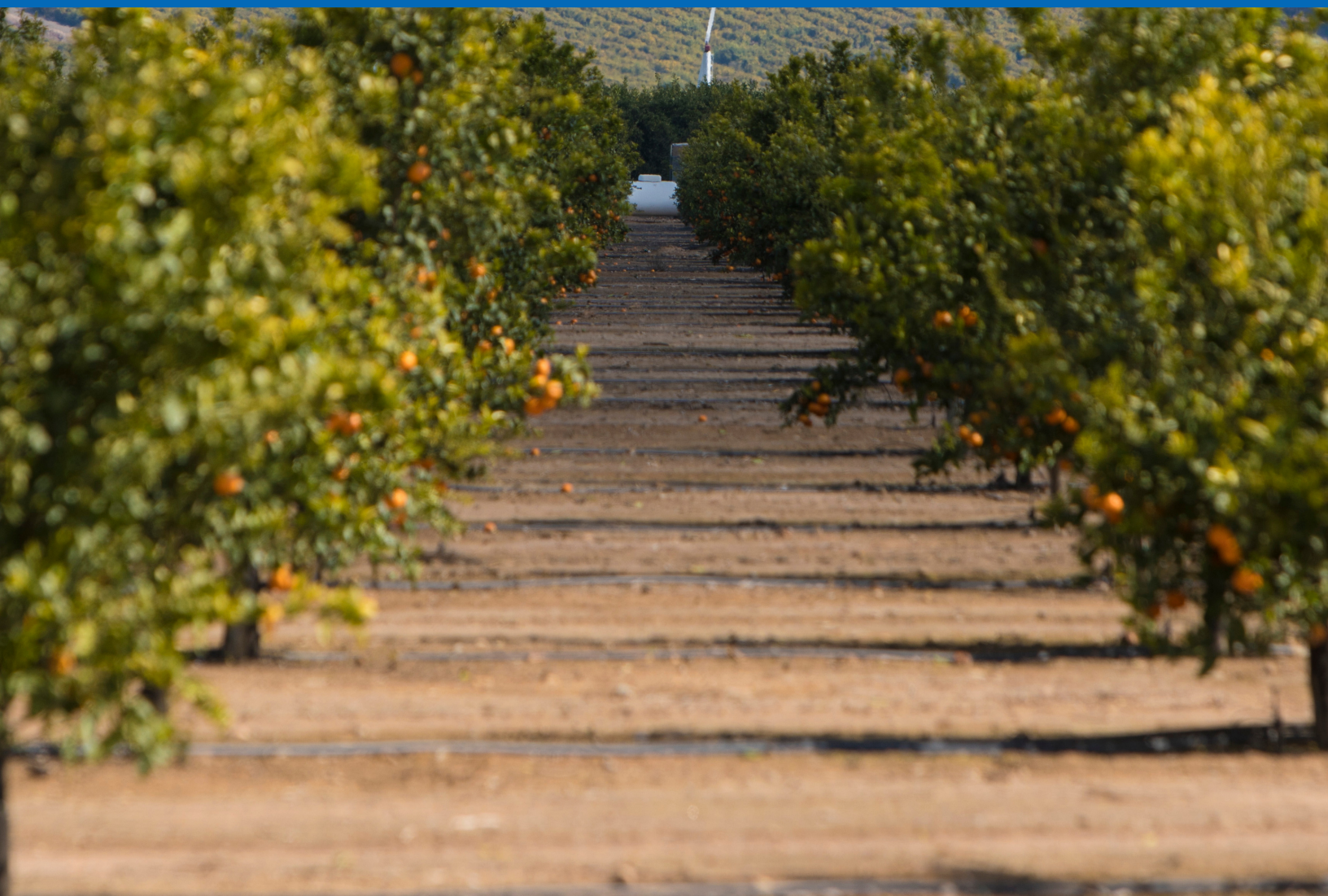
San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

# DRAFT SUPPLEMENTAL REPORT AND RECOMMENDATIONS ON AGRICULTURAL BURNING

## MAY 27, 2021



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# 1 Updated Recommendations for Agricultural Burning in the San Joaquin Valley

The San Joaquin Valley, in adherence with applicable state laws instituted under SB 705 (2003 Florez), has the toughest restrictions on agricultural burning in the state. District requirements, implemented through District Rule 4103 (Open Burning), no longer allow the burning of all field crops (with the exception of minimal levels of rice for disease control), almost all prunings, and almost all orchard removals. The District also operates a comprehensive Smoke Management System (SMS), which ensures that the open burning of any remaining agricultural materials does not cause or contribute to exceedances of federal air quality standards, cause a public nuisance, or impact nearby smoke-sensitive areas.

Per the requirements in Rule 4103, every five years the District must review and make recommendations on agricultural burning in the Valley. Under state law, open burning for agricultural crop categories are required to be phased-out under a prescribed schedule, unless certain findings are made with respect to the availability of funding and economically feasible alternatives to open burning. These findings include:

1. There is no economically feasible alternative means of eliminating waste.
2. There is no long-term federal or state funding commitment for continued operation of biomass facilities in the Valley or development of alternatives to burning.
3. Continued issuance of permits for that specific category or crop will not cause, or substantially contribute to, a violation of an applicable federal ambient air quality standard.
4. The California Air Resources Board (CARB) concurs with the District's determinations.

As required under Rule 4103 and consistent with California Health and Safety Code (CH&SC) §41855.5 and 41855.6, the *2020 Staff Report and Recommendations on Agricultural Burning* (2020 Report) is the District's latest evaluation of agricultural open burning and consideration of any additional prohibitions and postponements. Through the 2020 Report, the District developed a comprehensive approach to eliminate agricultural managed burning where feasible, including new prohibitions on open burning reliant on newly emergent alternatives, a call for federal, state and local incentive funding to assist with widespread transition to costly new alternatives, and partnerships with agricultural stakeholders, CARB, and USDA-NRCS to assist with the final stages of development of feasible alternatives.

On February 5, 2021, CARB staff published their recommendations[1] regarding the District's 2020 Report, and on February 25, 2021, CARB approved their staff's

[1] CARB San Joaquin Valley Agricultural Burning Assessment https://ww2.arb.ca.gov/sites/default/files/2021-02/Staff_Recommendations_SJV_Ag_Burn.pdf

recommendations[2]. This CARB action included full short-term concurrence with the Districts 2020 Report and recommendations through August 31, 2021, longer-term concurrence with many of the District's 2020 Report recommendations through 2025, and additional criteria for longer-term concurrence beyond August 31, 2021, including a timeline for the near-complete phase-out of open burning for the majority of remaining crop categories by January 1, 2025 (with some exceptions such as diseased crops). Additionally, in supporting their concurrence action, CARB highlighted and affirmed the critical role that the state plays in securing needed state incentive funding to support the transition, and addressing barriers to the establishment of new bioenergy solutions.

CARB committed to partner with the District on several measures to help increase the ability of the agricultural industry to comply with these mandates, which include holding a summit on non-burning alternatives, developing outreach materials and programs, establishing a Clean Biomass/Bioenergy Collaborative across State agencies, pursuing additional incentive funding from State and federal sources, and encouraging the use of woody biomass in low-carbon biofuel uses. CARB identified the need for a period of transition to continue addressing the economic feasibility of alternatives to open burning and develop additional State and Federal funding commitments for alternative methods of disposal and provided concurrence with the District's determinations under CH&SC §41855.6 for burn prohibition postponements, as set forth in the District's 2020 Report, through August 31, 2021.

CARB's recommendations provided that after the transitional period through August 31, 2021, CARB's Executive Officer has the authority to provide concurrence for an additional period through January 1, 2025, provided that additional measures are implemented by the District and CARB, including:

1. Accelerate reductions by crop category or material;
2. Set clear ton target for near-complete phase-out of burning by January 1, 2025;
3. Hold a summit on non-burning alternatives;
4. Develop outreach materials and programs with UC Cooperative Extension to identify alternatives to vineyard and orchard removals;
5. Pursue a Clean Biomass/Bioenergy Collaborative across state agencies;
6. Pursue additional incentive funding from State and federal sources;
7. Encourage the use of woody biomass in low-carbon uses; and
8. Consider raising the per acre penalty (currently at $750) for burning conducted pursuant to a Stipulated Order of Abatement.

In accordance with CARB's recommendations, the District has developed this *Supplemental Report and Recommendations on Agricultural Burning* (Supplement) to update the District's strategy to reduce emissions from open agricultural burning. This Supplement addresses key points in CARB's resolution and recommendations, as outlined above.

[2] CARB San Joaquin Valley Agricultural Burning Assessment Resolution 21-4 https://ww3.arb.ca.gov/board/res/2021/res21-4.pdf

# 2 Accelerated Phase-Out of Agricultural Burning For Remaining Crop Categories

## 2.1 History of Agricultural Open Burning Prohibitions to Date

The District has significantly reduced emissions from agricultural burning to date by prohibiting the open burning of a variety of field crops, prunings, weeds, orchards, vineyards, surface harvested prunings, and other materials. Until 2014, the restrictions imposed by the District resulted in an 80% reduction in the open burning of agricultural waste. The exceptional drought conditions that the Valley experienced from 2012 to 2016 resulted in hundreds of thousands of acres of orchards, vineyards and other agricultural crops being fallowed or removed, and ongoing crop transitions have continued to exacerbate the challenge with respect to the disposal of agricultural materials. Additionally, in recent years, a significant number of existing biomass plants that historically provided an outlet for agricultural materials have shut down due to evolving state energy markets and lower energy prices offered by utilities upon contract renewal.

The District has historically worked closely with CARB, representatives from the agricultural sector, contractors, growers, and other agencies to address burn prohibition requirements for various crops. Due to the lack of availability of economically feasible alternatives to open burning, past District *Staff Reports and Recommendations for Agricultural Open Burning*, prepared for CARB concurrence and EPA review per District Rule 4103 requirements, have recommended the postponement of open burning prohibitions for a small number of remaining crop types. CARB has provided concurrence for all previous District reports and recommendations.

Figure 2-1 summarizes the amount of material burned by major crop categories since 2000. The figure also identifies key reductions in biomass capacity, as indicated by decreasing megawatt capacity (MW). In addition, Figure 2-2 below represents the percentage of material burned in 2020 by crop type.

**Figure 2-1: Historical Agricultural Material Burned under Rule 4103 and Reductions in Biomass Capacity**

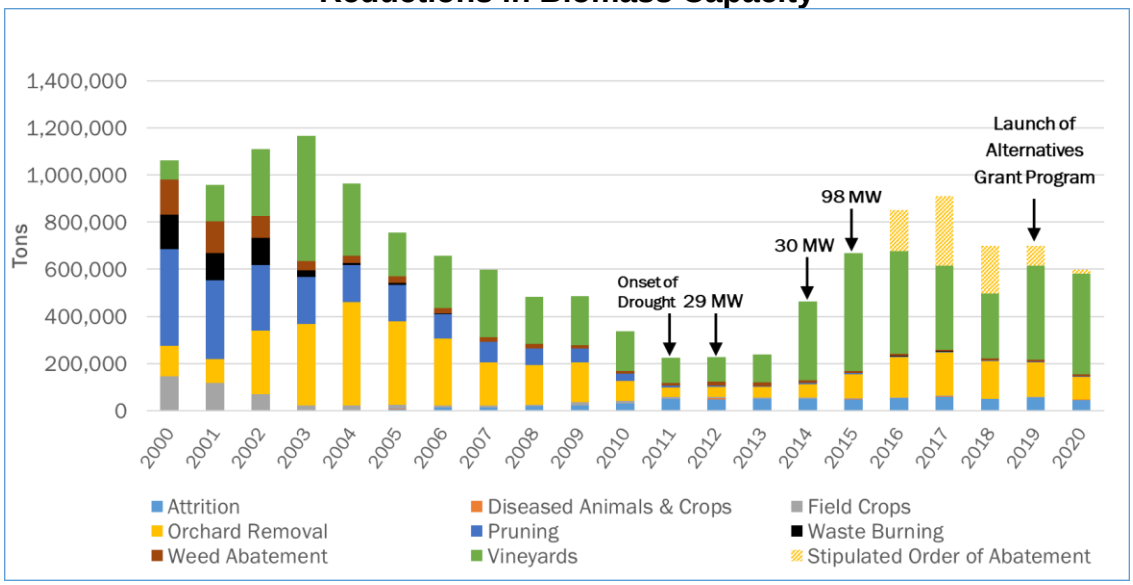
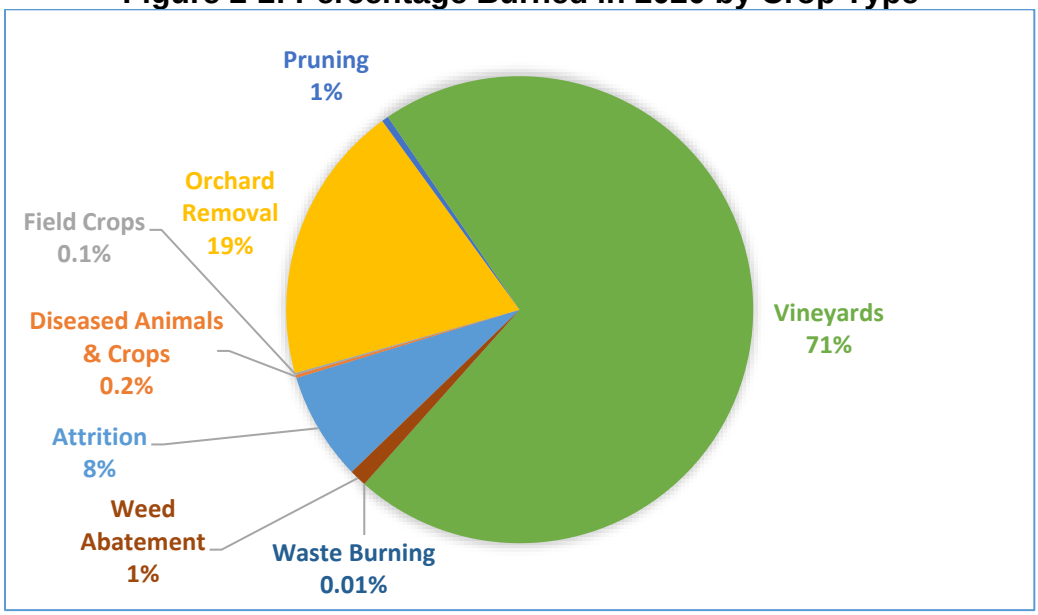



**Figure 2-2: Percentage Burned in 2020 by Crop Type**




## 2.2 Phase-out Schedules by Crop Type, Per CARB Recommendations

Through the 2020 Report, adopted by the District Governing Board on December 17, 2020, District staff developed a comprehensive approach to eliminate agricultural managed burning where feasible, including new prohibitions on open burning reliant on newly emergent alternatives. The February 25, 2021, CARB Board Meeting to consider the District's report and recommendations resulted in a mandate to prohibit open

burning for all crop types, with the exception of where there are disease or safety/health concerns, by January 1, 2025. Additionally, CARB recommended that the District implement several measures to assist in readiness for the near-complete phase-out of open burning by 2025, as well as adopt an accelerated phase-out schedules for several crop types, as further detailed in CARB's *San Joaquin Valley Agricultural Burning Assessment.*

In their assessment, CARB recommended that the approach for the accelerated phase-out start with large agricultural operations, which may be better able to more quickly establish new alternatives and absorb significant potential incremental costs, while allowing more time for smaller agricultural operations to adjust to these changes. In accordance with CARB's recommendations, the District has developed an accelerated timeline for the phase-out of open agricultural burning for a variety of crop categories, with prohibitions on open burning for "large" agricultural operations beginning in 2022, specifically for vineyard and small orchard removals. The definition of a "large" operation varies by crop type, taking into account the feasibility and availability of various alternatives for the specific crop category, while ensuring swift reductions in open burning beginning in 2022, and leading up to the near-complete ban of open burning by 2025. Consistent with CARB's recommendations and action, the smallest operations would be provided the most flexibility over the mandated accelerated phase-out timeframe.

For crop categories, including vineyards and small orchard removals, where a separate prohibition schedule for "large" and smaller operations was recommended by CARB, District staff utilized historical SMS data for 2015 through 2019 (consistent with 2020 Report baseline period) to assess potential phase-out requirement impacts, including the number of operations impacted, acreage reduced, and tonnage reduced. Since the total tonnage burned in the year 2020 was similar to this five-year average, District staff found that continuing to use the 2015-2019 data was appropriate for this updated analysis. For the purpose of this report and recommendations, the size of an "agricultural operation" is defined by the total acreage for each applicable crop type.

A discussion of the proposed phase-out schedule for each crop is further detailed below.

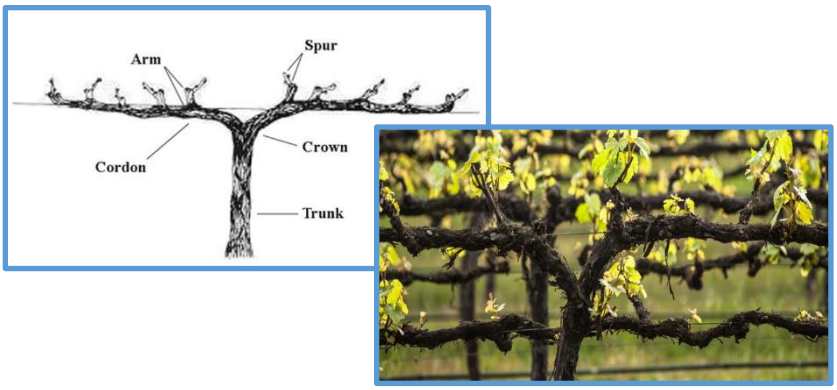
### *Vineyard Removals*

As discussed in the District's 2020 Report, and further detailed below, spur-pruned (cordon) vineyards result in the trellis/training wire becoming embedded in the mature cordon woody vines. Due to the fact that the wire is embedded in the woody vine, separating the wire from the wood is completely infeasible at this time, and therefore many alternatives to open burning are not able to be utilized for this crop type.

Infeasibility issues for the disposal of cordon vineyards through chipping and soil incorporation include:

- Inability to chip the cordon head (where the wire is embedded), due to wire damage to the chipping equipment;
- Risk of worker injury from removing wire from the field;
- Risk of worker injury, contamination to crops, and damage to farm equipment due to having wire remnants spread in the field after potential chipping;
- High cost of labor to manually remove wire from the vines; and
- Lack of research regarding success and challenges associated with soil incorporation practices at vineyards.

**Figure 2-3: Drawing of Spur Pruned Vine[3] and Photo of Spur Pruned Vine[4]**



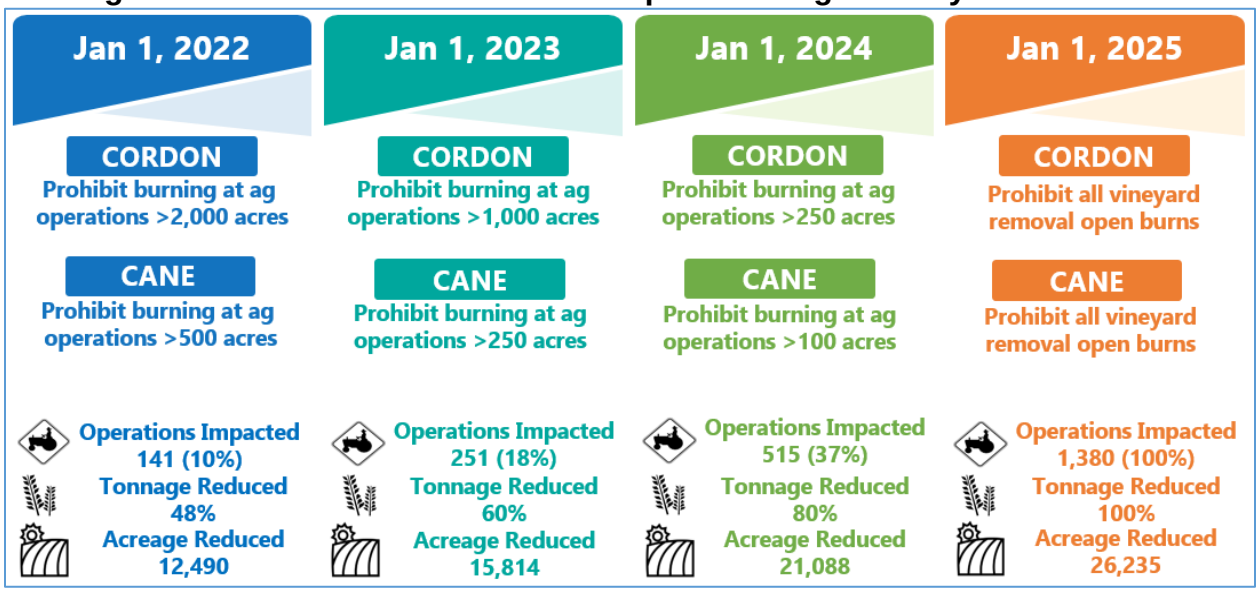

In addition to chipping/soil incorporation, other potential alternatives to open burning pose significant feasibility challenges due to the presence of wire in the woody material, including disposal at biomass power plants and at many landfills. Additional alternatives such as air curtain burners are not yet proven but may have potential under limited circumstances, such as helping to address wire-infused cordon vineyard materials where chipping/incorporation is not feasible, and as regulated through registration requirements. Due to these considerations, the District's 2020 Report recommended the phase-out open burning of vineyard removals greater than 15 acres for removals where feasible alternatives are available, through a case-by-case evaluation of any managed burn request that takes into account the availability of contractors and incentive funding.

CARB's staff assessment included recommendations to accelerate the prohibition schedule, including recommendations to phase-out the open burning of all vineyard removals for "large" agricultural operations effective 2022, and the implementation of phased-in prohibitions for smaller agricultural operations prior to the ban of vineyard removal burning by 2025.

[3] https://www.wineshopathome.com/grapevine-pruning/
[4] https://www.groworganic.com/blogs/articles/tips-on-spur-and-cane-pruning-your-grape-vines

In response to CARB's recommendations, the District has developed a phase-out schedule for vineyards, with bifurcated timelines for cordon vineyards and cane pruned vineyards. The recommended phase-out schedule for vineyards is detailed in Table 2-1. The proposed schedule, summarized in Figure 2-4, below, requires the phase-out of open burning for large agricultural operations by January 1, 2022, and progressively more stringent requirements for the phase-out of open burning for smaller operations (providing the most flexibility for smallest operations). Consistent with CARB Board mandates, the proposed schedule includes the complete phase-out of open burning of vineyard removals by January 1, 2025.

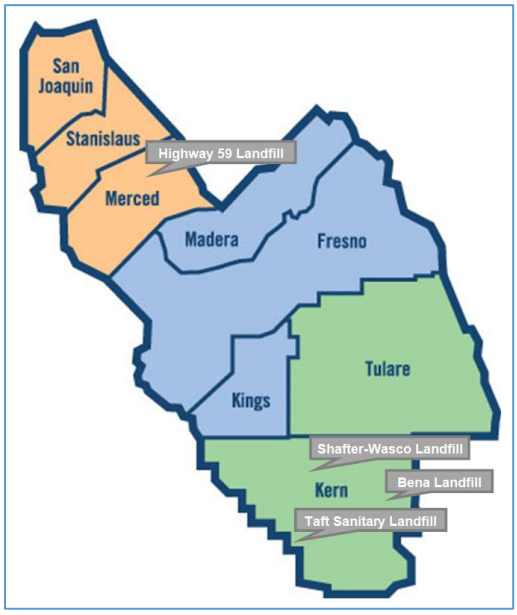
**Figure 2-4: Phase-Out Schedule for Open Burning of Vineyard Removals**




The recommended schedule for cordon vineyards is designed to immediately reduce agricultural burning for large operators, while allowing time for the development and further evaluation of feasible alternatives to open burning where the contamination of wire in the wood continues to present significant technical feasibility challenges. Alternative disposal options for cordon vineyards that do not require the wire to be removed from the vine may be feasible, including air curtain burners and advanced bioenergy, although these alternatives need further development and commercialization for potential use for spur-pruned vineyard removals. The District is also evaluating specialized horizontal tub grinders that are currently on the market that may have the ability to grind vineyard material with embedded wire. As more information is gathered about these units, the District will explore the potential of demonstration projects and opportunities to expand the availability of this potential alternative to Valley growers. Potential pilot projects could include employing air curtain burners to assist in the disposal of the portion of the cordon vine with embedded wire, or demonstrating the separation efficiency of chipping equipment designed to separate wire contaminants from the woody material. Further information about potential pilot projects or demonstrations of emerging technologies and practices is discussed in Section 3 of this Supplement.

Although some alternatives are infeasible at this time for cordon vineyards, four landfills located in the San Joaquin Valley currently accept vineyard material with embedded wire. In addition, two facilities in the Valley accept treated stakes. The costs and emissions associate with landfill disposal, including labor costs to prepare and separate the vines, hauling/transport, and landfill fees, will need to be further evaluated to understand the viability of landfilling as an alternative to open burning. The District, in consultation with local landfills and CalRecycle, will continue to explore landfill disposal option as an alternative to open burning of cordon vineyards in the event that no other alternative means of disposal are viable for this crop type, to ensure that Valley growers can comply with the state-mandated prohibition schedule for open burning.

**Figure 2-5: Valley Landfills that Currently Accept Vineyard Material with Embedded Wire**



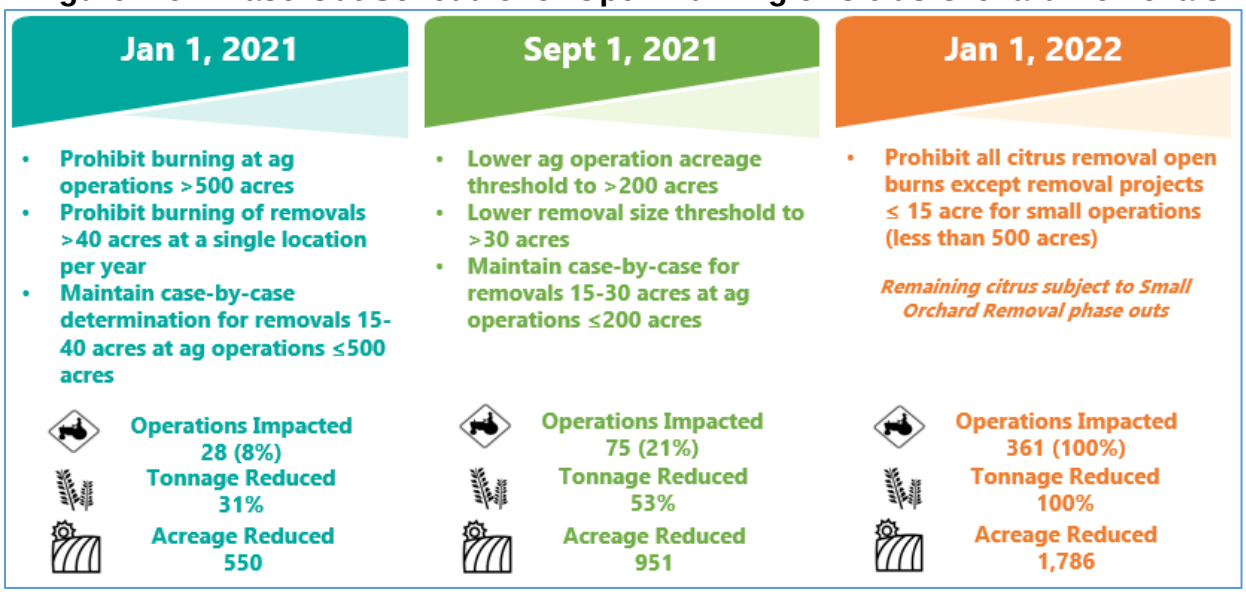

The District, in partnership with CARB, agricultural stakeholders, and USDA-NRCS, will work to support the expansion of feasible alternatives, including supporting demonstration projects, and providing incentives to assist vineyards in implementing alternatives. In addition, the District and CARB are committing to partner to bring together Valley growers at a Summit on Non-Burning Alternatives, which will include a focused conversation on alternatives for vineyards. Measures to support the proposed phase-out schedule are further discussed in Section 3 of this report.

### *Citrus Orchard Removals*

In the 2020 Report, the District found that there were no economically feasible alternatives to open burning without incentives and wider availability of contractors. However, to reinforce the transition to cleaner emerging alternatives, the District recommended a two-year phase-out as supported and made feasible through existing

and new incentive programs. The District's phase out schedule included prohibiting all citrus removal open burns effective January 1, 2023, except for small orchard removals <15 acres as provided through small orchard removal allowance for all orchards. Building on the District's recommendations, CARB recommended advancing this timeline to make the District's January 1, 2022 recommendations effective on September 1, 2021, and to prohibit all citrus orchard removal burns >15 acres effective January 1, 2022. Therefore, the District has accelerated the phase-out timeline to reflect CARB's recommendation (as summarized in Figure 2-6).

**Figure 2-6: Phase-Out Schedule for Open Burning of Citrus Orchard Removals**




Citrus orchard removals have historically had no alternative means for disposal besides open burning, due to biomass having historically been the primary alternative means of disposal. Citrus is a unique crop that faces challenges regarding biomass consumption. Due to the composition of the wood, citrus orchard material must be blended with other fuels to be processed through biomass facilities. Due to this, biomass facilities may have limited ability to accept citrus orchard removal material. Recently, the District has seen limited demonstrated utilization of soil incorporation as an alternative method of citrus orchard removal, with funding assistance from the District's grant program. A number of measures to support the phase-out schedule are recommended in the coming years, including further research into the benefits of soil incorporation for citrus orchards and any potential concerns or feasibility issues regarding the use of this practice; support for soil incorporation equipment fleet expansion; and promotion of soil incorporation as a viable alternative to Valley growers.

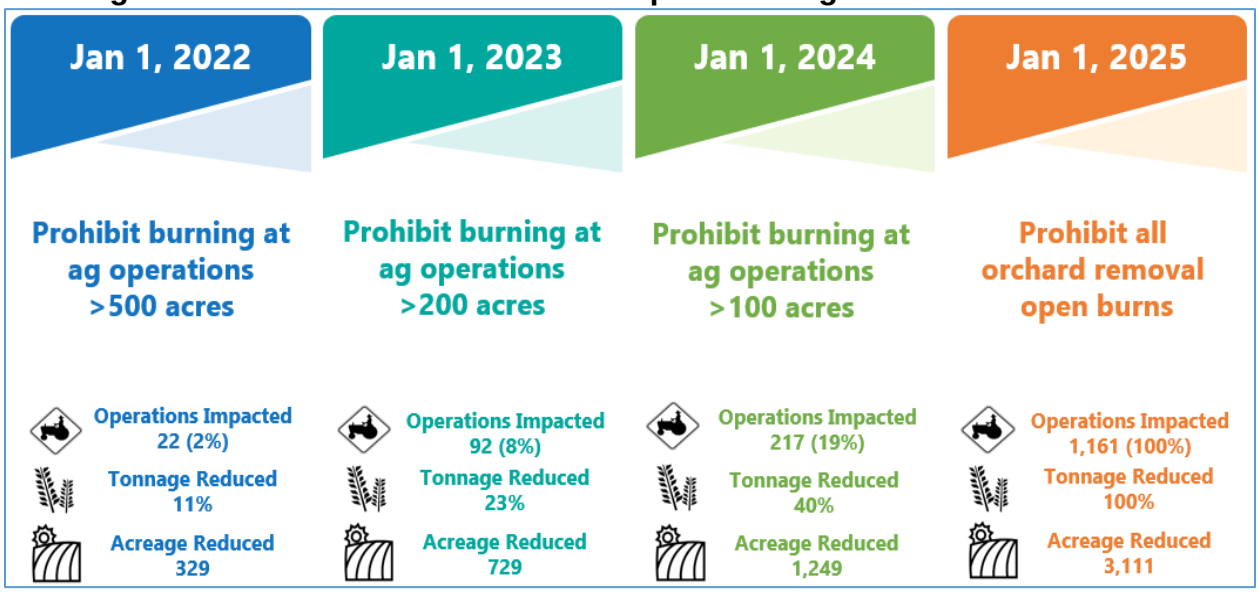
### *≤ 15 Acre Orchard Removals*

In the District's 2020 Report, the District found that there were no economically feasible alternatives for small orchard removals due to fixed and minimum contractor costs. In addition, the availability of contracts for small orchard removals remains an issue.

Contractors often refuse small removal requests as they are not a priority over large removals. Wait times for small removals are often extended in comparison to a larger removal. Recognizing these feasibility issues, the District recommended, in accordance with CH&SC §41855.6, postponing the prohibition of burning orchard removals ≤15 acres at a single location, per year.

In response to the District's 2020 Report, CARB's assessment included recommendations to introduce prohibitions on burning of ≤15 acre removal projects at large agricultural operations effective 2022, followed by phased in prohibitions for small agricultural operations. In accordance with CARB's recommendations, the District has developed a recommended phase-out schedule for the open burning of small orchards, as detailed in Table 2-1. The proposed schedule, summarized in Figure 2-7 below, requires the phase-out of open burning for large agricultural operations by January 1, 2022, and progressively more stringent requirements for the phase-out of open burning for smaller operations (providing the most flexibility for smallest operations). Consistent with CARB Board mandates, the proposed schedule includes the complete phase-out of open burning of small orchard removals by January 1, 2025.

**Figure 2-7: Phase-Out Schedule for Open Burning of Orchard Removals**




Although alternatives are technologically feasible for small orchard removals, the limited availability of equipment and contractors for small orchard removals and the high cost of alternative disposal methods has historically made the disposal of small orchards through alternative means economically infeasible. As detailed in the 2020 Report, contractors typically require a high cost move-in/set-up fee for small removals, to help offset the high overhead costs of equipment transport to the jobsite. Growers are then also responsible for a per-acre charge for the contractor to operate and maintain the equipment. Chipping operators may refuse smaller jobs due to the low net profit, making it difficult for growers to remove small acreages from orchards.

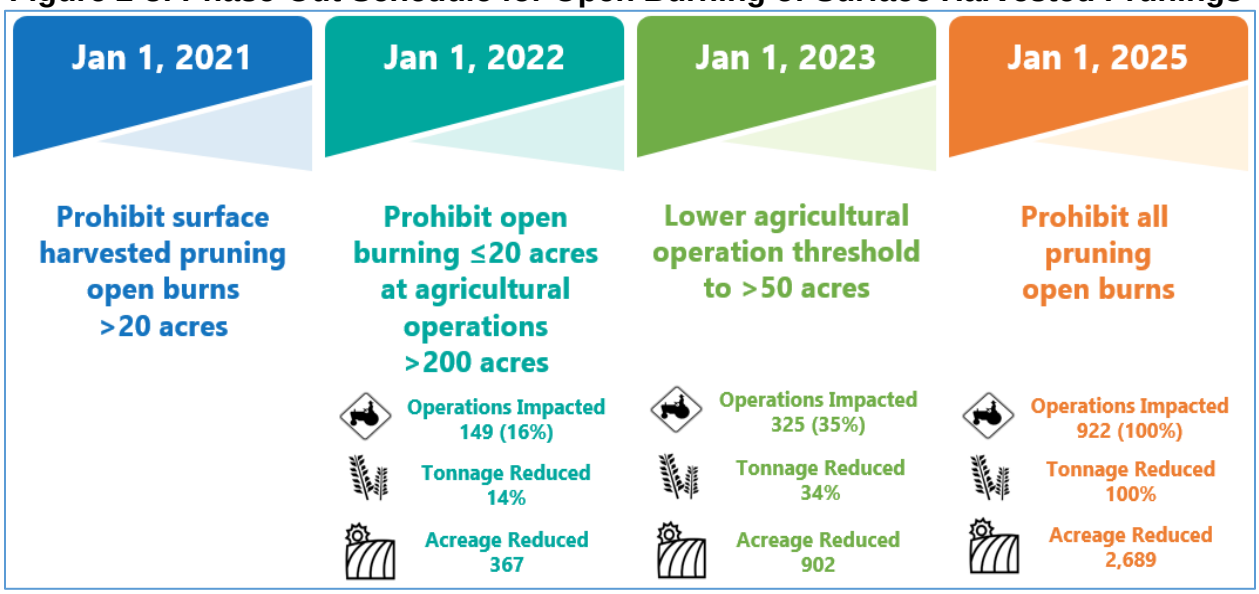
Additionally, when contractors do agree to process a smaller orchard removal, there may be a long wait time for the grower due to the need for the contractor to coordinate the removal with other jobs in the area to minimize equipment transport costs. Long wait times for the removal can impact when growers can plant their new crop, and missing the annual planting window can devastate an agricultural operation by delaying necessary income from the new crop by another year. These considerations greatly impact the feasibility of soil incorporation or whole orchard recycling as an alternative for small orchard removals.

The District will continue to offer incentives to small growers as available, and will work to support the expansion of soil incorporation and chipping fleets in the coming years. Funding support in the coming years, including support for expansion of chipping fleets, should assist in expanding the existing chipping/incorporation market to increase the availability and reduce the costs of these services to smaller agricultural operations. Planned measures to support the feasibility of alternatives for small orchard removals are further discussed in Chapter 3 of this Supplement.

### *Surface Harvested Prunings (Almond, Walnut, Pecan)*

In the District's 2020 Report, the District found that there were no economically feasible alternatives to open burning for surface harvested prunings from almond, walnut, and pecan crops without incentives. However, to reinforce the ongoing transition to alternatives, the District recommended a phase out schedule to prohibit open burning ≤ 20 acres of total prunings per year for almond, walnut, and pecan crops for agricultural operations whose total nut acreage at all agricultural operation sites > 50 acres. CARB's assessment provided concurrence with the District's determinations. In addition, to support the near-complete phase out of open burning by January 1, 2025, the District has included an additional recommendation in this supplemental report to phase out all remaining surface harvested open burns effective January 1, 2025 (summarized in Figure 2-8).

**Figure 2-8: Phase-Out Schedule for Open Burning of Surface Harvested Prunings**




### *Rice Straw*

In the District's 2020 Report, the District found that there has been a decline in open burn acreage for rice straw. Due to this, the District's Report included recommendations to reinforce this decline by aligning burn prohibitions with state law for the Sacramento Valley. This recommendation included prohibiting open burning of 75% of rice stubble per year of the total acreage of rice farmed by the operator, reducing from the previous level of 70% (allowed acreage burn from 30% to 25%). CARB's assessment includes a recommendation to reduce this percentage further, decreasing the percent of acreage that can be burned from 25% to 20%. This limited remaining burning allowance would address the potential issues of disease or fungus contamination that can arise when utilizing alternatives such as soil incorporation on rice fields. In accordance with this recommendation, the District is recommending to lower the percent of acreage that can be burned from 25% to 20% moving forward, effective January 1, 2021 (represents less than 0.1% of historical agricultural burning).

## 2.3 Summary of Recommended Phase-out Schedules by Crop Type

Through interagency collaboration, CARB staff have provided input throughout the development of the above advanced phase-out schedules. The accelerated phase-out schedules are detailed by crop type in Table 2-1 below to update the District's strategy to reduce emissions from open agricultural burning. Incentive support as expected to be provided by the state and the development of alternative practices and technologies will be necessary to support the proposed phase-out schedule and to ensure that adequate capacity of economically feasible alternative means of disposal exists to support the near-complete prohibition of open agricultural burning by 2025. The need for incentive funding to support alternative development and deployment is further detailed in the remaining portions of this Supplement.

**Table 2-1: Accelerated Reductions by Crop Category**

| Crop Category or Material | District 2020 Report Recommendation | CARB Staff Recommendation | District Supplement Recommendation |
|---|---|---|---|
| **Vineyard Removals** | Effective 2022, based on case-by-case evaluation, where alternatives are available, prohibit burning of projects >15 acres per location per year<br><br><15 acre projects allowed to burn | Introduce prohibition on burning at large agricultural operations, including for <15 acre removal projects, effective 2022.<br><br>Phase in prohibitions for small agricultural operations while providing a longer transition time than for larger operations. | **<u>Spur-Pruned (Cordon)</u>**<br>1) Effective January 1, 2022, Prohibit burning at agricultural operations >2,000 acres<br>2) Effective January 1, 2023, prohibit burning at agricultural operations >1,000 acres<br>3) Effective January 1, 2024, prohibit burning at agricultural operations >250 acres<br>4) Effective January 1, 2025, prohibit all vineyard removal open burns<br><br>**<u>Cane-Pruned</u>**<br>1) Effective January 1, 2022, Prohibit burning at agricultural operations >500 acres<br>2) Effective January 1, 2023, prohibit burning at agricultural operations >250 acres<br>3) Effective January 1, 2024, prohibit burning at agricultural operations >100 acres<br>4) Effective January 1, 2025, prohibit all vineyard removal open burns |
| **Citrus Orchard Removals** | Effective January 1, 2021:<br>1) Prohibit burning at agricultural operations with total citrus acreage at all sites >500 acres<br>2) Prohibit burning of removals >40 acres at a single location per year | Accelerate the phase-out timeline:<br>• Pull forward 2022 recommendation to be effective September 1, 2021<br>• Pull forward 2023 recommendation to be effective January 1, 2022 | Effective January 1, 2021:<br>1) Prohibit burning at agricultural operations with total citrus acreage at all sites >500 acres<br>2) Prohibit burning of removals >40 acres at a single location per year |

| Crop Category or Material | District 2020 Report Recommendation | CARB Staff Recommendation | District Supplement Recommendation |
|---|---|---|---|
| | 3) Maintain case-by-case determination for removals 15-40 acres at agricultural operations ≤500 acres<br><br>Effective January 1, 2022:<br>1) Lower acreage threshold to >200 acres<br>2) Lower removal size threshold to >30 acres<br>3) Maintain case-by-case for removals 15-30 acres at agricultural operations ≤200 acres<br>Effective January 1, 2023, prohibit all citrus removal open burns except removal projects ≤15 acres | Introduce prohibition on burning of ≤15 acre removal projects at large agricultural operations, effective 2022.<br><br>Phase in prohibitions for small agricultural operations while providing a longer transition time than for larger operations. | 3) Maintain case-by-case determination for removals 15-40 acres at agricultural operations ≤500 acres<br><br>Effective September 1, 2021:<br>1) Lower agricultural operation acreage threshold to >200 acres<br>2) Lower removal size threshold to >30 acres<br>3) Maintain case-by-case for removals 15-30 acres at agricultural operations ≤200 acres<br><br>Effective January 1, 2022, prohibit all citrus removal open burns except removal projects ≤15 acres |
| **≤ 15 Acre Orchard Removals** | Continue to permit burning | Introduce prohibition on burning of ≤15 acre removal projects at large agricultural operations, effective 2022.<br><br>Phase in prohibitions for small agricultural operations while providing a longer transition time than for larger operations. | Effective January 1, 2022, prohibit burning at agricultural operations >500 acres<br><br>Effective January 1, 2023, prohibit burning at agricultural operations >200 acres<br><br>Effective January 1, 2024, prohibit burning at agricultural operations >100 acres<br><br>Effective January 1, 2025, prohibit all orchard removal open burns |
| **Surface Harvested Prunings (Almond/Walnut/Pecan)** | Effective January 1, 2021, prohibit surface harvested pruning open burns >20 acres | Concur with District 2020 Report Recommendations | Effective January 1, 2021, prohibit surface harvested pruning open burns >20 acres |

| Crop Category or Material | District 2020 Report Recommendation | CARB Staff Recommendation | District Supplement Recommendation |
|---|---|---|---|
| | Effective January 1, 2022, prohibit open burning ≤20 acres at agricultural operations >200 acres<br><br>Effective January 1, 2023, lower agricultural operation threshold to >50 acres | | Effective January 1, 2022, prohibit open burning ≤20 acres at agricultural operations >200 acres<br><br>Effective January 1, 2023, lower agricultural operation threshold to >50 acres<br><br>Effective January 1, 2025, prohibit all surface harvested pruning open burns |
| **Raisin Trays** | Prohibit effective January 1, 2024 | Concur with District 2020 Report Recommendations | CARB concurrence provided, no proposed changes |
| **Rice Stubble** | Effective January 1, 2021, prohibit open burning of 75 percent of rice stubble per year of the total acreage of rice farmed by the operator | Decrease percentage of acreage that can be burned from 25 percent to 20 percent, effective January 1, 2021 | Effective January 1, 2021, prohibit open burning of 80 percent of rice stubble per year of the total acreage of rice farmed by the operator |
| **Residual Rice Stubble and Spot Burning** | Prohibit effective January 1, 2021 | Concur with District 2020 Report Recommendations | CARB concurrence provided, no proposed changes |
| **Rice Field Levees and Banks** | Continue to permit burning | Concur with District 2020 Report Recommendations | CARB concurrence provided, no proposed changes |
| **Apple/Pear/Quince Prunings and Orchard Removals** | Continue to permit burning | Concur with District 2020 Report Recommendations | CARB concurrence provided, no proposed changes |
| **Weed Abatement (Ponding and Levee Banks)** | Continue to permit burning | Concur with District 2020 Report Recommendations | CARB concurrence provided, no proposed changes |
| **Diseased Beehives** | Continue to permit burning | Concur with District 2020 Report Recommendations | CARB concurrence provided, no proposed changes |

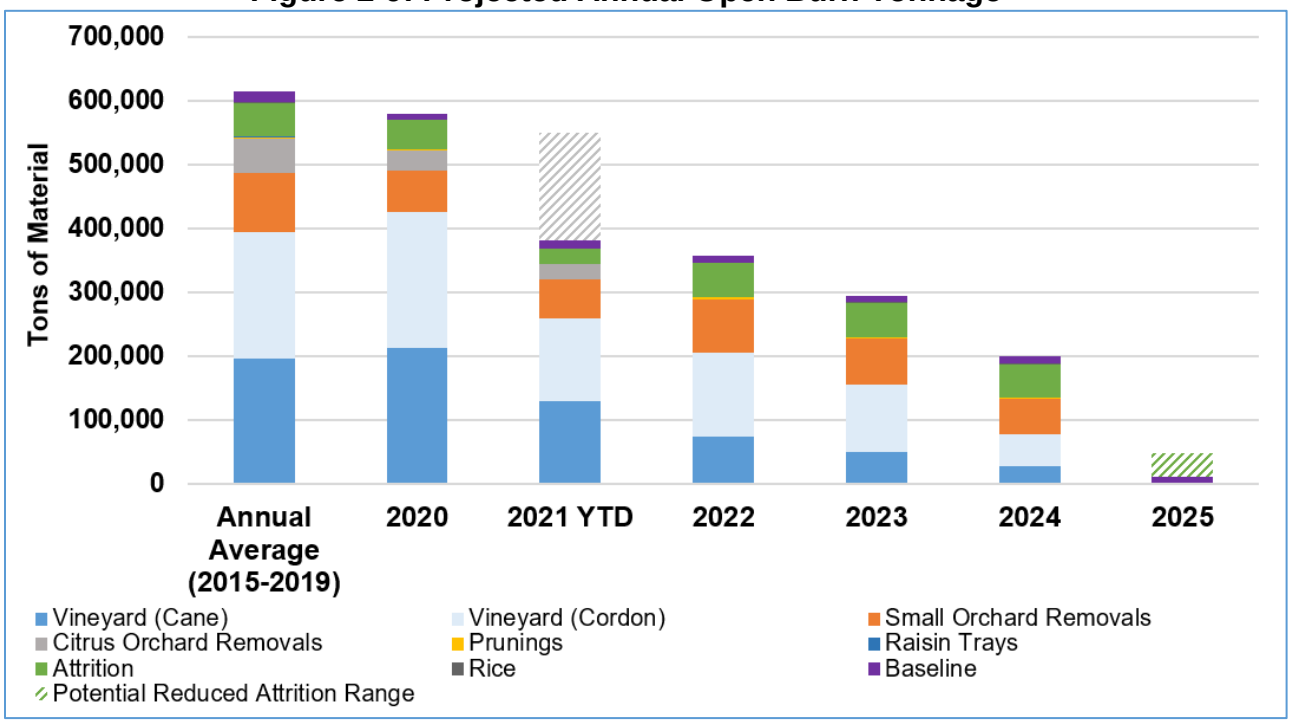
## 2.4 Reduction Benchmarks for Near-Complete Phase-out of Open Agricultural Burning

As recommended by CARB Resolution 21-4, the District has developed a transparent and measurable reduction plan, as outlined above, for the near-complete phase-out of open burning by January 1, 2025. CARB also recommended that the District include reduction benchmarks for the near-complete phase-out of open burning, and develop a clear ton target for open burning in 2025. CARB staff recommendations detail that, "while allowing year-to-year flexibility, the target provides certainty for reductions in the amount of agricultural material burned, sends a clear signal to shift the market towards sustainable alternatives, and protects public health." The following Figure 2-9 displays the projected annual open burn tonnage in woody material being open burned in the Valley from the phase-out schedule detailed in the previous section, illustrating the reduction in burning over time.

CARB's recommendations included recognition that limited exceptions to the burn prohibitions will be required beyond January 1, 2025, including for cases with cogent disease issues, agricultural commissioner- or State-ordered disease removals, or where there are safety or water quality issues that limit the use of herbicides or pesticides. This material, including weeds and vegetative materials on rice field levees and banks, apple, pear, and quince crop pruning and orchard removals, weeds affecting ponding and levee banks, and diseased beehives, accounts for approximately 1% of tons burned in 2020, and has historically represented a similarly small amount of total burning in the Valley.

Following the near-complete phase-out of open agricultural burning in 2025, consistent with SB 705 and CARB's recommendations, the District will continue to allow burning of limited amounts of rice straw (which has the potential for risk of disease), diseased crops and materials, weeds affecting ponding and levee banks, and weeds and other maintenance, as defined by Rule 4103. In addition, while SB 705 does not address the open burning of attrition material and alternative services are not currently available to Valley growers, the recommended strategy will support the development of alternatives to address attrition and other maintenance-related woody material through the development of enhanced incentive options for new alternatives through as available through new state funding resources and the District's Alternative to Agricultural Open Burning Incentive Program. Through this strategy, District staff estimate a 25-50% reduction in open burning of attrition in the coming years and beyond 2025 through these efforts. All limited remaining burning will continue to be managed closely through the District's SMS. Therefore, the continued issuance of burn permits for these limited materials will not result in an exceedance of federal ambient air quality standards, impact smoke-sensitive receptors, or cause a public nuisance.

**Figure 2-9: Projected Annual Open Burn Tonnage**




# 3 Ongoing Development of Alternatives to Open Burning of Agricultural Materials

The path to phasing out open burning is largely reliant on the use of clean alternatives, which are not yet widely available. Through collaboration with the agricultural sector, CARB, USDA-NRCS, and Valley stakeholders, the District has pursued a number of initiatives to develop new alternatives to managed burning, including legislative energy policy enhancements, development of registration mechanisms for air curtain burners, supporting new bioenergy projects that utilize agricultural woody materials, and development of incentive measures to promote the development and demonstration of new alternatives. The District will continue to pursue all available alternatives, such as chipping, biomass, bioenergy, composting, air curtain burners, and landfills, with the priority given towards non-combustion alternatives as feasible.

## 3.1 Incentive Funding from State

At the February 25, 2021 public hearing, the CARB Board concurred with much of the 2020 Report's findings and established a timeline for the near-complete phase-out of agricultural burning by 2025. This significant strategy is unique to the San Joaquin Valley, and in order to achieve this milestone, CARB recognized the critical need for new funding resources at the State and federal level beyond those currently available to support the transition to costly new and emerging alternatives.

*California's 2021-22 May Revision to the Governor's Budget* [5], released on May 14, 2021, includes funding for sustainable agriculture, including $150 million in funding for "Incentives for Alternatives to Agricultural Burning in the San Joaquin Valley" and $100 million in funding for the CDFA Healthy Soils Program. Additionally, the Senate's *Agriculture Budget Plan* released May 4, 2021 includes $180 million over a three-year period ($60 million per year) to support the deployment of alternatives to open burning. The State Budget is typically adopted by the Legislature and signed by the Governor by June 30th of each year. If implemented like other state air quality funding such as the Carl Moyer incentive program, new state funding to alternatives to open burning would be routed to the District through CARB for distribution in support of the phase-out strategy through the District's Alternative to Agricultural Open Burning Incentive Program. Upon approval of the State Budget, programmatic funding details will be developed in close coordination with CARB, agricultural stakeholders, and other Valley stakeholders. Given the short phase-out timeframe, time is of the essence, and it will be critical that the state Legislature, CARB, and the District act swiftly to make this funding available as quickly as possible to ensure successful implementation of the recommended strategy.

### 3.2 Summit on Non-Burning Alternatives

In February 2017, the District convened the Central Valley Summit on Alternatives to Open Burning of Agricultural Waste to bring together Valley growers, researchers/experts, representatives from the biomass power industry, representatives from new and developing technology vendors, and Valley stakeholders. Over the course of the two-day Summit, the comprehensive agenda explored the history of agricultural burning regulations in the Valley, the current state of agricultural burning and alternatives, air quality impacts associated with open burning, challenges faced in other regions of the state, and the opportunities and challenges of implementing alternatives to open burning of agricultural waste. In response to the Summit, the District Governing Board approved actions to continue addressing the ongoing issues associated with agricultural managed burning, which have supported the continued phase-out of open burning in the Valley and led to the creation of the District's Alternative to Agricultural Open Burning Incentive Program.

In its Staff Recommendations, CARB recommended holding a summit to discuss non-burning alternatives as one of a number of actions to improve readiness to reduce burning at the pace needed to meet the 2025 target of a near-complete phase-out of agricultural burning in the Valley. In September of 2021, CARB will host, with assistance from the District, a two-day Summit modeled after the District's 2017 Summit, which will focus on solutions to overcome the challenges associated with implementation of alternatives. The Summit will advance the understanding of available and potential new biomass/bioenergy technologies, including advantages and disadvantages of each, and anticipated implementation roadblocks and solutions. The

[5] California's 2021-22 May Revision to the Governor's Budget http://www.ebudget.ca.gov/2021-22/pdf/Revised/BudgetSummary/SustainableAgriculture.pdf

Summit will include topics such as grower and industry perspectives on alternatives to burning, specific discussion on the alternatives including soil incorporation, composting, bioenergy and biomass alternatives, incentive funding opportunities and co-benefits associated with alternatives. On-site or in-field demonstrations of available alternatives will allow attendees to see firsthand the different types of equipment with the ability to ask questions related to their operation. Pathways for potential deployment of clean bioenergy and biofuel solutions will also be discussed.

The Summit, which will be open to the public and planned for a location in Tulare, will be an opportunity for attendees to share innovative ideas and help move the Valley closer to widespread access to, and adoption of, more sustainable agricultural burning alternatives. Cal Poly, San Luis Obispo, will provide support organizing, facilitating, and documenting the Summit and its outcomes. The District and CARB will provide additional details about the Summit, including the finalized date, venue, and agenda, in the coming months.

### 3.3 Demonstrations and Pilot Projects for Alternatives

To help facilitate the transition from open burning to cleaner alternatives, the District recognizes the need to identify and promote new and advancing technologies. The District has continued to place an emphasis on supporting the deployment of these new technologies through incentives programs, including ongoing efforts to identify and support demonstrations and pilot programs.

On March 18, 2010, the District's Governing Board approved the Technology Advancement Program (TAP) to encourage innovation and development of new emission reduction technologies through Valley-based demonstrations. The TAP consists of an ongoing review of new technology concepts, interagency partnerships, funding for technology advancement programs, and collaborations to build and expand local capacity for research and development in the San Joaquin Valley. In order to encourage technology development in critical areas that best serve the Valley's needs to reach attainment, the District has established a set of technology focus areas, including alternatives to open burning. Alternatives to open burning projects will focus on technologies and practices that minimize or eliminate emissions from open burning of agricultural biomass.

To support the near-complete phase-out of open agricultural burning by January 1, 2025, the District will continue to identify opportunities for the demonstration of new alternatives to open burning through the TAP or through other research demonstration

projects. In the coming years, the District is committed to supporting potential pilot projects and demonstrations, which may include:

- ***Advanced chipping technology:*** with particular focus on evaluating horizontal tub grinders that may be capable of processing cordon vineyard with embedded wire.
- ***Alternative practices for vineyard removals:*** including evaluating soil incorporation for vines to assess the risk of replant disease, and impacts on required farm nitrification plans (as required by the California State Water Board); costs associated with removing wire from cordon vineyards; and potential costs and feasibility of landfilling or other disposal mechanisms in the event that preferred alternatives prove infeasible for this crop category.
- ***Alternative practices for citrus orchard removals:*** including supporting research on the costs, feasibility, and co-benefits of soil incorporation or whole orchard recycling as an alternative disposal practice for citrus orchard removal projects.
- ***Stump disposal practices:*** the disposal of stumps from certain orchard removals through alternatives to open burning proves difficult due to rocks and heavy clay soils being entwined in the root ball, which are not able to be processed through chipping equipment. Alternatives to open burning of stumps/roots of certain orchards will need to be further developed prior to the prohibitions for these crops taking effect.
- ***Advanced on-site bioenergy alternatives:*** to evaluate and further develop the potential use of on-site pyrolysis units for disposal of agricultural materials.
- ***Attrition disposal demonstrations:*** practices, technologies, and business models to support the disposal of attrition, including blow-downs, from crops must be further developed as the small amount of this material generated on a per-acre basis typically makes disposal through traditional alternatives cost-prohibitive.
- ***Additional demonstrations of air curtain burners:*** where other disposal mechanisms prove infeasible, air curtain burners may be able to be utilized, although additional evaluation of the cost of equipment, associated labor costs, and the capacity limitations of processing removals through this type of equipment is necessary prior to widespread deployment of this technology as an alternative.

The continued effort to fund pilot projects and demonstrations will be crucial in order to identify, further develop, and promote feasible and available alternatives to open burning. The District will partner with agricultural stakeholders, CARB, USDA-NRCS, CDFA, and other agencies as appropriate to demonstrate and help deploy alternative technologies and practices as expeditiously as possible in the coming years.

## 3.4 Alternative to Agricultural Open Burning Incentive Program

The District has taken action to pursue a number of alternatives to open burning, including adoption of a new incentive program in November 2018, to assist growers in demonstrating new on-field practices for the disposition of agricultural materials. This

well-subscribed program provides incentives for growers to chip, shred, or mulch woody agricultural material as an alternative to the open burning of these materials. Recognizing the variety of agricultural operations in the Valley, the program allows growers to select from several on-field uses for chipped agricultural materials from orchard or vineyard removals, such as soil incorporation (whole orchard recycling) and land application of mulch. In order to ensure broad program participation since the inception of the program, the District has utilized per-acre and per-project funding caps of $600/acre and $60,000/project respectively. Recognizing the high economic impact that implementing alternatives has on smaller agricultural operations, the District has begun allocating funding for smaller agricultural operations with a total acreage of less than 500 acres.

Since opening in 2018, the District has seen strong demand for this program. Since inception, the Governing Board has allocated $26.7 million to this program, resulting in the deployment of alternative practices at over 43,000 acres of orchard and vineyard removals. The program, to date, has supported the disposal of over 1,100,000 tons of agricultural materials through alternatives to open burning, resulting in the reduction of 2,413 tons of NOx, 4,265 tons of PM and 3,292 tons of ROG emissions. Table 3-1 below illustrates program participation details by crop type.

**Table 3-1: Participation by Crop Type**

| Crop Type | Executed Projects | Acres | Tons of Material | Tons of Material (% of Valley Total) |
|---|---|---|---|---|
| Almonds | 428 | 26,587 | 797,603 | 67% |
| Grapes | 171 | 6,780 | 101,700 | 9% |
| Walnuts | 72 | 2,439 | 73,180 | 6% |
| Citrus | 53 | 1,791 | 53,745 | 5% |
| Plums | 38 | 1,358 | 40,740 | 3% |
| Peaches | 36 | 1,169 | 35,058 | 3% |
| Cherry | 28 | 751 | 22,533 | 2% |
| Nectarines | 13 | 477 | 14,295 | 1% |
| Apricots | 11 | 791 | 23,730 | 2% |
| Olives | 9 | 248 | 7,443 | 1% |
| Other | 18 | 751 | 22,394 | 2% |
| **Total** | **877** | **43,142** | **1,192,420** | **100%** |

In December 2020, as part of the District Governing Board's consideration of the 2020 Report, the Board authorized an increase of $7,000,000 for the continued operation of the Alternative to Agricultural Open Burning Incentive Program, bringing the total allocation for this program to $15,746,006 for the 2020-21 fiscal year. This increase was based on historical participation rates and the forecasted demand for the program at that time. However, since December, the actual participation rate in the program far exceeded initial forecasts, resulting in the Board authorizing an additional increase of

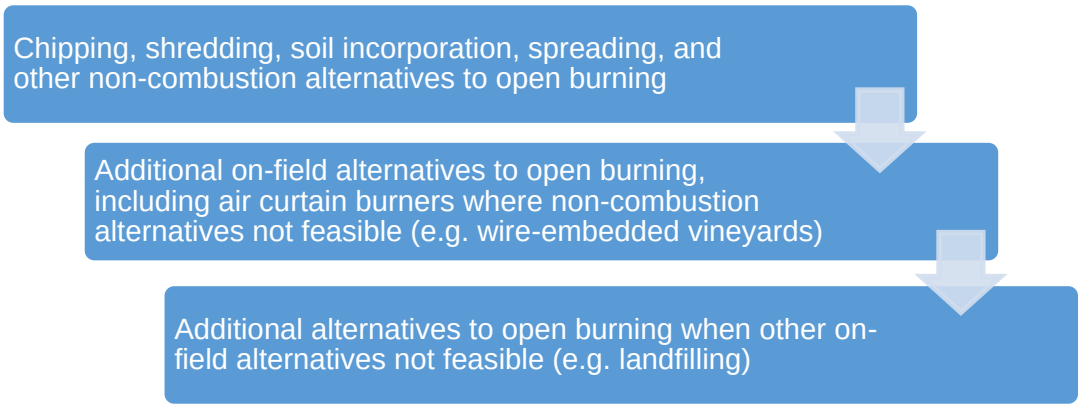
$3,000,000 in April 2021, bringing the total allocation for this program to $18,746,006 for the 2020-21 fiscal year.

As outlined above, the State, through the Governor's Proposed Budget, has recognized the need for incentive support to transition away from open burning by 2025. The District will be evaluating potential enhancements to the existing incentive program and the development of other incentive funding opportunities including the following:

- Re-evaluate project funding cap (potentially eliminate)
- Consider increasing $/acre funding levels for various crop types based on technological/cost barriers (i.e, vineyards)
- Developed incentive funding options for additional alternatives to open burning as necessary to support the transition, with priority for non-combustion alternatives as feasible
- Develop incentive funding options to support needed contractor fleet equipment capacity expansion (as allowed by new state funding guidelines)
- Support for pilot demonstration projects or technology advancement
- Consider enhanced funding to support for smaller farms to account for initial set-up/fixed costs
- Funding consideration for additional alternatives to burning where feasible, including diseased crops, and attrition, prunings, and other maintenance-related woody material

In developing enhanced incentive funding options for the Alternative to Agricultural Open Burning Incentive Program, the District will work with CARB to develop appropriate funding guidelines, including prioritizing non-combustion alternatives where feasible. For example, soil incorporation has been demonstrated to provide a viable alternative for many crop types and will be strongly encouraged through the incentive program. In some cases, other alternatives, such as air curtain burners or landfilling of materials, may require incentive support under limited circumstances where non-combustion alternatives are not feasible, but still provide for a significantly less-emitting alternative to open burning. In general, consistent with these principles, funding priority for the Alternative to Agricultural Open Burning Incentive Program will be considered as follows:

**Figure 3-1: Prioritization of Alternatives to Open Burning**




## 3.5 Penalties

As an intermediate response to the loss of biomass power plants and resulting lack of feasible alternatives to dispose of agricultural woody waste, a Stipulated Order of Abatement was granted by the District's Hearing Board on December 16, 2015, to allow managed burning of orchard removal material in situations where no economically feasible option is available. This action was consistent with the Governing Board's direction to prevent roll-backs of existing prohibitions by providing necessary relief, despite the significant loss of biomass power and related state and federal incentives necessary to support the prohibitions under the CH&SC. In addition to a per acre penalty (currently at $750 per acre), all burning conducted pursuant to the Stipulated Order of Abatement (SOA) has been carefully controlled, monitored, and enforced through the District's SMS to prevent emissions from these burns do not cause or contribute to exceedances of federal air quality standards, cause a public nuisance, or impact nearby smoke-sensitive areas. Penalties collected through this process have been utilized to fund the demonstration of on-field soil incorporation and chipping/spreading projects at orchards and vineyards. In conjunction with the wider demonstration of new alternatives through the District's Alternative to Agricultural Open Burning Incentive Program and other related initiatives, the District has seen a steep decrease in requests for orchard removal managed burning under this process, with virtually no utilization of this option in 2020 and 2021.

While the SOA is currently not being utilized by growers for orchard removals given the District recent funding support for alternatives to open burning, as recommended by CARB in its Staff Recommendations, the District will consider potential enhancements, including an additional increase in the SOA penalty amount, or working with the Hearing Board to sunset the current SOA.

## 3.6 Use of Agricultural Material to Support Development of Low-Carbon Biofuel

In its Staff Recommendations, CARB suggested the use of woody biomass as a low-carbon alternative to petroleum-based fuel and part of the strategy to transition away

from open burning. CARB discussed the conversion of agricultural residue into liquid and gaseous fuels as another alternative to burning which could also support the State's climate change mitigation efforts. As part of California's effort to reduce greenhouse gas emissions, CARB has adopted a Low Carbon Fuel Standard (LCFS) which sets a decreasing carbon intensity for California's transportation fuel pool and helps support the deployment of a range of low-carbon and renewable fuel alternatives like renewable diesel, biodiesel, alternative jet fuel, renewable natural gas, and others. These low-carbon fuels will be critical to decarbonizing our transportation sector over the coming years, particularly for areas that will be hard to electrify like agricultural equipment, marine, and other off-road equipment.

As the State pushes towards carbon neutrality, these fuels will also have applicability beyond transportation such as the industrial sector or decarbonizing the natural gas grid and electricity sector. Using biomass-based feedstocks, such as agricultural residues, in the production of these fuels can help reduce a fuel's carbon intensity. When appropriately designed, a renewable fuel production facility that utilizes agricultural residue, that would otherwise be open burned, can help reduce greenhouse gas and criteria pollutant emissions, waste, and fossil fuel dependence, while supporting local economies.

## 3.7 Clean Biomass Collaborative

A Clean Biomass Collaborative was recommended by the District in its 2020 Report, and CARB agreed in its approved Staff Recommendations that pursuing a collaborative was an important step to evaluate long-term options to help phase out open agricultural burning in the Valley. In consultation with the District, CARB has established a Clean Biomass Collaborative to help better understand and promote alternatives to open burning of agricultural biomass. The collaborative will include significant engagement from the District and CARB, as well as from stakeholders such as nongovernmental and community members and representatives; federal, State, and local agency representatives; agriculture and bioenergy industry representatives; and academic experts. The goal of the collaborative is to facilitate ongoing solution-driven sharing and compiling information that can provide clarity about biomass/bioenergy industry challenges and viable alternatives to open agricultural burning. Because there is already significant work underway to increase the use of alternatives such as soil incorporation to meet the 2025 phase out, the Clean Biomass Collaborative is expected to focus on longer-term options, such as non-combustion biofuel production. Cal Poly, San Luis Obispo, will provide support to conduct, facilitate, and document the various workshops, public meetings, presentations, work group meetings, and outreach needed to engage all stakeholders. This collaborative complements the Summit on Non-Burning Alternatives and provides a forum for longer-term discussion of these issues.

# 4 Promoting Alternatives to Open Burning of Agricultural Materials

The near-complete phase-out of open burning by 2025, and the aggressive accelerated prohibition schedule detailed in this report, are further challenged by drought and limited water allocations to farmers, which may limit the ability of Valley agricultural operations to continue in the coming years and may increase the amount of vineyards and orchards being removed. Recent reports highlight that California is currently facing one of the driest years on record. In May 2020, California Governor Gavin Newsom announced a drought emergency declaration for many of the watersheds in California, including the Russian River, Klamath River, Sacramento-San Joaquin Delta, and Tulare Lake Watersheds. These declarations include Fresno, Madera, Merced, Kern, Kings, San Joaquin, Stanislaus, and Tulare, covering all of the San Joaquin Valley.
In December 2020, the California Department of Water Resources (DWR) announced an initial water allocation of 10 percent of requested water supplies. However, in March 2021, the DWR announced an adjustment to the water allocation to 5 percent of requested water supplies, which is to be distributed among 750,000 acres of farmland throughout California. These conditions, further exacerbated by new state mandates such as the Sustainable Groundwater Management Act (SGMA), will likely generate significant additional fallowing of agricultural acreage, emphasizing the need to identify alternatives to open burning.

Valley growers must be aware of the upcoming prohibitions to open burning in order to plan effectively for business operations moving forward. Through collaboration with the agricultural sector, CARB, USDA-NRCS, and Valley stakeholders, the District has continued to take steps to promote new alternatives to open burning, including active public outreach and the development of incentive measures to promote the demonstration of new alternatives. In addition, the District and CARB are working to promote the use of bioenergy alternatives. The District will continue this collaboration through the phase-out process to promote the use of alternatives to agricultural open burning. In addition, the District will collaborate with these groups to pursue state funding for incentives to support the transition to alternatives.

## Ongoing Development of Outreach Materials and Programs

District staff have held numerous public meetings throughout this report development process, offering both daytime and evening workshops to accommodate a variety of different schedules. The District has hosted numerous informational meetings with agricultural representatives and growers, and other interested parties. In addition, the District has attended meetings of grower cooperatives to provide information regarding supplemental report development and upcoming burn prohibitions to agricultural stakeholders. Radio advertisements, updates to the District's website, informational videos, social media ads, and targeted distribution to affected agricultural operators through email blasts, newsletters, and association meetings have also helped ensure that Valley farmers are aware of the upcoming prohibitions, and available alternatives.

In the coming weeks, the District will host webinars for agricultural groups and growers of affected crops, scheduled for June 2 and June 11, 2021, in order to educate growers on the upcoming burn prohibitions, promote alternatives to open agricultural burning, and provide information regarding available incentive programs. Furthermore, in fall of 2021, the District will coordinate with the agricultural community to host a series of educational workshops, webinars, and pop-up events to further educate affected growers about upcoming prohibitions to open burning, and available alternatives.

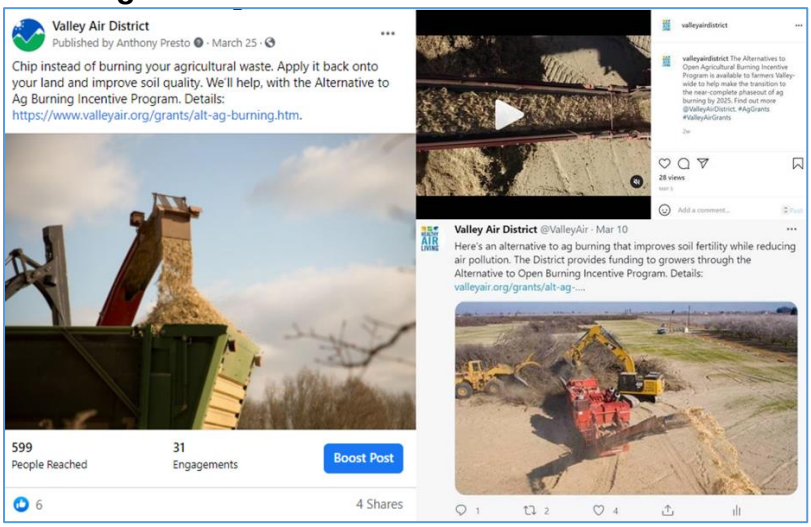
General and crop-specific outreach materials are intended to highlight the District's grant program, outline current burning restrictions, and encourage the use of alternatives in lieu of open burning during the phase-out period. Specifically, the District has developed and published a Compliance Assistance Bulletin to inform growers about upcoming open burning prohibitions. In addition, the District has published a Grant Program Flyer and promotional video to highlight the availability of funding to implement alternatives to open burning. Furthermore, the District has ran advertisements for various District grant programs, including incentives for alternatives to burning, in radio broadcasts, newspapers, journals, and magazines. Specifically, the District has published advertisements in the *Shafter Press Newspaper*, *Ag Source Magazine*, *Valley Ag Voice*, and *San Joaquin Valley Ag Magazine*.

**Figure 4-1: Examples of District Grant Program Advertisements**

**Figure 4-2: District Grant Program Promotional Video**


In addition to developing informational websites as a resource to growers, the District has promoted the Alternative to Open Agricultural Burning Incentive Program through social media platforms, including Facebook, Twitter, and Instagram. Since early March 2021, the District has posted 13 posts, receiving over 1,400 views, with over 100 post engagements through post interaction, likes, retweets, and shares.

**Figure 4-3: District Social Media Outreach**




To further outline current burn restrictions, the District has also developed infographics and informational flyers that include crop-specific phase-out schedules. These infographics will be distributed to Valley growers to notify them of upcoming open burning prohibitions, highlight the importance of utilizing alternatives, and feature available funding through the District's grant program. The District will continue to coordinate with agricultural representatives, Valley Farm Bureaus, and the UC Cooperative Extension to promote the District's grant program and distribute these outreach materials to Valley growers and agricultural organizations.

**Figure 4-4: Example Infographic: Vineyards**


In addition to those outreach materials, the District has developed a group of informational websites, including a website for Agricultural Burning that contains information on burn permits, compliance assistance, and alternatives to burning. The District maintains a website for the District's successful Alternative to Agricultural Open Burning Incentive Program, with information on the program eligibility, guidelines, and online and print application materials. Lastly, District staff created a website specific for the development of the District's 2020 Report and this Supplement, which contains links to legislation, previous reports, and recent actions taken by the District. The development of these websites builds on the District's outreach strategy and provides a one-stop-shop for agricultural stakeholders and community members to review important resources.

Through January 1, 2025, the District will continue to work to notify agricultural operators about upcoming burn prohibitions, and to promote the use of alternatives in lieu of open burning. This outreach effort will continue in the coming months through public workshops and webinars; a "road show" schedule of information meetings targeted for agricultural operators; radio, television, and social media advertisements; and targeted distribution of outreach materials and flyers. In addition, CARB and the District will be holding the Summit on Non-Burning Alternatives in 2021, which will further facilitate this outreach process and bring together industry representatives and growers to discuss the phase out of open burning and the further development of alternatives.

# 5 Public Process

Following the February 25, 2021, CARB public hearing to consider the District's 2020 Report and Recommendations, the District has conducted a comprehensive public process to inform the public and agricultural sector about the state mandate for the near-complete phase-out of open agricultural burning by 2025. The requirement for the District to develop an additional report for submittal to CARB adopting CARB's staff recommendations has been discussed at public meetings of the District's Governing Board, Citizen's Advisory Committee, Environmental Justice Advisory Group, the Agricultural Technical Committee, and at public workshops.

The progress of the Supplement development has been publicly available on a webpage specifically developed by the District for the 2020 Report, located at: https://www.valleyair.org/BurnPrograms/open-burn-report-progress/2020.htm. Additionally, information for the agricultural sector, including compliance assistance bulletins, copies of District and CARB reports, and grant funding information, has been publicly available at the District's Agricultural Burning webpage: https://ww2.valleyair.org/agriculture/agricultural-burning

The District conducted a public workshop on April 30, 2021, to present, discuss, and receive public comment on the development of the supplemental report to update the District's strategy to reduce emissions from open agricultural burning, per CARB's recommendations. A second public workshop will be held on June 3, 2021, to receive feedback on the draft Supplement and proposed updated District recommendations.

The District published the draft Supplement on May 27, 2021, followed by a public comment period ending at 5:00 pm on June 8, 2021. The District will continue to invite public comment through and during the June 17, 2021, Governing Board Hearing to consider adoption of the updated recommendations.

# 6 Environmental Impact Analysis

Based on the District's investigation, the District concludes that the proposed Supplement will not cause either a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment, and as such is not a "project" as that term is defined under the California Environmental Quality Act (CEQA) Guidelines § 15378.

According to Section 15061 (b)(3) of the CEQA Guidelines, a project is exempt from CEQA if, "(t)he activity is covered by the general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment. Where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA." As such, substantial evidence supports the District's assessment that assuming the Supplement is a "project" under CEQA, it will not have any significant adverse effects on the environment.

Furthermore, the proposed Supplement is an action taken by a regulatory agency, the San Joaquin Valley Air Pollution Control District, as authorized by state law to assure the maintenance, restoration, enhancement, or protection of air quality in the San Joaquin Valley where the regulatory process involves procedures for protection of air quality. CEQA Guidelines §15308 (Actions by Regulatory Agencies for Protection of the Environment), provides a categorical exemption for "actions taken by regulatory agencies, as authorized by state or local ordinance, to assure the maintenance, restoration, enhancement, or protection of the environment where the regulatory process involves procedures for protection of the environment. Construction activities and relaxation of standards allowing environmental degradation are not included in this exemption." No construction activities or relaxation of standards are included in this project.

Therefore, for all of the above reasons, the proposed Supplement is not subject to CEQA. Pursuant to Section 15062 of the CEQA Guidelines, staff will file a Notice of Exemption upon Governing Board approval of the Supplement.