



DRAFT SACRAMENTO VALLEY AIR BASIN SMOKE MANAGEMENT PLAN

Prepared by the Sacramento Valley Basin Wide
Control Council Technical Advisory Committee

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I. AUTHORITY AND APPLICABILITY

The Sacramento Valley Air Basin (SVAB) Smoke Management Program (Program) was prepared by the Technical Advisory Committee (TAC) and the Basin Control Council (BCC) of the SVAB pursuant to §41863 of the California Health and Safety Code (HSC) and §80140(a) of Subchapter 2, Smoke Management Guidelines for Agricultural and Prescribed Burning of Title 17 of the California Code of Regulations (CCR). The current Program officially took effect on October 30, 2001. Air district staff coordinated with the California Air Resources Board (CARB), fire protection agencies, land managers with jurisdiction in the SVAB, the public and other affected parties in its development. In accordance with the CCR, Title 17, § 80140(c), the Smoke Management Program (Program) of the SVAB is designated as a regional smoke management program. CARB has the sole authority to approve the Program (Sections 80140(e-i)); pursuant to Sections 80140 (k and l), any amendments to the Program must be submitted to CARB for approval within 30 days after adoption by the BCC. CARB can request modifications as necessary.

The Program applies to all agricultural burning conducted at all elevations in the SVAB, as defined by the California Health and Safety Code § 39001 adopted and signed into law in 2004. This supersedes the previous definition in §80101(a) of Title 17 of the CCR adopted by the CARB board in 2000. A current map of the SVAB, including subordinate burn zones in each air district is provided as Appendix A. The Basin boundaries as defined in CARB's Smoke Management Guidelines regulation are current. Policies and procedures in this plan apply throughout the year unless otherwise specified. Some requirements apply only during the fall burning season.

II. PROGRAM GOALS

The purpose of this program is to fulfill Subchapter 2 of Title 17 which is intended to provide for the continuation of agricultural burning, including prescribed burning, as a resource management tool, and provide increased opportunities for prescribed burning and agricultural burning, while minimizing smoke impacts on the public.

In addition, the Program goals include the following: protection of air quality in the SVAB; protection of public health and safety; and effective management of daily agricultural burning operations.

III. PROGRAM PARTICIPANTS

Program participants include:

- The SVAB TAC.
- The SVAB air districts (districts), agricultural departments and fire agencies.
- The CARB Agricultural and Prescribed Burning Support Section and other responsible sections.
- The Smoke Management Program Coordinator (SMPC), under contract with the BCC.
- The meteorological services consultant, under contract with the BCC.

IV. PROGRAM EQUATIONS

A. California Air Resources Board Allocation Equation

1. Standard Allocation Equation

The standard acreage allocation equation is used throughout the year. The equation calculates a "theoretical maximum acreage allocation" for the day (called the Allocation Equation on CARB's Daily

Basinwide Ag-Burn Acreage Allocation sheet). CARB meteorologists or the SMPC use the equation to adjust the theoretical maximum acreage allocation into the ARB Revised Basinwide Allocation or the Revised Allocation. The “theoretical maximum acreage allocation” equation may be altered in the future by the TAC and CARB.

Allocation Equation

$$= -166.667 \times (-170 + AM_{stab} + (0.2049159 \times 500_{mb12}) - (0.3579679 \times WS) + \overline{PM_{2.5}})1$$

Where:

- AM_{stab} = AM stability - morning temperature difference in Fahrenheit between 3,000 feet above mean sea level (msl) and the surface
- 500_{mb12} = 500 millibar heights in decimeters at 4:00 a.m. from National Weather Service models
- WS = average wind speed in miles per hour (mph) forecasted by CARB through the mixing layer
- $\overline{PM_{2.5}}$ = Particulate Matter (PM2.5) basinwide average from 12:00 a.m. to 6:00 a.m.

2. Spring increase to standard allocation equation

During the months of March through May, the acreage allocations may be increased by CARB due to improved atmospheric dispersion by a factor of 1.5. This includes Daylight Saving Time when there are longer burn hours beginning in March. This will be noted by CARB Meteorological staff in the daily allocation notes section.

3. Determining burn day status above 3,000 feet

There is no acreage limiting allocation for burning above 3000 feet msl. The burn day status for above 3,000 feet msl is determined by the 500 millibar (mb) pressure elevations as outlined in the table of 500mb heights for Decision Criteria below. The 500 mb charts show large scale regional features (altitude at which 500 mb pressure occurs) that can be used to identify subsidence and stagnation which causes poor dispersion. The SVAB uses one decameter higher than the decision point for burning above 3,000 feet msl. In place of the standard 3,000 feet msl, the elevation may be specified in increments of 500 feet each day as determined from vertical temperature soundings.

As per §80100 of Title 17, CARB may declare a marginal burn day if meteorological conditions approach the criteria found in table 1 of §80320 of Title 17 for permissive burn days and smoke impacts are not expected. CARB and the SVAB developed the procedures below to demonstrate parameters for a marginal burn day or a permissive burn day. However, notwithstanding the criteria listed in table 1 below, CARB may announce permissive burn, marginal burn, or no burn days based on expected meteorological conditions and on anticipated impacts to air quality from agricultural burning and prescribed burning. Decisions made outside of the criteria in the table below will be noted by CARB meteorological staff in the daily allocation notes section. Examples of conditions that may be considered by CARB include, but are not limited to, low level mixing heights, PM conditions, and local observations.

TABLE 1-PARAMETERS FOR A MARGINAL BURN DAY OR A BURN DAY (500MB HEIGHTS IN DECAMETERS)

Month	No Burn	Permissive (Marginal)	Permissive (Fair)	Permissive (Good)	Permissive (Superior)
January	≥574	≥571 <574	≥567 <571	≥558 <567	<558
February	≥574	≥571 <574	≥567 <571	≥558 <567	<558
March	≥574	≥571 <574	≥567 <571	≥558 <567	<558
April	≥576	≥572 <576	≥568 <572	≥564 <568	<564
May	≥579	≥577 <579	≥572 <577	≥567 <572	<567
June	≥585	≥582 <585	≥579 <582	≥573 <579	<573
July	≥588	≥585 <588	≥583 <587	≥579 <582	<579
August	≥588	≥587 <588	≥583 <587	≥579 <583	<579
September	≥587	≥585 <587	≥579 <585	≥573 <579	<573
October	≥585	≥582 <585	≥576 <582	≥570 <576	<570
November	≥581	≥577 <581	≥571 <577	≥565 <571	<565
December	≥576	≥573 <576	≥567 <573	≥558 <567	<558

B. Spring, Summer, and Winter Acreage Distribution System

Below 3000 feet msl, CARB will distribute the allocated acreage directly to the counties based upon the distribution system detailed in Table 2 below, except during the fall intensive burn period, which is discussed below in Section V. The data in the following table represent each county's total acreage distribution for burning acreage during the winter, spring, and summer seasons. The primary crop residues burned during these seasons are rice, wheat, corn, safflower, and orchard prunings, as well as prescribed burning.

CARB may further adjust the distribution based upon current burning, meteorological, and air quality factors. Reasons for adjusting the percentages should be noted on the allocation page.

TABLE 2 - SPRING, SUMMER, AND WINTER ACREAGE DISTRIBUTION

SPRING, SUMMER, AND WINTER ACREAGE DISTRIBUTION SYSTEM	
COUNTY	ACREAGE DISTRIBUTION
Butte	17 %
Colusa	17 %
Glenn	13 %
Placer	5 %
Sacramento	9 %
Shasta	200 acres
Sutter	17 %
Tehama	200 acres
Yolo/Solano	15 %
Yuba	7 %

V. INTENSIVE FALL BURN SEASON ACREAGE DISTRIBUTION EQUATION

A. Fall Burn Season Acreage Distribution Equation

During the intensive fall burn season (September 15th– November 30th), the SMPC distributes acreage to the counties using the distribution equation described below. The distribution equation does not apply to Shasta and Tehama counties, as those counties will receive 200 acres per day unless they request additional acres from the SMPC. As discussed below in Section B, districts reporting elevated morning PM2.5 values will have reduced acreage allocations or no acres if a no burn day is declared for that county.

The distribution equation is: *County Acreage Allocation = CP × BA*

The equation variables are:

Basin Allocation (BA): BA from initial CARB basinwide allocation

County Proportion (CP): $CW \div \text{sum of all } CW$

County Weighting Factor (CW): $AQ \times VR \times \left(\frac{CF}{BF} + \frac{CR}{BR} + \frac{BS}{CS} \right)$

Air Quality Factor (AQ): 0-1

Ventilation Rating Factor (VR): 1-5

County Fall Total Planted Acres (CF): Total burned to date

Basin Fall Total Planted Acres (BF): Sum of all CF

County Ready Acres*(CR): As reported by each county

Basin Ready Acres (BR): Sum of all CR

* “County Ready Acres” are defined as follows: A maximum of 25 percent of a district’s planted rice acres that are reported as ready to burn. In order to be eligible to burn, rice fields must have been harvested, passed the drying time and the field(s) must be listed on the respective district’s conditional rice burn permit. Other crop residues may also be included on the list when they are ready to be burned.

B. Air Quality Reduction Factors

Local air quality restrictions for county acreage reductions are determined from the average midnight to 6:00 AM PM_{2.5} observations for one or more stations in or near each county or district. The air quality reduction factors (0-1) are used in the CARB allocation page or on CARB’s section of the daily 9AM program file.

Table 3 lists the PM_{2.5} air monitoring station(s) associated with each county or district for the purpose of calculating the air quality reduction factor.

TABLE 3 - PM_{2.5} MONITORING STATIONS FOR AIR QUALITY REDUCTION FACTORS

Corresponding PM _{2.5} Monitoring Station(s) for Air Quality Reduction Factors	
COUNTY	MONITORING STATIONS
Butte	Average of Chico and Gridley
Colusa	Colusa
Glenn	Willows
Placer	Lincoln
Sacramento	Higher of T Street or Del Paso Manor
Shasta	Redding
Sutter	Yuba City*
Tehama	Red Bluff
Yolo-Solano	Average of Davis and Woodland
Yuba	Yuba City*

*The monitoring station in Yuba City is used for both Sutter and Yuba County’s air quality reduction factors

When any district’s midnight to 6:00 AM average PM_{2.5} concentration is equal to or greater than 27 micrograms per cubic meter (µg/m³), there is a decrease in the acres allocated to that county in increments of 20% (or a factor of 0.2) for concentrations measured in increments of 2 µg/m³ as listed in Table 4 below.

TABLE 4 - PM_{2.5} REDUCTION FACTOR

PM _{2.5} Concentration (µg/m ³)	Reduction Factor
<27.0	0
27.0 – 28.9	0.2

29.0 – 30.9	0.4
31.0 – 32.9	0.6
33.0 – 34.9	0.8
>35.0	1

When any district’s 12:00 AM to 6:00 AM average PM2.5 concentration is equal to or greater than 35 µg/m3, a no burn day will be declared in that district.

C. Ventilation Rating Factor

Counties within the SVAB are broken into zones to identify local ventilation and dispersion characteristics based on current weather data and forecast conditions. The ventilation rating factor for each county or air district is the average of the ventilation factor for each burning management zone in every district (e.g., Glenn County has five zones and thus five ventilation zone factors). The factors are a composite number based upon available meteorological data and have been assigned values from one to five. The corresponding qualitative judgments by the SMPC are:

1. Considerable impact in the region regardless of the placement of burns.
2. Considerable impact in the region if caution is not used in the placement of burns.
3. Some impact in the region but the impact may be tolerable.
4. Minor localized impact within the region.
5. Minimal or no impact in the region.

The ventilation rating is based on factors such as surface and upper-level wind strength and direction, atmospheric stability, field moisture, major roadways, urban areas and approaching frontal weather systems. Prior to assigning the rating for specific regions, all relevant weather information that may have an impact on the movement and dispersion of smoke from burning is reviewed along with satellite and radar imagery, surface and upper air conditions and short-range computer model data to gain a complete understanding of the current and impending weather conditions within the SVAB during the burn period (generally 10:00 AM to 4:00 PM).

VI. DEFINITIONS OF BASINWIDE METEOROLOGICAL AND AIR QUALITY FACTORS

The basinwide meteorological factor (BMF) is determined using Tables 4 and 5 of §80320 of the CCR. These tables reflect average basinwide morning (AM) stability and wind speed, respectively. The average AM stability value reflects the strength of morning inversions calculated using morning Airline Pilot Observations (APOBs) in the northern (Red Bluff or Chico) and southern (Sacramento) portions of the SVAB, along with surface temperature observations. The northern and southern values of each parameter are averaged together to determine the basinwide AM stability or the temperature difference from 3,000 feet msl to ground surface. If data from APOBs, or if conditions on the Sutter Buttes (approximately 2,000 feet), indicate that temperatures may be significantly warmer at a level below 3,000 feet, CARB may consult with the SMPC to determine a different value. The basinwide average wind speed is an average of the northern (Red Bluff or Chico) and the southern (Sacramento) surface wind measurements in addition to profiler data, pressure gradient nomograms, and computer model forecasts. Additionally, CARB meteorologists consult with the meteorological services consultant meteorologists prior to calculating the BMF and declaring a burn day decision.

TABLE 5 - AGRICULTURAL BURN METEOROLOGICAL FACTORS (M.F.) TITLE 17 §80320

Table 4		Table 5	
A.M. STABILITY		WIND SPEED	
°F	M.F.	0 to 2	M.F.
> 17	0.0	3	0.0
15 or 16	0.1	4	0.1
13 or 14	0.2	5	0.2
11 or 12	0.3	6	0.3
9 or 10	0.4	7	0.4
7 or 8	0.5	8	0.5
5 or 6	0.6	9	0.6
3 or 4	0.7	10	0.7
1 or 2	0.8	11	0.8
0 or (- 1)	0.9	> 12	0.9
< (- 2)	1.0	≥ 12	1.0

Automatic Meteorological Observing Stations (AMOS) and towered controlled airports are used to determine AM stability. To assure accuracy of the determination, the coolest of the locations located in rice growing areas in the northern and southern portions of the SVAB are typically selected from the hours of 12Z to 15Z. The CARB duty meteorologist could choose not to use the coolest site if it is unusually cold and not representative of the region’s broader conditions. The temperature at 3,000 feet msl from the morning APOBs may also be modified if a dry adiabat followed from the warmest temperature of the sounding below 3,000 feet msl intersected at the 3,000 feet msl level at a temperature warmer than the temperature reported from the flight.

The basinwide air quality factor equals the average of the one-hour readings of PM2.5 from midnight to 6:00 AM CARB generates the BAQF from data collected from the basinwide network of beta attenuating monitor (BAM) samplers as noted in Section 5(B).

VII. FACTORS AFFECTING ACREAGE ALLOCATIONS

A. Rainfall Effects

The CARB basinwide allocation will be reduced to 2,000 acres after a daily rainfall amount that exceeds an average of 0.05 inches in the lower elevations of the SVAB (as noted on the 12Z station reports or other available information). The policy is to reduce the CARB acreage allocation whenever wet conditions exist in the SVAB and then increase acreage allocations on subsequent days as the fields dry out. The wet day calculation is found in Table 6 below.

TABLE 6 – ALLOCATION DURING WET CONDITIONS

Rainfall today	Highest Rainfall Previous 3 days	Day is
0.00 - 0.00 inches	1.51 inches or greater	Wet
0.01 - 0.05 inches	0.81 inches or greater	Wet
0.06 - 0.11 inches	0.51 inches or greater	Wet
0.12 - 0.17 inches	0.25 inches or greater	Wet
0.18 inches or greater	none required	Wet

Crackle tests (as described in Section 14A) may be performed on rice straw following an average of 0.15 inches (or more) of rainfall to determine if the straw is sufficiently dry to carry fire efficiently through the field.

B. North Wind Days

CARB may reduce basinwide allocations on north wind days to a maximum of 2,000 acres to avoid air quality impacts on urban areas in the southern portion of the SVAB. On north wind days when the basinwide average wind speed exceeds ten miles per hour (mph), the BMF is set to zero (0). In the allocation file, CARB should provide notification language to justify the curtailment or reduction in acreage allocation.

C. Special Circumstances - Adverse Air Quality Conditions

The calculated basinwide allocation may be reduced, or a no burn day may be declared by CARB, when burning may cause or contribute to poor air quality. Justification for reduction in allocation may be from verified citizen complaints, restricted airport visibilities due to smoke, wildfires or high PM2.5 levels. Any visibility reductions must be evaluated for the effects of relative humidity, fog and low clouds. CARB should include reasonable justification for the decrease in allocation on their daily allocation page.

D. Special Circumstances - Superior Ventilation Conditions

After consultation and concurrence with the SMPC, CARB may increase the basinwide allocation amount and recommend an extension of the burning hours if the meteorological conditions are favorable and current air quality readings indicate favorable air quality. The updated allocation shall be available to all districts who request additional acres. The acreage is to be distributed by CARB or by the SMPC during the fall intensive burn season. The CARB duty meteorologist has the authority to issue more than the minimum number of acres and extend burn hours prior to the distribution of the regular CARB acreage allocation time. CARB meteorologists must be available during the burn hours to provide updates. During the fall intensive burn program, CARB meteorologists must re-evaluate the allocation numbers and contact the SMPC or districts to discuss the re- evaluation prior to their lunch hour, as appropriate.

For this purpose, an exceptionally favorable meteorological condition may be defined as vigorous southerly air circulation and an originally calculated BMF greater than 0.50. In this event, the meteorological factor may be set to a higher number (i.e., 0.6 to 1.0) based on an updated forecast and/or hourly PM2.5 levels or favorable field observation reports which may be used to calculate a new allocation. On many days, air quality improves during the middle of the day as heat increases the volume of the mixing layer into which emissions are dispersed. Later in the day, as cooling occurs, the volume of air in the mixing layer decreases and concentrations of particulate emissions increases.

VIII. FACTORS AFFECTING DISTRIBUTION OF ACRES

A. Sacramento Federal Ozone Non-Attainment Area No Burn Days

The Sacramento Federal Ozone Non-Attainment Area (SFONA) consists of all of Sacramento and Yolo counties and portions of Solano, El Dorado, Sutter and Placer counties. The SFONA districts rely on ozone forecasting to predict exceedances of the federal ozone standard [100 on the Air Quality Index (AQI)].

On days where an ozone exceedance is predicted for the SFONA, agricultural burning shall not be allowed in the following zones (Table 7) unless there is a reason to allow a burn on a no burn day:

TABLE 7 - SACRAMENTO FEDERAL OZONE NON-ATTAINMENT AREA ZONES

SACRAMENTO FEDERAL OZONE NON-ATTAINMENT AREA ZONES	
AIR DISTRICT	NO-BURN ZONES
Sacramento Metropolitan AQMD	Zones 1, 2 and 3
Yolo-Solano AQMD	Zones 2, 4, 5 and 6
Feather River AQMD (Sutter County only)	Zone 6 Sutter County (caution recommended in zones 4 and 5)
Placer County APCD	Zones 1, 2 and 3

B. Procedure

The Sacramento Metropolitan Air Quality Management District (SMAQMD) shall provide a daily ozone forecast for the SFONA region. When the next day's ozone forecast is expected to exceed the federal ozone standard, the following day shall be declared a no burn day in the burn management zones in the above table. CARB will include the ozone forecast in the morning burn decision as a no burn day for the affected SFONA zones. During the fall intensive burn season, the SFONA no burn decision(s) will be included in the daily records.

CARB may modify the forecast burn decision for the affected burn zones if real-time ozone data indicates meteorological conditions have either improved or worsened since the ozone forecast was made.

IX. BASINWIDE ACREAGE ALLOCATION TYPES AND UPDATES

The basinwide acreage allocation applies to all agricultural burning and prescribed burning that may occur at or below 3,000 feet msl. The elevation may be modified in increments of 500 feet on a day-to-day basis as determined from vertical temperature soundings when such modification is needed.

A. Initial Basinwide Allocation

During the intensive fall burning season, CARB and the SMPC will consult on daily meteorological air quality conditions prior to the CARB burn day decision to determine the appropriate initial basinwide acreage allocation for the day. For the remainder of year, CARB determines the initial basinwide acreage allocation and distributes the allocation.

B. CARB Revised Basinwide Allocation

During the fall intensive burn period, after the initial basinwide acreage allocation is determined for regular burn days, the SMPC may issue acreage updates to districts, at their request, up to the next interim

basinwide allocation limit of 4,000, 7,500, or 10,000 acres. Coordination is required between CARB and SMPC to exceed the interim allocations.

C. Maximum Theoretical Allocation

The initial acreage allocation is calculated by the equation found in section IV and can only be exceeded if an updated allocation is provided by CARB.

D. Updated CARB Acreage Allocation

CARB and the SMPC may jointly decide to update the allocation after receiving air quality and meteorological data and real-time district field observations after morning burns begin. Allocation updates shall be available only when air quality and meteorological data indicate it is warranted.

E. Updated Acreage Distribution

The SMPC may update the distribution of acres to individual districts if conditions warrant it, up to the maximum allocation limit. Districts may be asked to provide additional information such as the location(s) of proposed burning and field observations of earlier burns or burns underway to justify the decision to be allocated additional acreage.

A permissive burn or no burn day decision that has been announced may be changed by CARB at any time prior to 10:00 AM if real-time meteorological and air quality conditions warrant it. Situations that may warrant this decision may include: an unexpected change in atmospheric stability, evolving air quality observations, erratic wind conditions and/or fluctuations in precipitation timing. If such a situation arises, the SMPC will consult with CARB. CARB and SMPC will re-publish the burn day decision and 9:00 AM forecast program files with a detailed explanation justifying the change. The SMPC will redistribute the program files prior to 10:00 AM in addition to providing direct notification by means of email distribution to all SVAB air districts. Any legal burns initiated before 10:00 AM are not in violation if a permissive burn day decision is reversed to a no burn day decision. Additional burn allocations are prohibited following the burn day decision reversal.

X. TYPES OF DAYS

In accordance with State regulation, CARB provides the districts with the burn day status and based on the allocation and the criteria for burning, defines what type of a burn day it is and the amount of acreage allowed. The districts use their judgment in determining the type and/or amount of burning allowed on any given day, provided that the decision is within the initial allocation. This includes CARB reducing the allocation to be less than 200 acres per county. CARB will identify those days when an overriding judgment decision is made as well as the justification for the decision. This could aid the program participants in tracking and evaluating the effectiveness of the burn day criteria.

CARB's decision of a no burn day above 3,000 feet msl will be taken into consideration in determining burning allowed below 3,000 feet msl.

A. No Burn Days

A "no burn day" is a day with an acreage allocation of zero resulting from the equation or from the following no burn day criteria. A no burn day will be declared when:

1. AM stability is equal to or greater than 17 degrees Fahrenheit and the 12:00 AM to 6:00 AM average basinwide PM_{2.5} is equal to or greater than 30 µg/m³, or;
2. Average basinwide north wind speed is forecast to be equal to or greater than 20 miles per hour (applies from September 1st through December 31st), or;

3. AM stability is equal to or greater than 17 degrees Fahrenheit and the 12:00 AM to 6:00 AM average PM2.5 is equal to or greater than 32 µg/m³ at three or more unique monitoring sites.
4. In addition, for the period from December 1st through January 31st, a no burn day will be declared for the portion of the SVAB south of Tehama County if the average of the three unique monitoring sites with the highest 12:00 AM to 6:00 AM average PM2.5 concentration in the portion of the SVAB south of Tehama County is:
 - a. Greater than or equal to 35 µg/m³, and
 - b. The forecasted maximum afternoon mixing depths are 1,500 feet above ground level or less, and
 - c. The forecasted CARB wind speed factor for the Sacramento Valley is either less than 5 mph with any wind direction or greater than 10 mph with predominantly north winds.

During the intensive fall burn season, the SMPC will notify districts of a possible CARB decision to declare a no burn day in the 8 AM file comments with the final no burn decision from CARB in the 9 AM file.

No burning will be declared in certain burning management zones when there is a forecast of the federal ozone standard. Districts also have the authority to declare a no burn day within their jurisdiction.

B. Prunings Only Days

A “prunings only” day will be declared when:

1. AM stability is equal to or greater than 17 degrees Fahrenheit and the 12:00 AM to 6:00 AM average basinwide PM2.5 is 28 µg/m³ to 29 µg/m³, or;
2. Average basinwide north wind speed is forecast to be equal to or greater than 20 miles per hour (applies from January 1st through August 31st).

During the intensive fall burn season, the SMPC will announce any prunings only burn day decision in the 9 AM file. The burning of tree stumps is not permitted on a prunings only burn day.

C. Restricted Field Days

A restricted field day will be declared when:

1. AM stability is equal to or greater than 17 degrees Fahrenheit and the 12:00 AM to 6:00 AM average basinwide PM2.5 is 25 µg/m³ to 27 µg/m³ and the wind speed is forecast to be less than or equal to 5 mph, or;
2. Average basinwide north wind speed is forecast to be equal to or greater than 15 mph.

CARB may declare a restricted field day if the AM stability is greater than or equal to 25 degrees Fahrenheit.

Districts may allocate acreage for the burning of small amounts of ditches, field stubble or spot burning if such burning will not adversely affect downwind air quality. Only 50 total acres of field crop residue burning is allowed per county per day.

D. Regular Burn Days

Regular burn days are declared when the theoretical acreage allocation is equal to or greater than 2,000 acres and CARB has not designated a prunings only or restricted field day. Allocation per district or county will be a minimum of 200 acres. An air quality reduction factor may result in no burning in a district due to high PM2.5 values. Certain zones of a district may be restricted because of high ozone levels.

On days when the burning conditions are superior, efforts to provide the highest reasonable acreage allocation to districts shall be made to allow for maximum burning on days when there is the lowest potential of smoke impacts to populated areas.

XI. BURN HOURS

A. FIELD CROPS

Districts may not authorize field burning on any day before obtaining a burn decision and acreage allocation distribution for that day pursuant to this Program. During the fall intensive burn season, the SMPC will provide the 8 AM file. The 8 AM file is used to communicate all decisions, including early burning, with acreage allocation distributions during the intensive fall burn season.

The burn hours for agricultural burning of field crops are as follows:

1. March 1st to August 31st - 10:00 AM to 5:00 PM.
2. September 1st to the end of February - 10:00 AM to 3:00PM.

During the intensive fall burn season, all field crop burns must be out (no flames) by 4:00 PM, to minimize high afternoon PM2.5, unless there is a late update or burn hours are extended. Districts will consider the adverse smoke dispersion effects due to the change from daylight savings time back to standard time.

The SMPC, after concurrence by CARB, may extend the burn hours, before and/or after the burn hours listed above, basinwide, with favorable south winds or impending rainfall. Extending afternoon burn hours presupposes improving dispersion or maintaining good dispersion.

B. PRUNINGS

The burning of prunings may be authorized according to the established burn hours after confirming it is a burn day.

Year round burn hours for orchard and other agricultural prunings are from 8:30 AM to 5:00 PM. Districts may, after consideration of air quality impacts, allow additional orchard or other agricultural prunings to be added to an existing hot base fire after the ignition hours.

The 8 AM file is used to communicate all decisions regarding early burning with acreage allocation distributions during the intensive fall burn season. Files will be uploaded on the website and may be retrieved as early as 7:30 AM depending on conditions.

The SMPC, after concurrence by CARB, may extend burning hours before and/or after the standard burn hours basinwide with favorable south winds or impending rainfall. If CARB provides an update after 2:00 PM, CARB will extend the burn hours to a specific time determined by them. Extending afternoon burn hours presupposes improving dispersion or maintaining good dispersion.

XII. COMMUNICATION PROCEDURES ON EARLY PRE-STORM DAYS

During the intensive fall burn season, the SMPC will initiate collaboration with CARB regarding pre-storm forecasts and messaging to districts. Discussion regarding the potential for pre-storm or extended burn hours may begin up to five days in advance in the “burn day outlook” section provided by the meteorological services consultant on the 9 AM program files. An early pre-storm notification will be provided in the SMPC comments section of the 9 AM and 11 AM files on the day prior to expected pre-storm conditions. This notification only implies that there is the potential for pre-storm conditions and is subject to change pursuant to the following day’s weather conditions or forecast conditions.

Outside of the intensive fall burn season, the districts obtain the acreage allocation directly from CARB. CARB will note an early burn on the acreage allocation webpage if warranted.

XIII. PROCEDURES FOR MANAGING AGRICULTURAL BURNING

A. Fall 9:30 AM meeting

During the fall season, at 9:30 AM, a meeting will be held virtually with a call-in option, facilitated by the meteorological services consultant. The meteorological conditions for the day and any pertinent concerns and questions may be discussed in this forum in addition to inter-district coordination regarding burn placement and potential impacts to neighboring districts.

B. Web-Based Burn Map

A map of the SVAB can be used by districts to plot their burn allocations. The map can show the location of fields, the acreage, and the timing of ignition. The SMPC and districts are then able to view allocated acreage throughout the SVAB, which can help with spatial management of field crop burning.

C. Daily Acreage Allocation and Distribution Considerations

The allocation and distribution methods will use the following information:

1. Atmospheric stability, inversion heights, and depth of the mixing layer.
2. Wind speeds and directions (upper level and surface).
3. Relative humidity, fuel moisture and cloud cover.
4. Baseline air quality fine particulate matter (PM2.5) data and airport visibilities.
5. Quantity and location of agricultural residue to be burned.
6. Consideration of downwind populated areas.
7. The presence of prescribed burning and nearby wildfires.

Emphasis is placed on the expected mixing depths during burn hours when making burn management decisions. During the intensive fall burn season, the meteorological services consultant along with CARB will comment on the atmospheric mixing in their files. Additionally, information will be discussed each morning between the CARB duty meteorologist and the SMPC to determine the initial acreage allocation. The SMPC may, if conditions warrant, reduce the acres allocated by CARB to the SVAB. Justification for such decisions shall be provided in the daily acreage distribution documentation (9 AM file). Outside of the fall season, CARB provides the daily allocation and meteorological resources, if needed. Districts shall coordinate burns with neighboring counties to try to minimize smoke impacts as needed.

D. Operating Dates of the Fall Program and Management Responsibilities

During the intensive fall burn season, the SMPC is responsible for allocating acreage to the districts using the distribution equation described in Section V. If significant rainfall shortens the intensive fall burn season, the SMPC will stop operations before November 30th with approval from the TAC. The season may also be extended into the first week of December if dry and/or favorable conditions persist, and districts have need to continue. Districts may continue to allow the burning of dry fields following the end of the intensive fall burn season without the SMPC's involvement in the process.

The allocation of acreage to the growers is managed by the district. If fire agencies issue burn authorizations, they shall report in a timely manner and daily to the district all allocations made to growers in order to ensure that inspectors are aware of permissive burns as they occur.

E. Spatial Management of Burning

As shown in Appendix A, there are 41 burning management zones in the SVAB which provide geographic divisions to manage burning spatially and temporally. When meteorology and/or air quality is more favorable in one or more zones, additional acreage can be placed in those areas with caution not to over-concentrate burn allocation acreage. The updating and distribution of acreage by the SMPC can consider weather and air quality differences between the northern and southern portions of the SVAB. Smoke from prescribed burn projects in the region should be considered when distributing burn allocations to minimize air quality impacts. Project size, elevation and location are factors to consider in smoke management.

F. Data Management for the Intensive Fall Burn Season

During the fall intensive program, districts shall keep track of ready acres, burned acreage and complaints regarding smoke from agricultural burning and submit this information to the SMPC daily. Districts are required to submit this data prior to 08:15 AM daily. Districts or counties may include any field crop burning acreage that is ready to burn to their total ready acres that is reported to the SMPC.

G. Personnel on Duty and Holiday and Weekend Staffing

To prevent potential smoke impacts to urban areas and airports within their respective district or an adjacent county, field crop burning is only allowed when authorized by the respective district staff who are trained to allocate field crop burning. District staff shall collect information including observation of smoke dispersion and monitoring potential downwind impacts and/or review up-to-the hour airport and air quality readings prior to requesting additional acres for field burning in their district. This includes holidays and weekends.

Districts may allow prunings-only burning without verbal authorization (with burn acreage reported by permit holders either on a recorded message or electronically to the district) after confirming the burn day status and acreage allocation. During the intensive fall burn season, all districts must confirm the burn day decision prior to allowing agricultural burning. Districts may contact CARB prior to 3:00PM on the day before a holiday or weekend to request CARB's extended outlook.

H. Conservative Burn Management

Districts shall use air quality and meteorological data to assist in making decisions regarding burn placement in their district's burning management zones. A conservative burn management strategy recommends that air district personnel err on the side of caution whenever conditions are marginal or if there is any amount of uncertainty regarding a potential public impact from smoke. The SVAB Agricultural Burning Map located on the PFIRS website can be used for plotting allocated burn acres and for coordinating burn decisions with other districts.

Districts shall employ extra caution when allowing burning when smoke may impact urban areas, airports, and major roadways.

Successful burn program management relies upon consideration of the following information and procedures when allocating acres for burning:

1. Field conditions

There is no substitute for field observations in understanding burn conditions. The following factors should be considered:

1. Fuel moisture: Higher fuel moisture creates more smoke and reduces plume rise, increasing the possibility of impacts on downwind receptors. As necessary, the use of the crackle test (as

described in Section XIV.A) as well as early test burns of small acreage can assist in making burn allocation decisions.

2. Fuel density and arrangement: The increased density of vegetative waste increases the amount of smoke created when burned. A rice field which has been chopped, leaves straw on the ground, preventing airflow and trapping moisture. The potential for weeds, such as tules, on adjacent levees to burn should be considered when a field is burned since the emissions from the additional vegetation must be taken into account. Tules when burned can produce black smoke.
3. Burning techniques: The method used by the grower to ignite the field and the speed in which the field is burned can affect smoke production and plume rise.

2. Meteorological conditions

Winds and convection currents can vary greatly throughout the region and can shift throughout the day. Districts shall evaluate data as it becomes available throughout the day to ensure the success of the program.

Surface wind speed, low inversion heights, cold ambient surface temperatures, a rapidly declining mixed layer, and high relative humidity can increase the potential for fumigation and should be evaluated throughout the burn day.

Wind direction and speed, both surface and aloft (transport), are critical. The latest wind data should be used to verify wind direction before making placement decisions. The potential for smoke transport downwind significantly increases when wind speeds exceed 8 mph and an inversion is present.

Authorize only small burns in remote areas if dispersion conditions are poor. When conditions are expected to restrict smoke dispersion, very limited field crop burning should take place only in locations which would not impact populated areas. Caution should be used on days when the daily criteria are close to requiring restricted field day status.

Airport data are collected at the beginning of each hour from Federal Aviation Administration tower-controlled airports. AMOS data collected by the contract meteorological service provider is collected every 15 minutes and displayed on the SMPC website dashboard. This weather station network offers a higher concentration of data in areas where rice burning typically takes place and updates more frequently than FAA tower-controlled airports.

3. Air quality considerations

Districts must consider the short-term and long-term impacts from burn allocations by carefully analyzing air quality trends and forecasts along with meteorological information.

1. ARB provides current air quality conditions as measured at BAM monitoring sites which can be monitored throughout the burn day to make informed decisions. Also, with hundreds of low-cost sensors now available, this information can be viewed on a variety of websites, including the US EPA AirNow “Fire and Smoke Map”.
2. Airport visibility observations should be checked hourly in the district and surrounding areas.
3. Smoke complaints received by the district should be investigated.
4. Care must be taken to ensure that burning will not contribute to a build-up of pollutants over time that may contribute to elevated PM2.5 and/or exceedances of air quality standards.
5. Areas with elevated concentrations should be considered a poor location when allocating burn acres; in
6. considering if a district will allow any burning that may cause a worsening of current or forecast conditions.

7. Areas/burn zones with elevated concentrations may be specified by CARB or the SMPC as “no burn”.

4. Spatial and temporal considerations

Districts shall distribute their allocated acreage spatially and temporally within each district’s burning management zones to minimize emission densities and protect downwind urban areas.

1. Field lighting times must be specified to the grower so that burning times are staggered.
2. Flexibility should be employed in shifting acreage among zones and to the north and south.
3. If the field is adjacent to and/or upwind of populated areas, the burning of a small field versus a large field is a more protective approach.

To avoid overwhelming an area with co-mingled smoke, districts may enter their scheduled allocations on the agricultural burning map that is available for daily use. Districts should notify adjacent district(s) whenever a considerable number of acres are allocated in a zone contiguous to another district or air basin or if there is reason to believe that smoke may cause impacts to another district or air basin.

I. District Communications with Growers

Effective burning management requires better and timelier communication with the growers so that the logistics of conducting the burning can be accomplished. Districts should use voicemail, answering machines and reference burn lists to advise growers near the top of the burn list to be ready to burn to make the system more efficient.

J. Adjustments for Burned Acreage

When a field is baled, grazed, flooded, or straw is substantially reduced due to other factors and there is a request to burn the remaining straw, the district will review the conditions in the field and may decide the percentage reduction in acres up to a maximum of 95% of the total acreage.

K. Acreage Updates

Acreage updates requested from either CARB or SMPC will be accompanied by the following information provided by the requesting district:

1. District name.
2. Total acres already allocated to growers and number of acres burned prior to requesting additional acres.
3. The size and location(s) of the field(s) pertinent to the request for additional acres.
4. Spatial distribution of the burns by burning management zones.
5. Description of field conditions (e.g., fuel moisture/wind speed/wind direction).
6. Complaints received by the district if any.

XIV. GENERAL BURNING REQUIREMENTS FOR GROWERS

A. Drying Times

It is imperative that agricultural waste be sufficiently dry to ensure proper burning by observing the required drying times. For rice straw the following applies:

1. No spread rice straw shall be burned prior to a three-day drying period.
2. No rowed rice straw shall be burned prior to a ten-day drying period unless the rice straw passes the “crackle test”.

3. For rice straw, after 0.15 inches or more of rainfall, a representative sample of the straw must pass the crackle test to be legally burned (§80150(c3)). The increase in fuel moisture due to rainfall and high humidity in the SVAB below 3000 feet msl' results in poor combustion.
4. Stripper header method harvesting requires three days of drying:
 - a. After the first frost found on the field and if the straw passes the crackle test; or
 - b. Three days after mowing and spreading or chopping straw; or
 - c. If the district verifies that the straw is sufficiently dry and passes the crackle test the field will be considered ready to burn.

The crackle test is performed as follows: When checking the field for moisture, a composite sample of straw from under the mat, in the center of the mat, and from different areas of the field shall be taken to ensure a representative sample. A handful of straw from each area will give a good indication. Rice straw is dry enough to burn if a handful of straw selected, as described, crackles when it is bent sharply (§ 80150(c2)).

B. Ready to Burn List

All persons wanting to burn field crop residue must notify their local district office to get on the ready to burn list (list). When a field is completely harvested it can be placed on the list. All pertinent burn information requested by the district must be provided. Most (not all) burning is allocated based on the list in the order it was reported.

C. Burning Authorization and Acreage Allocation

No person may conduct agricultural field crop burning unless their district, or the responsible designee, has authorized the burning and allocated the acres for a specific field. The switching of fields without prior approval from the district's APCO is prohibited. If burn acres are allocated and the burning is not completed, the grower must contact their district at the earliest possible time to return the unused acres. The field will remain in the same position on the list.

D. Ignition Patterns

Rice, barley, oat and wheat straw are to be ignited only by strip firing into the wind or by backfiring, except under a special permit of the district when and where extreme fire hazards are declared by a public fire protection agency to exist, where crops are determined by the district not to lend themselves to these techniques (80150(a(1))). The approved burning techniques (e.g., backfiring, strip firing, and X-firing at low wind speeds) improves consumption of the vegetation and minimizes emissions of pollutants (i.e. smoke). Districts may authorize other lighting methods for safety reasons or if the field crop does not lend itself to the approved techniques or if there are time constraints affecting the burn.

E. Harvest Date

No field crop acreage that was harvested prior to September 10th shall be burned during the period from October 1st through November 15th, unless approved for burning by the district APCO with jurisdiction over the burn.

F. Return Unused Burn Acreage

Growers who are authorized to burn and do not burn their allocated acres must return unused acres to the district in a timely fashion. If a grower does not return unused acres (when no burning was attempted) to the district for re-allocation to other growers, the field that was not burned may be dropped to the bottom of the list.

G. Chopped Rice Fields

Growers must report to the district any rice field(s) that they want to burn that have been chopped. Districts should take this information into consideration for possible higher fuel moisture content of the straw and poor combustion characteristics due to reduced air/fuel mixing.

XV. COMPUTER FILE DATA AND COMMUNICATION TIMETABLE (FALL BURNING ONLY)

A. Computer Files

The burn management program relies on the timely review and analysis of pertinent air quality, meteorological, and burn information. These data are critical in burn management decisions. Air districts submit burn acreage data on the Smoke Management Program daily reporting form provided by meteorological services provider. The SMPC collects that data and compiles it into the daily program files, in addition to archiving them and meteorological data and other pertinent information. The information generated during the fall burn season includes:

1. District ready acres and previous day's burned acreage and complaints.
2. The meteorological services consultant zone ventilation ratings for the distribution equation.
3. The meteorological services consultant daily weather discussion and AMOS and airport data.
4. The SMPC's daily comments preceding the basin acreage distribution table.
5. The basin acreage distribution to districts and the "Season to Date" summary.
6. The ready file checklist and comments.
7. CARB basinwide acreage allocation, meteorological factors, air quality data, and comments.
8. CARB BAM data for previous day and from midnight to 6:00 AM (current day);
9. Verified complaints reported to the SPMC by districts and complaints reported directly to CARB.
10. The AMOS and airport data for the latest hour or last identified hour.
11. The zone file with the previous day's specific zones crops burned and season summary.

B. Daily Files and Access Timetable

Districts must send their ready file information to the SMPC before 8:15 AM each day.

Filename	Access Time	Contents
8AM	8:00AM	SMPC's preliminary comments and reminders specific to the conditions for that day
		SMPC's ready file checklist and comments
		Preliminary CARB Burn Day Status
		CARB BAM data for yesterday along with the midnight to 6:00 AM average
9AM	9:00 AM	SMPC basin acreage distribution table
		SMPC file retrieval checklist and comments specific to the conditions for that day
		Meteorological services consultant final weather discussion
		Current airport and AMOS data
		CARB equation factors and basinwide acreage allocation and complaints

		SMPC zones and crop burning data
		Next day burn day outlook to advise on potential upcoming pre-storm days
11AM	10:30 AM	SMPC information, if necessary, for allocation update or pre-storm advisory
		Meteorological services consultant latest weather information

XVI. COMPLAINT HANDLING AND ENFORCEMENT

Districts shall record all agricultural burn complaints with the following information at minimum:

1. Location of smoke (both impact location and origin).
2. Duration of smoke impact.
3. Description of impact to the public.
4. Weather/Air Quality data:
 - a. Nearest Air Monitor data, (Use regulatory monitors over lowcost sensors, when available,)
 - b. Wind speed
 - c. Wind direction
 - d. Conditions (clear, cloudy, rain cold, warm etc.)
5. Burn day status:
 - a. Above 3,000 feet msl
 - b. Below 3,000 feet msl
 - c. Basin acreage allocation
 - d. District acreage allocation
6. Type of burning from which smoke originated (e.g., rice, orchard, levee, wildland, prescribed, wildfire, etc.).
7. If unrelated to agricultural burn program, identify origin (structural, illegal, residential, unknown).

Consistent and proportional enforcement actions must be applied to all types of violations. Financial settlements that are a result of a district notice of violation (or notice of noncompliance) are often an effective deterrent to further violations and can mitigate competitive business advantages gained through illegal burning. Enforcement should follow each district's enforcement policy and be consistent with federal, state, and local law.

It is each participating district's responsibility to ensure that their district's regulations cover the enforcement portions of Title 17 of the CCR Subchapter 2 Smoke Management Guidelines for Agricultural and Prescribed Burning sections 80145 (k)-(o). It is noted that specific codes related to the burning of rice straw in the SVAB are also found in the California Health and Safety Code §41865, Connelly-Areas-Chandler Rice Straw Burning Reduction Act of 1991. Current District rules can be found at <https://ww2.arb.ca.gov/current-air-district-rules>.

Examples of violations relevant to the Program may include:

1. Burning field acres on a no burn day.
2. Burning rice acreage committed for the phase down reduction.
3. Burning without authorization.
4. Burning more acres than the allocated acreage.
5. Burning outside the established burn hours.
6. Not meeting the drying criteria or crackle test.

7. Using unauthorized lighting techniques.
8. Burning acres enrolled in an Emission Reduction Credit (ERC) program.
9. Not showing due diligence in safely extinguishing accidental ignitions.

Only complaints from smoke impacts due to agricultural burning are to be considered valid. If a district is unable to investigate and verify a complaint the complaint will be considered valid and the complaint will be forwarded to the SMPC. During the intensive fall burn season, districts will report valid complaints to the SMPC in the daily reporting form.

Smoke complaints received by CARB or an uninvolved district should be forwarded to the district(s) involved for investigation prior to forwarding the complaint to the SMPC. The district verifying the complaint(s) is responsible for forwarding the valid complaints to the SMPC in the daily reporting form.

Districts shall investigate each complaint within a reasonable time and report the results of the investigation to the complainant. Districts shall maintain complaint documents for a minimum of three years. These are considered public information through a public information request.

XVII. PRESCRIBED BURNING

The Smoke Management Guidelines for Prescribed Burning, outlined in Title 17, Subchapter 2 of the California Code of Regulations, are to provide for the continuation of prescribed burning while minimizing smoke impacts on the public. The State's general policy since 2018 is to increase the pace and scale of prescribed burning statewide as long as smoke exposure risks can be effectively reduced. Prescribed burning is defined in the Health and Safety Code §39011, as:

(a) Agricultural operations in the growing of crops or raising of fowl or animals, or open outdoor fires used in forest management, range improvement, or the improvement of land for wildlife and game habitat, or disease or pest prevention.

(b) The operation or maintenance of a system for the delivery of water for the purposes specified in subdivision (a).

(c) Wildland vegetation management burning.

(1) For purposes of this subdivision, wildland vegetation management burning is the use of prescribed burning conducted by a public agency, or through a cooperative agreement or contract involving a public agency, to burn land predominantly covered with chaparral, trees, grass, or standing brush.

(2) For purposes of this subdivision, prescribed burning is the planned application and confinement of fire to wildland fuels on lands selected in advance of that application to achieve any of the following objectives:

(A) Prevention of high-intensity wildland fires through reduction of the volume and continuity of wildland fuels.

(B) Watershed management.

(C) Range improvement.

(D) Vegetation management.

(E) Forest improvement.

(F) Wildlife habitat improvement.

(G) Air quality maintenance.

(3) The planned application of fire may include natural or accidental ignition.

This definition supersedes the definition found in Title 17 §80101(v).

C. Policies and Procedures

The following outlines the necessary steps required to conduct a prescribed burn. These procedures do not apply to Agricultural burning as defined in H&S Code Sections §39011(a) and 39011(b) of the Health and Safety Code.

1. Burn projects that are either greater than 10 acres or are estimated to produce more than 1 ton of smoke must submit a smoke management plan (SMP) to the air district where burning will occur.
2. The SMP may be submitted either:
 - a. by paper form, utilizing either the SMP form from CARB, or a District created form, or the SMP form from the Program,
 - b. or may be submitted through the Prescribed Fire Information Reporting System (PFIRS) website
 - c. or by submitting a SMP as per the district of jurisdiction's burn rules.
3. Approval of the SMP from the district of jurisdiction.
4. Obtain a district permit to burn.
5. Request authorization to the district the burn will take place in no later than the afternoon prior to the requested burn day.
6. Maintain communication with the district and report the burn status along with the acres burned upon its conclusion.

Unless otherwise required by a district's rules, it is intended that the district of jurisdiction will approve the proposed burn through the PFIRS website so brief burn information can be displayed on the PFIRS publicly available map the day the burn is to take place.

CARB provides a 48-hour forecast, 72-hour outlook, and a 96-hour trend through PFIRS. Per §80145(f) of Title 17 the district may request 48-hour forecasts, 72-hour outlooks, and 96-hour trends for specific prescribed burns. This precedes the use of PFIRS in providing this now more universally throughout the state. A district may request that CARB provide help in deciding on a burn authorization up to 24 hours in advance of the ignition. Districts may prioritize burns for disease control, economic concerns, safety etc. Districts may also give preference or reserve acres for prescribed burns in the daily burn authorization system.

If indicated, PFIRS can provide for notification to secondary and tertiary districts that a SMP has been submitted to a neighboring district. Coordination can be worked out between those districts on when the burn is authorized. Authorized burns can be seen on the PFIRS website.

During the intensive fall burn season (September 15th – November 30th), all proposed prescribed burning should be reported by the districts to the SMPC at least one day prior to ignition, if possible. This information may also be available on PFIRS, however it may not be available one day prior to ignition. This distribution of burn information can promote coordination and enhance the monitoring of agricultural and prescribed burning.

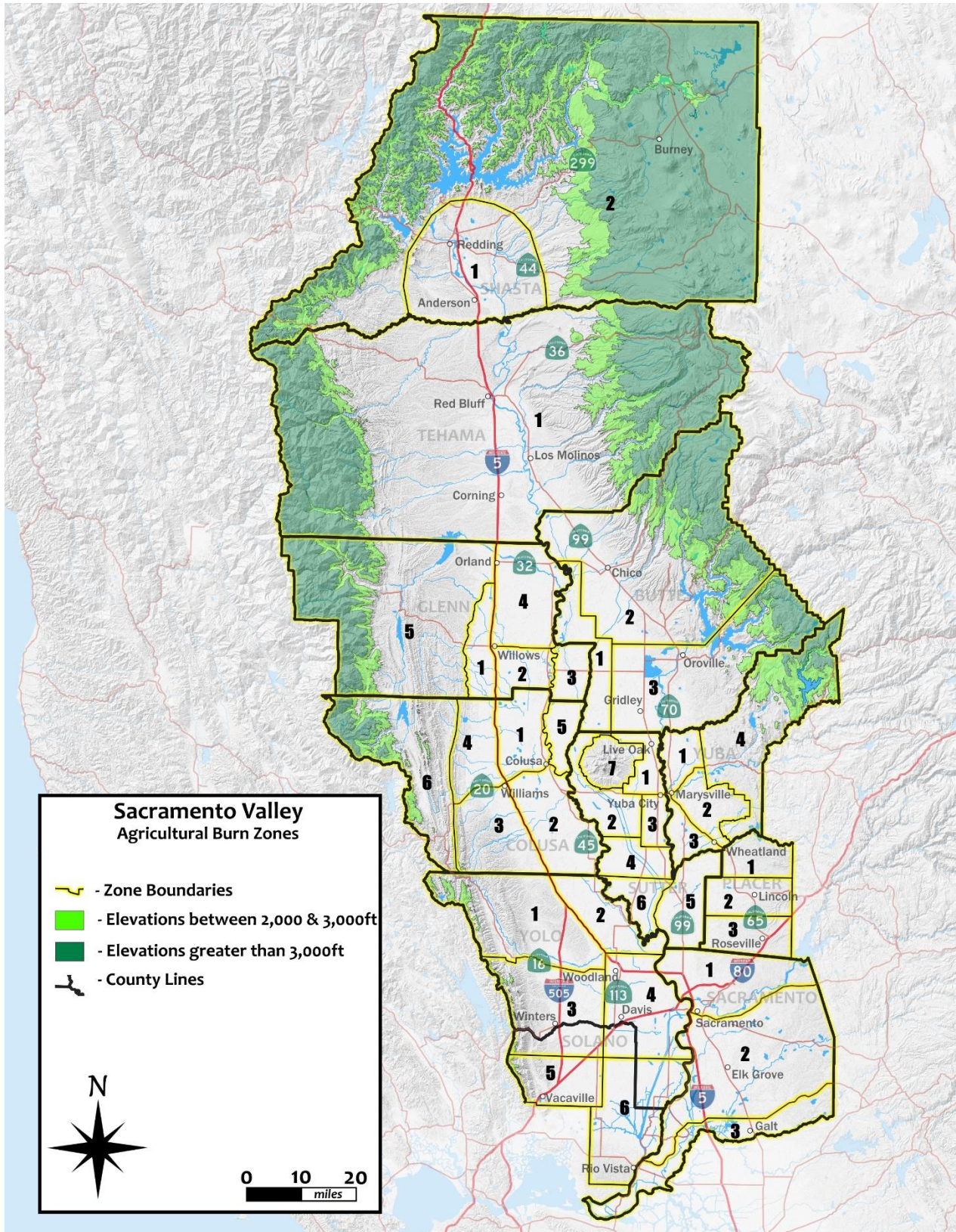
Burn projects conducted below 3,000 feet msl, or below the daily variable elevation level, will be considered part of the local acreage distribution. CARB may adjust the elevation threshold for burn decisions in the lower elevations versus higher elevations, pursuant to §80250 (a and b). CARB will

consider revising a no-burn decision above the daily variable elevation level when the local district makes a request based upon review of local meteorological and air quality conditions. When there is an authorization request to burn at or below the daily variable elevation level, the districts must provide notification to the SMPC what is the scheduled day of burning to allow planning for allocation and distribution of acreage. For prescribed burns below the daily variable elevation level, the SMPC will, if possible, take the acreage needed for those burns out of any excess acreage available over the initial allocation but below the interim allocation limit.

If burn projects greater than 10 acres are conducted outside of intensive fall burn season, or during intensive fall burn season and are above the daily variable elevation level, the proposed acreage will not be considered part of the local acreage distribution.

APPENDIX A

SACRAMENTO VALLEY AGRICULTURAL BURNING MANAGEMENT ZONES MAP



APPENDIX B

Intensive Fall Burn Season

The intensive fall burn season commences on September 15th and generally concludes on November 30th, but may be terminated early or be extended depending on field and/or weather conditions. During this time, the SMPC and meteorological service provider collaborate with CARB regarding forecast burn conditions and burn day decisions for the intensive rice burn season.

The SMPC acts as a liaison between CARB, the meteorological service provider, and each air district to facilitate better and more timely communication between each entity.

SMPC responsibilities:

1. Collect, compile, and archive meteorological data, public complaint information and daily burn data submitted by each air district.
2. Determine burn day status in collaboration with CARB.
3. Distribute daily acreage allocations to each district.
4. Conditionally allocate extra acreage to districts that request additional acres (weather permitting).
5. Advises individual air districts regarding burn placement and/or local burn day decisions.
6. Provide training sessions (Found in Appendix C) for air district personnel prior to the commencement of the intensive fall burn season.
7. Generate updates and summary reports to be presented to the TAC and BCC.
8. Coordinate any amendments or changes to the SVAB smoke management program.

The meteorological service provider assists the SMPC and CARB by providing in depth daily forecasts and forecast discussions (issued at 5:45 AM, 9:00 AM and 10:30 AM) and provides direct meteorological support to districts with questions pertaining to current or forecast conditions.

Meteorological service provider responsibilities:

1. Issue detailed daily forecast files discussing mixing heights, stability, precipitation chances and wind speed at the surface and aloft.
2. Compile CARB burn day status, CARB forecasts and SMPC comments onto the 9AM file.
3. Distribute program files to air district personnel.
4. Host a centralized website and database containing:
 - a. Current weather observations
 - b. Satellite and radar observations
 - c. Archived weather data
 - d. Links to other weather-related tools
 - e. Archived program files
 - f. Links to current forecast and program files
5. Host 9:30 AM conference call.

Answer any questions regarding current or forecast weather conditions from air district staff.

10E: CARB Burn Day Decision Statement:

Notwithstanding the criteria listed in Title 17 for the Sacramento Valley air basin, the Air Resources Board may announce permissive burn, marginal-burn, or no burn days based on expected meteorological conditions and on the estimated effect on air quality of the agricultural burning and prescribed burning.

APPENDIX C

Intensive Fall Burn Season Training Sessions

Prior to the commencement of each intensive fall burn season, the SMPC will coordinate at least two training sessions that examine the various aspects of the Smoke Management Program. Training sessions will typically examine the following:

1. The SMP's goals, procedures, and regulations.
2. Basic meteorological training to prepare air district personnel for terminology used in forecasts.
3. How various weather patterns and scenarios impact smoke dispersion and air quality within the SVAB.
4. How to use the SMP website and database to view forecasts and utilize surface data.
5. How to submit and edit burn data for daily program files.
6. Conservative burn management.
7. Various external tools such as satellite and radar information, BAM data, PFIRS and wildfire webcams.

Other Notes:

1. Where possible consolidate sections/subsections that discuss similar matters.
2. Reorganize sections so that contain information pertaining to similar matters are in the same general section.
3. Discuss prescribed burn section.