

Supplemental Report and Recommendations on Agricultural Burning

April 30, 2021

webcast@valleyair.org

Valley Agricultural Open Burning Mandates

- SB 705 (2003 Florez) established agricultural open burning prohibitions for the San Joaquin Valley, starting in 2005
- District implements SB 705 through Rule 4103 (Open Burning) and District's Smoke Management System (SMS)
- District "Staff Report and Recommendations on Ag Burning" must be updated every 5 years, per Rule 4103 requirements
 - Governing Board approval required prior to submittal to CARB and EPA
 - CARB must provide concurrence with District recommendations (CARB has provided concurrence on all previous reports)
 - Governing Board approved *2020 Staff Report and Recommendations on Agricultural Burning* (2020 Report) in December 2020

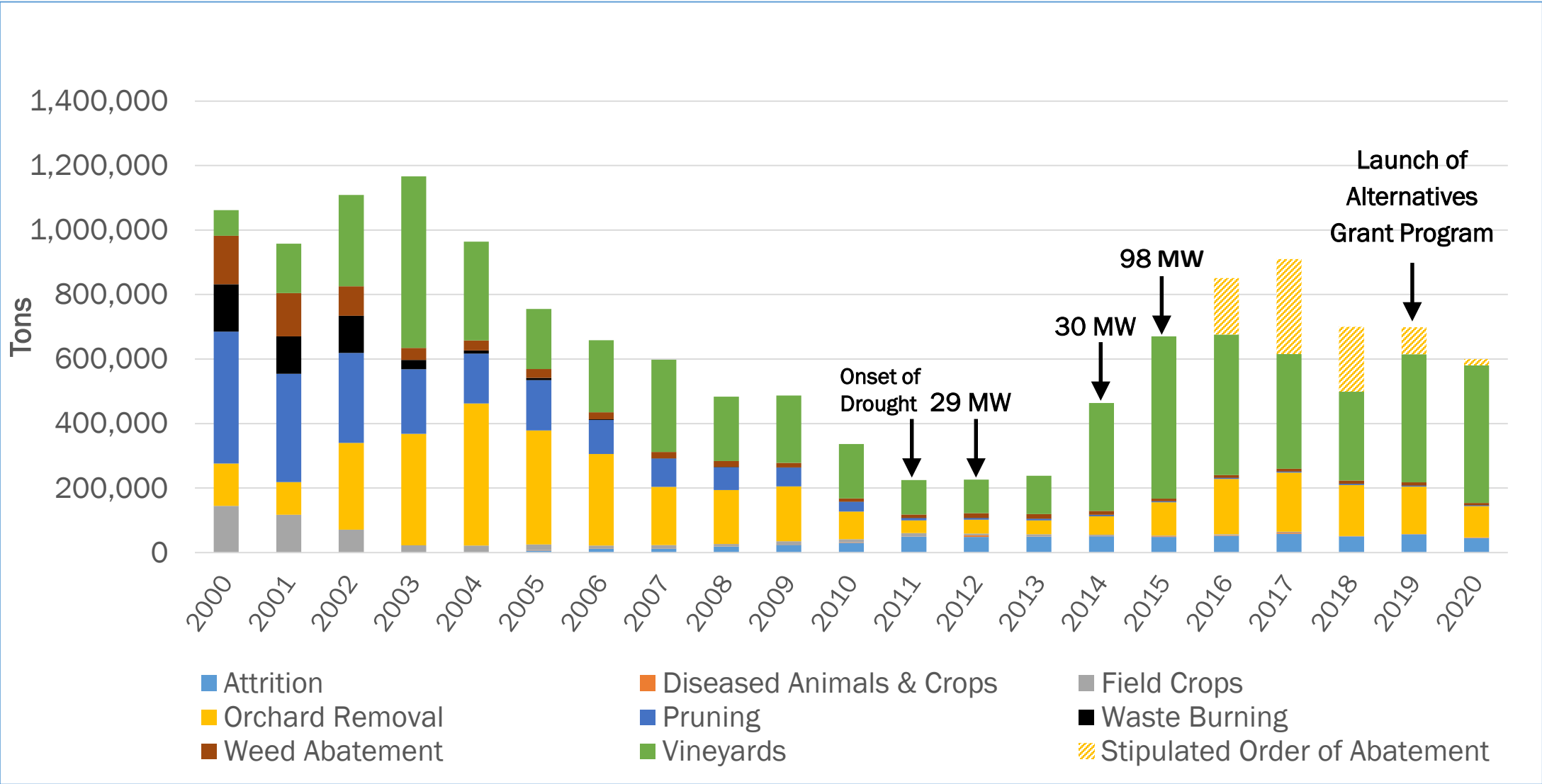
Valley Agricultural Open Burning Mandates (cont'd)

- Under SB 705, burning prohibitions may be postponed for any category of agricultural waste or crop if all of the following applies:
 - There is no economically feasible alternative means of eliminating waste
 - 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
 - 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
 - CARB must concur with the District's determinations on the above points

Valley Efforts to Reduce Agricultural Open Burning

- Valley has toughest restrictions on agricultural burning in state (SB 705 only applies to San Joaquin Valley)
- District operates comprehensive Smoke Management System
 - Tightly regulated and enforced
 - Only authorized when projects will not impact air quality standards, smoke-sensitive areas, cause public nuisance
- Since 2005, District has prohibited burning from a majority of field crops, prunings, orchard removals, weed abatement, and other materials
- Until 2014, restrictions reduced ag burning by 80%
- Due to changing state policies, Valley has lost significant biomass capacity (primary historical alternative to ag burning)
 - Over 20 plants in 1980s, down to 5 plants today
 - Loss of capacity has significantly impacted transition away from open burning

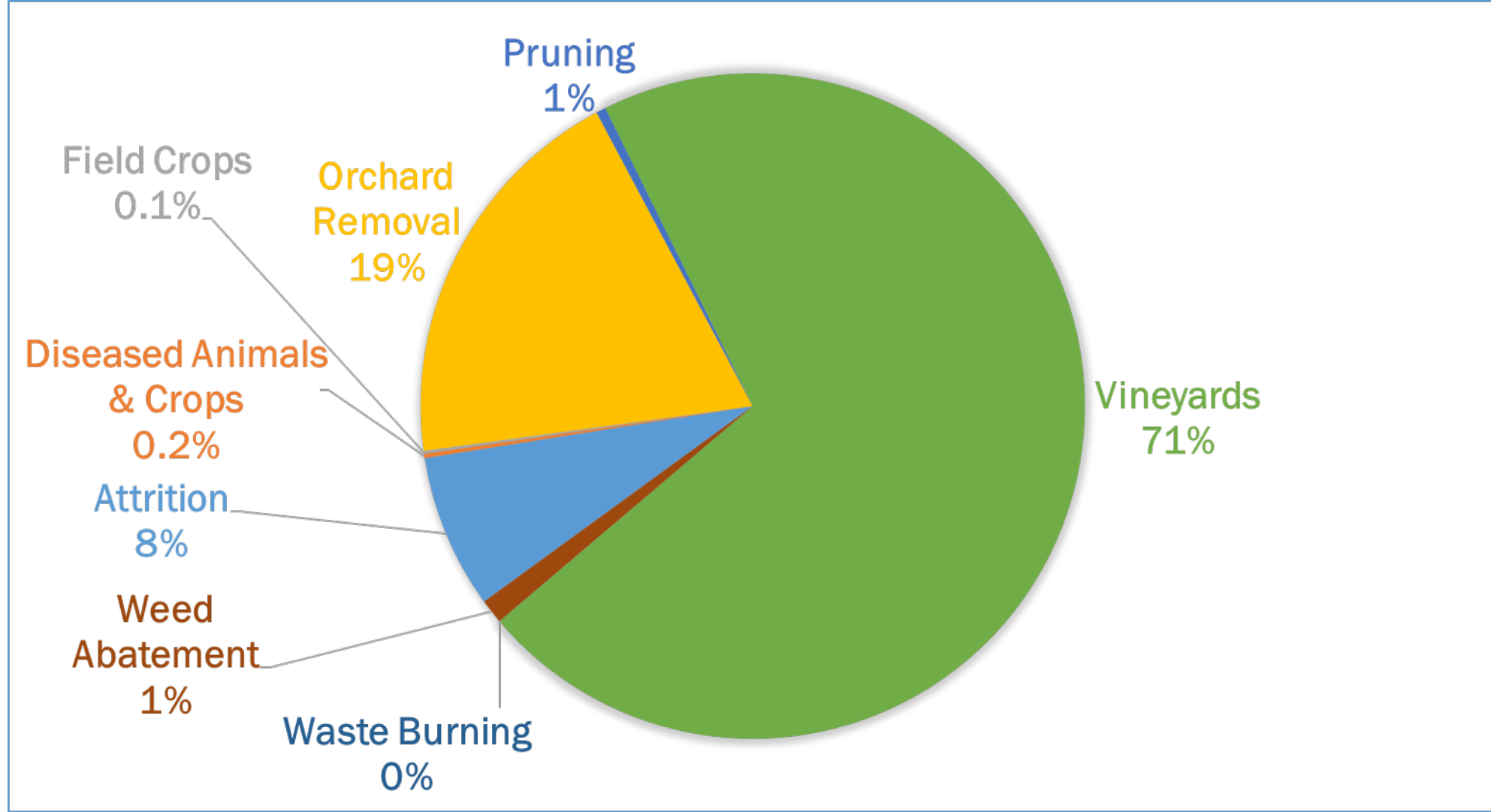
Historical Agricultural Material Burned under Rule 4103 and Reductions in Biomass Capacity



Historical Agricultural Material Burned Under Rule 4103

| Crop Category | Pre-SB 705 Average Tons Burned/Yr (2000-2005) | Average Tons Burned/Yr (2006-2019) | Average Reduction (2006-2019) | Average Tons Burned/Yr (2015-2019) | | Tons Burned (2020) |
|---|---|------------------------------------|-------------------------------|------------------------------------|--------|--------------------|
| Field Crops | 63,014 | 5,317 | -92% | 1,684 | | 731 |
| Prunings | 65,386 | 1,280 | -98% | 428 | | 369 |
| Weed Abatement | 10,234 | 268 | -97% | 101 | | 167 |
| Orchard Removals | 273,589 | 130,929 | -52% | apples, pears, quince | 5,646 | 1,260 |
| | | | | small removals | 93,307 | 63,540 |
| | | | | citrus | 53,592 | 31,770 |
| Surface Harvested Prunings | 222,873 | 38,892 | -83% | 2,852 | | 2,464 |
| Raisin Trays | 1,357 | 795 | -41% | 640 | | 112 |
| Vineyard Removals | 224,871 | 253,255 | +13% | 393,422 | | 426,721 |
| Other Materials | 147 | 84 | -43% | 65 | | 54 |
| <i>Stipulated Order (Orchard Removals)</i> | <i>N/A</i> | <i>188,507</i> | <i>N/A</i> | <i>188,507</i> | | <i>19,560</i> |

Summary of Agricultural Burning in 2020

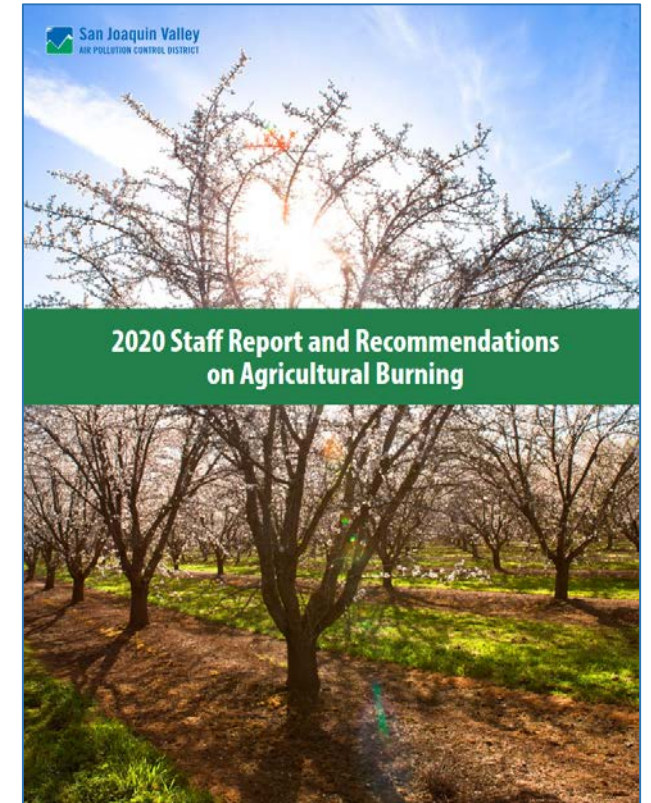


Efforts to Identify Alternatives to Open Burning

- Board has directed staff to identify and promote cleaner alternatives to agricultural open burning
- District convened 2017 Central Valley Summit on Alternatives to Open Burning of Agricultural Waste to bring together Valley stakeholders, researchers/experts, biomass industry reps, and technology vendors
- Board directed staff to explore feasibility of utilizing air curtain burn boxes to dispose of agricultural wood waste materials
- In partnership with Ag, District launched new incentive program in late 2018 to demonstrate new alternatives, such as whole orchard recycling

District's 2020 Ag Burn Report

- 2020 Report provides staff recommendations on feasibility of further potential prohibitions on agricultural burning in the Valley, and establishes final framework for phase-out, as feasible, of remaining crop categories
 - New prohibitions on open burning reliant on newly emergent alternatives
 - Call for increased funding to assist with widespread transition to costly new alternatives
 - Call for enhanced state energy policies to support development of new bioenergy
 - Partnerships with agricultural stakeholders, CARB, and USDA-NRCS to assist with developing new alternatives



CARB Recommendations and Concurrence

- CARB staff's [San Joaquin Valley Agricultural Burning Assessment](#), approved by CARB Board in February 2021, supports District's 2020 Report and outlines additional recommendations:
 - Concurrence with District's 2020 Report provided through August 31, 2021
 - Crop-specific recommendations
 - Mandate for near-complete phase-out of ag burning by end of 2024, including establishment of reduction benchmarks
 - CARB commitment to seek out new state/federal funding to support accelerated phase-out of agricultural open burning
 - CARB commitment to support new bioenergy alternatives
- District to develop and make available to CARB by August 31, 2021 an updated plan that incorporates CARB's recommendations for additional concurrence after August 31, 2021 through January 1, 2025

Surface Harvested Prunings

2021

- Effective Jan 1, 2021, open burns of surface harvested pruning > 20 acres *at all ag operations* prohibited

2022

- Effective Jan 1, 2022, open burns of surface harvested prunings ≤ 20 acres *at ag operations > 200 acres* prohibited

2023

- Effective Jan 1, 2023, open burns of surface harvested prunings ≤ 20 acres *at ag operations > 50 acres* prohibited

2025

- CARB concurrence ends, near-complete phase-out of ag open burning

Citrus Orchard Removals

2021

- Jan 1, 2021:
 - Prohibit burning at ag operations with total citrus acreage at all sites > 500 acres
 - Prohibit burning of removals > 40 acres at a single location per year
 - Maintain case-by-case determination for removals 15-40 acres at ag operations \leq 500 acres
- CARB Recommendation: Effective Sept 1, 2021 (*advanced from Jan 1, 2022*):
 - Lower prohibition acreage threshold of farms to > 200 acres
 - Lower prohibition removal size threshold to > 30 acres
 - Maintain case-by-case for removals 15-30 acres at agricultural operations \leq 200 acres

2022

- CARB Recommendation: Effective Jan 1, 2022 (*advanced from Jan 1, 2023*):
 - Prohibit all citrus removal open burns > 15 acres

**Citrus orchard removals \leq 15 acres regulated under Small Orchard Removal category – further prohibitions required*

Small Orchard Removals

2021

- Open burning of majority of orchard removals already phased-out under SB 705 with exception of removals ≤ 15 acres

2022

- CARB Recommendation:
 - Open burns of orchard removals ≤ 15 acres at “large” ag operations prohibited

2023/24

- CARB Recommendation:
 - Phase-in prohibitions on orchard removals ≤ 15 acres for smaller farms

2025

- CARB concurrence ends, near-complete phase-out of all ag open burning

Vineyard Removals

2022

- CARB Recommendation:
 - Effective Jan 1, 2022: Open burns of vineyard removals at “large” ag operations prohibited, including for < 15 acre removal projects

2023/24

- CARB Recommendation: Effective Jan 1, 2023 through 2024
 - Phase-in of prohibitions on vineyard removals for smaller operations

2025

- CARB concurrence ends, near-complete phase-out of all ag open burning

Other Crops/Materials

- Raisin Trays
 - Prohibit open burning effective Jan 1, 2024
- Rice
 - District Recommendation:
 - Effective Jan 1, 2021, limit open burning of rice straw to 25% of total acreage of rice farmed by an operator per year
 - Prohibit open burning of residual rice straw and rice spot burning effective Jan. 1, 2021
 - CARB Recommendation:
 - Concur with District, but recommends decreasing percentage of acreage that can be burned of rice straw from 25% to 20% effective Jan 1, 2021
- Continue to permit burning where there are disease or safety/water quality issues

Alternatives to Agricultural Burning Grant Program

- November 2018, District provides funding through Alternatives to Open Ag Burning Incentive Program for orchard/vineyard removals to chip or shred ag material and apply it back to land or into soil
 - Chipping with soil incorporation: **\$600/acre**
 - Chipping without soil incorporation: **\$300/acre**
 - Max incentive \$60,000/year
- Funding to Date
 - \$20 million in executed vouchers, 38,000 acres, 1 million tons of ag material incorporated
 - Average grant of \$25,000, 47 acres
- Guidelines and application are available at valleyair.org/grants/alt-ag-burning.htm



Other Incentives Available

- Environmental Quality Incentives Program (EQIP) – USDA-NRCS
 - Provides funding to agricultural producers to address concerns in relation to natural resources
 - Funded by federal Farm Bill, allocated approximately \$1 million in funds annually for conservation management practices
- Healthy Soils Program (HSP) – CDFA
 - Provides funding for the implementation of conservation management practices that improve soil health and reduce emissions of carbon and greenhouse gas
 - Funded by cap and trade proceeds known as California Climate Investments (CCI), receiving \$40.5 million between 2016-2019

EQIP Contact

Ted Strauss
Air Quality Resource
Conservationist
(559) 490-5129
ted.strauss@usda.gov

HSP Contact

Geetika Joshi, Ph.D.
Senior Environmental
Scientist
geetika.joshi@cdfa.ca.gov

Funding Support Critical to Phase-out Effort

- While District's local funding has played and will continue to play important role in demonstrating and deploying emerging alternatives to open burning, significant new state funding will be required to support accelerated phase-out of open burning by January 1, 2025
 - CARB recommendations highlighted and affirmed critical role state plays in securing needed state incentive funding to support transition, and addressing barriers to the establishment of new bioenergy solutions
- District will continue to allocate percentage of secured funding in existing grant program to support smaller agricultural operations in implementing alternatives

Clean Bioenergy Collaborative

- Focused on solutions for the San Joaquin Valley, with an emphasis on non-combustion technologies
- Will complement suite of existing approaches (e.g. soil incorporation)
- Discussion amongst agencies and stakeholders on available and potential technologies including obstacles and possible solutions
- CARB pursuing contract with Cal Poly SLO for third-party facilitation and documentation support
- Planning to kick off the Collaborative in Summer 2021, pending finalization of contract

Summit on Alternatives to Open Burning

- Modeled after 2017 District-led Central Valley Summit on Alternatives to Agricultural Burning
- Organized by CARB with assistance from the District
- Will have a solution-oriented technical focus tailored to growers as well as developers of alternatives
- CARB and District currently developing agenda with input from wide range of stakeholders
- Summit planned for September 2021 in the San Joaquin Valley, hopefully in person with on-site demonstrations of alternatives

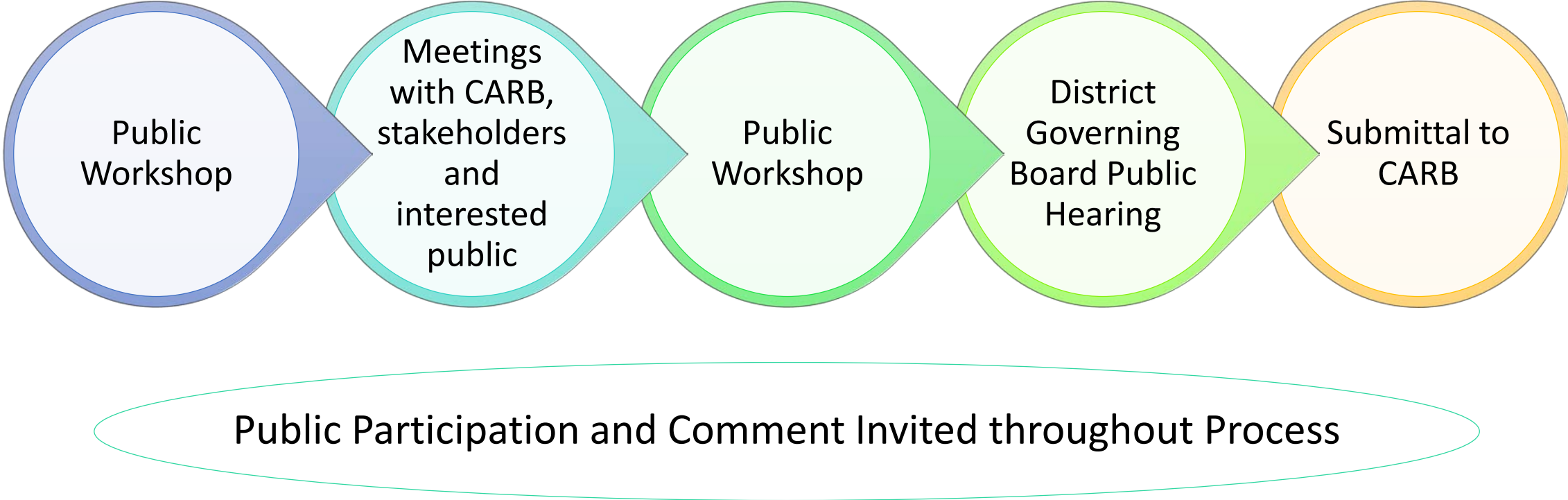
Considerations

- District working with CARB to evaluate recommendations and develop required supplemental report and recommendations for Board consideration by August 2021
- In developing updated report per CARB's recommendations, District and CARB will work to consider and address key issues:
 - Feasibility and availability of alternatives to open burning for all farm sizes and crop types
 - Options to expand capacity of alternative methods of disposing of agricultural waste (i.e., chipping/soil incorporation fleets, air curtain burners, bioenergy)
 - Significant new state funding necessary to offset cost of alternatives for various crop categories, including whole orchard recycling, chipping capacity expansion, bioenergy, and other alternatives

Key Questions being Considered

- What should be considered when defining a “large” agricultural operation for vineyards and orchards?
- What feasibility issues are affecting the ability for smaller farms to find alternatives to open agricultural burning?
- What are other alternatives to open agricultural burning?
- How could the District’s Alternatives to Agricultural Open Burning Incentive Program be enhanced to support the transition?
- Topics for focus at Summit on Alternatives to Open Burning?
- Suggestions for outreach measures

Public Process for Report Development



Resources

- For more information and helpful resources, visit the District's [Agricultural Burning website](#)

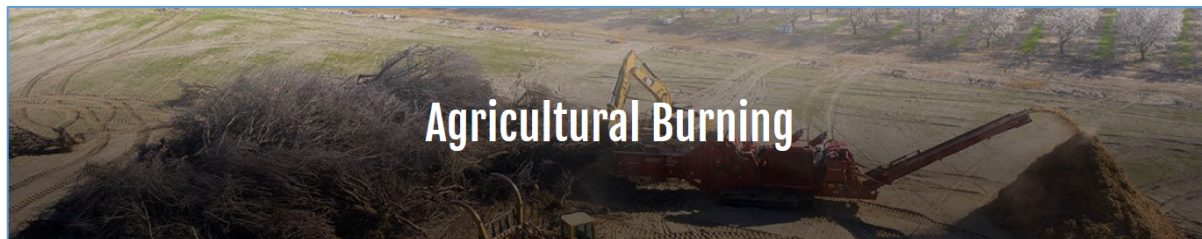
District Contact

Jessica Coria
Program Manager
(559) 230-6000

jessica.coria@valleyair.org

Listserv:

[http://lists.valleyair.org/mailman/
listinfo/agricultural_burning](http://lists.valleyair.org/mailman/listinfo/agricultural_burning)



Agricultural Burning

Grant Funding Available

The Alternative to Agricultural Open Burning Incentive Program provides incentives to commercial agricultural operations located within Valley Air District boundaries to chip or shred agricultural material.

[Apply Today](#)

2020 Staff Report and Recommendations on Agricultural Burning

Through the requirements of Senate Bill 705 (2003 Florez) and amendments to District Rule 4103 (Open Burning), the Valley has implemented open burning prohibitions for 90% of the crops identified in SB 705. Before the decline of the biomass industry and the recent historic drought across the Western U.S., these efforts resulted in an 80% reduction in the open burning of agricultural waste.

As required under Rule 4103 and consistent with 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. After two decades of working to reduce agricultural open burning, the 2020 Report is intended to establish the final framework for the

Resources & Information

- [Agricultural Burn Permits](#)
- [Forms and Applications](#)
- [Burn Authorization and Approval](#)
- [Compliance Assistance](#)
- [Noxious and Invasive Weeds and Pests](#)
- [Alternatives to Burning](#)
- [Rules and Regulations](#)
- [County Agricultural Commissioners](#)
- [Agencies and Programs](#)
- [Agricultural Research](#)

Comments/Questions

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