

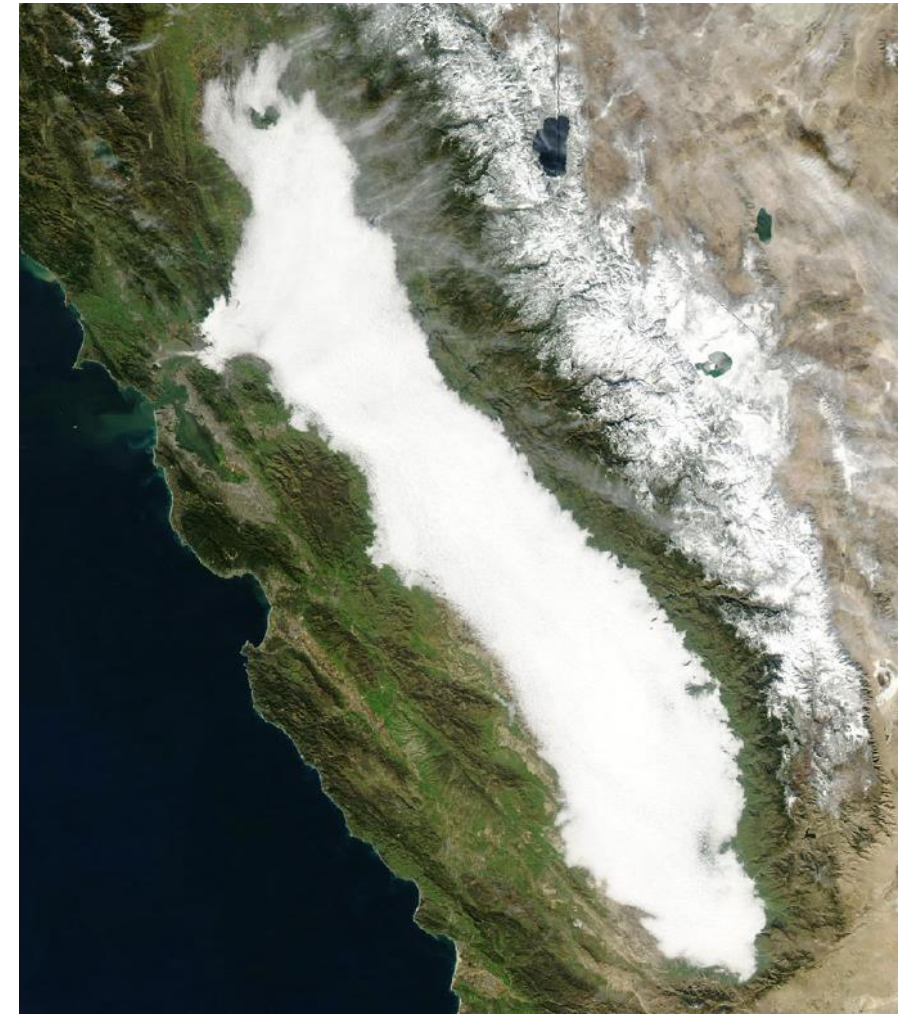
**Public Scoping Meeting for
Potential Amendments to
District Rule 4550
(Conservation Management Practices)**

December 16, 2021

webcast@valleyair.org

Valley's Air Quality Challenges

- Valley's challenges in meeting federal air quality standards unmatched due to unique geography, meteorology, and topography
- Valley designated as “Extreme” non-attainment of the 8-hour Ozone NAAQS; “Serious” non-attainment of federal standards for fine particulate matter (PM_{2.5})
 - Substantial emission reductions needed to achieve federal standards – need to go beyond already strict control limits
- Combustion is a significant source of NO_x emissions, primary precursor to ozone and PM_{2.5} formation
 - Comprehensive strategy in *2018 PM_{2.5} Plan* includes commitment to reduce emissions from mobile sources and a number of stationary and area source categories, including agricultural operations



Commitments from *2018 PM2.5 Plan*

- *2018 PM2.5 Plan* contains commitment to further evaluate ways to promote conservation tillage practices and other potential enhancements to CMP program to reduce dust from ag operations
 - More widespread implementation of conservation tillage practices (cover cropping, no till, low till, strip till, and precision agriculture) through additional incentives may help to further limit PM2.5
 - District will work with AgTech to evaluate feasibility and effectiveness
- District will evaluate feasibility and effectiveness of CMPs on fallow lands that are tilled or otherwise worked with implements of husbandry to reduce windblown PM2.5 emissions
 - Evaluation will rely on additional research, in coordination with USDA-NRCS, ag sources, and researchers, which recognizes Valley's unique soil characteristics and agricultural practices to ensure that Valley-specific solutions are considered

Rule 4550 Overview

- Rule 4550 first adopted August 19, 2004 as PM10 control measure
 - First rule of its kind in nation
- Environmental Protection Agency (EPA) finalized approval of Rule 4550 in Feb. 2006, and determined rule to meet Best Available Control Measure (BACM) requirements
- Rule established unique menu approach of control techniques to accommodate wide variability of agricultural industries found in Valley
 - Selected CMPs are listed on application forms that are submitted to District for approval as CMP Plan
 - Approved CMP plans enforced through onsite inspections
 - Operators required to submit applications to modify plans when changing CMPs

Rule 4550 Overview (cont'd)

- Rule 4550 is applicable to on-field farming and agricultural operation sites within San Joaquin Valley
- CMP plans are required for the following operations:
 - Farms with 100 acres or more
 - Dairies with 500 or more mature cows
 - Cattle feedlots with 190 or more cows
 - Turkey ranches with 55,000 or more turkeys
 - Chicken ranches with 125,000 or more chickens
 - Chicken egg ranches with 82,000 or more laying hens
- Operations required to maintain records verifying use of approved CMPs
- Rule requirements have reduced PM10 emissions by 35.3 tons per day (tpd), representing a 24% reduction from source category to date

CMP Categories

- Land Preparation/Cultivation
- Harvest
- Other
- Unpaved Roads
- Unpaved Vehicle/Equipment Areas
- Manure Handling and Storage
- Overall Management/Feeding
- Open Areas and Feeding

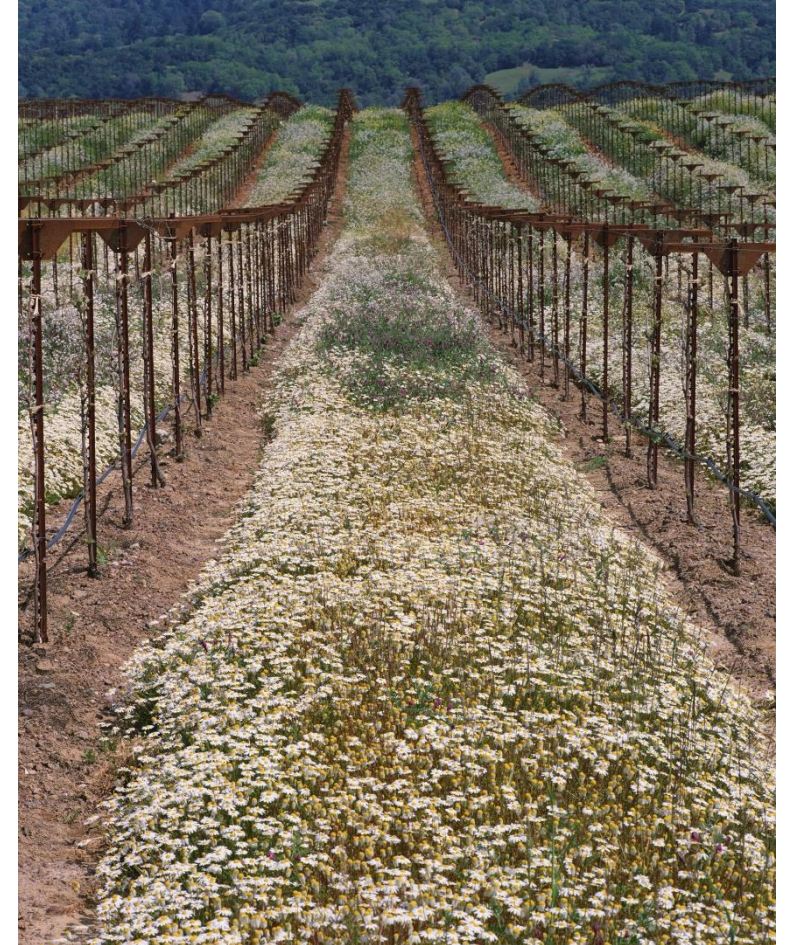
The image shows three overlapping forms from the San Joaquin Valley Air Pollution Control District. The forms are for Supplemental Application Forms (SAFs) for Conservation Management Practices (CMPs). The forms are titled 'San Joaquin Valley Air Pollution Control District Supplemental Application Form' and are for the following categories:

- Conservation Management Practices: DAIRY**: This form includes fields for Farm Name, Maximum Number of Milk Cows, and sections for Corral/Manure Handling and Overall Management/Feeding. It lists various practices such as Fibrous Layer in D, Freestall Housing, and Pull Type Manure.
- Conservation Management Practices: ALFALFA**: This form includes fields for Farm Name, Maximum Crop Acreage, and Fallow Acreage Last Planted in Alfalfa. It lists various practices such as Cleaned/Fertilized, Non-Tillage Chemical Tillage, and Precision Farming (GPS).
- Conservation Management Practices: UNPAVED ROADS AND UNPAVED VEHICLE/EQUIPMENT AREAS FOR ANIMAL FEEDING OPERATIONS**: This form includes fields for Farm Name, CMP Plan Years, and Maximum Crop Acreage. It lists various practices such as Night Farming, No-Tillage Chemical Tillage, and Precision Farming (GPS).

Each form also includes a 'Please describe the practice(s) chosen above:' section and a 'Please describe the specifics of the practice(s) chosen above:' section. The forms are dated CMP-1 Revised May 3, 2004.

CMP Examples

- Practices that reduce or eliminate the need to disturb the soil or manure
- Practices that protect the soil from wind erosion
- Equipment modifications to physically produce less PM10
- Applying water or dust suppressants to reduce emissions entrained by moving vehicles and equipment
- Reducing speed or access on unpaved roads and equipment areas
- Alternative practices to open burning



District Success Implementing Strategy

- Upon adoption, District implemented strategy and worked extensively with stakeholders to ensure compliance and program success
- District created special CMP application form with simplified checklists to ensure streamlined application process for operators
- District has hosted number of workshops to assist sources to comply
- District has made notable achievements since adoption:
 - District has received over 8,500 CMP Plans since 2005, in addition to over 7,000 CMP Plan modification applications
 - Practices encompass 3.23 million acres of farmland
 - CMP program received EPA Region IX’s “2005 Environmental Award for Outstanding Achievement”

Conservation Tillage

- Conservation tillage practices include
 - No-till
 - Low/reduced-till
 - Mulching
 - Strip or zonal tillage
 - Cover cropping
- Benefits of conservation tillage measures:
 - Increase in soil water retention, and reduction of soil erosion
 - Improvement in plant growth and yields shown through research studies
 - Improved soil health
 - Reduction in emissions of criteria pollutants
 - Less passes needed to till acreage: fuel savings, reduced wear and tear on equipment, and labor savings

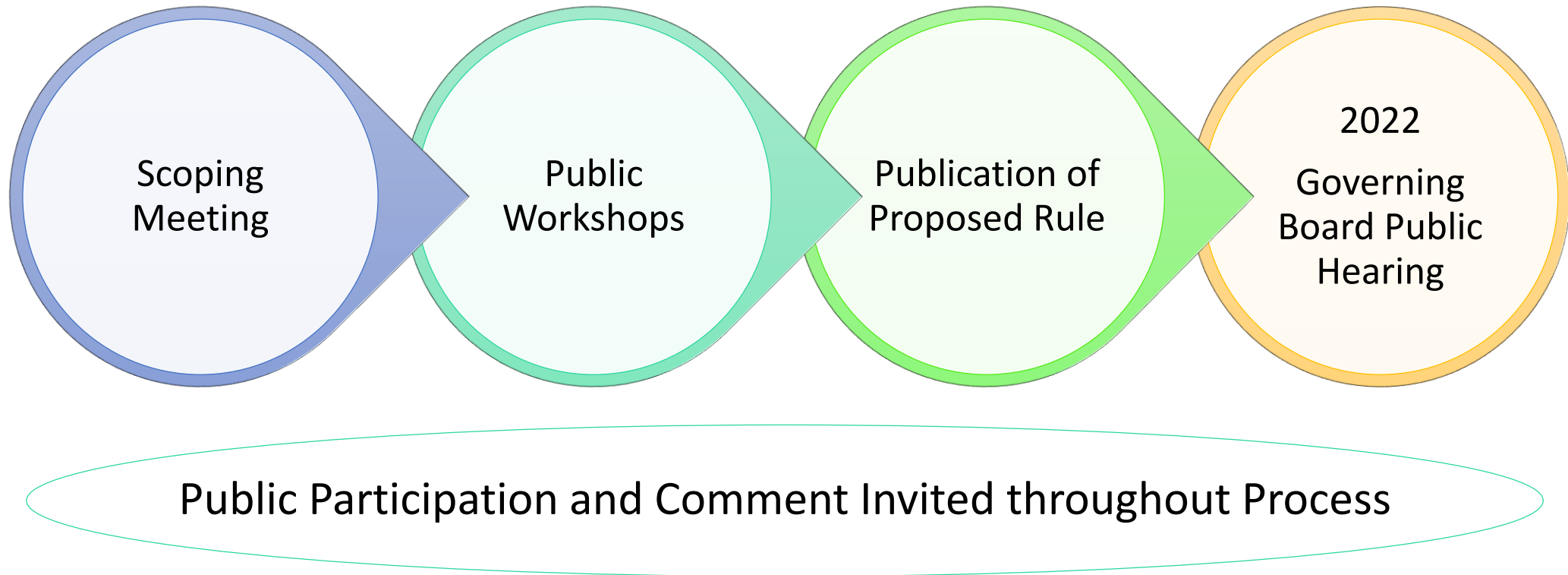


Source: USDA

Rule 4550 Evaluation Process

- District staff analyzing technological and economic feasibility of these practices, taking into account costs, cost-effectiveness, and considerations depending on specific conservation management practices
 - Costs and feasibility of most effective practices available
 - Review of requirements in other air districts
- Socioeconomic Impact Analysis will be conducted by third-party consultant to evaluate regional economic impacts of proposed amendments
- Ongoing opportunities for public input throughout rule development process:
 - Public workshops will be scheduled in 2022
 - Regular updates will be provided at Citizens Advisory Committee (CAC), Environmental Justice Advisory Group (EJAG), and District Governing Board meetings

Next Steps: Public Engagement Process for Rule 4550 Amendments



Contact

Contact: Emily Kneeland

Mail: San Joaquin Valley APCD
1990 E. Gettysburg Ave
Fresno, CA 93726

Phone: (559) 230-5800

Fax: (559) 230-6064

Email: emily.kneeland@valleyair.org

Listserv: http://lists.valleyair.org/mailman/listinfo/agricultural_sources

Comments/Questions

webcast@valleyair.org