. We encourage the District to consider recent "consent decrees," which the EPA has entered with glass container manufacturers around the country, as they formalize future NOx levels for the industry. The average of the two decrees is 1.2 lb/ton for NOx. We believe this level is appropriate for future NOx emissions limits for the valley, and is within the scope of the proposal. (GPL)

    RESPONSE: The District is proposing to amend Rule 4354 in this Plan, at the time of public rule amendment process, the District will determine the final NOx emission rate to be required by the rule (see Chapter 4). Throughout that rule making effort, the District will work with interested stakeholders to consider all information that will help establish the final NOx limit.

Underfired Charbroilers

18. **COMMENT:** The District should require large underfired charbroilers to install pollution control devices by 2024, and increase outreach and incentives for pollution control devices. (CVAQ)

    RESPONSE: After thorough review of potential opportunities to reduce emissions from this source category, the District recently amended Rule 4692 to implement a registration and reporting requirement for underfired charbroiler operations in order to gather better inventory and emissions information for this source category. Using new survey and registration information, the District will pursue reductions in commercial underfired charbroiler emissions through an incentive-based approach to fund the installation and maintenance of controls for commercial underfired charbroilers within urban boundaries in hot-spot areas, with a future year regulatory requirement to encourage participation by businesses. Refer to Appendix C for more information.

19. **COMMENT**: The residential wood burning curtailment thresholds should apply to restaurants that use wood to cook and should be limited to the use of natural gas or propane on days exceeding the curtailment thresholds. All cooking should be banned on exceedance days. (Menz)

    RESPONSE: As further discussed in Appendix C, the District recently amended Rule 4692 to implement a registration and reporting requirement for underfired charbroiler operations in order to gather better inventory and emissions information for this source category. Using new survey and registration information, the District will be evaluating the feasibility of amending Rule 4692 to reduce emissions from commercial underfired charbroiling operations. In developing the District's air quality measures, the District does not believe that controlling emissions should extend to draconian requirements that shut down businesses and result in significant detrimental economic impacts on Valley small businesses.

Residential Wood Combustion

20. **COMMENT:** The District should release a multilingual advertising campaign to educate the public on the health impacts of wood smoke working with local partners and using information about public behavior, such as surveys. (Nielsen, CVAQ, CCEJN, Alving, Young, Statham)

    RESPONSE: The District agrees and continues to seek enhancements to its Valley-wide multilingual public education and outreach strategy with respect to residential wood burning. The District's mission to protect public health by improving air quality in the Valley relies on the public's awareness and understanding of the District's air-quality improvement programs. Emissions

from public behavior such as driving, residential wood burning, and lawn-care maintenance continue to be a key factor in the Valley's emissions inventory. Consequently, public acceptance of concepts such as alternative commute options, as well as specific clean air strategies, like Check Before You Burn, the Air Alert program and Healthy Air Living requires widespread lifestyle changes. To that end the District Governing Board places a high priority on conducting an active and effective public education and outreach program.

The District currently provides educational pamphlets in Spanish, and also has a Spanish web page that provides educational materials to the public at http://www.valleyair.org/General_info/Spanish-Resources.htm. The District has ongoing plans to continue outreach to Valley residents about the opportunities available to eliminate wood burning or install significantly cleaner devices. In addition, the District's annual Check Before You Burn advertising and outreach campaign reaches thousands of Valley residents and will be used as a direct avenue to add more health protective messaging in the coming seasons. The District currently conducts, at minimum, two robust multi-lingual advertising campaigns annually, utilizing multi-pronged media sources such as billboards, radio, TV, newspapers, digital media and social media advertising. When necessary the District conducts outreach in additional languages such as Hmong and Punjabi. In addition, the District works with the Environmental Justice Advisory Group to ensure a balanced approach to communicating with the Valley's diverse population. The District relies on several bilingual outreach and education representatives that have well-established relationships with Hispanic media outlets and community groups. We work diligently to maintain these relationships and deliver critical, health protective messaging. That said, the District is committing in this Plan to enhance outreach and education efforts to increase awareness of residential burning health impacts and the District's residential wood burning reduction strategy Valleywide. Refer to Appendix F of this plan for a full discussion of the existing District Public Outreach and Education activities and efforts.

21. **COMMENT:** The District should extend the No Burn season to include October and March. (CVAQ, CCEJN, Menz, Alving, Young, Sierra Club, AIR, CVAQ, et. al.)

RESPONSE: The current wood-burning season and Check Before You Burn program runs from the beginning of November until the end of February. Expanding the wood-burning season to include October and/or March would likely increase the number of No Burn days in each wood-burning season by a few days. However, through PM2.5 speciation analysis, measured Valley concentrations of levoglucosan, a primary indicator for wood-burning, are very low in October or March compared to the current wood-burning season of November through February. Since this indicates lower wood-burning activity in October and March, extending the wood-burning season Check Before You Burn program beyond the November to February timeframe (when wood-burning

activity is at its peak) would not significantly benefit air quality in the Valley. The District will continue evaluating this and other potential enhancements to the residential wood burning strategy.

22. **COMMENT:** The District should develop a program to connect low-income residents with financial resources. (CVAQ, CVAQ, et. al, CCEJN, Hamilton)

    RESPONSE: The District *Burn Cleaner* incentive program offers enhanced incentive amounts for low-income residents to transition from high-polluting devices and open hearth fireplaces to cleaner alternatives such as pellet stoves and natural gas fired stoves. Additionally, the District is committing in this Plan to enhance outreach and education efforts to increase awareness of residential burning health impacts and the District's residential wood burning reduction strategy, including incentive-based measures, Valleywide. See Appendix C and Appendix E for discussions on the *Burn Cleaner* Incentive program. See http://valleyair.org/grants/burncleaner.htm for more information.

23. **COMMENT:** The District should only provide incentives to transition to natural gas or at least limit such subsidies to homes that truly have no other source of heat. (Menz, CVAQ, et. al, Statham)

    RESPONSE: Through the District's current Burn Cleaner incentive program, 80% of units have been replaced with natural gas-fired units. The District further encourages the transition to natural gas by offering an increased incentive amount of up to $500 for these conversions. The District is also committing in this plan to paying for the full cost of transitioning to natural gas-fired units in hot-spot areas (Fresno, Kern, and Madera Counties). See http://valleyair.org/grants/burncleaner.htm for more information about the District's existing Burn Cleaner program.

24. **COMMENT:** The District should make Rule 4901 more stringent through additional open hearth requirements during real estate transfers, additional requirements for new development, visible emissions requirements, and additional bans on residential wood burning. (Menz, Dietz, CVAQ, CCEJN, Statham, Young)

    RESPONSE: Based on the amendments made in September 2014, Rule 4901 is the most stringent wood burning curtailment rule in the nation. Residential wood burning with unregistered devices are not allowed when an area's forecasted PM2.5 concentration is expected to be greater than or equal to 20 $\mu g/m^3$ which comprise over 95% of wood burning emissions. This threshold is much lower than the 2006 and 2012 federal 24-hour average PM2.5 standard of 35 $\mu g/m^3$. As proposed in this Plan, the no burn curtailment levels will be further

reduced to 12 µg/m^3 in hot-spot areas, severely limiting the number of days residents will be allowed to burn.

The District offers a robust incentive program to encourage the transition from open hearth fireplaces to EPA certified units or to natural gas, with increased incentive amounts offered to low income households available at: http://valleyair.org/grants/burncleaner.htm. Additionally, portions of the Valley do not have access to natural gas services and therefore do not have the option to switch to natural gas-fired units.

In developing this plan, the District evaluated additional opportunities for reducing emissions. Through this robust evaluation and input received during the public engagement process, the plan proposes a number of potential enhancements to the District's residential wood burning strategy, including a number of enhancements that would apply Valley-wide, lower curtailment levels in hot-spot areas, and increased incentives in hot-spot areas.

25. **COMMENT:** As a contingency measure, ban all non-essential burning. (CVAQ, et. al)

RESPONSE: In addition to a number of proposed enhancements to the District's residential wood burning strategy, the Plan includes a new contingency measure that would impose the same enhanced hot-spot curtailment levels in other counties in the event that they are unable to attain the standards by the required dates.

26. **COMMENT:** The District should increase enforcement of the Rule 4901 episodic wood burning curtailments, especially at night. (Alving, Sierra Club, NPCA, AIR, CVAQ, CVAQ et. al, Menz, Young, Dietz)

RESPONSE: The District employs a comprehensive and multifaceted approach to reducing emissions from residential wood burning that relies on a combination of regulatory controls through Rule 4901, strong enforcement, rigorous public outreach and education efforts, and the *Burn Cleaner Wood Stove Change-out* incentive program to ensure high compliance rates. As part of the existing enforcement program for Rule 4901, the District dedicates significant staffing resources to surveillance and complaint response activities, operates an on-call program to conduct surveillance and complaint response activities outside of normal business hours, and invests in advanced technologies to identify and document violations of the rule.

Notwithstanding the District's existing robust enforcement efforts, in an effort to further buttress the Rule 4901 enforcement program, the plan includes a commitment for enhanced enforcement resources to assure the continued high compliance rates of the rule. The District is looking to continue to leverage

emerging technologies to enhance enforcement efforts, especially night-time enforcement efforts, and is expanding and enhancing the use of data driven tools to target enforcement efforts to ensure efficient and effective use of enforcement resources.

27. **COMMENT:** If the Valley attains the standards, the use of EPA certified devices would be practically unlimited. This should not be allowed. (Menz)

    RESPONSE: Based on the amendments made in September 2014, Rule 4901 is the most stringent wood burning curtailment rule in the nation. Residential wood burning with unregistered devices are not allowed when an area's forecasted PM2.5 concentration is expected to be greater than or equal to 20 $\mu g/m^3$ which comprise over 95% of wood burning emissions.

    The residential wood burning strategy will include a number of enhancements that will apply Valley-wide. Additionally, the plan proposed to lower no-burn curtailment levels to 12 $\mu g/m^3$ in the targeted hot-spot areas, severely limiting the number of days residents will be allowed to burn. Targeted hot-spot areas include Fresno, Kern, and Madera counties. The District is also committing to increase incentive funding to replace wood burning devices with natural gas-fired devices for heating homes in these hot-spot areas. Additionally, the District is committing to enhanced outreach and education efforts to increase awareness of residential wood burning health impacts and the District's residential wood burning reduction strategy Valleywide, and to enhance enforcement resources to assure continued high compliance rate Valleywide.

Ammonia

28. **COMMENT:** Evaluate the feasibility and cost of strategies to reduce ammonia. The District should reduce ammonia emissions by 70%. (CVAQ)

    RESPONSE: Extensive modeling analysis conducted by CARB and the District have consistently found that ammonia is not a significant PM2.5 precursor in the Valley. This plan includes an updated evaluation conducted by CARB that has again concluded that ammonia is not a significant PM2.5 precursor. While ammonia has been found to not be a significant PM2.5 precursor, the District's evaluation documents the ammonia emission reductions achieved through the implementation of comprehensive and stringent controls required by District Rule 4570 (Confined Animal Facilities), District Rule 4565 (Biosolids, Animal Manure, and Poultry Litter Operations), and District Rule 4566 (Organic Material Composting).

29. **COMMENT:** The District should look to ammonia emissions from agricultural operations as a strategy to reduce indirect PM2.5 emissions (ammonium nitrate). (Johnson, CVAQ, Hamilton, CCEJN, Sierra Club, CPR)

    RESPONSE: The plan control strategy achieves the emissions necessary to bring the Valley into attainment, primarily through PM2.5 and NOx emissions reductions. The District's incentive programs, public outreach, and other innovative strategies will help expedite air quality improvements as this plan is implemented. Although the plan shows expeditious attainment and includes a comprehensive control strategy for direct PM2.5 emissions and significant PM2.5 precursors, the District and CARB explored the effectiveness of ammonia reductions in reducing PM2.5 concentrations.

    The review of extensive science on this subject and extensive modeling conducted conclude that reducing ammonia emissions is orders of magnitude less effective in reducing PM2.5 concentrations than reducing directly emitted PM2.5 or NOx emissions. There is a relative abundance of ammonia compared to nitric acid, and the amount of nitric acid drives the ultimate formation of ammonium nitrate. Because of this regional surplus in ammonia, even substantial ammonia emissions reductions yield a relatively small reduction in nitrate.

    Despite the fact that ammonia is an insignificant PM2.5 precursor in the Valley, the District evaluated current ammonia controls in Appendix C of this plan. The analyses show that the Valley's ammonia emissions have been significantly reduced through stringent District regulations and current regulations implement RACM, BACM and MSM in the Valley. The District has already reduced ammonia emissions from CAFs, the largest source of ammonia emissions under its jurisdiction, by over 100 tons per day through adoption of Rule 4570 (Confined Animal Facilities), the most stringent rule of its kind in the nation. The District did not find any additional feasible measures that could significantly reduce ammonia emissions.

30. **COMMENT:** The Plan should include measures to reduce the significant contributions that pesticides and fertilizers are making to PM2.5 levels in the Valley. (CPR)

    RESPONSE: The primary emissions associated with pesticide use are Volatile Organic Compounds (VOCs). VOCs are not significant precursors for the formation of PM2.5 as determined by CARB's modeling conducted for this and prior PM2.5 plans. Please note that the state Department of Pesticide Regulation (DPR) has sole authority to regulate emissions from the use of pesticides. With respect to emissions associated with fertilizer use, while ammonia has similarly been found to be insignificant through the CARB modeling, the Plan documents the extensive ammonia reductions achieved through District and state measures including the District's confined animal

facilities regulation and state nutrient management plan requirements. With respect to VOCs, the state Department of Pesticide Regulation has established regulations to reduce emissions from the use of pesticides as part of ozone state implementation plans.

31. **COMMENT**: We appreciate the District's reliance on sound science in evaluating the role of ammonia, especially ammonia emitted from dairies and other cattle operations. Rule 4570 (Confined Animal Facilities) is as or more stringent than dairy rules in other air districts in California, and more stringent than rules adopted in other states, such as Idaho; and the District has calculated reductions of ammonia emissions associated with adoption and amendments to District Rule 4570. In Appendix B, the District asserts it expects no growth of the dairy industry in the future. We concur and note that further retractions of the dairy industry is expected. (DC)

    RESPONSE: Comment noted.

Indirect Sources

32. **COMMENT:** The District should expand applicability of Rule 9510 (Indirect Source Review (ISR)) to include agricultural operations (ex. Traffic emissions between operations (i.e. milk processor, dairy, feedlot). Also increase emission reductions required for projects and add limits on PM2.5 emissions. (CVAQ)

    RESPONSE: District Rule 9510 is the only rule of its kind in the State of California and throughout the nation which applies to new residential and commercial development projects. The District's rule is recognized as the benchmark, or best available control, for regulating these indirect sources of emissions. The emission control requirements under the District's current rule are as stringent as possible in adherence with all applicable state and federal regulations and case law.

    Under federal law, the District is authorized to adopt an ISR rule (Clean Air Act §110(a)(5)), but cannot adopt requirements that go beyond federal tailpipe emission standards, or beyond the State of California's standards established on behalf of the federal government under an exception from federal preemption discussed below. For instance, ISR cannot regulate or establish emissions standards for "showroom new" mobile equipment under the federal Clean Air Act, 209(e)(1) preemption. Furthermore, Clean Air Act §209(e)(2) impliedly preempts standards or requirements related to the control of emissions from nonroad vehicles or engines. Therefore, the District cannot regulate tailpipe emissions under the ISR rule or the rule requirements cannot constitute a defacto tailpipe control.

    The District's authority to adopt Rule 9510 has been solidly affirmed by both state and federal courts. In *National Ass'n of Home Builders v. SJVAPCD*, 627 F.3d

730 (9th Cir. 2009), the court held that Rule 9510 was expressly authorized by the Clean Air Act at 42 U.S.C. § 7410, and was not preempted by the Clean Air Act's prohibition against adopting emission standards for mobile equipment. Similarly, in *California Bldg. Industry Ass'n v. SJVAPCD*, 178 Cal.App.4th 120 (2009) in response to challenges that the rule was unconstitutional and in excess of the District's authority, the court affirmed the District's express statutory authority under Health & Safety Code §§ 40604, 40716 and 42311 to adopt the rule and found that the rule was a valid regulatory fee bearing a reasonable relationship between the fee charged and the burden to air quality imposed by the development.

Requiring reductions in excess of those already achieved by the rule would have the effect of requiring duplication of mandated emission reductions, and would therefore open the rule to legal challenge under state law. For instance, travel between a residential development and place of business that are both subject to the District's ISR rule should only be assessed fees for one trip to the business and one trip back to the residence. To charge for both trips in both directions would create a duplication of mitigation and would be illegal under state law. The federal court decision supported the District's position on these issues for operational emissions, and further supported the District's argument that the emission reductions required for construction fleets were achievable with equipment available in California, and for that reason did not constitute tailpipe emission standards. In addition, the federal court found that because the regulation is indirect and aimed at developments as a whole, rather than at equipment, and allows alternatives (fees that pay for off-site mitigations), it escapes federal preemption and is legal. To go beyond these carefully crafted limits could expose the rule to arguments that it contravenes federal preemption principles.

The ISR rule targets NOx and PM10 emissions from mobile source equipment related to the project construction and operational activities. Particulate matter emissions from mobile source equipment emissions are overwhelmingly PM2.5, a subset of PM10. Therefore, the PM10 emission reductions achieved by our emission reduction incentive grants through expenditure of offsite fees collected under ISR result directly in PM2.5 emission reductions. In other words, PM10 emissions increases are being offset by emissions reductions that are overwhelmingly PM2.5, a positive impact on PM2.5 concentrations. Adding a PM2.5 emission reduction requirement to the existing PM10 emission reduction target will not contribute to further reduce actual PM2.5 emissions.

Agricultural sources are "stationary" sources subject to District permitting requirements. Since such sources are "direct sources" of emissions already subject to extensive controls and requirements, and Rule 9510 was written specifically to address previously unregulated "indirect sources," the rule provides an exemption (Section 4.4.3) for all such direct sources of emissions, including agricultural sources. In addition, new and expanding agricultural operations are subject to review under local land use agency processes where

additional measures to mitigate impacts from traffic emissions through the California Environmental Quality Act may be required.

33. COMMENT: This [Rule 9510, ISR Rule] is a good rule in theory. But, it needs to be enforced by the air district for every new valley development, no matter what a local jurisdiction decides is appropriate. The ISR rule could also be strengthened requiring a greater level of mitigation for these new, but indirect emissions. The size of projects that are required to mitigate indirect sources of air pollution should be decreased significantly. Any development of 50 or more homes should be required to mitigate, not the current threshold of 390 homes. Also, these projects should have to mitigate cumulative emissions for the life of the project. (Sierra Club, AIR)

RESPONSE: Under the District's ISR rule, local jurisdictions do not decide which development projects become subject to the rule. It is also important to note that the District does not have any land-use authority for development projects within local jurisdictions, and thus does not have the authority to change the local public agency decision-making process for proposed development projects.

In addition, to strengthen the rule 9510 applicability, the rule was amended on December 21, 2017. The original rule applied only to projects subject to a discretionary approval from a public agency. However, types and sizes of projects subjected to discretionary approval can vary between public agencies in the Valley. Therefore, the District amended the rule to eliminate the source of the applicability inconsistency and thereby ensure that all large development projects are subject to the ISR rule.

The commenter's reference to a 390-home applicability threshold is incorrect – there is no such threshold in the rule. The District would like to clarify that the rule identifies two applicability thresholds for residential development projects: 50 dwelling units per Section 2.1 and 250 dwelling units per Section 2.2 (which the latter threshold captures larger projects in the case they are somehow approved without a discretionary decision). The commenter also states that "any" residential development of 50 homes and above should be mitigated under this rule. The rule identifies a 50-dwelling unit applicability threshold for those undergoing a discretionary approval process. It is the District's experience that the majority of the residential development projects is evaluated through a discretionary approval process by the local land use agency, and is already subject to this rule. In fact, we are not aware of any residential projects above 50 homes that have been approved without a discretionary decision. Therefore, requiring all residential development projects consisting of 50 homes or more to mitigate under the Rule would not result in significant, if any, additional emission reductions.

Finally, the District would like to note that the rule does effectively mitigate cumulative emissions for the life of a development project. The on-site and off-

site emission reduction measures implemented upon beginning of operations, continue to provide clean air benefits beyond the 10-year mitigation period required under the rule, and result in further emission reductions over the project life. For instance, when the District invests in clean truck technology, those trucks will not be replaced by dirtier trucks at the 10-year mark – rather they will generally be replaced by even newer, cleaner trucks, maintaining the ongoing emissions reductions. Therefore, the District concludes that it is unnecessary to change the rule to require mitigation for the life of a development project.

Fleets

34. **COMMENT:** The District only discussed natural gas fueling stations and not alternatives to natural gas. The Valley needs more use of heavy-duty and light-duty freight vehicles using electricity. Rather than focus on only natural gas fueling stations, the District should consider a program to install high-speed DCFC stations. (Gipe)

    RESPONSE: The District supports the development and deployment of zero-emissions technologies when feasible as demonstrated through wide-ranging technology advancement and incentive program efforts that have successfully put into service electric and other zero-emissions vehicles in a variety of sectors. The zero-emission technologies for heavy-duty trucks, such as battery electric vehicles, have limited range and are only currently available for short-range duty cycles, such as last-mile delivery trucks. Aside from battery electric or fuel cell electric vehicles, natural gas and propane engines are currently the only fuel-type certified or undergoing the certification process to meet the near-zero 0.02 g/bhp-hr NOx emissions standards. While the timing of availability of low-NOx engines across multiple weight classes is still evolving, natural gas is currently the only available option for long-range heavy-duty applications. As such, the District will work with EPA, CARB, and stakeholders to establish the appropriate natural gas fueling network to support the proposed fleet turnover.

    With optional low-NOx standard certified natural gas engines already on the market and imminent PM2.5 attainment deadlines, the District's current efforts are on meeting the needs of transitioning to these engines. Additionally, for electric heavy-duty vehicle projects, the District is working with CARB and other stakeholders to ensure appropriate charging infrastructure for the future.

Incentives

35. **COMMENT**: The District should incentivize farmers to purchase low dust emitting harvesting equipment. The sale of machines without dust suppression technology should be prohibited. A schedule for mandatory phase out of older equipment without this technology needs to be implemented. (Sierra Club)

RESPONSE: District staff are working to develop strategies to reduce localized community impacts from almond harvesting. The District has supported the development of a new USDA-NRCS incentive program for the deployment of low-dust harvesters, which is now in operation. In partnership with agricultural stakeholders and Texas A&M University, the San Joaquin Valleywide Air Pollution Study Agency recently funded a study of the effectiveness of low-dust technology harvesters. This research, combined with data obtained from a recent survey conducted of almond and walnut harvesting operations Valleywide, will be used to inform the development of a new incentive program to advance the deployment of low-dust harvester equipment in the Valley.

36. **COMMENT:** For heavy duty vehicles, District should target mobile source incentives and enforcement in the most overburdened communities especially around distribution warehouses located in/near residential areas and CARB and the District should partner on enforcement? (CVAQ, et. al.)

    RESPONSE: The District places a high priority on focusing incentives in disadvantaged communities throughout the San Joaquin Valley, with a wide variety of programs that reduce emissions from heavy duty trucks, cargo equipment, and other mobile sources of emissions impacting Valley communities. With the ongoing implementation of AB 617, the District will pursue additional incentive and enforcement activities in the most heavily burdened communities throughout the District.

37. **COMMENT:** This Plan can be successful with an appropriate level of funding support and we will do our part to urge that adequate incentives be made available to achieve the vision outlined in this Plan. (DC, SoCalGas, CLFP)

    RESPONSE: The District appreciates your comment and advocacy for the significant new funding required under this plan.

38. **COMMENT:** The District's incentive based approach mainly discusses replacements, but what about repowers? The District should include repowers to leverage the dollars for electric devices (Portugal, Hamilton)

    RESPONSE: The District incentive funding plan includes funding for repowers as well as replacement. Projects that meet minimum certification, cost-effectiveness, feasibility, and warranty requirements will be considered for funding.

39. **COMMENT**: SoCalGas encourages the District to analyze opportunities to reduce emissions on a technology and fuel neutral basis as advancements in

engine control technology could reduce emissions well below current standards. (SoCalGas)

RESPONSE: The District recognizes the importance of pursuing fuel-neutral approaches for identifying technologies and other solutions based on their performance, cost-effectiveness, and ability to assist in meeting established local and state goals. This position includes supporting electrification and other zero-emission technologies when they are commercially available, cost-effective, and provide the required performance and value for the specific application; supporting near-zero emissions technologies when they are able to provide near-term and cost-effective emissions reductions and public health benefits; and supporting the development and demonstration of the next generation of transformative zero and near-zero emissions technologies.

40. **COMMENT**: Incentives must be anchored by regulatory backstops to ensure compliance with specific standards through parallel rules phasing out dirtier, outdated technologies and requiring the cleanest technologies to be implemented for newly established sources. (NPCA)

    RESPONSE: The incentive measures included in the Plan will be implemented in a manner that ensures enforceable, quantifiable, surplus, and permanent reductions creditable under federal Clean Air Act implementation requirements. This includes implementing the programs through publically developed and SIP-creditable program guidelines such as the Carl Moyer program, and reporting to the public on an ongoing basis the emissions reductions achieved through the incentive-based measures.

41. **COMMENT**: SoCalGas supports working together with the District and CARB to secure funding to make incentive-based measures a reality and reach attainment. (SoCalGas)

    RESPONSE: The District appreciates SoCalGas' support.

IC Engines Used at Non-Agricultural Operations

42. **COMMENT:** Non-agricultural internal combustion engines have been subject to more than 12 rounds of control requirements, and NOx reduced by more than 98%. Given the high level of control already imposed on these engines, WSPA recommends that further controls be deferred. (WSPA)

    RESPONSE: The District recognizes the significant investments made from affected sources to comply with more stringent requirements. Due to the need for significant additional emission reductions to reach attainment, the District will continue to work closely with stakeholders to further reduce NOx emissions from

non-agricultural engines to the extent that such controls are technologically achievable and economically feasible.

43. **COMMENT:** The oil and gas sector is by far the largest stationary source category. For non-agricultural IC engines, the District needs to devote more time to the industry and discuss multiple strategies for reducing PM2.5 emissions. (CVAQ)

    RESPONSE: Due to the significant need for additional emission reductions to reach attainment within the mandated deadlines, working closely with affected stakeholders, the District performed an exhaustive evaluation of all potential emission reduction opportunities that includes engines used in the oil and gas sector. As a result of this evaluation, the District is committing to work with affected operators to further reduce NOx emissions from non-agricultural IC engines to the extent that such controls are technologically achievable and economically feasible. See Appendix C for more details.

Hot-Spot Strategy

44. **COMMENT:** The District should not do a hot-spot strategy. The District should require the same stringent requirements proposed for hot-spot areas to the entire Valley. Setting a single No Burn limit of 12 µg/m³ for the entire Valley appears to be the only way to ensure that the District meets MSM requirements. (NPCA, CVAQ, CCEJN, Hamilton, Menz, Dietz, Alving, Clark, AIR, Sierra Club)

    RESPONSE: A majority of regions throughout the Valley will attain the PM2.5 standards with the suite of Valley-wide regulatory and incentive-based measures the District and CARB have committed to in this Plan. However, there are some areas in the Valley that will not attain without additional controls and incentives, demonstrating a need for a hot-spot based strategy. Given the significant additional emissions reductions necessary to meet the federal PM2.5 standards in addition to imposing stringent new measures across all sources throughout the Valley, a targeted approach that focuses additional measures and limited resources in remaining "hot-spot" areas is necessary to meet the federal standards. As presented in the Plan, the District's current residential wood-burning rule already meets or exceeds Clean Air Act (CAA) MSM requirements, and the proposed enhanced curtailment levels (combined with enhanced incentive levels for elimination of residential wood burning devices) in hot-spot areas exceed MSM.

Wildfires

45. **COMMENT:** The Plan fails to factor in the increased additional cumulative PM 2.5 exposure from the "new normal" extended summer wildfire season. Has the

District considered what the additional health impact this will have given this increasingly significant PM 2.5 source? (CVAQ, Molina)

RESPONSE: The attainment strategy in this PM2.5 plan is focused on sources of emissions that are within the regulatory control of the District and CARB. Since PM2.5 emissions from wildfires are beyond the control of the District or CARB, they are considered by the EPA as "exceptional events," and can be excluded from air monitoring data when demonstrating attainment of a federal air quality standard. However, emissions from wildfires pose a significant impact on public health, and the District will continue to work with local, state, and federal land managers to best manage air quality impacts when wildfires do occur (see Appendix C).

Additional Topics

46. **COMMENT:** Enforcement in oil fields is necessary, while pervasive drilling is occurring. (Clark)

RESPONSE: The District routinely conducts inspections of all oil and gas operations under permit or registration with the District to enforce applicable local, state and federal rules and regulations. In addition, the District encourages members of the public to contact the District to report complaints as quickly as possible after detecting an offensive odor, observe smoke, fallout, dust, or any other air pollution problem. Public complaints can be made on the District web at http://www.valleyair.org/busind/comply/complaint.htm#smoking_vehicle_complaint, or complaints can be made over the phone. The District provides the following toll free numbers: In the North Valley (800) 281-7003, in the Central Valley (800) 870-1037, and in the South Valley (800) 926-5550. Complaints are dispatched to an inspector who can begin an investigation.

47. **COMMENT:** The District needs to promote low-cost sensors (such as "Purple Air") that can provide an accurate reading of PM levels for community monitoring. (Franz)

RESPONSE: The District recognizes the growing availability and potential utility of new lower cost sensors in helping to increase the public's awareness of air quality issues. Although the technology for low-cost sensors has improved in recent years, they are generally less accurate than those maintained for regulatory purposes, and the technology, the manner by which these sensors are utilized, and lack of training pose additional limitations. In response to the growing development and availability of low-cost air monitoring sensor technology, the District has established a low-cost sensor action plan for educating the public on the potential use of the new sensors and conducting ongoing evaluation of sensor performance in the San Joaquin Valley.

48. COMMENT: The District needs to have an independent economist who will work with industry and analyze the costs of proposed measures. (Hamilton, Boswell)

RESPONSE: The District has and will continue to work closely with industry to ensure accurate socioeconomic analyses. The Governing Board adopted economic analysis process directs staff to consider the level of expertise of the economist in specific industries affected when selecting socioeconomic consultants. As the District moves forward with the upcoming public engagement process associated with implementing this Plan, and other upcoming District regulatory efforts, the District will seek to solicit, through a Request for Proposal, qualified economists with necessary expertise to assist the District in performing the socioeconomic analysis.

49. COMMENT: It is not the District's job to worry about the economic impact of regulations; the economy has grown despite regulations. (Hamilton, Franz)

RESPONSE: Both the Cost effectiveness analysis and the socioeconomic analyses are mandated by the California Health and Safety Code (CH&SC). CH&SC §40919 and §40920.6(a) require the District to analyze the cost effectiveness of new rules or rule amendments that implement Best Available Retrofit Control Technology or all feasible measures. CH&SC §40728.5 requires that when the District intends to adopt, amend, or repeal a rule that will significantly affect air quality or emissions limitations, that agency shall, to the extent data is available, assess the socioeconomic impacts of the action and minimize any adverse socioeconomic impacts.

50. COMMENT: Leaf blowers cause dust and should be banned. (Taylor)

RESPONSE: The plan includes a multifaceted approach for working with Valley stakeholders to explore and develop new resources and tools for promoting cleaner lawn and garden equipment and practices. To encourage the use of cleaner, electric options, the District will consider the adoption of a new program that provides funding incentives for replacement of lawn and garden equipment used by commercial services. This new program would be designed to assist public agencies and private businesses purchase zero emission equipment to perform their services. Zero emission lawn and garden equipment have advanced in the past few years, not only in the area of durability, but also dependability with longer battery lives that can be used in commercial settings where the equipment is typically used for long durations. In addition to lawn mowers, the expanded category can include additional equipment that are often used in commercial applications such as edgers, blowers, chainsaws, polesaws, vacuums trimmers, and additional battery and charging equipment.

51. COMMENT: Fine particulate matter air pollution is of particular concern for NPCA members and supporters because of its extensive impacts to human health, overall visibility, and the wellbeing of Sierra ecosystems. The District should regulate sources of PM2.5 emissions across the Valley and leave no reduction strategy off the table. This includes emissions from industrial biomass facilities, agricultural and residential burning, commercial charbroiler equipment, oil and gas operations, and tailpipe emissions from mobile sources and stationary diesel equipment. It is our expectation that you will improve and finalize this plan in a timely fashion, and that you will continue to work toward attaining the clean air standards for the San Joaquin Valley by the soonest date possible. (NPA, et. al., NPCA)

RESPONSE: This Plan contains a comprehensive suite of regulatory and incentive-based measures to be implemented by the District and CARB to achieve the emissions reductions necessary to attain the PM2.5 standards as expeditiously as practicable (see Appendix C). This Plan builds upon comprehensive strategies already in place from previously adopted District plans and CARB State strategies. As such, this attainment strategy relies on existing measures already in place for stationary, area, and mobile sources, as adopted and implemented by the District and CARB. The aggressive regulatory and incentive-based measures proposed by both the District and CARB, combined with existing measures achieving new emissions reductions will achieve the emissions reductions necessary to attain each federal PM2.5 standard as expeditiously as practicable, as evidenced by the photochemical air quality modeling performed by CARB (Appendix K). This Plan demonstrates the District's ongoing efforts to improve air quality in the Valley through a comprehensive strategy as follows:

Regulatory measures that build off existing stringent requirements, including new stationary source measures to further strengthen NOx and/or PM2.5 requirements to achieve greater emissions reductions from flaring activities, internal combustion engines, boilers/steam generators, glass melting furnaces, agricultural operations, and other local sources.

Incentive-based measures that accelerate the deployment of cleaner vehicles and technologies in a variety of sectors, including residential wood combustion, agricultural internal combustion engines, agricultural equipment, heavy duty trucks, off-road equipment, transit buses, school buses, freight equipment, passenger vehicles, locomotives, commercial lawn and garden equipment, and other sources.

State mobile source strategy that reduces emissions from mobile sources under state and federal jurisdiction, including heavy duty trucks, agricultural equipment, locomotives, and off-road equipment.

Targeted "hot-spot" strategy that focuses additional regulatory and incentive-based measures for residential wood burning and commercial charbroiling

operations in remaining areas of the Valley that requires further investment and regulatory efforts for attainment of the federal PM2.5 standards. Hot-spot areas include Fresno, Madera, and Kern counties for residential wood combustion and the urban areas of Fresno, Madera, and Kern counties for charbroiling.

Public outreach and education that encourages and empowers the public to understand air quality issues, take advantage of District tools to stay informed regarding local air quality, take actions to protect themselves when necessary, understand the Valley's unique air quality challenges, and take actions to reduce emissions and improve the Valley's air quality.

Technology advancement and demonstration efforts to advance technology and accelerate the deployment of innovative clean air technologies that can bring about emission reductions as rapidly as practicable.

Call for action by the state and federal governments to do their part in taking responsibility for regulating, and taking actions, to reduce emissions in the Valley. This includes working together to advocate and secure the significant new funding required to achieve the enormous emissions reductions necessary for attainment under this Plan through incentive-based measures.

52. **COMMENT**: The District's eTRIP rule (Employee Trip Reduction Implementation Plan rule) should also be strengthened by lowering the threshold for when it applies and making requirements more significant. (Sierra Club)

    RESPONSE: The District's eTRIP rule is the only rule of its kind in the state and reduces emissions by working with employers to promote and implement measures that reduce commute-related vehicle miles traveled. Senate Bill 709 (Florez, 2003), which provides the District with authority to adopt the District's eTRIP rule, specifically limits District authority to business that employ at least 100 people. As such, the District cannot lower the applicability threshold.

53. **COMMENT**: The draft 2018 PM2.5 Plan is inaccurate. There is peer-reviewed evidence that challenges the validity of the EPA PM2.5 NAAQS. PM2.5 does not cause premature deaths in the U.S., California, or the San Joaquin Valley. The next version of the Draft Plan for PM2.5 must include the extensive evidence of the flaws in the PM2.5 NAAQS and must emphasize the healthiness of the Valley regarding PM2.5. The District Board and CAC must fully assess this evidence before any further PM2.5 regulations are considered or implemented in the Valley. Air quality in the Valley, California, and the US is at healthy levels, as shown in EPA Maps of PM2.5 and Ozone in the US (https://www.airnow.gov/). WHO World Maps show that unhealthy levels of PM2.5 are in China, India, Africa, and Europe, not in the US (http://www.who.int/airpollution/data/en/). (Enstrom)

RESPONSE: The comment is misdirected. The District has no authority to determine at what levels a pollutant is damaging to human health. CAA §108 and §109 require EPA to set health-based standards for six criteria pollutants, including PM2.5. EPA periodically reviews existing standards to consider the most recent health studies. The review process for a federal air quality standard starts as the Clean Air Scientific Advisory Committee (CASAC) analyzes available science and then, if supported by research, suggests to EPA a range of revised standards that would protect public health from the adverse effects of air pollution. The EPA Administrator appoints CASAC members, who are non-EPA staff and who are experts in the fields of science, engineering, or the social sciences. The committee provides objective, independent advice to EPA on the technical basis for the standard. Thousands of peer-reviewed scientific studies are considered as EPA formulates its proposed standard, which is made available for scientific peer review and public comment. EPA then sets the standard. As noted above, air districts such as the San Joaquin Valley Air Pollution Control District do not have jurisdiction to set federal NAAQS.

Furthermore, ignoring federal Clean Air Act mandates to come into attainment with established federal ambient air quality standards could lead to devastating economic sanctions to the Valley and loss of local control through a Federal Implementation Plan.

54. COMMENT: Unlike open agricultural burning, prescribed burning has the direct potential benefit of reducing long-term PM2.5 concentrations in the Valley by way of decreasing the size and scope of wildfires in the Sierra Nevada. The District should reduce or eliminate permitting costs for prescribed burns on National Forest Service or National Park Service lands to encourage more prescribed burning. Any lost funds from prescribed burn permits could be recuperated in part or in whole by increased variance fees for agricultural burning. If the District will not decrease the costs of prescribed burning permits, we recommend that the District at least work with Federal agencies to ensure that the money received goes back into efforts to reduce air pollution in nearby National Forests or National Parks. (NPCA)

RESPONSE: The District has long been supportive of fuel reduction efforts including prescribed burns, advocating that reducing fuels in a responsible way will improve the health of the forests and improve future air quality by lessening the severity of wildfires. Despite these efforts, the forest fuel buildup has continued to increase at an alarming rate over the years due to multiple causes, including the recent catastrophic tree mortality from the drought and pest infestation, and a shortage of state and federal funding for forest management activities. This long-term buildup of forest fuel poses a significant risk of large-scale wildfires with potential devastating impacts on air quality and public health. This has increased the need and urgency for greater forest fuel reductions.

Building on existing efforts to collaborate with land management agencies to facilitate fuel reduction strategies, in November 2015, the District took actions to pursue additional strategies for reducing fuel buildup as a means of mitigating wildfire emissions. This includes identifying ways to facilitate the more effective use of prescribed burning and other fuel reduction practices as a means to reduce the number and severity of future wildfires, supporting federal and state legislation to increase funding for land and forest management, developing a targeted public education campaign regarding wildfires, and working with state and federal land managers to formulate new strategies to reduce fuel-buildup and address wildfire emissions. The District has introduced additional flexibility into the decision making process for proposed prescribed burn projects over the past few years. The District allowed projects to occur even under marginal dispersion conditions, being careful to ensure that the projects were remote in location, and that nearby communities would not be significantly impacted. Additionally, the District is able to authorize requested larger acreage prescribed burning without requiring the segmentation of burn projects into multiple smaller burns, which allowed for these projects to be completed in a quicker fashion by the land managers, while also reducing their costs.

The District spends thousands of hours each year coordinating with land management agencies to facilitate the effective use of fuel reduction strategies, including prescribed burning, and to monitor and ensure public health impacts from such efforts are minimized to the maximum extent feasible as is required by state law.

The modest fees that are charged on prescribed burn projects cover only a fraction of the District's cost to implement the program and make up a small percentage of the total costs to conduct prescribed burn projects based on the average costs for the U.S. Forest Service and National Park Service identified by researchers[1]. The additional costs necessary to implement the District's program are currently made up by supplemental revenues. This is similar to other District programs. In fact, a recent audit by the California State Auditor, found that the District's fees are low compared to program costs across all program areas and that the District lawfully uses supplemental sources of revenue to make up the difference.

55. COMMENT: Forcing an air monitor, for example, in Bakersfield, to record lower levels of PM2.5 by paying surrounding restaurants to install filters, does not help someone living in another part of Kern County where there are no restaurants but instead, there may be a nearby freeway, a nearby dairy, several neighbors burning wood, etc. (AIR)

[1] Malcolm North, Brandon M. Collins, and Scott Stephens. October/November 2012. Using Fire to Increase the Scale, Benefits, and Future Maintenance of Fuels Treatments. Journal of Forestry 110:7. Page 395. https://www.fs.fed.us/psw/publications/north/psw_2013_north004.pdf.

RESPONSE: The District's PM2.5 attainment strategy consists of a suite of measures that go beyond underfired charbroilers. This strategy includes regulatory and incentive-based measures to address a multitude of stationary and mobile sources of emissions in the Valley. See Appendices C and D for control measure analyses and Chapter 4 for commitments and existing measures to reduce emissions in the Valley. In addition, the District's targeted hot-spot strategy to reduce emissions from underfired charbroiling is applicable to urban area of hot-spot communities, and not limited to areas directly next to air monitors.

[i] Agricultural Organization Coalition: African-American Farmers of California, Almond Alliance of California, America Pistachio Growers, California Apple Commission, California Blueberry Commission, California Citrus Mutual, California Cotton Ginners and Growers Association, California Farm Bureau Federation, California Safflower Growers Association, Corcoran Irrigation District, Fresno County Farm Bureau, Kings County Farm Bureau, Madera County Farm Bureau, Merced County Farm Bureau, Milk Producers Council, Nisei Farmers League, Olive Growers Council of California, Tulare County Farm Bureau, Tulare Lake Drainage District, Tulare Lake Resources Conservation District, Tulare Lake Basin Water Storage District, Western Agricultural Processors Association, Western Growers Association

[ii] Central Valley Air Quality Coalition, et.al.: Dolores Barajas-Weller, Kevin Hamilton Central California Asthma Collaborative, Nayamin Martinez Central California Environmental Justice Network, Phoebe Seaton Leadership Counsel for Justice & Accountability, Yolanda Park Catholic Charities Diocese of Stockton, Tom Helme Valley Improvement Projects (VIP), Connie Young Citizens' Climate Lobby, Fresno Jim Grant, Roman Catholic Diocese of Fresno, Tom Frantz Association of Irritated Residents, Janet Howard Community Resident, Mark Rose National Parks Conservation Association, Dr. Anthony Molina Community Resident, Bill Magavern Coalition for Clean Air

[iii] National Parks Association, et. al.: Alicia Metz, Arianna Ramirez, Bernard Hochendoner, Candice Lopez, Cheryl Wey, Christina Roe, Corey Ploutz, Deborah Cianca-Mayer, Debra Phillips, Edward Bergtholdt, Elizabeth Eisenbeis, Eugene Hinton, Evans, Gay Walker, Jacklyn Yancy, Kathy Marshall, Kim Hensley, Lisa Blackhurst Louise Johnson, Mari Dominguez, Maria Agnes Rocha, Melissa Potter, Michael Bordenave, Nicolette Froehlich, Peter Harwood, Polly Lewis, Rachel Clarke-Roberts, Robert Glover, Rosa Diaz, Sarah Lacey, Susan Hatch, Todd Bachman, Todd Minturn, Trish Lewis, William Bailey, Jim Spooner, Jennifer Hayes