

**SACRAMENTO VALLEY AIR BASIN
2015 SMP ADMINISTRATIVE DOCUMENT
SUPPLEMENT TO THE SMOKE MANAGEMENT PROGRAM**

Prepared by

**The Sacramento Valley Basinwide Air Pollution Control Council
and Technical Advisory Committee**

Sacramento Valley Basinwide Air Pollution Control Council Adopted: December 11, 2015

California Air Resources Board Approved: _____

Table of Contents

1.	BACKGROUND	3
2.	PROGRAM ELEMENTS.....	9
3.	THE RICE STRAW BURNING REDUCTION ACT OF 1991	10
4.	SMPC DATA COLLECTION AND ANALYSIS	10
5.	AEROMETRIC MONITORING	10
6.	DAILY AIR QUALITY AND AGRICULTURAL BURNING INFORMATION	11
7.	TRADING OF ACRES	11
8.	SPECIAL BURN PERMITS	11
8A.	Conditions for Special Burn Permits.....	11
8B.	Required Report for Special Burn Permits	11
9.	FEES	12
10.	PENALTIES	12
11.	PROGRAM OVERSIGHT, REVIEW, TRAINING AND EDUCATION	12
12.	GUIDELINES FOR REVISING THE SMOKE MANAGEMENT PROGRAM	12
12A.	Technical Justification	12
12B.	Retention of Local Control	12
12C.	Program Flexibility	13
12D.	Air Basin Consistency.....	13
12E.	Good Public Policy.....	13
12F.	Experimental Policies and Procedures.....	13
12G.	Comply with California Law	13
13.	TESTING POLICY	13
14.	PUBLIC MEETINGS, WORKSHOPS, AND HEARINGS	13
15.	WILDLAND FIRE USE FIRES.....	13

1. BACKGROUND

The “**Sacramento Valley Smoke Management Program**” plan is prepared by the Sacramento Valley Basinwide Air Pollution Control Council (BCC) and its Technical Advisory Committee (TAC). The BCC and TAC are comprised of the elected district board member and air pollution control officer (APCO), respectively, from each air district in the Basin: Butte, Colusa, Glenn, Placer, Sacramento, Shasta, Tehama, Yolo/Solano, and Feather River. The BCC reviews and amends the Program plan in cooperation with the staff of the California Air Resources Board (CARB or ARB) Meteorology Section, affected industry, environmental groups and other interested parties.

The purpose of the Program plan is to describe the policies and procedures used with hourly and daily measurements of air quality and meteorology to determine how much open biomass burning can be allowed in the Sacramento Valley Air Basin. The intensive fall burn season is defined as September 15th through November 30th unless the season is cut short by rain.

The area covered by the Smoke Management Program plan is referred to as the Sacramento Valley Air Basin (SVAB), and includes all or parts of the following counties: Butte, Colusa, Glenn, Placer (portion), Sacramento, Shasta, Solano (portion), Sutter, Tehama, Yolo and Yuba (Map 1). The dimensions of the Basin are approximately 216 miles from north to south and 95 miles east to west at the widest part. The SVAB is bounded on the north and west by the Coastal Mountain Range and on the east by the southern portion of the Cascade Mountain Range and the northern portion of the Sierra Nevada Mountains. Within the SVAB the elevations reach heights of approximately 3,500 feet in the southwest, 8,500 feet in the northwest, 1,700 feet in the southeast and 10,500 feet in the northeast. The mountain ranges provide a significant physical barrier to trap locally created pollution as well as pollution transported into the Valley from elsewhere. Another prominent landmark within the Sacramento Valley is the Sutter Buttes which have a top elevation of 2,117 feet and are situated in the central part of the Valley floor. However, in contrast, the elevation in Sacramento County near the San Francisco Bay delta is barely above sea level. The topographic map (Map 2) shows elevations within the Basin.

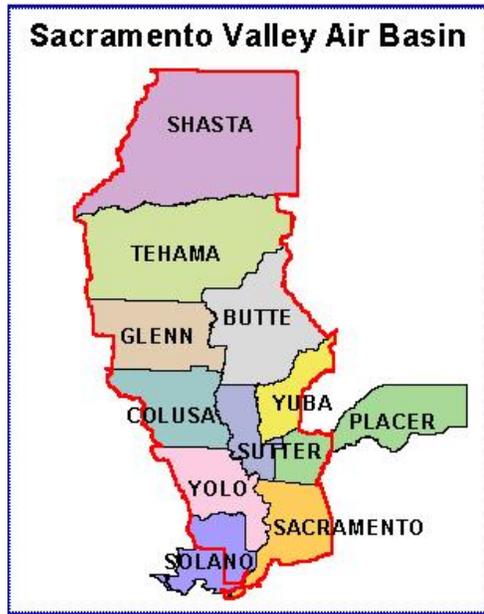
Due to the large geographic area of the Basin the weather varies from north to south and east to west. The meteorological parameters of wind direction and speed, high and low temperatures, and precipitation are measured at several locations around the Basin. These factors have a major effect on air quality and the daily management of biomass burning. Data presented below describe annual climatological conditions (Table 1).

COUNTY NAME	CITIES	ELEVATION OF CITY - Ft	WINDS 1 st 2 nd AVERAGE	TEMPERATURE AVERAGE - °F	RAINFALL AVERAGE - In
BUTTE	CHICO	240	SE-9 NW-5	74.69 47.20	25.24
COLUSA	COLUSA	50	ESE-5 NNW-9	75.05 47.15	15.96
GLENN	WILLOWS	140	NW-10 SE-10	74.74 47.52	17.57
PLACER ¹	AUBURN	1,520	SE-10 NW-10	75.10 47.31	35.22
SACRAMENTO	SACRAMENTO	20	SE-10 NW-10	73.58 48.07	17.52
SHASTA	REDDING	600		76.56 50.03	40.16
SOLANO ²	VACAVILLE	110		74.86 46.32	24.35
SUTTER	YUBA CITY	60	SE-9 NW-10	75.38 49.41	21.01
TEHAMA	RED BLUFF	350		75.51 50.46	22.55
YOLO	WOODLAND	100	NNW-13 SE-5	75.10 47.31	19.53
YUBA	MARYSVILLE	60	SE-11 WNW-9	75.38 49.41	21.01
	SUTTER BUTTES	2,117	SSE-13 N-16		

1) Only the Valley portion of Placer County to and including Auburn are part of the Sacramento Valley Air Basin

2) Only the northern and eastern portions of Solano County are part of the Sacramento Valley Air Basin

MAP 1



MAP 2



Climatological data in Table 1 are annual averages over a four or five year period depending on the specific parameter.

Wind maxima data were measured at the following sites: Butte (Chico State), Colusa (Arbuckle), Glenn (Artois), Placer (Lincoln), Sacramento (Natomas), Sutter (Kirkville), Yolo (Esparto) and Yuba (North Yuba). The primary wind is the direction observed with the greatest frequency, which is the direction with the highest overall percentage of occurrence. The secondary direction is usually but not always the direction with the second highest percentage of occurrence. The main deviation in winds from the typical north-south direction, are on the west side of the Valley where primarily north winds are seen.

Temperature differences between the cities of Redding, Red Bluff, and Vacaville and the other cities in the Valley are evident. At Redding and Red Bluff the average low temperatures are a little warmer possibly due to more cloud cover at the north end of the Valley. The lower average minimum temperature at Vacaville is probably due to the marine influence during the summer months.

The northern and eastern parts of the Basin have higher precipitation totals due to the higher latitude and the orographic lifting of the Sierra Nevada mountain range producing more rainfall. On the west side of the Valley rainfall is generally less due to the rainshadow effect on the lee side of the Coastal Range.

Shown below is a monthly table of 30year averages for the Chico State University farm (Table 2). Normal variations in temperature and rainfall by season (e.g. summer to winter) are shown in the table. The same general weather pattern would be applicable to all counties in the Sacramento Valley.

MONTH	TEMPERATURES °F	RAINFALL - INCHES
JANUARY	54 - 36	5.09
FEBRUARY	60 - 39	3.83
MARCH	65 - 41	3.81
APRIL	72 - 44	1.63
MAY	81 - 51	0.53
JUNE	90 - 57	0.32
JULY	95 - 60	0.03
AUGUST	94 - 59	0.20
SEPTEMBER	88 - 55	0.51
OCTOBER	78 - 48	1.60
NOVEMBER	63 - 41	3.95
DECEMBER	54 - 35	3.74

Although much of the land area of the SVAB is above 1000 feet mean sea level, the vast majority of the populace reside below that elevation. The region is perceived as an excellent place to live and work and is growing rapidly. With the burgeoning population comes greater pollution created by human activities. The Valley is often subject to temperature inversions that, coupled with topographic barriers and hot summer temperatures, create a high potential for air pollution problems. The following table provides recent demographic data by county and city for the Basin (Table 3).

COUNTY	POPULATION	CITY	POPULATION
BUTTE	230,116	CHICO OROVILLE	88,228 14,687
COLUSA	23,787	COLUSA	5,947
GLENN	30,880	WILLOWS	6,505
PLACER ¹	171,867	ROSEVILLE LINCOLN	118,788 42,819
SACRAMENTO	1,418,788	SACRAMENTO ELK GROVE	466,488 143,885
SHASTA	191,722	REDDING ANDERSON	91,561 10,826
SOLANO ²	114,910	VACAVILLE DIXON	97,305 17,605
SUTTER	94,737	YUBA CITY	64,925
TEHAMA	65,593	RED BLUFF	13,825
YOLO	200,849	DAVIS WOODLAND	65,622 55,468
YUBA	72,155	MARYSVILLE	12,867
BASIN TOTAL	2,615,404		

1) Source California Department of Finance and 2010 US Census

- 1) Only the Valley portion of Placer County to and including Auburn are part of the Sacramento Valley Air Basin
- 2) Only the northern and eastern portions of Solano County are part of the Sacramento Valley Air Basin

The Sacramento Valley Air Basin developed the first regional, coordinated burning management program in California in 1981. The program was tested for a two-year period before being adopted into regulation in 1983. The program included goals, policies and procedures organized into an agricultural burning management plan. The program has been reviewed every year by SVAB district staff, Air Resources Board (ARB) meteorology and compliance staff, and Basin consultants. Workshops and public hearings held by the Basin Technical Advisory Committee and the Basinwide Control Council have resulted in other changes suggested by the public and the agricultural industry. Many amendments to the program and plan have been made in the last twenty years. The types of changes have encompassed modifications to the ARB equations to expanded descriptions of all program elements.

During the fall burn season data are reviewed daily including air quality levels, meteorological conditions, and the amount of agricultural burning conducted by burning management zone and type of crop residue. Fall data are archived annually to assist in the evaluation of the program results and support proposed changes. The program has achieved its goals of improving air quality and allowing necessary agricultural burning.

The following table contains data on fall agricultural burning over several years (Table 4).

	2007	2008	2009	2010
Butte	11,765	10,433	7,220	4,801
Colusa	17,501	11,762	12,289	6,938
Glenn	13,653	10,905	10,507	7,354
Placer	611	739	1,515	784
Sacramento	2,140	1,008	2,354	1,480
Shasta	1,619	1,190	2,408	1,042
Sutter	8,270	8,450	9,171	5,092
Tehama	2,743	2,004	1,934	2,267
Yolo	4,639	3,111	3,407	4,092
Yuba	2,525	2,560	2,625	2,725
BASIN TOTALS	65,466	52,162	53,430	36,575

Recent policy changes at federal and state agencies (Maps 3 and 4) regarding the need for more forest and wildland burning to improve land management have increased the amount of “prescribed burning” on public and private lands. This shift towards more prescribed burning has demanded a review of burning management programs to address the unique issues presented by this type of burning. The national forests have plans for significant increases in burning. The US Forest Service does have access to remote automatic weather stations (Map 5) and the assistance of weather forecasters to help in planning and safely conducting burning.

During the fall burn period (September 1st through November 30th), all proposed prescribed burning shall be reported by districts to the Smoke Management Program Coordinator (SMPC) at least one day prior to ignition. The information to be reported to the SMPC is indicated on the Prescribed Burning Information Form and can be transmitted using the Prescribed Fire Information Reporting System (PFIRS).

MAP 3



- The Sacramento Valley is surrounded by national forests
- Mendocino
- Shasta –Trinity
- Lassen
- Plumas
- Tahoe

MAP 4



Department of Forestry and Fire Protection Administrative Units

SHU - Shasta Trinity Unit

TGU - Tehama Glenn Unit

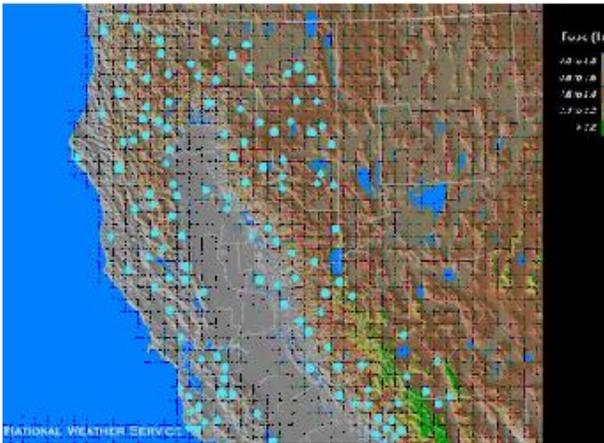
BTU - Butte Unit

LNU - Lake Napa Unit

NEU - Nevada Yuba Placer Unit

AEU - Amador El Dorado Unit

MAP 5



Northern California Interactive RAWS Map

Each dot represents the location of an automatic weather station.

Agricultural burning has been managed effectively in the SVAB for many years. Through the early involvement of the rice industry, frequent communication with air district staff and numerous meetings the growers have become very knowledgeable about the burning management program. The local air districts have computerized databases of growers' fields that are to be burned. Information included in the databases is the location of fields, amount of acres and type of crop residue. Management of the burning on a daily basis involves the temporal and spatial distribution of the fires and a limitation on the amount of acres burned commensurate with air quality and meteorological conditions.

See the example below of records from a burn database of agricultural fields for a single grower.

Field Information					
FIELD #	LOCATION	ZONE	ACRES	BURN?	STAT
R B5	BAGLEY RD	4	37	No?	E
R B6	BAGLEY RD	4	74	No?	E
R E1	DANLEY RD/MAX .SITES	4	22	Burn	E
R E2	DANLEY RD/MAX .SITES	4	21	Burn	E
R E3	DANLEY RD/MAX .SITES	4	20	Burn	E
R E6	MCDERMOTT RD.	4	24	No?	E
R E6*	MCDERMOTT RD.	4	95	Burn	E
R E6**	MCDERMOTT RD.	4	50	Burn	E
R E6***	MCDERMOTT RD.	4	50	Burn	E
R E7A	MCDERMOTT RD.	4	44	No?	E
R E7B	MCDERMOTT RD.	4	41	No?	E
R H63	DANLEY AND TEHAMA-COLUSA CANAL	4	57	No?	E
R H65	DANLEY AND TEHAMA-COLUSA CANAL	4	45	No?	E
R H68	DANLEY AND TEHAMA-COLUSA CANAL	4	30	No?	E

The next page is an aerial photograph of farmlands adjacent to and east of the Dunnigan Hills in Yolo County. The photo is a patchwork of rectangular fields with definitive boundaries. Locations of fields are easy to discern by the landmarks indicated on the photo. The SVAB districts have years of experience managing agricultural burning on the Valley floor with precise field locations and acreage and abundant data on baseline air quality and meteorological parameters. The situation with prescribed burning is different.

The bottom half of that page is another aerial photograph of Yolo County to the west of the Dunnigan Hills that shows mountainous terrain where prescribed burning takes place. The canyons and ridges of the mountains cause wind flow patterns to be very complex. Confining burning to a fixed number of acres in such terrain is more difficult. Also, prescribed burning in such areas involves heterogeneous fuels such as grasses, shrubs, and trees that burn at different rates and may even smolder overnight. Drainage winds in early morning hours can carry smoke from higher elevations down into the Valley.

In 1999 there were six consecutive no-burn days from October 17th through October 22nd. Wildfires had been burning around the perimeter of the Basin for several days and the weather conditions with north winds and strong atmospheric stability resulted in very poor air quality. Some of the fires were:

PENDOLA, Tahoe National Forest. This fire was near Bullards Bar Reservoir west of Camptonville and burning in mixed conifer and manzanita.

SIXTEEN, Sonoma-Lake-Napa Ranger Unit. This fire was on the west side of Rumsey Canyon.

BIG BAR COMPLEX, Shasta-Trinity National Forest. The complex was 28 miles northwest of Weaverville. The complex consisted of the Megram and Onion fires.

The particulate air quality data pattern during this period, from all types of particulate monitors, showed higher concentrations on the east side of the Valley. This was probably due to the proximity of the PENDOLA fire. Although these were uncontrolled wildfires, prescribed burning with high fuel loading factors have the potential to adversely impact air quality.

Good management of all biomass burning is the ultimate goal of the Sacramento Valley Air Basin Smoke Management Program.



Dunnigan, Interstate Highway 5 and agricultural fields in the Sacramento Valley.



Coast Range Mountains west of Dunnigan with tree and brush covered ridges and ravines.

2. PROGRAM ELEMENTS

The basic Program elements include the following:

Local authority The Program places responsibility and authority on local air districts for implementation. Current air quality and meteorological information is provided to enable districts to make informed decisions.

Daily variable acreage allocation system The Program contains a formula to allocate burn acreage to the Sacramento Valley Air Basin. The burning management program matches the daily basinwide acreage allocation to each day's expected air quality and meteorological dispersion conditions. The system is designed to minimize air quality impacts.

Basinwide acreage distribution system The Program contains a formula to distribute the basinwide acreage allocation to local air districts. This computerized formula is based upon need (prorated acres), air quality (particulate matter levels), and meteorological conditions (zone ventilation ratings).

Conservative management The Sacramento Valley Smoke Management Program will be administered by a conservative approach with acreage updates, as warranted. Daily management will be consistent with prevailing air quality, meteorological, and burn data. Information used as feedback for decisions include hourly data on air quality levels, meteorological conditions, airport visibilities, and district field observation reports and smoke complaints. Program procedures will reflect the goals to protect air quality and public health, and to carefully monitor agricultural burning operations.

Minimum daily burning allocation The purpose of the minimum daily burn allocation is to minimize backlogs of ready-to-burn acres. No allocation is given on no-burn days.

Timing and review of burn allocation decisions and acreage updates. Acreage allocation decisions are made close to the actual burning times in order to improve forecast reliability. The Program also requires routine review of burning, meteorology, and air quality conditions throughout the day. If warranted, acreage updates can be requested or burning curtailed.

Established burn hours. Burn hours are set in accordance with proven meteorological and air quality principles. These considerations include avoiding early morning and late afternoon surface inversions that entrap smoke at ground level and avoiding high fuel moisture levels.

Spatial and temporal burn placement Optimal distribution of burning throughout the air basin and over time minimizes air quality impacts. These management procedures reduce smoke concentrations. Burning management zones are established within each air district and help to geographically manage the burning.

Acreage shift A meteorological formula containing wind speeds, wind directions, and inversion heights allows a variable percentage of the total basin acreage allocation to be shifted north or south. The acreage shift formula is designed to better manage burning, respond to unusual meteorological conditions, and to protect downwind populated areas.

Strengthened enforcement. The Program strengthens enforcement of the agricultural burning requirements through aerial and ground surveillance to ensure compliance.

Collection and dissemination of meteorological data Local air districts receive reliable real-time data on wind speeds, directions, inversion heights, and overall dispersion capacity throughout the region. Hourly data are provided from the automatic meteorological observation stations (AMOS) sites and Valley airports with operating control towers. Inversion and mixing height information is available from the Sutter Buttes AMOS, pibals, aircraft flights and profilers.

Collection and dissemination of air quality data Local air districts also receive information on how agricultural burning is impacting air quality. This information feed-back is available through airport visibility observations, PM10 and PM2.5 data and smoke complaints.

Collection and dissemination of burn data Air pollution control agencies compile their information

on the amount of acres ready to burn, burned yesterday, burned by zone, and burned by crop category. This information is collected, summarized, totaled, and provided on a county-by-county, zone-by-zone, and crop- by-crop basis through the Smoke Management Program Coordinator (SMPC).

Computerization and centralization of data and communications The Program centralizes and computerizes burn data storage and communications. Daily, during the fall burn season, the SMPC collects and transmits information to the local air districts and the ARB via a website. The SMPC also stores and analyzes these data. The SMPC will conduct at least one workshop with air district burn staff to discuss SMP policies and procedures prior to the start of the fall burn season on September 15. The workshop(s) may be held in the north, central and south areas of the Air Basin. Testing of computer file transfers and website data communications will also be performed prior to the start of the fall burn season.

Public information The Program encourages the dissemination of information to the public on Sacramento Valley air quality levels. The availability of the CARB web pages and air quality database helps communicate information to the public. CARB and the Sacramento Metropolitan Air Quality Management District also provide information to the public, via the media on no- burn/high pollution days to request public cooperation in reducing emissions.

Permit fees The Program facilitates the establishment of permit fees based on acreage within each district for the purpose of funding.

Rice Straw Burning Reduction Act of 1991 and Amendments This law requires a phase-down of rice straw burning in the Sacramento Valley Air Basin over a period of years. The law also allows growers to obtain emission reduction credits for phased-down acres.

The Program provides a mechanism to assist local air districts in ensuring that rice growers comply with the requirements of the phase-down law. The intent of the Program is to monitor the phase-down process and ensure a balanced phase-down throughout the year. Districts will encourage growers to select fields to meet the phase-down that are located in sensitive areas such as near airports, major roadways, and urban areas.

3. THE RICE STRAW BURNING REDUCTION ACT OF 1991

Historically, rice growers routinely burned their fields to dispose of rice straw for sanitation and seedbed preparation purposes. In 1989, when 400,000 acres of rice were grown in California, 95% of the resulting debris was burned in the field, creating significant air pollution impacts statewide. The California State Legislature found and declared that the Connelly-Areias-Chandler Rice Straw Burning Reduction Act (California Health and Safety Code Section 41865) be enacted in 1991 to phase down rice straw burning beginning in 1992. By September 2001, it allowed burning only under specified conditions for disease control in order to improve the air quality for the citizens of the state. Under the current scenario, disease-control burning is limited to 25% of the planted acres or 125,000 acres, whichever is less.

4. SMPC DATA COLLECTION AND ANALYSIS

The SMPC collects air quality, meteorology, and burn acreage data for analysis and inclusion in the program comments and reports.

5. AEROMETRIC MONITORING

Aerometric monitoring includes measurements of both air quality and meteorological parameters.

Meteorological data available includes the zone ventilation rating table, AMOS data, airport data, aircraft soundings, rainfall data, dispersion forecasts, daily local weather discussion with a five day weather outlook. Current location of the front, time of frontal passage, and rainfall data is added to the meteorological files when known.

The following are the locations of the AMOS weather stations and Airport data, and air monitoring sites.

- **AMOS Weather Stations**

AMOS station data is collected every hour. The current AMOS stations are: Artois, Biggs, Chico State Farm, Chico WWG Office, Codora, Cohasset, Durham, Esparto, Kirkville, Lincoln, Maxwell, Natomas, North Yuba, Orland East, Oroville, Wheatland, Woodland, and Sutter Buttes

- **Airports**

Airport data are collected every hour. The reporting airports are: Auburn, Beale AFB, Chico, Lincoln, Marysville, Mather, Oroville, Redding, Red Bluff, Sacramento International, Sacramento Executive, Stockton, Travis AFB and Vacaville

- **Air Quality Monitoring Stations**

The air quality data available includes hourly airport visibilities, and hourly PM_{2.5} data. Airport data is reported ten minutes after the hour and PM_{2.5} monitoring sites are reported 20 to 30 minutes after the hour.

- **BAM PM_{2.5} Monitoring Sites**

BAM data is reported hourly. The ARB BAM stations in the SVAB are: Chico, Colusa, Davis, Gridley, Roseville, Sacramento T Street, Willows, and Yuba City. Local district-operated BAM sites are: Anderson, Sacramento Del Paso Manor, and Woodland.

6. DAILY AIR QUALITY AND AGRICULTURAL BURNING INFORMATION

In the effort to keep the public informed, the BCC, districts, and/or ARB should provide daily information to the public on air quality levels in the SVAB and agricultural burning information. The ARB webpages should be used to convey this information. The webpages contain the names and phone numbers of the districts in the SVAB.

7. TRADING OF ACRES

The interdistrict/intercounty and intradistrict/intracounty trading of acres among rice growers is not allowed under this Program because it is prohibited by State law.

Intradistrict or intracounty trading among growers of any other field crop for places on the ready-to-burn list is not allowed. Trading of places on the burn list, by the same grower, must be in writing and approved in advance by the district with jurisdiction over the fields involved in the transaction.

8. CONDITIONS FOR SPECIAL BURN PERMITS

8A. Conditions for Special Burn Permits

Under the CCR 80120(e), special agricultural burning permits may be authorized by a district on no-burn days when all of the following conditions are met:

1. When denial of such permit would threaten imminent and substantial economic loss to a grower;
2. If the district limits the amount of acreage that can be burned on any one day; and,
3. The ARB forecasts downwind metropolitan areas will achieve the ambient air quality standards.

8B. Required Report for Special Burn Permits

A report of all special burn permits issued annually must be prepared by districts and transmitted to the ARB within 45 days of the end of the calendar year with the following information:

1. The number of special burn permits issued;
2. The date of issuance of each permit;
3. The person or persons to whom the permit was issued;
4. Estimate of the amount of wastes burned pursuant to the permit; and,

5. Summary of reasons why denial of each permit would have threatened imminent and substantial economic loss including the nature and dollar amounts of such loss.

Districts must report all acreage that is burned on no-burn days under special burn permits and any acres that were illegally burned or inadvertently burned during the intensive fall burn program in the daily computer files. Inadvertent burning of rice straw that has been removed from the field (i.e. baled straw) should be reported as miscellaneous burning in the computer files.

9. FEES

Sacramento Valley districts shall impose fees on growers to cover implementing this program (HSC 41865 (t)).

- a. The BCC may impose and may require that districts within the Sacramento Valley Air Basin collect a fee not to exceed five dollars (\$5) per permit issued by a district within the Sacramento Valley Air Basin for the purpose of administering all basinwide air pollution control efforts (HSC 41866).
- b. The state board may adjust the district burn permit fees to pay for the preparation of the report and its updates. It shall be the goal of the state board and the department that the cost of the report and its updates shall not exceed fifty thousand dollars (\$50,000) (HSC 41865(n)).

10. PENALTIES

For negligent or intentional acts, a violation of any provision of the law is a misdemeanor punishable up to a maximum fine of \$10,000 or nine months imprisonment or both. For a violation of any provision of the law a civil penalty may be assessed of up to a maximum of \$10,000.

11. PROGRAM OVERSIGHT, REVIEW, TRAINING AND EDUCATION

Each district shall select at least one staff person to coordinate and oversee the agricultural burning program and conduct daily analyses of the data. District staff will meet with SMPC and ARB in August or early September for a pre-fall program/training review prior to commencement of the fall burn period to review program procedures. In December, district staff will meet to analyze the fall program results including complaints if required.

The SMPC shall provide annual training to back-up personnel appointed by the TAC on the daily procedures for distributing acreage and issuing updates during the intensive fall burn program. The training shall include the following:

- a. Discussion of meteorological and air quality indicators used in determining the initial allocation;
- b. Process of receiving data from each district;
- c. Process of backing up the previous day's data;
- d. The equations and software used to distribute acreage to districts;
- e. Process and software for uploading comments;
- f. The distribution table to the daily files; and,
- g. The process for issuing updates.

Education refers to all parties involved in the Program including, but not limited to, the BCC, TAC, ARB, SMPC, district staff, and the growers in the SVAB to maintain a working knowledge of the Program. On an annual basis, each grower should be contacted and educated about the basic elements of the Program.

12. GUIDELINES FOR REVISING THE SMOKE MANAGEMENT PROGRAM

12A. Technical Justification

Changes shall be based on sound technical justification supported by reasonable scientific data. Authors of proposed changes to the Program shall cite and summarize in writing the scientific data justifying the change and demonstrating reasonable assurance that the proposed change will help achieve the goals of the agricultural burning management program.

12B. Retention of Local Control

Changes should maintain or support continued local control of the Program so as to maximize responsiveness to the needs of the public and the regulated community.

12C. Program Flexibility

Changes should maintain flexibility so that the Program can respond to dynamic air quality and meteorological conditions at the local and air basin level.

12D. Air Basin Consistency

Changes should promote consistency among the districts to ensure equitable application of Program policies and procedures while still recognizing variations as appropriate.

12E. Good Public Policy

Changes shall represent good public policy.

12F. Experimental Policies and Procedures

Changes intended for the purpose of gathering data while testing the benefits of a potential policy or procedural change, shall be prepared for review and approval by the Council as a formal Program amendment and incorporate into the Program. The change will have a sunset clause beyond which the change terminates unless continued by the Council following an evaluation of the data gathered to date.

12G. Comply with California Law

Changes shall recognize the intent of the Legislature by the enactment of Health and Safety Code Section 41850, that agricultural burning shall be reasonably regulated and not prohibited. This shall include taking into consideration several factors consisting of, but not limited to, the population of an area, geographical characteristics, meteorological conditions, the economic and technical impact of proposed rules and regulations and the importance of a viable agricultural economy in the SVAB.

13. TESTING POLICY

It is the BCC's policy to continuously improve the Program and test modifications to the standard allocation equation. The ARB or any district required to participate in the agricultural burning requirements of the Program may propose a test allocation system, with specific parameters and criteria, to be administered during the intensive fall burn program. The following criteria shall apply:

- a. The features tested shall be based on stated scientific and technologically sound criteria;
- b. The TAC shall meet and agree to the inclusive dates of the test prior to the test being administered;
- c. The district proposing the test program shall coordinate with the SMPC and ARB to administer the test;
- d. The SMPC shall provide such data as requested for the administration of the test, which is available as part of the implementation of the Program, including access to any software, databases and spreadsheets used in maintaining and logging any data maintained for the implementation of the Program;
- e. An individual test shall be administered for a specified period; and
- f. The district proposing the test shall collect data and present a detailed analysis and recommendation to the TAC within three months of the conclusion of the test.

14. PUBLIC MEETINGS, WORKSHOPS, AND HEARINGS

The BCC, TAC, and/or districts will (starting in January) conduct public workshops and hearings to solicit comments from interested persons on the goals and requirements or any changes of the Program prior to its adoption and implementation.

15. WILDLAND FIRE USE FIRES

If a fire is allowed to burn for resource benefit (also referred to as "wildland fire use" or WFU fire) within or near the SVAB, the TAC should review the potential for smoke impacts in the SVAB. If the smoke from the WFU fire adversely affects the air quality in the SVAB, the Smoke Management Plan for the fire shall be obtained. If the TAC considers the air quality impact significant, a letter should be sent by the Chairman of the BCC to the appropriate district(s) and to ARB, notifying them of the smoke impacts and asking that the smoke from the WFU fire be minimized.