

**Appendix D**

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**Summary of Significant Comments &  
District Responses**

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**Appendix D: SUMMARY OF SIGNIFICANT COMMENTS &  
DISTRICT RESPONSES FOR THE APRIL 14, 2010 VERSION OF THE  
REPORT**

**US EPA REGION IX STAFF COMMENTS**

No comments were received.

**ARB STAFF COMMENTS**

ARB staff has reviewed the Draft Staff Report and Recommendations on Agricultural Burning and has no comments at this time.

**STAKEHOLDER COMMENTS**

Stakeholders who submitted comments:

Albert Segal (AS)	Kautz Farms (KF)
B&B Farms, LLC (BBF)	Kern Wild Land Management & Kern Asthma Coalition (KLM, KAC)
Bernie Mettler (BM)	Kings River Conservation District (KRCD)
Bertie Sousa (BS)	Larry P. Mettler (LM)
Bogle Vineyards (BV)	Lance Canty (LC)
California Biomass Energy Alliance (CBEA)	Lodi District Grape Growers Association, Inc. (LDGGA)
California Citrus Mutual (CCM)	Lodi Farms (LF)
California Cotton Ginners and Growers Association and Western Agricultural Processors Association (CCGGA/WAPA)	Fresno-Madera Medical Society (FMMS)
California Grape and Tree Fruit League (CGTF)	Michael Harris (MH)
Chaffese Farming Company (CFC)	Nisei Farmers League (NFL)
Char Don Farms, Inc (CDF)	Pete Sunny (PS)
Dave Baker (DB)	Phil Shield (PhS)
David Presk (DP)	Richard Bonotto (RB)
Don Gallagher (DG)	Rio Bravo Biomass Plant (RBB)
Earth Justice (EJ)	Robert Pampaian (RP)
Fresno Metro Ministry (FMM)	Roy Nagata (RN)
Global Greensteam, LLC (GGS)	San Joaquin Farm Bureau (SJF)
Jack Davis (JD)	Sandline Farms (SF)
James Irrigation District (JID)	Sanger Hill Ranch (SHR)
Jeff Tienken (JT)	Tom Frantz (TF)
John Paoluccio Consulting Engineers, Inc. (JPC)	Turlock Irrigation District (TID)
John Price (JP)	Unknown Gentleman (UK)
	UCCE Merced County - David Doll, Farm Advisor (UCCEMC)

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UCCE San Joaquin County - Paul S. Verdegaal, Farm Advisor (UCCESJC)  
Vance Kennedy (VK)  
Vineyard Management (VM)

34 agencies signed a single comment letter – the list of agencies is located at the end of this appendix (MULTI)

1. **COMMENT:** Over the past seven years, some nut and tree fruit growers have begun to use the new brush and limb shredding machines rather than burn their orchard material. These shredders move through the field and grind the material into smaller chips. These machines have helped reduce the amount of material being burned. The Flory brand shredding machine grinds the material into smaller chips which decompose faster. There are also an increasing number of growers that are moving to no-till farming, and these growers need shredded material to decompose before harvest. Other brands of shredding machines on the market, but none that chip the material as small as Flory's.

Almonds, walnuts, pecans, and tree fruit constitute 1.3 million acres in the Valley. To date only 40 of Flory's machines have been purchased, at a cost of more than \$12 million. We estimate every machine would have to chip over 20,000 acres per year if burning is eliminated. A typical shredder may be able to accomplish  $\frac{1}{4}$  of that amount in a given year, given the very narrow window in which to chip. This means that growers need to spend another \$60 million to reach the point in the number of machines necessary to attempt to eliminate burning.

A delay in the burn prohibition of surface-harvested pruning is necessary in order for more of these machines to be put into use. Such a delay would enable more of these machines to be purchased, as well as the existing machines to be updated. At a cost of \$315,000, the average grower is not able to purchase a machine of his own and must rely on contractors to come in and shred his field, which may or may not be on the grower's timeline. (NFL, CCGA/WAPA)

**RESPONSE:** District staff appreciates the information provided above and concurs with stakeholders' concerns regarding the ability of an average grower to purchase a shredder. District staff acknowledges that purchasing a shredder is an expensive option for the average grower and believes that many growers would likely hire a custom shredder. District staff will continue to assess the availability of custom shredders and the ability to shred the material within the timeline.

Based on the analysis in Chapter Three, staff believes that a grower that farms almonds, walnuts, and/or pecans over 3,500 acres would find it more cost effective to purchase a shredder rather than hire a custom shredder. However, more time is needed to assess the economics and availability of custom

shredders for the average growers. Please refer to Chapter 3, Section 3.7.3, for additional information.

2. **COMMENT:** The ARB attributed the reduction of PM since 2002 to the reduction of open burning. The changeover to non-till operations played a more significant role in reducing PM than reducing open burning. Many farmers have changed to non-till or reduced tilling operations and the results have proven to be very beneficial to reducing dust generation. Dust mites and other pest problems have been reduced. The small particle dust generated by disking orchards is considerably greater than that of non-till. ARB wants farmers to chip prunings and disc them into the soil instead of burning them. Chipping and allowing the wood pruning's to decay causes more air pollution than open burning of dry prunings. (JPC)

Has it been considered that grinding my orchard waste [almond prunings], disking them into the soil, spring-toothing the soil and then planning the orchard to re-establish the orchard floor would use a great deal more energy [pollution] and cause more airborne particulate matter than simply burning? In the Air Pollution Control District's approved process, I will have compacted my soil so I'll have to rip my orchard to improve water penetration. This must be done when the soil is dry to be effective, making lots of dust; then it is necessary to disc and spring tooth and plane the orchard once again, making more dust, burning more fossil fuels, causing more pollution. (AS)

**RESPONSE:** In addition to reduced open burning through the use of sustainable agricultural practices, growers have also continued to conduct research and other practices to help further reduce emissions (especially PM) through best management practices from other operations, such as no-till. Based on our findings, many growers are shredding the almond (and walnut) prunings and leaving the materials in place. Some growers may prefer to till or disc the materials, but this alternative would not be required by the District. Other options that are available include taking the material to the biomass power plants, which one grower is doing.

The District conducted an analysis comparing the emissions from open burning and the recommended alternatives, shredding the pruning materials on site and taking the orchard materials to biomass power plants. Based on District's analysis, the emissions from the recommended alternatives are lower than open burning. Please see Chapter 5, Section 5.3, for additional information.

3. **COMMENT:** The percentage of "no-till" acreage has grown to near 90% of the total walnut orchard acreage. Second, the chips in walnut and pecan orchards are problematic. For example, the pruning of walnuts occurs during the wet season, making it impossible for chippers to enter the orchards until the rains

have subsided. However, when the rains have subsided, growers need to apply blight sprays, which is impossible if prunings are scattered on the orchard floor. Another point is the potential for mold. Since prunings are organic, they are subject to the development of mold, which can be carried into the huller/dehydrator. This is a major concern in terms of food safety. Finally, the chips themselves become a problem at the processing plants, where they can plug up equipment. (CCGGA/WAPA)

**RESPONSE:** Given the fact that the majority of growers are currently practicing no-burn alternatives and the increasing availability of small chip shredders, it would appear that many of these technical concerns are being addressed. Staff is recommending an extension of the burn prohibition deadline in selected cases to allow the supporting infrastructure to fully develop and for technical issues to be resolved.

4. **COMMENT:** Consideration might be given to restricting open burning on “No Burn” days like they do with fireplaces. Growers should not be allowed to burn when fireplace burning is prohibited. (JPC, BS)

**RESPONSE:** The residential wood burning declarations are in effect from November 1 to February 28. During that time, the District also prohibits allocation of open burning from agricultural material in any zones in a county that had declared a residential wood burning curtailment.

5. **COMMENT:** When forest fires occur, very wet wood is burned and millions of tons of GHG’s are formed. The forest departments are on the right track to divert that biomass to offset fossil fuel use, but they still have to slash and burn most of the forest thinning and residue because not enough biomass power plants are available. When wet wood is burned, incomplete combustion occurs with the release of substantial amounts of polluting greenhouse gases (GHGs). The burning of wet wood should be discouraged.

Burning dry wood is natural and good for our environment and is an important part of the cycle of life on earth. Burning dry wood releases the stored solar energy and water vapor and carbon dioxide. When dry wood is burned, instant smoke and water vapor is visible along with CO<sub>2</sub>, CO, methane and other GHGs, plus ash being emitted. Dryer wood results in more complete combustion with more energy and water generated. (JPC)

**RESPONSE:** Forest fires are addressed in the District’s Rule 4106 (Prescribed Burning and Hazard Reduction Burning). For open burning of agricultural material, Rule 4103 (Open Burning) requires that agricultural materials are allowed to dry for minimum time periods before being burned. Specifically, the

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rule requires three weeks of drying time for prunings and small branches, and at least six weeks for large branches and orchards.

6. **COMMENT:** If wood is allowed to decay by natural means, including decomposition by ants, termites, fungus, microbes, etc., then considerable amounts of methane gas are generated and released along with other GHG's. Methane is one of the major primary airborne contaminants generated on earth. (JPC)

**RESPONSE:** There are at least two types of decomposition processes which help convert the material into soil amendment – anaerobic and aerobic decomposition. The aerobic process uses oxygen to help decompose the material, which also helps reduce the amount of emissions generated and emitted into the environment. District staff is currently reviewing the emissions impact from composting as part of a different project, Draft New Rule 4566 (Organic Waste Composting), and will work with stakeholders to address these concerns. For the purpose of this project on open burning, District staff has found that shredding the pruning materials and leaving the material on the orchard floor is a viable practice for many growers. The amount of material shredded is typically less than three inches above the orchard floor and is not considered the same as a compost operation. District staff would appreciate receiving information on any studies which may show the amount of greenhouse gas emitted into the air from wood decomposition.

7. **COMMENT:** Biomass holds the promise of reducing fossil fuel use and can substantially help our energy production and dependency on foreign oil. If this wood resource were burned in a biomass plant under ideal conditions, only a very small amount of pollutants would be emitted. Biomass is considered a Renewable Energy with a zero net addition of carbon to our environment. The practical use of this resource should be encouraged. Biomass offers the only practical near term solution to meeting our carbon dioxide reduction goals. Encourage renewable energy in lieu of fossil fuel use. Many of the recently published reports by the Energy Commission and ARB are recognizing that tapping into biomass can help California reach its mandated 1/3 reduction in CO<sub>2</sub> by 2020. (JPC)

**RESPONSE:** The District recognizes that biomass operators are integral to the success of implementing the CH&SC requirements. On January 21, 2010, the District Governing Board adopted the Districts 2010 Legislative Platform. On that Legislative Platform are two 2010 Legislative Priorities that will affect biomass facilities. These legislative priorities will provide policy guidance for legislative action and recognize the unique needs of the District during the upcoming legislative session. One of the principles of the legislative platform that will guide District policy is to support legislation that would provide for the continued

operation of strategically located biomass facilities to provide disposal options for agricultural, urban, and forest wood waste. District has recommended the use of biomass power plants as one of the viable alternatives in the SJVAB for agricultural material. While shredding the prunings on site is a viable alternative, taking the pruning material to the biomass power plants is also a possible option for growers. As part of the recommendations, District staff would increase the amount of material going to biomass power plants by reducing the amount of fig orchard removals and other orchard removal materials that could be burned to 15 acres or less per location per year.

8. **COMMENT:** New technologies, inventions, and processes that utilize renewable biomass offer many opportunities that can lead to a substantial reduction in fossil fuel use. These include bio-diesel, ethanol, wood pellets, torrefied wood pellets, and many others. Technology and economics do not currently allow for many other practical options for the farmer other than to burn the prunings. Wood chipping and transporting the chips to a pellet mill or biomass plant would be ideal and may soon be practical as soon as efficient biomass conversion to fuel becomes more acceptable. In the meantime, while it is not practical or economic to justify this method of energy conversion, it still is best to burn the wood prunings. (JPC)

Based on the realities of a small operation, there are few if any financial options for alternate technology or methods for pruning disposal. If a small grower can not deal with the pruning materials in a low or no cost method using personal labor (that is, burning), then he may be forced to take the land out of production. There is not enough residual profit from a small farming operation to accommodate an alternate that has a monetary cost. Pruning materials are limited because of the small size of the operation. Burning of pruning material only needs to occur for a very short period once a year and can be easily managed and controlled. The impact to air quality can be negligible from this small of an operation with good management practices. (SHR)

**RESPONSE:** As previously mentioned, many growers are already shredding the pruning material as a viable option. District staff has considered the impact of the burn alternative on small operations. Please see Chapter 3.7.3 for the District's proposed recommendations.

9. **COMMENT:** The switch to chipping of almond prunings has caused significant economic loss to the almond hulling industry in the form of lost revenue from the sales of "prime hulls". The chips are not eliminated by the normal pre-cleaning process. Consequently, the chips end up mixed in with the hulls, which increases the fiber content to a point where it can no longer be sold as "prime hull." Our members indicate that they have experienced a 5% to 11% loss in prime hull sales. If the industry is forced to eliminate burning altogether, almond



hullers will have to install additional pre-cleaning equipment at a substantial cost, or be forced to live with substantially reduced revenue streams from the sales of prime hulls. (CCGGA/WAPA)

**RESPONSE:** There is a vendor that has a shredder which would be able to shred the pruning materials to finer pieces to help speed the break down of the shredded material. This process does not require a grower to till the material into the ground. There are also other shredders available in the market which may require more passes to reduce the material into smaller pieces. Because the infrastructure is not sufficiently large enough to meet all shredding requirements, specific burn allowances are recommended for surface-harvested prunings.

10. **COMMENT:** Restricting open burning results in considerable economic loss to the state, hurts farmers and taxpayers, and the resulting air pollution problems will become worse not better. It is in the best interest of the state that restricting open burning be curtailed until practical methods of transferring ag waste and pruning's to biomass facilities for efficient burning. (JPC)

**RESPONSE:** Since 2003, the District has worked with the affected stakeholders to address the state law requirements. Growers have reduced significant amount of agricultural materials being burned since then through sustainable agricultural practices. The District will continue to work with affected stakeholders to address these concerns.

11. **COMMENT:** Long range storage of ag materials increases rat, mice, rodent and flea infestations that migrate to populated areas. (JPC)

**RESPONSE:** Any storage of agricultural materials on farms is to allow the materials to dry before the material is shredded, removed, or burned. Growers typically do not store these materials for long periods of time because it could delay other operations.

12. **COMMENT:** The allocation system should be re-worked. When I have ten acres to burn the system will only approve eight acres and I have to come back the next day to burn the remaining two acres. I should be allowed to burn the whole ten acres at once to save time and money. (JT)

**RESPONSE:** The District is required to utilize a Smoke Management System where burning is allocated daily based on the forecasted meteorological conditions and the total tonnage of emissions allotted for each individual zone within the District, to ensure that the allowance of agricultural burning does not cause or contribute to a violation of a Federal National Ambient Air Quality Standard.

13. **COMMENT:** When prunings are chipped, stored, and then disked into the soil, much more air pollution and other problems occur. Considerable PM 10 & PM 2.5 are generated due to chipping and diskings into the soil. Decomposition leads to the release of many greenhouse gases. Plus 100% of the pollution from the use of fossil fuels by the chipper/grinder and other equipment is added to our environment. (JPC, JPC, JT, MH)

**RESPONSE:** Please refer to Section 5.3 for further discussion on the comparison of the PM2.5 emissions from open burning with shredding the pruning materials and taking the orchard materials to biomass power plants. Many growers are shredding the pruning material and leaving the material on the orchard floor without tilling. District staff has clarified in the report that the likely alternative for almond, walnut, and pecan crops is to shred the material in place.

14. **COMMENT:** Alternatives offered are cover for dust or erosion control and/or wood mulch. What is the market in the San Joaquin Valley for these products and where are the outlets? What is the current price structure for these products? (CCM)

**RESPONSE:** District staff has found that the alternatives above are technologically feasible; however, these alternatives are currently not a viable source on a commercial scale to address the agricultural materials that are subject to the state law requirements. District staff has clarified in the report that the likely alternative for almond, walnut, and pecan crops is to shred the material in place.

15. **COMMENT:** Why allow an exemption for 20 acres of prunings from almonds, pecans, and walnuts? (EJ)

**RESPONSE:** According to the custom shredders, the average charge to shred the prunings is a minimum of two hours. The recommended shredder, which can shred the materials to finer pieces to address issues with the chips not being decomposed by harvest season or being picked up during harvest, can process eight to ten acres per hour. Due to the two hours minimum that custom shredder charges the grower, District staff believes that the cost on a per acre basis would increase as the acreage becomes smaller. Therefore, the 20 acres limit within the two hour timeframe is reasonable.

16. **COMMENT:** In table 5-6, is prunings from the 3,500 acre farms included in the 12,670 acres annual reduction in acreage burned from almond pruning? (EJ)

**RESPONSE:** Yes, District staff included all burn acres from growers whose total nut acreage at all agricultural operation sites is 3,500 acres or more. The burn acres also include small acreages since the shredder would be available to shred any amount of nut acres owned by the grower.

17. **COMMENT:** Is the information in Table 5-1 what is under consideration for this report? (EJ)

**RESPONSE:** Yes. For this report, District staff is evaluating the crop categories that are subject to the June 1, 2010 burn prohibition deadline, as well as the crop types that had been postponed in earlier phases. District staff has removed the category for "Untreated Grapestakes" since this category is not specified in the CH&SC. Therefore, we do not plan to evaluate it at this time. Our "vineyard removal" category, which is in the CH&SC, is defined to include untreated grapestakes that is removed along with the vineyard orchard. However, in the "untreated grapestakes" category, only the untreated grapestakes are removed (typically to replace broken ones or to change the stakes with steel versions).

18. **COMMENT:** Clarification should be added to the report that attrition is not covered in the report and it will still be allowed to be burned because it's not part of the CH&SC. (PS)

**RESPONSE:** Please refer to Section 1.1.2 for further information on attrition.

19. **COMMENT:** How can the District staff do a case by case evaluation for almond pruning in a timely manner? (SJF)

**RESPONSE:** As part of the recommendations, District staff has taken the timing and availability of the custom shredding operator into account and will work with stakeholders to develop a streamline process to address the information needed to conduct the evaluations in a timely manner.

20. **COMMENT:** Why is the District considering reducing burning for orchard removals from 20 acres to 15 acres? We request the District reconsider and keep the orchard removals at 20 acres. Farmers tend to farm in 20 acre plots, it makes more sense to keep the exemption at 20 acres. (SJF, DB, CCM)

**RESPONSE:** District staff has found that limiting the acreage amount to 15 acres would be feasible based on the District's cost analysis to chip and haul the orchard removal materials to the biomass power plants, where the cost per acre appears to level out at about 15 acres or more. In addition, the District's Compliance Department has indicated that several requests above 15 acres have been denied because the costs to chip and remove the orchards were

determined to be economically feasible. Further information on cost analysis can be found in Chapter Six of this report.

According to the burn applications, burn permits that were approved for less than 15 acres make up for most of the burns, over 84%. According to some growers and chipping operators, the cost per acre could level out to as low as 10 acres for some growers; however, District staff believes that 15 acres is a reasonable limit based on the cost analysis and considering fluctuations in cost caused by location, fuel costs, and materials, and other factors. One grower of a small farm indicated that a few acres of orchards are removed every few years to keep the farm productive. This amount is less than the 15 acre limit.

21. **COMMENT:** For orchard removal, is there a significant reduction in emissions between burning 15 and burning 20 acres? Will this difference of five acres be produce a significant enough reduction in pollution to justify reducing allowed burning from 20 acres to 15 acres? (SJF)

**RESPONSE:** The District will continue to review the remaining crop categories and crop types to assess the economic feasibility of further reducing the amount of specific materials being burned, as required by the California Health and Safety Code. Per Table 5-5, the total annual emission reductions for this category contributes to at least half of the total emissions that the District is expected to reduce from the recommendations in this report. As mentioned in comment #20, the District's Compliance Department has indicated that several requests above 15 acres have been denied because the costs to chip and remove the orchards were determined to be economically feasible. Therefore, some emissions from this category have already been reduced.

22. **COMMENT:** Can small farms get together and have the chippings hauled away together to reduce costs to them? (KLM, KAC)

**RESPONSE:** Based on discussion with some of the chipping operators and custom shredders, the overall costs could be lower if another job is nearby, however, the District could not require such pooling as their chippings may pose timing, logistical and legal issues for small farmers.

23. **COMMENT:** There are over six hundred farmers with small farms in Stanislaus County. Will small citrus farmers be allowed to burn citrus prunings? What about citrus orchard removals? ( LC)

**RESPONSE:** Prunings (of all acres) from citrus crops were no longer allowed to be open burned since 2005, as part of the Prunings category. The burn prohibition for orchard removals from citrus crop was postponed in 2007; therefore, District staff has reviewed this category as part of this report and

recommends that the burning or orchard removals from citrus crops be allowed due to economic infeasibility and capacity concerns of burn alternatives. Please see Chapter 3 for further information regarding orchard removals from citrus crop.

24. **COMMENT:** We recommend that citrus be allowed to continue to burn as currently allowed in Rule 4103, but with at least an 8-10 week drying time so that the wood burns as cleanly as possible. California Citrus Mutual is supportive of the proposal as presented and would be supportive of an 8-10 week drying time prior to receiving authorization to burn. (CCM)

**RESPONSE:** Based on the findings in Chapter 3, District staff has recommended that growers allow a drying time before burning of between eight to ten weeks for citrus materials as a best management practice to minimize emissions from these burns.

25. **COMMENT:** Section 3.6.1 citrus crops – need for correction. The Valley biomass power plants do accept citrus and, further, the amount that is accepted in each plant's wood yard during the peak removal season can actually be higher than 20 or 30% of the plants' daily wood fuel needs. The plants are capable of accepting and storing up to 40 or 50% for later mixing into other fuel varieties. (CBEA)

**RESPONSE:** As discussed in Chapters 3 and 7, uncertainty for the long term capacity of processing citrus crops at the biomass facilities remains. District staff will work with the biomass industry to obtain further information on the amount and type of fuel that has been accepted at the biomass power plants in the SJVAB over the next few years. Information that would help further the District's analysis on biomass capacity includes, but is not limited to:

- 1) Actual amount of agricultural materials and actual amount of urban or other materials accepted per year.
- 2) Additional information on storage capacity, such as the actual amount of materials that can be stored onsite at a given time and the actual amount and type of material that is stored per year.

26. **COMMENT:** Hilly areas or rocky soil are prevalent in some citrus growing areas. What will be the procedure when a chipper refuses a job because the grove is located in these areas? (CCM)

**RESPONSE:** District staff has found that the costs to chip citrus orchard removals are typically higher than other orchard removals. Based on staff's analysis, it is not economically feasible for citrus growers to chip and remove the orchards at the current cost. For growers that are in hilly areas or have rocky soil, the cost would be even higher or not feasible.

27. **COMMENT:** Section 6.3.2 Apple, Pear, and Quince Orchard Removal Matter. needs to be updated. This orchard wood has been accepted and since the wood is combusted for power production no chance of spreading blight would exist. (CBEA)

**RESPONSE:** The process of chipping and transporting diseased pome fruit material is currently considered a method of transferring blight to other orchards, which is an unacceptable risk to the industry. The District could not find any technologically feasible alternatives of disposing of the diseased pome fruit material.

28. **COMMENT:** What about allowing to burn when it's raining? We should be allowed to burn when it's raining. (UK)

**RESPONSE:** Often times, the PM levels can actually increase just before a rain event and after the material is wet, then it does not burn cleanly. District staff consider each rain event separately and adjust the burn allowances to account for any positive or negative impacts it may have on air quality.

29. **COMMENT:** The health and economic benefits plus the GHG benefits of returning most of this agricultural biomass to the soil rather than burned openly or burned in biomass incinerators needs a lot more thorough analysis There needs to be more of a full cycle analysis following the green house gas emissions associated with biomass incineration. Also, there seems to be a negligible analysis of the trucking of biomass fuel to the biomass incinerators which includes both the agricultural material and the fuel imported from urban areas both within and outside the valley.

**RESPONSE:** The proposed report does include an extensive health and economic analysis including the emissions from diesel trucks used to haul materials to the biomass power plants. While the District does not currently have authority over greenhouse gases, the associated initial study and negative declaration analysis does discuss the impacts of the proposed recommendations on such emissions.

30. **COMMENT:** Vineyards cannot be shredded due to the wire, and metal stakes that after years becomes entangled in the wood throughout the vineyards. Biomass power plants will not accept vineyard material that is contaminated with steel. Therefore, vineyards should be allowed to continue to be burned. Costs would be outrageous to try to remove these materials from the vineyards, if even possible. Burning of Vineyards is the only true sanitary means of eliminating diseased vineyards. Chipping or grinding has the potential to spread disease pathogens, and canker diseases such as Eutypa. (CFC, RB, VM, CDF, BBF, RN, KF, LM, LF, BM, LDGGA)

**RESPONSE:** The cost of removing the wire prior to shredding and the ten-year profit from vineyards was used to determine that chipping and grinding the vineyard removals was not economically feasible so an extension of the burn prohibition is recommended for this category.

31. **COMMENT:** Does the crop category “vineyard pruning” include stumps? (DP)

**RESPONSE:** No, any part of the vine that is pruned occasionally would be considered part of “vineyard pruning”. If the stump is removed because it is dead or broken, it is in a category called “attrition”.

32. **COMMENT:** We caution that your analysis must incorporate further discussion to what is economically reasonable. Additionally, I respectfully ask the District to include clarifying information on how it intends to determine and define profit and once determined how the District will use this factor when considering whether an alternative measure is appropriate (or inappropriate) for use by the affected community. (CGTF)

Is the profit calculation based on gross or net sales? There is a significant difference between the two calculations, especially for permanent crops. (CCM)

**RESPONSE:** District staff appreciates the profitability information provided by the industry to further refine the economic analysis. Further discussion on the District’s consideration and recommendations of the alternatives are found in Chapter 3. The economic analysis report is presented as part of this report.

33. **COMMENT:** Citrus growers are reporting charges in the range of \$500 to \$700 per acre to chip and haul material to the biomass facilities. It is reasonable to project that costs will increase as chippers upgrade their equipment to be compliant with ARB’s off-road rule. (CCM)

**RESPONSE:** District staff appreciates the contribution of costs provided by the industry to further enhance the cost analysis.

34. **COMMENT:** A complete ban of agricultural burning will greatly impact our small farming operation. Please consider keeping a plan of restrictive controlled burning for agricultural material for small farms or small acreage pullouts. (JP, RP, RB, LC, SF)

**RESPONSE:** The proposed recommendations do include allowances for small burns based on the technical and economic issues faced by small farms.

35. **COMMENT:** How long will this next version of the rule last? The ag industry needs predictability and stability, therefore we request the District not revisit this issue for five years. (JT, SJF)

The District should revisit and re-evaluate open burning and alternatives in the next two years (FMM)

**RESPONSE:** Rule 4103 requires the APCO to review the recommendations at least once every five years. Many of the changes in the economy and infrastructure will not occur for at least two years with an additional year or two needed to evaluate impacts of those changes, revise the report, as needed, and allow for public review and discussion. Therefore, barring an overwhelming development in this area, a four to five year review cycle seems most likely. The California Health and Safety Code Section 41855.5 also provided the District with at least five years to review all of the crops as specified in the state law.

36. **COMMENT:** The open burning of ag material does not create a single job, it does not generate any additional economic activity, and it does not produce one additional dollar of state and local tax revenue. Open burning does not result in the generation of a single megawatt of alternative energy at a time when the state is seeking to maximize the generation of renewable energy and reduce our reliance on fossil fuels. (CBEA)

**RESPONSE:** Although there are beneficial aspects of reducing open burning, the economics of the process does not allow all available materials to be processed and delivered to biomass plants. Vineyard materials would require significant labor to remove embedded wire, placing it well outside the cost a biomass operator would pay for it as a fuel. Similarly, soil incorporation or mulching of the shredded pruning material can reduce water usage, control weeds and pests, and return nutrients to the soil, creating a sustainable farming operation.

37. **COMMENT:** The burning of weeds along canals, ditchbanks, and waterways is necessary, as there are no known alternatives that can be used in all situations. Federal EPA and the State and Regional Water Boards continue to push to eliminate the use of chemicals near any waterway. Hand labor to remove the weeds individually is impossible and impractical given the thousands of miles of canals, and ditchbanks. The use of flame desiccation, direct burning of residual weed foliage and over growth of weeds assures the destruction of weed seeds. In many remote locations, fire is the only option for effective weed control. Some areas have accessibility issues for mechanical control, and time limitations can also be a problem. We would urge the District to continue the burn postponement indefinitely. (CCGGA/WAPA, JID, MULTI, TID)



In April 2007 the Corps released a draft white paper that called for the removal of wild growth, trees, and other encroachment which might impair levee integrity or flood-fighting access in order to reduce the risk of flood damage. The Corps has proposed that levees that fail to meet these existing standards will be rated as unacceptable, with the consequence that KRCD could lose eligibility for Federal Assistance in post-flood levee rehabilitation. With the Corps new vegetation standard, KRCD will have to do some heavy tree brushing and some of the brush will be too big for our chipper. We also have some trees that have fallen along the levees and into the river that have to be cut and stacked into burn piles. KRCD does not believe there is any economically feasible alternative to open burning. (KRCD)

**RESPONSE:** The report recommends postponement of the ban on burning weeds along ditches and waterways. Because of the way the State law is written, the burn prohibition can be postponed by the Board, but not indefinitely. Like the other recommendations, it will be reviewed periodically to determine if further postponement is warranted.

38. **COMMENT:** Section 5.5 Health Benefits of Reduced Open Burning. The District claims here and elsewhere in the report they support legislation that will encourage, promote, and facilitate alternative uses for ag material. We would encourage the Air District to continue to vigorously support legislative initiatives to support continued viability of Biomass power. The District should incentivize biomass power plants to reduce the open burning in the Valley. (CBEA, FMM)

**RESPONSE:** The District's 2010 Legislative Platform contains support for policies and initiative that encourage renewable energy such as biomass plants.

39. **COMMENT:** Citrus is still not accepted by all biomass facilities and, for those that do accept it, the fuel blend is no more than 20% citrus wood (with some exceptions). It is doubtful whether these facilities will have the capacity to purchase all citrus wood given the limited amount of citrus in their fuel mixture. Additionally, biomass facilities have always preferred urban wood due to its lower cost. Although there is limited availability of urban wood because of the current economic conditions, when conditions improve, nothing indicates that the biomass facilities will not return to their previous purchasing patterns. (CCM)

We believe that additional capacity is required to accommodate the processing of biomass which can no longer be openly burned. Most of the biomass facilities were built many years ago and have experienced serious problems causing shut-downs or operations at reduced capacity. We believe they will continue to have serious problems in the future due to age and inherent design limitations. If this wood resource were burned in a biomass plant under ideal conditions, only a very small amount of pollutants would be emitted. We would derive substantial energy and

reduce our dependence of fossil fuels through new technologies like bio-diesel, ethanol, wood pellets, torrefied wood pellets and many others. However, these new technologies is not yet available to the Valley's farmers. In the meantime, it is still best to burn the wood prunings. (JPC)

**RESPONSE:** The District's proposed recommendations are based on the current market analysis of specific crop types, as well as the historical information and documented data of the amount of agricultural material that was accepted at biomass power plants. District staff will continue to work with the biomass operators and ag industry to assess the actual capacity and amount of agricultural materials that will be accepted over the next few years.

40. **COMMENT:** Two coal plants in Stockton are making changes to their facilities to be able to accept and burn biomass materials. One facility will be able to burn 50% biomass fuel, the second facility would burn 40% biomass fuel by 2012, and the facility at the port is also making changes. (CBEA)

**RESPONSE:** Staff researched the permit database and was able to locate information regarding the two named facilities. Staff was able to verify that one of those facilities appears to be attempting to make changes in order to accept biomass fuel. Staff requests the CBEA submit more information to the District regarding these facilities. However, staff have added language presented by CBEA to the report. Please refer to Chapter 7 for further details.

41. **COMMENT:** Biomass Power Plants can't get enough ag materials at this time. They need more of it and can't seem to get enough to meet their needs. (CBEA)

**RESPONSE:** Staff agrees that the biomass power plants have increased consumption of agricultural materials at this time and believes that the economic down turn and reduction of available urban waste for fuel may have contributed to the increased consumption of agricultural materials. However, the statement that biomass plants need more ag fuel has been added to the report, please refer to Chapter 7 for further details.

42. **COMMENT:** The biomass plants have made great investments in improving their infrastructure and accepting larger quantities of materials including vineyard and citrus removal materials. Future plants are also planned that will further increase the capacity of the industry to accept agricultural materials. (CBEA)

**RESPONSE:** District staff thanks CBEA for the updated information and has incorporated it into the report as appropriate. Please refer to Chapter 7 for further details. As stated by CBEA, these plants will take four to five years to develop. The change in burn prohibitions will go into effect this summer. Staff must evaluate alternatives that are currently available. In the future, when staff

re-examines open burning and alternatives to open burning, the future biomass power plants, if operational, will be included in those evaluations.

43. **COMMENT:** The staff report does to seem to fully recognize the criteria pollutant reduction that our facilities are already providing through our current operations and acceptance of agricultural waste. (CBEA)

The staff report is severely underestimating the criteria air emissions from biomass incinerators. (TF)

**RESPONSE:** Data presented in the report is taken directly from the District database of emissions from the facilities and from the open burning activities. These are not estimations. The staff report presents the emissions inventory for both the open burning of the crops and from the biomass power plants activities.

44. **COMMENT:** There seems to be no assessment of GHG reduction benefits that our industry provides when compared to open field burning. This important contribution, as demonstrated by the District's emission estimate, is an ongoing, annual contribution to improving the Valley's overall air quality when compared to open burning. (CBEA)

There needs to be an analysis of GHG emissions associated with biomass power plants and trucking biomass to the plants. (TF)

**RESPONSE:** Language regarding GHGs has been added to the report as appropriate. Please refer to chapter 7 for further details. For a thorough and complete discussion of GHGs staff refers you to the Initial Study and Negative Declaration.

45. **COMMENT:** Section 7.7.1 Locations and 7.7.3 Historical Fuel Usage. Only the nine existing biomass plants within the District are evaluated. We would encourage staff to evaluate the data that we submitted in August of last year. This data includes submissions for plants outside the District boundaries that use Valley agricultural material. (Chinese Station and SPI for example) (CBEA)

**RESPONSE:** Staff has added language to the report regarding the Chinese Station and SPI as appropriate. Please refer to chapter 7 for further details. However, as the District does not receive quarterly reports regarding fuel received, used, burned, and associated emissions, therefore, staff will not include information from these plans in the Historical Fuel Usage section of the report.

46. **COMMENT:** Table 7-4 shows annual fluctuations in agricultural use by Valley plants. The conclusion that this is solely due to availability of cheap alternative

urban fuel is not a correct conclusion. In 2008, there were multiple plants down for refurbishment. In 2006, there was a regional shortage of Ag fuel. (CBEA)

**RESPONSE:** The fluctuations in agricultural fuel used at Valley plants were calculated using operational data submitted to the District that consisted of total BDT used and agricultural BDT used. These calculations compared total fuel used versus ag fuel used and would not account for time when plants were nonoperational, as during those times no fuel would be used. Staff added the comment regarding the ag fuel shortage in 2006 to the report as appropriate and request the CBEA submit data to the District validating this statement.

47. **COMMENT:** As a trained plant pathologist, it has also been my advice to remove diseased branches from the orchard by burning if they provide the opportunity (albeit unknown in some cases) to infect healthy trees. I would think, and this may be listed within the report, that growers should have the opportunity to burn diseased wood regardless of orchard/operation size.

In my estimation chipping would slightly slow down the spread of spores, but would at the same time cause a slow accumulation of latent spores in soils. Transportation for co-generation would further spread spores and act as a source of spores. The ban on burning would also increase costs of growers. These increased costs would be the result of alternative disposal methods; as growers would be required to purchase chipping equipment or pay custom operators for chipping and/or haul removed wood to other sites. After all the increased cost there would still be accumulation and facilitated spread of disease spores present. (UCCESJC)

**RESPONSE:** In 2004, the District incorporated the state law requirements for diseased crops into Section 5.9 of Rule 4103. District staff has added a discussion for diseased crops. Please refer to Chapter 1, on page 1-2, for further information.

48. **COMMENT:** Increased costs would especially affect small operations less than 100 acres (approximately 700 of 750 growers in Lodi/San Joaquin County). Currently it costs about \$400 to \$450 per ton to produce grapes in Lodi (UC Cost Study for Crush District 11, P. Verdegaal et al, 2008). Average grower returns across varieties was about \$487 per ton in 2009. I estimate it would cost about \$150 to \$250 on a per acre basis for whole vineyard removal. For annual rouging of diseased and dead vines the cost might be closer to \$75 to \$100 per acre pro-rated. A small acreage grower could expect to pay more. This would compare to about 2-3 hours of labor per acre to collect and burn. That is based on a vineyard replacement rate of about 1 to 2% annually. Cost of labor is currently around \$10.50 per hour, which includes benefits and taxes or contractor fees.

A ban on any burning of vines removed, especially to mitigate vine loss on an annual basis for small operations, would significantly increase costs; further exacerbate consolidations of operations (force small farm operators out of business). (UCCESJC)

**RESPONSE:** Please refer to Chapter 3, on page 3-8 for further discussion on grape attrition and on page 3-13 for vineyard removals.

**Signatory agencies:**

Allied Grape Growers  
California Citrus Mutual  
California Cotton Growers Association  
California Dairy Campaign  
California Grape and Tree Fruit League  
California Women for Agriculture  
Central California Irrigation District  
Columbia Canal Company  
Consolidated Irrigation District  
Cross Creek Flood Control District  
Excelsior/Kings River Resource Conservation District  
Firebaugh Canal Water District  
Fresno County Farm Bureau  
Fresno Irrigation District  
Henry Miller Water District  
Kern County Farm Bureau  
Kern Delta Water District  
Kings County Farm Bureau  
Kings County Water District  
Kings River Conservation District  
Lakeside Irrigation Water District  
Last Chance Ditch Company  
Lower San Joaquin Levee District  
Madera County Farm Bureau  
Merced County Farm Bureau  
Nisei Farmers League  
Peoples Ditch Company  
San Joaquin Farm Bureau Federation  
Settlers Ditch Company  
Stanislaus County Farm Bureau  
Tulare County Farm Bureau  
Tulare Lake Drainage District  
Tulare Lake Resource Conservation District  
Western Pistachio Association

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**Appendix D: SUMMARY OF SIGNIFICANT COMMENTS &  
DISTRICT RESPONSES FOR THE MAY 20, 2010 VERSION OF THE  
REPORT**

**US EPA REGION IX STAFF COMMENTS**

No comments were received.

**ARB STAFF COMMENTS**

ARB staff has reviewed the Draft Staff Report and Recommendations on Agricultural Burning and has no comments at this time.

**STAKEHOLDER COMMENTS**

Stakeholders who submitted comments:

Black Crowe Vineyards (BCV)  
California Biomass Energy Alliance (CBEA)  
Carol Keltner (CK)  
City of Fresno Department of Public Utilities (DPU)  
Clarke Marek (CM)  
Vicki Cunniffe (VC)  
Daniel Cobb (DaC)  
Greg & Laurie Schwaller (G&LS)  
Lindsay Black (LB)  
Robert Van Nieuwenhuyzen (RVN)

Group 1 (Individuals that are a part of group 1 are listed at the end of this Appendix).

1. **COMMENT:** Thank you for your commitment to improving air quality in the Valley. As an advocate for our national parks, air quality is very important to the park experience and our health. I support your efforts to reduce air pollution in the Valley by restricting open burning. (Group 1)

**RESPONSE:** Comment noted.

2. **COMMENT:** The draft report on Recommendations for Agricultural Burning does not contain a thorough enough analysis of the alternatives to open burning. You need to further explore the alternatives to open burning, including more analysis of the cost of chipping or shredding the waste as well as the availability of those who are capable of doing this. (Group 1)

**RESPONSE:** District staff has conducted extensive research and analysis on the alternatives to open burning and the cost of chipping and shredding the agricultural material.

For the alternatives to open burning, District staff has conducted research on feasible alternatives to open burning since 2007 and has continued to review available alternatives in 2009 and for this Report. While growers are not limited to the alternatives selected for further analysis in this report, District staff has found that chipping the orchard removals for fuel use at biomass power plants and shredding the pruning materials appear to be the most viable and cost effective alternatives and therefore, conducted further economic feasibility analysis for the affected crops. Please refer to Chapter Four of this report for more information on the alternatives to open burning.

For the analysis on the cost of chipping or shredding the agricultural material, District staff also conducted extensive research and outreach to obtain costs and availability of operators, which included reviewing the District's burn applications, conducting searches on the web/directories, surveys, phone calls, and meetings with the chipping and shredding operators/vendors.

3. **COMMENT:** The draft report on Recommendations for Agricultural Burning provides too many exemptions to the ban. (Group 1)

**RESPONSE:** Open burning of agricultural crops and materials is managed by the District's Smoke Management System (SMS), which is intended to limit emissions to levels below the federal ambient air quality standards and to better distribute emissions temporally and spatially for flexibility of burn days for growers while minimizing the impact on the public. Since 2005, District staff prohibited open burning for most of the crops and materials that were identified in the CH&SC and will continue to monitor open burning through SMS, as well as review the alternatives to open burning periodically.

4. **COMMENT:** More time should be provided between the time the report is released and the time allowed for commenting. (Group 1)

**RESPONSE:** The District will continue to work with stakeholders to ensure that comments and concerns are addressed during the project, with consideration to more time for document review during the commenting periods.

5. **COMMENT:** I am an asthmatic that was told to move up out of the valley because of the bad air. So I did and am now suffering from controlled burning. Please clean up the air, water and food contamination asap! It's too late for me but our children and future generations health and lives depend on it. Big ag and business do not have the right to pollute our environment. (CK)

We have friends from all over the world visiting this summer to attend our daughter's wedding in Bear Valley. Many are staying on to visit Yosemite and our many lovely parks in the area. We are proud of our parks and want to be able to enjoy them and share with our friends the beauty that can only be found here. (VC)

My grandson and I both have respiratory issues and I want him to have cleaner air to breath. I have stood atop Morro Rock in Sequoia National Park and have been unable to see the valley due to pollution. That really opened my eyes to the severity of the problem. (DaC)

These services [chipping and shredding] need to be made affordable and widely available to the public in order to discourage burning and the terrible air quality. I've been living here for six years now, and last year was the first year I've ever had seasonal allergies. I'm sure that the reason why is because of the bad air quality and the amount of pollen in the park. However, if this problem continues, I will be moving away from the area in order to improve my quality of life. (LB)

Tulare County often has the worst air quality in the nation, and we are in the national press for that reason. The economic costs of bad air in the Valley are close to \$200 million per year, not to mention the premature deaths, the asthma, and other debilitating cardiopulmonary diseases. Don't sell our health and the quality of our national parks for bigger profits for a few agriculturalists. (G&LS)

**RESPONSE:** The District will continue to strive to protect the health of Valley residents through efforts to meet health-based state and federal ambient air-quality standards. According to the National Parks Conservation Association's webpage, most of the air pollution affecting national parks results from the burning of fossil fuels, especially coal-fired power plants (<http://www.npca.org/cleanair/>). Public exposure to smoke has been significantly reduced with the implementation of the smoke management program. Open burning of agricultural crops and materials is managed by the District's Smoke Management System (SMS). The Valley has not experienced episodes where communities are inundated with smoke due to the District's ability to better manage and minimize smoke production based on local meteorological conditions for each of the SMS zones. Greater control over the timing of burns also improved the general air quality in all areas of the District. As mentioned in Comment #3, the District will also continue to monitor open burning through SMS, as well as review the alternatives to open burning periodically.

6. **COMMENT:** We have a chipper shredder at home and never burn any of our prunings and trimmings. (G&LS)



**RESPONSE:** The state law has required that open burning be prohibited for prunings from specific orchards in 2005. As a result, the District has prohibited open burning for those crop types, except in instances where the agricultural commissioner has indicated the need for continued burning due to diseases. For 2010, state law required that burning be prohibited from surface harvested prunings. Unlike other orchards such as tree fruits, surface harvested crops (almonds, walnuts, and pecans), are harvested from the ground and require a shredding machine that would chip the pruning material to smaller pieces in order to not be picked up along with the nuts during harvest season.

7. **COMMENT:** There doesn't appear to be an established alternative to destroying used raisin trays after harvest. Commenter is a very small independent organic raisin grower who relies on the ability to destroy used raisin trays by burning them in an established cage. As the reports on the website indicate, the Biomass and compost operators refuse to accept these trays due to having certain residue components. Commenter requests that the SJVAPCD postpone the ban until a viable alternative for destruction/removal of these used trays is established.

Commenter feels it is very important to address this issue and would like to express their positions of support for this postponement as a small independent organic grape and raisin grower in Fresno County, California. (BCV)

**RESPONSE:** Based on the findings for raisin trays in the Report, there are currently no feasible alternatives to open burning of raisin trays. However, District staff is recommending that growers implement the practices, as described in Section 3.7.2 of the Report, during open burning and will work with the agricultural industry to develop any additional measures.

8. **COMMENT:** Regarding Section 6.2.2 – Contraband. We recommend the District amend this section to include the following language: “such as but not limited to, disposal of dangerous explosives which pose an immediate threat to health and safety” as a special consideration in which the APCO will waive the 15 day notice requirement. (DPU)

**RESPONSE:** Based on Rule 4103 (Open Burning), explosives are included as part of the definition for contraband (see Section 3.13: <http://www.valleyair.org/rules/curnrules/r4103.pdf>). Pursuant to Section 6.2.2 for Contraband, the APCO may waive the 15-day notice requirement in special circumstances upon notification. District staff recommends that commenter contact the District's Compliance Department prior to hosting such events during the year that dispose of contrabands through open burning.

9. **COMMENT:** As a farmer of 15 acres of almonds, I need to be able to burn brush and not accumulate it. It is not economically feasible for me to hire a shredder or chipper to deal with brush and stumps whenever one of my trees falls down. This proposal would be one more hardship for the small farmer who is attempting to make a profit, however small. (RVN)

Your recommendations do not address the issue of pruning's or brush generated thru attrition of almond trees year round. It is impractical to hire a shredder for small quantities of organic waste. Also, having prunings with limited space to store them, after removing from the orchard, is another issue shredding does not address. (CM)

**RESPONSE:** According to the District's findings and analysis, the cost per acre for shredding of nut prunings starts to increase for chipping operations below 20 acres. Therefore, District staff has recommended that open burning continue to be allowed for prunings up to 20 acres per year for growers that farm less than 3500 acres of total nut acreages.

The California Health and Safety Code do not address attrition as part of the crop categories that are subject to the burn prohibition. Therefore, the District will not address attrition at this time. Please refer to the Executive Summary and Chapter One for more information.

10. **COMMENT:** Since air quality does not seem to be as big an issue in the winter months due to windy and wet conditions, I was hoping your recommendations would allow a more liberal burning policy in colder weather. (CM)

**RESPONSE:** According to the *PM2.5 Plan*, winter brings rainfall, but also creates an atmospheric environment that forms more ammonium nitrate particulates. During winter, some types of cold winter fog events are linked to atmospheric chemistry that forms additional secondary particulates. The cold weather also induces the public to increase residential wood combustion use that adds further emissions to the atmosphere (though Rule 4901, Wood Burning Fireplaces and Wood Burning Heaters, prohibits fireplace use when the PM2.5 air quality is forecast to be unhealthy).

11. **COMMENT:** All nine plants in the Valley and the three outside the Valley total over 240 MW of renewable capacity, and all are under contract to California's investor owned utilities.

The draft report incorrectly states that only 3 biomass plants accept citrus, this is outdated information. Our facilities continue to fall short of their goals for more citrus orchard waste.

Information was provided on the wood fuel storage capacity, new powerplants in development, biomass crop assistance program, and the State's RPS program. (CBEA)

**RESPONSE:** District staff appreciates the updated information and clarifications on several items and has incorporated the information above as part of Chapter 7 of this report.

12. **COMMENT:** The 12 Valley biomass plants have very broad acceptance policies for wood fuel. This includes citrus orchard and vineyard removal waste along with many other commonly accepted wood types. (CBEA)

**RESPONSE:** The District appreciates the updated information and clarifications on the current availability of biomass plant capacity for the disposal of citrus orchard removal and vineyard removal materials. Consistent with State Health and Safety Code Section 41855.5 and 41855.6, the decision to recommend that burn prohibitions be postponed for these crop types was based on economic feasibility and the lack of future commitments to biomass plant operation. However, we do agree that it is important to accurately characterize both current and future biomass capacity concerns in the report. Therefore, the information provided regarding future capacity has been incorporated in Chapter 7 of the Report. Future capacity is of great concern, especially when the construction industry ultimately rebounds and urban wood waste from Southern California and the Bay Area becomes more available, as it was until the recent economic downturn. In the past, biomass power plants have resisted incorporation of increased agricultural biomass fuel as a condition on their permit. Without such certainty, the farmers cannot rely on biomass power plants as a reliable and dependable alternative. Additionally, chipping/orchard removals are seasonal activities and there is concern that storage space and equipment failure may create short-term situations when the biomass power plant operators must turn away agricultural materials. This inability to guarantee that a facility can accept agricultural biomass at all times, particularly given the seasonal nature of agricultural biomass, creates uncertainty in the ability of the biomass plants to accept increased amounts of agricultural fuel. The District looks forward to working with the biomass power plants to achieve long-term commitments toward the extensive use of agricultural biomass as fuel.

13. **COMMENT:** District staff has done a thorough evaluation of open-burn emissions vs. disposal of the same agriculture waste in a biomass plant in the Draft Report. CBEA is surprised the District did not also include the conclusions from a 1997 report published by Dr. Carl Moyer of Accurex Environmental Corp. titled "Emission Benefit From Firing Orchard Residue at Delano Energy Company". This Accurex report evaluated all emissions from open burning vs. use at the Delano Energy facility, including the emissions from the chipping & hauling equipment and all the equipment used at the plant site. The emissions reductions at Delano Energy were much more dramatic than the Draft Report concludes. You may remember that the District and others often quoted the conclusions of this report when it supported the very successful Agricultural Biomass-to-Energy Grant Program back in 2000-2003. (CBEA)

**RESPONSE:** District staff thanks commenter for the information and will review the report.

14. **COMMENT:** The discussion on greenhouse-gas emissions (page 7-11) properly identify biomass facilities as a feasible alternative to open burning of agricultural residues. However, the analysis of the greenhouse-gas emissions tacitly assumes that open-field burning and combustion in a biomass facility are equivalent, from a greenhouse-gas perspective. In fact, studies have shown that net greenhouse-gas emissions are reduced when biomass is diverted from conventional disposal alternatives like open burning to use as an energy resource, by amounts that are on the same order of magnitude as the amount of displacement of fossil fuel emissions (Morris, G., *Bioenergy and Greenhouse Gases*, Report of the Pacific Institute, May 15, 2008.) (CBEA).

**RESPONSE:** District staff appreciates the information provided above. In the report, District staff concluded that GHG emissions resulting from alternatives to open burning of orchard removal materials and prunings are expected to have a net positive benefit on global climatic change compared to the status quo of open burning. District staff recognizes that biomass power plants burn cleaner than open burning. However, for the purposes of the District's analysis, transportation emissions still needs to be considered in the analysis which would otherwise not be produced if orchard and vineyard removals were burned on the field.

## Group #1 Comment Submitters:

Aletha Fulton-Vengco (AFV)	Dennis Battrick (DBB)	Jan Maltzan (JMZ)
Alex MacCollom (AC)	Dennis Ledden (DL)	Joceline Tobacco (JT)
Alicia Lippman (AL)	Deoyani Sarkhot (DS)	Jody Wright (JWW)
Andrea Tong-Dickson (ATD)	Diana Cho (DC)	John Honnette (JH)
Ann Lopez (AL)	Diane Murphy (DM)	John Murphy (JM)
Anthony Arcure (AA)	Diane Schultheis (DSS)	John Satchell (JS)
Audra Lofstedt (ALL)	Don Woolf (DW)	Joseph Buhowsky (JB)
Barry Swars (BS)	Donna D'Amico (DDA)	Judy Commons (JCC)
Bernard Hochendoner (BH)	Donna Tobaie (DT)	Julie Ostoich (JO)
Berniece Hollingsworth (BH)	Donna Watson (DW)	Justin Delemus (JD)
Beth Olson (BO)	Edh Stanley (ES)	Karen E. Steele (KES)
Brad Martin (BM)	Edward Seakamp (ESE)	Karen Linarez (KL)
Bradford Lee Steele PhD (BLS)	Elizabeth Jackson (EJ)	Karen Peck (KP)
Bradley Hallihan (BHH)	Ellen Jamra (EJ)	Karyn Gil (KG)
Brian Malone (BM)	Emili Obara (EO)	Kate Harper (KH)
Brian Vannatter (BV)	Emily Schrepf (ES)	Kathey Norton (KN)
Brigitte Dinaberg (BD)	Emily Webb (EW)	Keith Forrest (KF)
Bruce Odelberg (BO)	Etta Robin (ER)	Kenneth Avance (KA)
Callie Riley (CR)	Francis Palmer (FP)	Kenneth Wemmer (KW)
Candy Bowman (CB)	Greg & Laurie Schwaller (G&LS)	Kevin Mcnamara (KM)
Cari Chenkin (CC)	Harley Sebastian-Lewis (HSL)	Kevin Wang (KW)
Carol Keltner (CK)	Heather Levin (HL)	Kristin Smith (KS)
Cathy Herrera (CH)	Heike Beauchaine (HB)	Kristina Kahl (KK)
Chad Hall (CH)	Howard Whitaker (HW)	Laura Herrera (LH)
Christina Roe (CR)	Gabriel Sheets (GS)	Leilani Echols (LE)
Chuck Weiland (CW)	Georgia Lynn (GL)	Les Roberts (LR)
Coke Hallowell (CH)	Geraldine May (GM)	Lisa Ross (LR)
Colleen Carr (CC)	Glenda Lipman (GLL)	Loraine Baldwin (LB)
Craig Swenson (CS)	Graeme Kinsey (GK)	Lars Johansson (LJ)
Crista Vantassel (CV)	Ismael Macias (IM)	Laura Curran (LC)
Daniel Cobb (DaC)	James Baker (JBA)	Linda Jones (LJ)
Danny DeTora (DT)	James Columbia (JC)	Louise Johnson (LJJ)
David Black (DB)	Janet Moffett (JM)	Lynda Austin (LA)
David Driver (DD)	Janet Westbrook (JW)	Lyndsay Black (LBB)
David Murray (DM)	Jason Bowman (JB)	Margo Tarver (MTA)
Dean Cobb (DC)	Jeff Ball (JBB)	Maria Skercevic (MS)
Deborah Hirsch (DH)	Jeff Colvin (JC)	Mark Maloney (MM)
	Jennifer Will (JW)	Marjorie Northern (MN)
	Jim Nakata (JN)	Mary Ann McDonald (MAM)
	Tim Taylor (JTY)	Maureen Russell (MR)
		Maxine Jacobsen (MJ)

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Melanie Graf (MG)	Rhonda Lynn (RL)	Sophie E. Miranda
Melissa Didomenico	Richard Blakemore (RB)	(SEM)
(MD)	Richard Harvey (RH)	Steve Holzberg (SHO)
Melvin Taylor (MT)	Richard Robinson (RR)	Steven Anderson (SA)
Mena Yang (MY)	Rob Grace (RG)	Susan Goldstein (SG)
Michael Hobbs (MH)	Robert Cassinelli (RC)	Tarvin Clark (TC)
Michael Todd (MTD)	Robert Dayton (RD)	Teddi Gonzalez (TGG)
Mike Clipka (MC)	Robert Sennett (RS)	Terry Manning (TM)
Mila Christ (MCC)	Robert Sullivan (RSS)	Thomas Danfield (TD)
Nancy Kelly (NK)	Robert Williams (RW)	Tricia Philipson (TP)
Nancy Reynolds (NR)	RoseMarie Kuhn (RMK)	Vicki Cunniffe (VC)
Oscar Vazquez (OV)	Roy Mcknight (RMM)	Wendell Hovey (WH)
Pamela Roe (PR)	S. Hodges (SH)	Wendy Scott (WS)
Pamela Skillings (PS)	Saeed Eghbali (SE)	Will Cole (WC)
Paul Gullam (PG)	Sandra Mitchell (SM)	William Brashear (WB)
Paula Hartgraves (PHA)	Sandy Commons (SC)	William Mittig (WM)
Phil Helman (PH)	Sarah Hafer (SH)	William Sanford (WS)
Phillip King (PK)	Scott Herman (SCH)	William Wollner (WW)
Ray Ann Sullivan (RAS)	Shawn Hampton (SHH)	Yvonne Peck (YP)
Ray Morris (RM)	Socorro Scow (SS)	

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**Appendix D: SUMMARY OF SIGNIFICANT COMMENTS & DISTRICT RESPONSES FROM THE MAY 20, 2010 PUBLIC HEARING****US EPA REGION IX STAFF COMMENTS**

1. **COMMENT:** As noted in Table 9-1 of the Staff Report, the District is removing the requirement to limit burning of rice stubble by 50% in 2010. This appears to relax the requirement found in Section 5.5.2.3 of the current federally enforceable version of Rule 4103. The District should demonstrate that this relaxation is consistent with Clean Air Act Section 110(l).

**RESPONSE:** District staff does not expect that the recommendation to maintain the burn limit of rice stubble at 70% would have any adverse impact on the Reasonable Further Progress (RFP) and attainment goals of the District's *2007 Ozone Plan* and *2008 PM2.5 Plan*. There are currently no viable non-burn alternatives for the remaining rice stubble due to the fluctuation in market demand and issues with water allocation. In 2009, rice growers were granted a variance because the 70% reduction was difficult to achieve with no available alternatives. The emissions reduction estimates for the 2007 amendments to Rule 4103 (Phase III) were 912.5 tons of NOx/year, 1204.5 tons of VOC/year, and 949 tons of PM10/year. For this Report, District staff estimated additional emissions reduction of 39.2 tons of NOx/year, 105.2 tons of VOC/year, and 123.1 tons of PM2.5/year. The estimated emissions reduction achieved from Phase III amendments to the rule and the final phase from this report were not included in the *2007 Ozone Plan* and *2008 PM2.5 Plan*. The total emissions reduction achieved from both phases exceeds the projected reductions expected for the Open Burn control measure from both plans.

**RFP and Attainment Demonstration from the 2007 Ozone Plan**

The Federal Clean Air Act Section 182(c)(2)(B) requires nonattainment areas to show that the plan will result in VOC and NOx emission reductions. RFP requirements for 8-hour ozone (*2007 Ozone Plan*) are outlined in EPA's Phase 2 rule to implement the 8-hour ozone standard (70 *FR* 71631-71652).

Nonattainment areas for 8-hour ozone that have already met the 15% VOC emission reduction requirement for the 1-hour ozone standard are subject to the RFP requirement to obtain an average of 3% annual reductions of VOC and/or NOx emissions reductions for the first six (6) years after the baseline year and every subsequent three (3) years out to the attainment date. EPA approved the SJVAB's 1994 Ozone Attainment Demonstration Plan and its 15% rate of progress (ROP) demonstration in the Federal Register on January 8, 1997, effective February 7, 1997 (62 *FR* 1172). The District has submitted periodic Milestone Compliance Demonstrations to show retrospectively that the emissions

reductions required through ROP have occurred in the SJVAB. Therefore, the SJVAB has met the initial 15% VOC reduction requirement.

The SJVAB must now obtain an average of 3% annual reductions of VOC or NOx emissions for the first six (6) years after the baseline year and every subsequent 3-year period until the attainment year. The baseline year is 2002 (70 FR 71631), so the six-year milestone is 2008. The 3-year milestone years are 2011, 2014, 2017, 2020, and 2023. The year 2023 is also the expected actual attainment year for extreme areas. According to the analysis in the *2007 Ozone Plan*, the SJVAB meets RFP since the combined percent reduction surpasses the RFP requirements.

2. **COMMENT:** The schedule for providing comments on both the final draft of Rule 4103 and the District Staff Report and Recommendations on Agricultural Burning was very short, particularly given the size of the staff report. While we understand the District has time and resource limitations, this schedule has limited our ability to perform a timely thorough review.

**RESPONSE:** The District thanks EPA for their cooperation and understanding as staff developed such a comprehensive report. For future re-evaluations of the District's determinations for agricultural burning, District staff will continue to work closely with interested parties and to ensure that the schedule provides adequate time for review and comments.

## ARB STAFF COMMENTS

ARB staff has reviewed the Draft Staff Report and Recommendations on Agricultural Burning and has no comments at this time.

## STAKEHOLDER COMMENTS

Stakeholders who submitted comments:

Allied Grape Growers (AGG)  
California Biomass Energy Alliance (CBEA)  
California Citrus Mutual (CCM)  
California Grape and Tree Fruit League (CGTF)  
Covanta Delano (CD)  
Fresno Metro Ministry (FMM)  
Fresno County Farm Bureau (FCFB)  
Gerald Nola (GN)  
John – Unidentified Gentleman provided comments via FAX (UG1)



Marvin Dean (MD)  
Nisei Farmers League (NFL)  
San Joaquin Farm Bureau (SJF)  
Representatives for Senator Dean Florez (SDF)  
Raisin Bargaining Association (RBA)  
Rio Bravo (RB)

Earth Justice, The California Food Project, Pesticide Watch Education Fund, Coalition for Clean Air, Fresno Metro Ministry, Tri-Valley CAREs, Medical Advocates for Healthy Air, and the Central Valley Air Quality Coalition's Watchdog Committee (Group A)

3. **COMMENT:** Burning should be allowed to begin at daybreak and not at 10 am. I know there has to be a good reason for the midmorning start, but what does a few hours mean? Burn days are only allowed when there is air movement and that means wind. At daybreak before the winds start from SE to NW, it is cool, calm and the convective column goes straight up, with no damage. For people like myself, it would be nice to wave the 10 am rule. (UG1)

**RESPONSE:** The 10 AM start time was established to allow the morning inversion to weaken. An inversion is defined as the temperature increases (warms) with height. During the early morning hours (prior to 10 AM), the temperature inversion is normally the strongest. This inversion would cause smoke emissions from a source to remain trapped near the surface leading to a potential for localized impacts. With solar heating, the inversion tends to disappear or break-up around 10 AM leading to better mixing conditions.

4. **COMMENT:** We were very supportive of the SB 700 series that Senator Florez passed in the California legislature to end the long-standing exemptions for agriculture from complying with the Clean Air Act including SB 705 which specifically addressed agricultural burning. We understand that there are multiple sources that need to be addressed in order to achieve clean air standards in the valley, but we still believe that any potential emission reductions need to be gained if there are public health benefits. (FMM)

**RESPONSE:** As a public health agency, we agree with the comment and are committed to achieving as many emissions reductions as possible, which are economically and technologically feasible. The District's recommendations do include additional burning prohibitions which will achieve additional emission reductions. However, as allowed under SB705, the District has recommended the postponement of a few crop types since there were no economically or technologically feasible alternatives at this time.

Additionally, to assure that open burning of agricultural materials did not cause any violations of health-based ambient air quality standards, agricultural burning

has only been permitted under the District's comprehensive Smoke Management System, which uses real-time meteorological information to analyze the impact of burning on air quality and appropriately limit burn allocations.

5. **COMMENT:** Metro staff was present at the workshop and the previous board hearing where there was much testimony about the availability of biomass facilities to handle the ag waste that should no longer be allowed to be burned. We are pleased to see that the new Staff report reflects these comments, but concerned that this information was still not taken into account when determining feasibility. While we are not proponents of biomass facilities, especially if processing waste from other parts of the state, we do believe that the newest and cleanest biomass facilities should be considered as an alternative to burning, along with composting, chipping and shredding, and reintroducing to the land. (FMM)

**RESPONSE:** As detailed in Chapters 3 and 7 of the report, staff did consider information provided by stakeholders when determining economic and technological feasibility of alternatives to open burning. In fact, the District will continue to work with the biomass industry on the ability to accept and store ag materials, especially during the peak seasons when the amount of ag materials become significant. Other alternatives, as specified, have been considered in the staff report, especially reintroducing the shredded pruning materials to the land. While shredding and land applying pruning material works on permanent crops, chipping orchard removal materials for soil incorporation was determined to not be a technologically feasible alternative.

6. **COMMENT:** Postponements and exemptions should be much more limited if necessary at all. Most special situations such as proven cases of disease should be handled on a case-by-case basis through conditional burn permits. We believe it is important to follow the letter of the law on this issue, because it was created to protect the health of all residents in the San Joaquin Valley, especially the most sensitive. (FMM)

The result of these postponements is that over 90 percent of the emissions intended to be reduced by 2010 will be allowed to continue. This means at least 1,030 tons per year of oxides of nitrogen ("NOx") emissions, 1,262 tons per year of fine particulate matter ("PM-2.5") emissions, and 1,138 tons per year of volatile organic compound ("VOC") emissions will continue to be emitted. At a time when Valley residents are suffering from some of the highest asthma rates in the nation, the District needs all the reductions it can get in order to meet federal ozone and particulate matter standards and move toward cleaner air for the Valley. (Group A)

**RESPONSE:** The District has taken a number of actions to reduce open burning, including implementation of a comprehensive Smoke Management System (SMS), phasing out the majority of open burning, and only allowing burning where economically feasible alternatives were not available, as provided by SB 705, with ARB concurrence. The limited remaining burning is tightly regulated under the District's SMS, which uses advanced modeling and real time information to cap daily burning with little or no impact on air quality and public health, which SB 705 did not take into account. The District's actions have eliminated the majority of agricultural open burning since 2002, with 70% reduction in acreage burned. The additional reduction from open burning for 2010, along with the significant emissions reduction from 2007, have satisfied and exceeded the Plan commitment for the Open Burning control measure. The District will continue to address other control measures in the Plans and seek further emissions reduction.

7. **COMMENT:** The fundamental defect in the District's "10 percent of profits" test is that it has no rational connection to whether an alternative is "economically feasible." Although "economic feasibility" is not defined in the California Health and Safety Code, the common usage of "feasible" is understood as "capable of being done or carried out." "Feasible" is also defined in the California Environmental Quality Act Guidelines. Thus, the key question is whether an industry is *capable* of handling the costs of an alternative to burning. (Group A)

**RESPONSE:** In absence of mandated threshold to determine the industry's capability of handling the additional costs, District staff used the 10% of profits test as a reasonable method to identify any significant impacts. The report takes into account the economic and technological feasibility of the alternatives and whether growers and operators would be able to handle the ag materials in a reasonable period of time.

As mentioned in Chapter 1 of this report, the 10 percent threshold utilized in this analysis represents the economic significance level generally utilized by the District in the development of District rules, and represents the level that a regulatory action would pose a significant economic impact to affected sources. The ten percent threshold was based on the parameters of accepted methodologies discussed in a 1995 California Air Resource Board (ARB) report called "Development of a Methodology to Assess the Economic Impact Required by SB 513/AB 969" (by Peter Berck, PhD, UC Berkeley Department of Agricultural and Resources Economics, Contract No. 93-314, August, 1995).

8. **COMMENT:** The "10 percent of the industry's profits" test used by the District has no direct connection to whether each industry is "capable" of bearing the costs of control. It gives no indication of whether the industry will be threatened or whether sources will shut down. (Group A)

A lot of the net profit is reinvested toward farm loans, operating lines, improvements, and regulations. (SJF)

**RESPONSE:** As stated in the report, the 10% is the District's standard metric for determining economic impact. The CH&SC does not define the term "economically feasible alternative" so our standard metric is used for consistency with past actions. During the public hearing process, affected growers indicated burn prohibitions would cause substantial economic hardships. Although the District does not explicitly state whether the industry will be threatened or sources will shut down, the 10% threshold has been historically used as the percentage where significant impacts to an industry will occur with percentages ranging from just around 10% to well above 50% for certain crop types; along with the current economic situation, it can easily be assumed that significant impact would occur if the District did not postpone the burn prohibitions.

9. **COMMENT:** The Staff Report erroneously concludes that burn alternatives for citrus orchard removal are not economically feasible. This error is further exacerbated by the fact that the costs of citrus orchard removal seem to be inflated. The District assumes an additional \$244 per acre for transporting roots to a composting facility. However, in conversations with biomass facility operators and two of the largest orchard removal contractors in the Valley, no such special treatment is needed for citrus roots. These can be chipped and transported to biomass facilities along with the rest of the chipped material. The District needs to remove this added fee for a more realistic cost estimate for this alternative. (Group A)

**RESPONSE:** Based on staff's understanding, the root removal process is independent from the chipping and biomass operations. Citrus trees are notorious for having an extensive root system. When orchards are prepared for removal and the trees are pushed over, many of the tree roots remain in the soil. Therefore, after the orchard is chipped and the materials are removed from the site, the grower must hire a contractor to "rip" the ground and the remaining roots are collected and piled using hand labor.

10. **COMMENT:** The District cites concerns by unidentified agricultural representatives that not all biomass plants accept citrus chips and that the existing biomass plants may not have the capacity to handle the additional wood material that would be generated if burning citrus removal were prohibited. First, the biomass industry has testified repeatedly and submitted comments contradicting the District's claims that citrus is not readily accepted at the biomass facilities serving the Valley. The Staff Report states: "Biomass power plant operators have indicated that previous concerns regarding certain materials have been alleviated over the past few years as the operators have improved the

methods in processing the materials to better suit the needs of the plant." The Staff Report acknowledges the multi-million dollar investments many biomass operators have made to upgrade their facilities. (Group A)

**RESPONSE:** While the understanding is that biomass power plants typically blend the citrus materials, Table 3-4 shows that it is not economically feasible to prohibit open burning for this crop type.

11. **COMMENT:** The District is proposing to allow growers whose total nut acreage is less than 3,500 acres to burn 20 acres of prunings, plus an unrestricted additional amount if conditions are met. Not only does this provision constitute illegal director's discretion, it undermines the economic analysis by allowing the APCO to make affordability determinations on an individual basis, rather than assessing the ability of the industry as a whole to absorb the costs of a control. The District is suggesting that it is not feasible to require any farm under 3,500 acres to shred. In conversations with several contractors, all indicated that they are at nowhere near capacity for work and could easily take on the additional acres that would come with a burn ban. The District needs to identify all such contractors before it can adequately assess whether the industry is capable of handling the additional acres. There is no reason for the District to assume that a grower must purchase the expensive shredding machine himself in order to make shredding feasible. There is no reason to believe that the industry couldn't handle the remaining acres if the burn ban was implemented as intended by law. Regarding the problems hullers have with chips getting mixed in with hulls, in conversations with contractors and representatives of the Almond Board of California, we've learned that this problem has gotten significantly better as chipping shredding has gotten finer and most contractors have not had any complaints about the chips in recent years. Shredding prunings is technologically feasible (it's already being done), economically feasible (\$38/acre), and has been found to be beneficial for soil (see attached articles). (Group A)

**RESPONSE:** District staff has conducted extensive search on the availability of shredding operators for tree nut prunings through directories, internet searches, and other resources. District staff also contacted available contractors to determine those that only work on orchard removals, those that only shred tree fruit prunings, those that shred tree nut prunings, and those that are no longer in business. District staff welcomes any additional lists or contact information for shredding operators that provide services for tree nut prunings. As mentioned in Section 6.2.2 and Section 3.7.3, and according to shredding operators, there is a minimum job charge of two hours (about 20 acres) for the \$38/acre. As mentioned in the Report, District staff analyzed the cost of hiring a custom shredder as the likely alternative for the economic analysis rather than requiring growers to purchase the equipment. District staff discussed in the Report that

the problems with the hulls have improved through the use of the shredders that can shred the materials into finer pieces. While the analysis shows that growers that farm less than 3,500 acres would likely hire a custom shredder, there is not enough information to determine whether the identified contractors would be available during the season to address the remaining acres. Any additional burns would be determined on a case-by-case basis and does not guarantee burn allowance.

12. **COMMENT:** The District erroneously uses a 10 year life for a vineyard that is expected to last at least 25 years. The highly profitable kiwi industry should easily be able to handle the additional cost necessary to avoid burning and should not receive a postponement. Wine grapes, on the other hand, may be more significantly impacted by the cost of burn alternatives, though we still dispute the "10% of profits" test and request more analysis. The District must separate raisin and table grape categories and analyze the ability of each to bear the cost of the burn alternatives. If this analysis finds that one category is able to bear the costs while the other is not, the District can propose a postponement for that category. (Group A, SDF)

**RESPONSE:** Although the Report subcategorized the variety of grapes for further analysis, the state law did not differentiate the varieties in the "vineyard removal" category.

As noted in the Report (page 1-5), the ten year approach is based on the harvested acreage when growers are making profits, which does not include the non-bearing years during the first few years. Growers have mentioned that crops may be pulled out before the full life-cycle to keep the farm productive. District staff would evaluate alternative approaches to the economic feasibility analysis in the future.

13. **COMMENT:** The Staff Report mentions treatment, with Streptomycin and burying diseased material in double plastic bags, but offers no analysis of the technical or economic feasibility of these options. The Staff Report also explains that pruning and orchard removal equipment is routinely sterilized when moving from tree to tree but doesn't explain why, with these routine precautions, it is still infeasible for the resulting waste materials to be removed off-site rather than pushed out and burned. More fundamentally, however, the risk of disease is not an allowable basis for postponing burning bans under state law. The District uses the possibility of disease to claim that there is no technically feasible alternative to burning whether or not the materials actually are diseased or pose any threat to adjacent plots. This proposal meets none of the specific legal requirements for allowing burning to address disease. (Group A)

**RESPONSE:** See Appendix H, Disease Crop, for a memo from the County of Fresno Ag Commissioner on the possible options for controlling Fireblight, which is becoming resistant to chemical means. District staff is not aware of any growers that would put several acres (equating to several tons) of these materials into double plastic bags for burial onsite for prunings every few years or for orchard removals (prior to replanting). Since there are no technologically feasible alternatives, it can be assumed that these alternatives will also be economically infeasible.

14. **COMMENT:** The District cites concerns that biomass facilities are not a reliable alternative for disposing of agricultural waste. This is largely because in the past, biomass facilities have shut down for upgrades, and fears that when the economy and the building industry recover, biomass facilities will no longer choose agricultural waste when "cheaper" urban waste is more readily available. The biomass industry has repeatedly stated that it has a great need for more wood fuel and that ag waste is its preferred fuel due to the higher quality (higher BTU content and lower ash content) and because of the equipment damage sustained from the use of lower-quality urban wood waste. (Group A)

**RESPONSE:** Section 7.1.3 and Table 7-4 explains the historical usage and the average annual percentage of agricultural material burned through just 2009 of last year. We will be re-evaluating the burn allowance based on future fuel usage and can make adjustments, if warranted.

15. **COMMENT:** The District is subtracting the emissions that come from the biomass facility from the total benefit of the avoided open burning emissions. However, the biomass facilities are permitted and the District must assume that they will continue to produce these emissions whether or not the District prohibits open burning. Therefore, the real benefit is the total emissions that are avoided by banning open burning. This conclusion is supported by the study by Dr. Carl Moyer, *Emission Benefit From Firing Orchard Residue at Delano Energy Company* (attached), which found that burning orchard residues in a biomass facility lead to a 96% reduction in criteria pollutants compared to open burning, taking into account equipment used to chip and haul the material. Also, in this study, the average distance to collect agricultural fuel was found to be 29 miles. This is in contrast to the District's assumed 100 mile distance. (Group A)

Study by Dr. Carl Moyer shows that it is cleaner to take the materials to biomass facilities than open burn. (CBEA)

**RESPONSE:** The District's emissions analysis compares the complete operation of open burning versus the alternative of taking the material to the biomass power plants. Therefore, the emissions from the amount of agricultural materials being open burned need to be compared with the emissions from the same

amount of agricultural materials being burned at the biomass power plants. The District's analysis takes into account the emissions from transporting the equipment to the site, the tubgrinder, grinding process, and that not all operators process the materials directly into the truck, rather grinding the materials onsite and then loading the materials to the truck. District staff used the 50-mile radius for the analysis based on discussion with biomass operators, which equates to the 100-mile roundtrip.

16. **COMMENT:** The Governor of California has made biomass a priority and there is further evidence of the State's commitment to ensure the success of biomass energy through several programs. CBEA points out in its letter that nearly every biomass facility serving the Valley has a long-term contract with one of California's investor owned utilities, and there is a Biomass Crop Assistance Program authorized under the 2008 Farm Bill that incentivizes growers to send their agricultural waste to a qualified bioenergy facility. (Group A)

**RESPONSE:** Section 7.3 of the Report further explains the current federal and state funding commitments for biomass facilities in the SJVAB. Staff has included CBEA's comment on Biomass Crop Assistance Program, which stated that this is a short-term incentive program. One of the criteria that the District must make a determination on is whether there is any long-term federal or state funding commitment for the continued operation of biomass facilities in the SJVAB.

17. **COMMENT:** District's Feasibility Study on Biomass Incentives was not mentioned in the report nor analyzed. (CBEA)

**RESPONSE:** District staff incorporated the draft feasibility study on biomass incentives into the Report early in the process, which can be found in Chapter 7. The Report also indicated that there were no long term funding programs available at this time.

18. **COMMENT:** Consultant that provided actual numbers to the District of what it cost to chip materials for vineyards. The numbers provided to the District are accurate from the growers that use alternatives to open burning. Vineyards are pulled out because they are no longer productive. (RBA, AGG)

**RESPONSE:** Comment noted.

19. **COMMENT:** Data came from UDSA and UCCE, not from the industry. (NFL, CCM, FCFB)

**RESPONSE:** Comment noted.



20. **COMMENT:** Supports staff's recommendations. Project is a balanced approach. (SJF, CGTF, NFL, CCM, FCFB, MD)

**RESPONSE:** Comment noted.

21. **COMMENT:** Open field burning should be banned. (SDF)

**RESPONSE:** Comment noted.

22. **COMMENT:** Covanta Delano can accept 100,000 tons of citrus material. Covanta will work with the Ag industry. (CD)

**RESPONSE:** The District is supportive of any collaboration with biomass power plant facilities and the agricultural industry. Although progress has been made in the biomass industry for accepting agricultural material, the recommendation for citrus orchard removals is based on economic infeasibility and lack of long-term commitment for accepting citrus removals.

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