

Approve Pilot Incentive Program to Support On-Field Alternatives to the Open Burning of Agricultural Materials

San Joaquin Valley Air Pollution Control District
Governing Board Meeting
November 15, 2018

Reasons for Recommendation

- The San Joaquin Valley has the toughest restrictions on burning of agricultural materials in the state (Rule 4103)
 - Until 2014, restrictions reduced ag burning by 80%
 - Ag burning managed through comprehensive Smoke Management System (no burning on days with poor dispersion)
- Recent exceptional drought and demise of traditional biomass power industry threaten progress
- Need feasible alternatives to avoid roll back of phase-outs that have significantly reduced emissions from ag open burning
- Today's recommendation builds on efforts by ag community to develop, demonstrate, and evaluate viability of new alternatives

New Alternatives Needed to Maintain Progress

- Under SB 705, burning prohibitions may need to be suspended if:
 - No economically feasible alternative means of eliminating the waste
 - No long-term state or federal funding commitment for biomass power plants or other alternatives
- Valley has lost significant biomass capacity (biomass plants main alternative to open burning of ag waste)
 - Over 20 plants in 1980s, down to 5 plants today
 - Drought and tree mortality have created large amounts of woody waste
 - State pushing more forest waste to remaining biomass plants
- Recent extreme drought has resulted in over 1 million acres of fallowed agricultural land and an increased need to dispose of agricultural waste

New Alternatives Needed to Maintain Progress (cont'd)

- Hundreds of thousands of acres of orchards and vineyards have been or will be removed due to the recent drought and crop economics
 - Stressing already limited alternatives to open burning of agricultural waste
 - Burning carefully controlled and monitored through District's Smoke Management System to protect public health
- Your Board has directed staff to work with stakeholders to identify short and long-term measures to avoid rolling back current prohibitions on open burning of agricultural materials
- District held the Central Valley Summit on Alternatives to Open Burning of Agricultural Waste in November 2017 as part of ongoing efforts to identify and advance feasible alternatives to open burning

On-Field Practices as Alternatives to Open Burning

- On-field practices, such as soil incorporation and land application of mulch, identified as emerging practices currently in limited use
 - Recent research on whole orchard recycling of stone fruit and almond trees
- Potential benefits may include:
 - Improved soil organic matter content (increased water retention and infiltration)
 - Increased soil carbon (potential carbon storage)
 - Increased yields observed in second generation trees in trial orchards
- Potential issues:
 - Significantly more expensive than disposal at a biomass facility
 - May not work for some soil types, and has not been tested for other crop types
 - Potential pest/disease issues being investigated through additional research
- Preliminary analysis indicates significant emissions reductions as compared to open burning

Proposed Pilot Incentive Program

- Costs for on-field alternatives, such as soil incorporation, may be prohibitively high and economically infeasible
- While questions remain about the wide-spread feasibility of on-field practices as alternatives to open burning, the District is proposing to support the implementation of these practices through a pilot incentive program for orchard removal projects
- Funding will be provided for chipping and on-farm reuse of the material
- Program guidelines allow the flexibility necessary to accommodate wide variety of operations throughout the Valley, allowing growers to choose the on-farm option that works best for their operation (e.g. soil incorporation, mulch application, etc.)

Program Guidelines

- Pilot program funding for FY 2018-19: \$1,000,000
- Funding provided on first-come, first-served basis
- Vouchers would be valid for 180 days from approval, with possible extension based on written request from the participant
- Emission reductions will be quantified on a per-project basis
- Incentive funding will range from \$300 to \$600 per acre of agricultural material removed depending on alternative practice utilized, up to a maximum of \$60,000 per recipient per year
- District staff will conduct pre- and post-project inspections to ensure integrity of the project and to assist with evaluation of alternatives

Program Guidelines (cont'd)

- Applications will be required to identify the following key pieces of information:
 - Itemized quote from chipping/incorporation contractor
 - Practice being selected (soil incorporation, land application of mulch, etc.)
 - Supporting documentation for the site acreage (e.g., site map)
 - Certification of continued agricultural use of the project site
- After the on-field process has been completed, the grower will need to provide the following to support the reimbursement/payment process:
 - Receipt/invoice from contractor
 - Breakdown of services conducted
 - Documentation of any additional incurred costs by participating grower
 - Proof of payment

Recommendations

- Approve and allocate up to \$1,000,000 for new Alternatives to Open Burning of Agricultural Materials Pilot Program to provide incentive funding to encourage the use of on-field alternatives to the open burning of agricultural materials from orchard removals.
- Authorize the Executive Director/APCO to make administrative changes to the program as necessary.

Next Steps

- Approval by your Board will authorize the Executive Director/APCO to launch this new pilot program and work closely with Valley agricultural stakeholders to conduct outreach throughout the Valley
- Information gathered through this pilot program will be used to evaluate the feasibility of these alternatives to open burning and to evaluate the potential of an ongoing incentive program for the on-farm disposal of agricultural materials
- The Executive Director/APCO will return to the Board at a future date with an evaluation of the pilot program and any recommendations for continued implementation of the program