

**LAKE COUNTY
AIR QUALITY MANAGEMENT DISTRICT**

885 Lakeport Blvd., Lakeport, CA 95453



SMOKE MANAGEMENT PLAN

Rules, Policies, and Procedures

- to comply with -

California Code of Regulations Title 17

Smoke Management Guidelines

for

Agricultural and Prescribed Burning

By the LCAQMD Staff

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February 2002

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-Background-

The Lake County Air Quality Management District Smoke Management Program consists of a set of Rules, Policies, and Procedures designed to manage the impacts of smoke on local air resources, to protect the health of the public and avoid being impacted by smoke, and comply with the California Code of Regulations, Title 17 [Smoke Management Guidelines for Agricultural and Prescribed Burning]. The program incorporates an aggressive residential component, and aspects of fire safety are intertwined with the air quality management approach. It is dependent upon the goodwill and assistance of the public, industry and numerous fire agencies within the Lake County Air Basin. Fire agencies are all delegated authority to issue permits and enforce applicable burning regulations.

The LCAQMD Smoke Management Program is implemented under Chapter II, Article IV (Appendix A) and Chapter VIII (Appendix B) of the LCAQMD Rules and Regulations. These have been properly filed with the state and submitted and incorporated into the SIP. If the relevant rules change, this program will change as needed to maintain compliance. Future changes in available resources (*e.g.*, level of state subvention) may also require changes within the program as described herein.

The Lake County Air Quality Management District comprises all of Lake County. The principal air basin lies between northwest / southeast-trending mountain ridges at the southern end of the northern Coast Range. A map showing the air basin is attached as Map A. Approximately 60% of the 1,200-square-mile basin area is USFS and BLM lands. The most prominent feature of the basin is Clear Lake, which is located at an elevation of 1320 feet and occupies the central portion of the basin. The basin-defining ridges rise to approximately 3,500 feet in the west and somewhat lower in the east. Portions of the Mendocino National Forest rise to the north and east of Clear Lake to peak elevations in excess of 7,000 ft. Mt. Konocti, elevation 4,200 feet, dominates the central portion of the Clear Lake basin. Most of Lake County, including Clear Lake, drains to the east down Cache Creek, whereas the southern part of the county drains to the southeast by Putah Creek. Most agricultural, commercial and residential development is around the shores of Clear Lake and in the southern part of the county around Middletown. Both are ancient lake-bottom land and subject to poor air dispersion.

Lake County has a population of approximately 58,000 full time residents. The population increases seasonally during the summer months as second homes and tourist accommodations are more fully utilized. The largest population center is on

the southeastern shore of Clear Lake within the City of Clearlake (pop. 14,000) and the community of Lower Lake. The county seat, Lakeport (pop. 5,000), lies on the western shore of the lake. Five smaller communities lie along the northeast shore. The remaining population centers are located around the base of Mt. Konocti, in the southern highlands around the Cobb Mountain area, and in the lowlands surrounding Middletown. Agricultural activities focus mainly on grapes, pears, and walnuts and are focused in the areas between Upper Lake and Kelseyville, adjacent to or near the Clear Lake sub-Basin. Substantial vineyards and walnut groves can also be found throughout the county, where smaller valleys, or red soil mountain slopes, create ideal micro-climates for these crops. Callayomi, Guenoc, High and Scotts valleys are good examples of these sub-Basins. Additional vineyards are expanding into the red soil gentle mountain slopes that abound within the basin.

Synoptic weather patterns typical of the northern California intermountain coastal climate dominate the Lake County Air Basin. The Pacific high-pressure system and thermal low-pressure conditions over the Great Basin interact during the summer create predominantly westerly wind conditions. Winters are dominated by northwesterly winds associated with winter storms. The Clear Lake basin experiences frequent temperature inversions that trap pollutants near the ground surface, especially in early morning hours. Upper air subsidence, which restricts upward dispersion, is typical of summer seasons. The highest pollutant concentrations are generally observed under stagnating weather patterns and are typically the result of locally derived pollutants, poorly carried out control burns, or wildfires. Sacramento Valley associated transport from the combustion of vegetation (agricultural, controlled and uncontrolled fires) on occasion intrudes though out the spring through late fall. The adoption of a summer-season burn ban combined with a low population density and minor industrial development has helped to attain all of the state AAQS.

The Agricultural Emissions Inventory for Lake County for the year 2000 is provided in Appendix C.

The completed package of rules has been developed, enacted, submitted to the EPA for inclusion into the State Implementation Plan (SIP). The LCAQMD has included that package in the out reach and review process. No plans exist for further rules, etc., at present, which will address agricultural burning. Residential burning rule changes are planned but are not the subject of this ARB required document.

The District's open burning rules are broken down into agricultural and non-agricultural burning. A copy has been previously submitted. The rules restrict most

burning to the period November through May 15th. The days are each further evaluated and designate limited hours of burning (9am-3pm) or extended hours of burning (daylight). These decisions are made daily by AQMD staff (see p. 7). Any day can be designated a no burn day should fire agencies request such to lower fire hazard, or AQMD staff believe a potential for exceed of any state AAQS exists. Limited burn days are designated if it is judged likely that 50% of any AAQS will be reached, or strong nocturnal inversions are expected to occur. Special conditions on individual permits allow other hours as agreed upon by AQMD staff.

-Program Resources-

The Lake County Air Quality Management maintains staffing resources available and sufficient to implement the Agricultural and Prescribed Burn program. Staff positions that are assigned to program functions include all LCAQMD staff, and cross training is substantial. The APCO, Deputy APCO/Meteorologist, Senior Air Quality Engineer and the Air Quality Program Office Technician and part time seasonal Compliance Officers are utilized.

The APCO, DAPCO/Meteorologist, AQE have the primary authority and duties to perform the planning, forecasting, decision making and enforcement functions as required to implement, and operate the burn program. Unannounced field inspections of burning activities are routinely conducted by Compliance Officers, and all other staff present in the field perform. Permits that are not complicated are issued by the office staff, or fire Districts. All smoke management plans are reviewed and issued by senior staff at the LCAQMD. The meteorological support and burn coordination element is the function of the Deputy APCO/Meteorologist, however the AQE and APCO have more extensive formal training in the atmospheric sciences and often carry out this function. All staff members are encouraged to gain skills in this area and participate in the daily burn status decision. The responsible District staff presently has a combined total of more than 60 years of local experience in the management of the District's air management programs, and attempts to use this experience to avoid historic problems.

The District utilizes a wide range of meteorological resources to enable it to successfully conduct its burning programs. These resources include close coordination with the ARB Meteorological staff and access to satellite imagery from the internet, coastal buoy weather stations, RAWS, UCD/IPM, GAMP remotely accessed local met stations, and are closely coordinate with neighbor AQMD visual observations. Locally, the District maintains or has access to more

than 20 meteorological stations within the District to obtain real time temperature and wind data at various elevations and locations throughout the air basin.

Air quality monitoring and meteorological data are collected at the District SLAMS station in Lakeport, as well as other key locations within the basin. The SLAMS site data includes Ozone, COH, nephelometer, PM-10, and PM 2.5 in addition to temperature and wind parameters. The collected data is utilized for forecast and verification purposes. Additional meteorological and PM-10 data are collected in the Middletown and Cobb areas to document Geysers geothermal facilities impacts, but can serve to evaluate agricultural and prescribed burning. The data of record collected by the District document full attainment of all state and federal AAQS in the Lake County Air Basin from 1987 through the present, and is incorporated into the EPA/AIRS system. Additionally, the District maintains a portable meteorological and PM-10 (battery powered) Station mounted in 4-wheel drive, but seldom makes use of it for burning evaluation purposes.

-Procedures to Minimize Smoke-

The enforceable mechanisms to achieve smoke minimization objectives described in Guidelines Section 80145(o) regarding content, arrangement, condition, timing, and ignition of burned materials are contained in LCAQMD Rules and Regulations, Sections 433 and 434 (Appendix A).

The rules, regulations, and other enforceable mechanisms to achieve agricultural burning smoke minimization objectives described in Guidelines Section 80150 are contained in LCAQMD Rules and Regulations, Sections 1130 and 1140 (Appendix B). Generally, large burns are done with a method of contact and burning is curtailed if we receive three or more health related complaints. The program has a long history of agency cooperation and success.

-Smoke Management Planning and Permitting-

A description of how burn permits are issued, who issues the permits, and what the requirements are for obtaining a permit, including submittal of smoke management plans for specified prescribed burns per Guidelines Sections 80145(j) and 80120 are found in Sections 1000, 1001, 1002 and Table 8 of the LCAQMD Rules (Appendix B) and attached Agricultural Burning Permit (Appendix C1 and C2) and Lot Clearing Permit for Development or conversion of land (Appendix D).

The Lake County Air Quality Management District issues three types of agricultural permits, Agricultural Burn Permits, Tule Burning Permits and Lot Clearing Permits. The first step in permitting is to find out what the applicant intends to burn, the location for the burn, and how much material will be burned. (A Smoke Plan may be needed and is issued at present by senior staff). The rules and conditions of the burn permit are reviewed with applicants, along with the requirement that they avoid illegal material and must call the burn message line for burn status prior to burning.

Agricultural Burn Permits are needed if any of the following criteria are met:

- Property is 5 acres or more;
- The fire will burn 1/4 acre or more of grass, weeds, or agricultural prunings;
- More than 1/4 acre of orchard is being removed (a Smoke Plan may be needed);
- The burn is for forest management (a Smoke Plan may be needed);
- The burn is for Rangeland Improvement (a Smoke Plan may be needed).

Special permits are required for burning tules. These fires require specific approval on the day of the burn, and approval is only granted when weather conditions are such that both smoke and ash dispersal are unlikely to produce adverse effects.

Lot Clearing Burn Permits are required if either of the following criteria are met:

- Vegetation is being removed from land being cleared for construction or sale;
- Burn pile(s) are larger than 6 feet in diameter.

The description of how prescribed burn planning will occur to meet Section 80160 Guideline elements, including registration and information requirements for burns of different types, locations, sizes, and potential to impact smoke sensitive areas are found in Section 1160 of the LCAQMD Rulebook and attached Smoke Management Plan.

The District has a long history of dealing with smoke impacts through its Smoke Management Program, which effectively minimizes smoke impacts, protects public health, ensures compliance with Air District rules, policies and procedures, and thereby meets the requirements of the California Code of Regulations, Title 17, Smoke Management Guidelines for Agricultural and Prescribed Burning.

-Burn Decision Notification-

The ARB specifies the permissive burn/no-burn status for the Lake County Air Basin on a daily basis per Section 80300 of the California Code of Regulations. The Air district obtains this information from the ARB recorder. The Air District staff may change an ARB permissive burn day determination to no-burn or limited burn based on certain local conditions. If there is a potential to exceed any ambient air quality standard, or if a fire agency believes fire danger is too high, Air District staff may issue a no-burn-day determination. The Air District may declare a limited burn day if it is judged likely that 50% of any ambient air quality standard will be reached or strong nocturnal inversions are anticipated. Once Air District staff makes a final determination for that day, they update the Burn Day Status telephone answering machines for Lakeport, Clearlake, and Middletown. In addition, local newspapers and radio stations are used to notify the public of Burn Day status. Fire agencies typically add the status to an outdoor display at fire stations. North Coast Communications places the daily status on its website.

The LCAQMD does not issue 96-hour trend, 72-hour outlook, and 48-hour forecast notices, and believes that burners who want to be considered responsible must subject themselves to a careful evaluation the day of the burn, though we are willing to express rough estimates and offer tentative advice in advance. We discourage but do not object to them getting advice from the ARB staff, but believe that forecasting 96 hours ahead of the burn is relatively uncertain and of limited value. Prior day advisory, or heads up alerts are given, and rely on the same resources as indicated for burn day designations, but with a more careful look specific to the site.

Air District staff issue authorizations for agricultural and prescribed burning in advance of a burn or on a daily basis. The announcement is usually made prior to 15:30 hours for the next day. Often these announcements include additional educational, or current meteorological driven, information unique to that day's circumstances. Permits are issued subject to final approval (or postponement) on the day of the burn, which is based on the latest assessment of meteorological conditions as they relate to smoke dispersal and public safety.

-Addressing Smoke Impacts-

Whenever meteorological conditions suggest that a burn would have a significant impact on a smoke-sensitive area, permission for the burn is withheld until conditions improve. The responsible party is encouraged to meet with public groups; radio, newspaper, and/or TV notification are used in risky cases or when considerable potential for impact is likely. We do not require posting of signs except for unusual situations.

Whenever a burn within the LCAQMD jurisdiction appears likely to impact neighboring Districts, we advise them by telephone, and they do the same for us. Communications are established early, and have been working well for more than a decade, and are complementary to the new ARB requirements. We often exchange plans early in the fire season and compare experiences on the competence and success record of burners.

-Consideration of Alternatives to Burning-

The air district will analyze and assess alternatives to burning on a periodic basis per the Guidelines in Section 80145(1). We will continue to encourage public agencies to pursue all alternatives, and each planned fire over twenty acres will address this point. The AQMD has co-funded a chipper, and promotes non-burning alternatives for residential and near-residential fire hazard reduction projects. We serve on the Lake County Fire Safe Council and work to promote alternatives to burning when possible, and fire safety and wise practices when burning is necessary.

-Management of Naturally Ignited Wildland Fires-

The District's Agricultural and Prescribed Burn Program and implementing regulations designate the smoke management element from naturally ignited wildland fires as the responsibility of the Fire Agency and Air Resources Board for the decision to allow continuation of the fire under a prescribed fire plan. The District-adopted regulation reads as follows:

LCAQMD Rule Section 1160.(K): For all wildfires, if a land manager chooses to treat a wildfire as a prescribed burn, the land manager or responsible official shall: 1) first submit to the responsible Fire Agency and District a statement that the wildfire is considered safe and manageable as a prescribed burn and that it is desirable to manage the wildfire as a prescribed burn, as allowed by California

Code of Regulation – Title 17; 2) immediately request from the state Air Resources Board permission to continue to treat the initial wildfire as a managed prescribed burn; and 3) ensure full compliance with California Code of Regulation – Title 17 throughout the burn including submittal of a smoke management plan as required by Title 17 section 80160(i).

The District will be cooperative and provide the ARB staff assistance and input as to the existing and expected local meteorological conditions and make smoke management recommendations as determined desirable to manage compliance with the AAQS and public impacts.

-Inspection and Enforcement-

The District maintains an effective permitting and enforcement program to ensure that compliance with the agricultural and prescribed burning program is accomplished. District staff is available during all non business hours by phone and commonly answer complaints during weekends and evening hours. All public complaints are formally logged and acted upon promptly, and the vast majority of complaints are resolved within 24 hours. Records of all complaint and enforcement actions and outcomes are maintained in computerized databases, and every complaint is reviewed for further action by the APCO prior to filing or closing the issue. These records are also maintained as hard copy records with the most recent 3 years maintained as active files. Enforcement procedures include NTC, NOVW, NOV, Notice to Appear and Civil and Criminal referral options. Enforcement action is conducted in accordance with CARB and District Board adopted mutual settlement offers, policy and guidelines. Follow up civil prosecution is often difficult for the District Attorney's Office to accomplish, and the District will investigate alternatives to accomplish civil action in the future.

-Reporting Requirements-

Section 80130(a) reporting procedures: See letter of 2/27/2001 to M. Kenny from R.L. Reynolds, and Appendix B1.

Section 80130(b) reporting procedures: See Appendix B2. We have been submitting these reports annually since 1990 and anticipate continuing this approach.

Prescribed fires over 250 acres will be reported prior to the burn and subsequently in a follow up report to ARB after the burn. Smoke Management plans are

submitted consistent with the present recommended standard form (State – IASC), which may be modified as we improve upon our approach. These burns will be reported through PFIRS if functional and accessible in the future. Updates are given daily for all prescribed fires to the AQMD by burners.

List of Appendices

Appendix A – LCAQMD Burning Rules and Regulations

Appendix B1- letter of 2/27/2001 to M. Kenny from R.L. Reynolds.

Appendix B2 - Agricultural Burning Emissions Inventory for Lake County for the year 2000.

Appendix C1 - Agricultural Burning Permit

Appendix C2 - Agricultural Standing Tule Burning Permit

Appendix C3 - Lot/Land Development Burning Permit

Appendix C4 – Agricultural Burning Permit and Smoke Management Plan for less than 100 acres of burning.

Appendix A Lake County Air Quality Management District Burning Rules and Regulations

Section 203 Agricultural Burning:

(1) “Agricultural burning” means open outdoor fires used in 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.

(2) “Agricultural burning” also means open outdoor fires used in the operation or maintenance of a system for the delivery of water for the purposes specified in paragraph (1).

(3) “Agricultural burning” also means open outdoor fires used in wildland vegetation management burning, prescribed burning, or forest improvement burning.

Section 204.5: “Air Quality” means the characteristics of the ambient air as indicated by state ambient air quality standards which have been adopted by the state board pursuant to section 39606 of the Health and Safety Code and by National Ambient Air Quality Standards which have been established pursuant to Sections 108 and 109 of the federal Clean Air Act pertaining to criteria pollutants and section 169A of the federal Clean Air Act pertaining to visibility.

Section 208.3: “Burn Plan, or Smoke Management Plan” means an operational plan for managing a specific fire to achieve resource benefits and specific management objectives. The plan includes, at a minimum, the project objectives, contingency responses for when the fire is out of prescription with the smoke management plan, the fire prescription (including smoke management components), and a description of the personnel, organization, and equipment.

Section 208.8: “Burn Day or Permissive Burn Day” means a day on which burning is allowed and is not prohibited pursuant to these rules and Regulations, the California Health and Safety Code, or by other agencies having jurisdiction. Hours of burning are limited to 9 AM to 3 PM unless the day is designated an extended burn day. On extended burn days open burning is allowed during the period of the day from sunrise to sunset.

Section 226.4: “Fire Protection Agency” or “Fire Agency” means any agency with the responsibility and authority to protect people, property, and the environment from fire, and having jurisdiction within a district or region.

Section 226.5: “Fire Season Burn Ban” means that period of each year from May 15 to the end of fire season, as proclaimed by the Director of the California Department of Forestry and Fire Protection or, in the event that fire and meteorological conditions in the Air Basin differ from those prevailing elsewhere within the California Department of Forestry, Region 1, as proclaimed by the Lake County Board of Supervisors (see applicable Lake County Ordinances for proclamation procedure).

Section 240.8: “No Burn Day” means any day so designated pursuant to District rule, or by the state Air Resources Board, or any fire agency(s) or emergency declaration by an official, entity, or board having lawful jurisdiction in which burning is prohibited.

Section 246: “Particulate Matter” means any airborne finely divided material, except uncombined water, which exists as a solid or liquid at standard conditions (e.g., dust, smoke, mist, fumes or smog). “PM2.5” means particles with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers. “PM10” means particles with an aerodynamic diameter less than or equal to a nominal 10 micrometers (including PM2.5).

Section 248.3: “Pre-fire Fuel Treatment” means techniques that can reasonably be employed prior to prescribed burning in order to reduce the emissions that would otherwise be produced in a prescribed fire.

Section 248.5: “Prescribed Burning” means the planned application of fire to vegetation on lands selected in advance of such application, where any of the purposes of burning are specified in the definition of agricultural burning as set forth in Title 17, California Code of Regulation.

Section 249.5: “Range Improvement Burning” means the use of open fires to remove vegetation for a wildlife, game, or livestock habitat or for the initial establishment of an agricultural practice on previously uncultivated land.

Section 251.7: “Smoke Sensitive Areas” are populated areas and other areas where a district determines that smoke and air pollutants can adversely affect public health or welfare. Such areas can include, but are not limited to, cities, towns, villages, campgrounds, trails, populated recreational areas, hospitals, nursing homes, schools, roads, airports, public events, shopping centers, and mandatory Class I areas.

Section 270: “Wildland Vegetation Management Burning” means 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 (Title 17, California Code of Regulation).

Section 431 Non-agricultural Burning: Except as otherwise provided in these Rules and Regulations, no person shall ignite or cause to be ignited or suffer, allow, use or maintain any open outdoor fires for the purpose of disposal or burning of petroleum wastes, demolition debris, tires, trees, wood waste, or other combustible or flammable solid or liquid waste; or for metal salvage or burning of motor vehicle bodies or portions thereof.

Section 431.5: Non-Agricultural Open Burning is prohibited in the Lake County Air Quality Management District: 1) on any day designated pursuant to Section 1010; 2) on no burn days; and 3) during fire season as defined in Section 226.5. Activities conducted pursuant to Sections 432, 432.5 and 442 shall be exempt from the requirements of this section.

Section 433: Nothing in this Article shall be construed as prohibiting burning during the hours of 9 AM to 3 PM for the disposal of combustible or flammable solid waste originating solely from a single or two-family dwelling; and includes paper and cardboard, but does not include garbage, cloth, plastics, petroleum products, metal, material soiled by food or fecal matter or any similar smoke producing materials, on its premises, on designated permissive burn days.

Material to be burned must be properly dried and all open burning shall be conducted in a manner to minimize smoke and promote quick and complete combustion. The use of an incinerator-type device including those commonly known as a “burn barrel” is prohibited.

Section 434: Nothing in this Article shall be construed to prohibit burning of vegetation from right-of-way clearing conducted by a public entity or utility or for levee, reservoir and ditch maintenance on designated permissive burn days. No such material may be burned pursuant to this Section unless: (a) agricultural burning is permitted on that day; (b) the material has been prepared by stacking, drying or other methods to promote combustion as specified for agricultural crops; and (c) hours limiting and dates of allowed burning are consistent with agricultural burning limitations of these rules and Regulations.

Section 1000 Agricultural and Prescribed Burning: The following Rules and Regulations are adopted in accordance with Section 41863 of the Health and Safety Code and the Air Resources Board's Smoke Management Guidelines for Agriculture and Prescribed Burning, (Title 17, California Code of Regulation).

Section 1001: Except as otherwise provided in these Rules and Regulations, no person shall ignite or cause to be ignited or suffer, allow, use or maintain any open outdoor fires for the purpose of disposal or burning of petroleum wastes, demolition debris, tires, trees, wood waste, or other combustible or flammable solid or liquid waste; or for metal salvage or burning of motor vehicle bodies or portions thereof. A burning permit shall be required for agricultural burning and shall contain the following statement: "This permit is valid only on those days during which agricultural burning is not prohibited by the State Air Resources Board."

Section 1003 Special No-Burn Day Permit: The District may issue a special permit to authorize agricultural burning on days designated by the Air Resources Board or the Air Pollution Control Officer as no-burn days if denial of such permit would threaten imminent and substantial economic loss. Economic exemptions

shall be issued pursuant to the California Health and Safety code (Sec 41862) and these rules and Regulations. The District may place conditions on any permit to promote prompt burning and ensure good dispersion to minimize smoke impact. In reaching a decision to issue a special permit, the District shall also consider expected meteorology, extent of effort expended to accomplish the burn without an exemption, and likely effects on other persons or the public.

Section 1105 Burning Hours: Burning hours for agricultural purposes in the Lake County Air Management District are as follows:

- A. Fire season, as defined in Section 226.5, 8 AM through 12 noon unless other hours are authorized by the Fire Agency and District; and
- B. Non-Fire Season, 9 AM through 3 PM, except for grass, leaf or field crops which shall be 11 AM through 3PM unless other hours are specified in the issued permit.

Section 1107 Agricultural Burning During Fire Season: Agricultural burning may be conditionally permitted during the period of the year defined in Section 226.5 as fire season subject to the following:

1. Reasonable economic need is established by the applicant.
2. By on site inspection, or other means, the Fire Agency determines that for fire safety the proposed burn is acceptable.
3. The Fire Agency staff directly informs the District of its approval and any condition(s) for the proposed burn, and the responsible person obtains an economic exemption permit from the District.
4. Applicant agrees to notify the Fire Agency on the day of the burn immediately prior to the burn and to conduct the burn to the extent possible between the hours of 8 AM through 12 noon or at an agreed upon specific time identified in the issued permit.

Exceptions set forth in Section 432 are applicable

Section 1130 Open Burning in Agricultural Operations in the Growing of Crops or Raising of Animals: The following Regulations shall apply:

- A. All burning shall be ignited by approved ignition devices such as fuses, orchard torches, propane torches, pressurized flamethrower-type torches, jellied petroleum devices, matches, fuselights, commercial fuses, fuel blivets, drip torches, diesel sprayers or other such approved devices.
- B. All material to be burned shall be free of material that is not produced in an agricultural operation as defined in these Regulations. Tires, tarpaper and other rubbish likely to cause excessive smoke shall not be burned.

C. All material to be burned shall be arranged so that it will burn with a minimum of smoke and be reasonably free of dirt, soil and visible surface moisture.

D. Materials shall be dried as follows:

1. Trees and branches over six (6) inches in diameter: sixty (60) days.
2. Prunings and smaller branches: fifteen (15) days.
3. Field crops, brush and weeds cut in a green condition: seven (7) days.
4. Other materials: drying time will be determined by the designated agency.
5. Designated agencies may modify the above drying times as conditions warrant.

E. The total amount of material that may be burned in each designated district watershed shall not exceed that set forth in Table 9.

F. Maximum care must be taken to keep smoke from drifting into populated areas such as the incorporated cities and their immediate surrounding populace. Wind direction, topography, thermal inversion and population density shall be considered to minimize smoke reaching nearby populated areas.

G. Burning of empty sacks or containers which contained pesticides or other toxic substances may be permitted on "no-burn" days providing the sacks or containers are within the definition of "Open Burning in Agricultural Operations in the Growing of Crops or Raising of Animals" as specified by definition.

Section 1140 Range Improvement Burning: The following Regulations shall apply to all range improvement burning for livestock, wildlife or range conversion of uncultivated lands, provided public complaints and smoke impact have not historically occurred, nor are they expected to occur, otherwise such burning shall be performed pursuant to Section 1160 Prescribed Burning.

A. After obtaining an agricultural burn permit, range improvement burning may be conducted on no-burn days only after receiving an exemption pursuant to this Chapter. If more than fifty (50) percent of the land has been brush treated, the burn is remote from populated areas, past burning has not caused smoke impacts or public complaint, and the proposed burn is not expected to cause smoke impacts, the District may give consideration to such factors in any decision to grant an exemption for multiple days or require a smoke management plan. The Air Resources Board may prohibit all range improvement burning if, in the opinion of the Air Resources Board, the prohibition is required for the maintenance of air quality.

B. All burning shall be ignited by approved ignition devices, such as fuses, orchard torches, propane torches, pressurized flamethrower-type torches, jellied petroleum devices, commercial jellied petroleum pumps, commercial grenade devices, matches, fuselights, commercial fuses, fuel blivets, drip torches, diesel sprayers or other such approved devices.

- C. The total amount of material that may be burned in each designated district watershed shall not exceed that set forth in Table 9.
- D. Wastes to be burned shall be free of tires, tarpaper or other types of rubbish likely to cause excessive smoke.
- E. Wastes shall be ignited as rapidly as practicable within applicable fire control restrictions.
- F. Maximum care must be taken to keep smoke from drifting into populated areas. Wind direction, topography and population density, shall be considered to minimize smoke reaching nearby populated areas.
- G. Brush is to be treated at least six (6) months prior to burning if economically and technically feasible.
- H. Unwanted trees over six (6) inches in diameter shall be felled and dried at least sixty (60) days.
- I. If the burn is to be done primarily for the improvement of land for wildlife and game habitat, the applicant must obtain a statement from the Department of Fish and Game that the burn is desirable and proper. Such statements must be filed with the designated agency and the Air Quality Management District.
- J. All material to be burned shall be free of debris or material that is not grown on the property.

**TABLE 9
DAILY QUOTA OF AGRICULTURAL MATERIAL
THAT MAY BE BURNED BY WATERSHED**

<u>Watershed</u>	<u>Acreage (or Tonnage) per Day*</u>
Clear Lake	5,000 acres (150,000 tons)
Putah Creek	2,000 acres (60,000 tons)
Scotts Creek	2,000 acres (60,000 tons)

* Acreage based on average fuel density of thirty (30) tons per acre. Acreage must be adjusted downwardly in the event the average fuel density exceeds thirty (30) tons per acre. Acreage may be adjusted upwardly if fuel density is less than thirty (30) tons per acre. Adjustment of acreage will be at the discretion of the Fire Agency or District based on Table 10 "Guides for Estimating Dry Weights of Several California Fuel Types", the air quality and the fire control conditions.

Daily quota is the maximum permissible material that may be burned. Neither the Fire Agency nor the District is required to allow the maximum amount permissible on any given burn-day.

Section 1145 Forest Management Burning: The following Regulations shall apply to forest management burning, provided public complaints and smoke impact have not historically occurred, nor are they expected to occur, otherwise such burning shall be performed pursuant to Section 1160 “Prescribed Burning”:

- A. After obtaining an agricultural burn permit, forest management burning may be conducted on burn days, or on no-burn days after receiving an economic exemption pursuant to this Chapter.
- B. All forest management burning shall be ignited by approved ignition devices such as fuses, orchard torches, propane torches, pressurized flamethrower-type torches, jellied petroleum devices, commercial jellied petroleum pumps, commercial grenade devices, matches, fuses, commercial fuses, fuel blivets, drip torches, diesel sprayers or other such approved devices.
- C. The total amount of material that may be burned in each designated district watershed shall not exceed that set forth in Table 9.
- D. Wastes shall be ignited as rapidly as practicable within applicable fire control restrictions.
- E. Maximum care must be taken to keep smoke from drifting into populated areas such as the incorporated cities and their immediate surrounding populace. Wind direction, topography, thermal inversion and population density shall be considered to minimize smoke reaching nearby populated areas.
- F. Materials to be burned shall be dried for minimum periods as determined by the designated agency.
- G. All material to be burned shall be free of debris or material that is not grown on the property.

Section 1150 Burning of Standing Tule: The following shall apply to the use of open fires for the burning of standing tule for agricultural or habitat improvement purposes:

- A. An Agricultural Burning Permit is required. Burning shall be permitted by special permit issued by the District if desirable meteorology for the duration of the planned burn is anticipated, consistent with C and D below, and economic considerations warrant.
- B. The District shall be contacted for concurrence on the date of the planned burn prior to burning, and the District may, when necessary to preserve air quality, elect to delay the burn. In making such a decision to delay, the District shall consider the quantity and condition of tules to be burned, location of burn site, proximity to receptors and prevailing meteorological and ambient air quality conditions. The fire protection agency shall also be notified by the permit holder prior to the burn on the day of the burn.

C. Maximum care must be taken to keep smoke and ash from drifting into residential areas and the immediate surrounding populace. Wind direction, topography, thermal inversion and population density shall be considered by the responsible adult in charge of the fire in an effort to minimize smoke or ash reaching nearby residential areas in any decision to burn.

D. As part of obtaining a permit the applicant shall provide the District a simple map showing the location of the burn and the nearby residential areas, and a statement that the tules to be burned have not been burned during the prior season.

E. The burn shall be ignited as rapidly as practicable within applicable fire control restrictions using an approved ignition device such as an orchard torch, propane torch, pressurized flame thrower-type torch, jellied petroleum device, matches, fuse lighter, commercial fuse, drip torch, diesel sprayer or other such approved device.

F. All material to be burned shall be free of material that is not grown on the property where the tules are to be burned. Tires, tar paper and other rubbish shall not be burned.

Section 1160 Prescribed Burning, Habitat Improvement Burning, Wildland Vegetation Burning and Forest Management Burning shall be subject to the following:

A. Any such burning as defined in section 270 shall require an agricultural burning permit unless performed by a Fire Agency authorized to issue agricultural burning permits and that agency files a plan with the District.

B. Procedures for economic exemption from a designated no burn day shall be as described in Section 1003, but the APCO may additionally consider existing and predicted meteorological conditions effecting the specific planned burning activity and the likelihood of air quality degradation in granting such an economic exemption.

C. All wildland vegetation management burning shall be ignited by a District approved ignition device such as helicopter torches, orchard torches, propane torches, pressurized flamethrower type torches, jellied petroleum devices, commercial grenade devices, matches, commercial fuses, approved fuel blivets, drip torches, diesel sprayers, or other approved devices. Ignition shall be accomplished in a manner to minimize the amount of smoke generation and as rapidly as possible, unless good vegetation management or fire protection practices dictate otherwise.

D. The total amount of all types of agricultural material, inclusive of wildland vegetation management, that may be permitted to be burned on any one day in each designated watershed of the District shall not exceed that set forth in Table 9. The amount of total acreage may be further limited by the District if prevailing meteorology and air quality, or the type of planned burn, threatens serious air quality degradation or violation of Ambient Air Quality Standards.

E. Burning shall be accomplished in a manner to avoid violation of state or federal Ambient Air Quality Standards or the creation of a public nuisance. Maximum care must be taken to keep smoke from drifting into populated areas such as community centers or incorporated areas and their immediate surrounds populace. Wind direction, topography, thermal lapse rate, thermal inversions and population density shall be considered to minimize smoke reaching nearby populated areas, and addressed within a smoke management plans.

F. Materials to be burned shall be in a condition to promote combustion or as specified in the approved smoke management plan (plan).

G. Land on which vegetation is to be burned shall be free of tires, rubbish, tarpaper, construction debris, plastic wastes, or other types of material likely to cause excessive or toxic smoke.

H. Wastes to be burned shall be reasonably free of dirt, soil and visible surface moisture.

I. Planned burns greater in size than 20 acres, or which are likely to have a smoke impact in the District's opinion, or pose a potential danger for escape in the Fire Agency's opinion, or actually have a history of public complaints, shall submit and implement a smoke management plan (one plan may cover several phases of burning in a given area). Burners must obtain District authorization to burn on each day of the burn. To the extent feasible, plans are to be submitted annually six months in advance of the proposed burn detailing the following:

- (1) Location, types, and amounts of material to be burned.
- (2) Expected duration of the fires from ignition to burn down.
- (3) Identification of a responsible person to include address, telephone number, cellular telephone numbers, or other means of prompt contact.
- (4) A map of the wildland to be treated showing the location of land to be treated and identification and recognition of smoke sensitive areas.
- (5) Identification of meteorological conditions necessary for the planned burning.
- (6) The smoke management criteria the land manager or the designee will use for making burn ignition decisions.
- (7) Projections, including a map, of where the smoke from burns is expected to disperse for both day and night.
- (8) The land manager or designee conducting a prescribed burn, shall obtain the concurrence of the District and ensure that conditions and requirements contained in the smoke management plan are met and expected to continue to be met for the duration of the planned burn at the time of ignition.
- (9) If the planned prescribed burn is greater than 100 acres, or in the District's opinion has a likelihood of causing smoke impacts, items 1-8 above plus the following shall be included in the plan: (a) identification of specific contingency actions (such as fire suppression or containment) that will be

taken if smoke impacts occur or meteorological conditions deviate from those specified in the smoke management plan; (b) daily contact with the District prior to ignition and during each day of burning shall be made by the land manager or designee; (c) a statement that alternatives to burning have been considered and determined not to be feasible; (d) public notification procedures to be utilized; and (e) identification of appropriate monitoring to include visual monitoring, ambient particulate matter monitoring, or other monitoring, as approved, or required by the District.

(10) If the planned prescribed burn is greater than 250 acres or a multi-day fire (it is not expected to burn down overnight) items 1-9 above plus: (a) the District will provide notice to the ARB and consult with the ARB on procedures for ARB review and approval; (b) the ARB shall have the right to disapprove any burn approved by the District prior to ignition; and (c) the land manager or designee shall perform and file in conjunction with the District a post-burn smoke management evaluation within 7 days of the fire.

J. For burns on which a smoke management plan has been reviewed and approved by the ARB, and after request by a designated agency, seven days in advance of any planned burn, the State of California Air Resources Board on a case by case basis, may issue wildland vegetation management no-burn or permissive burn notices 48 hours in advance of such planned burning. Notwithstanding such advanced notice the ARB shall cancel permissive burn notices issued more than 24 hours in advance if the cancellation is necessary to maintain suitable air quality (i.e. no AAQS violations).

K. For all wildfires, if a land manager chooses to treat a wildfire as a prescribed burn, the land manager or responsible official shall: 1) first submit to the responsible Fire Agency and District a statement that the wildfire is considered safe and manageable as a prescribed burn and that it is desirable to manage the wildfire as a prescribed burn, as allowed by Title 17, California Code of Regulation; 2) immediately request from the state Air Resources Board permission to continue to treat the initial wildfire as a managed prescribed burn; and 3) ensure full compliance with Title 17, California Code of Regulation throughout the burn including submittal of a smoke management plan as required by section 80160(I) of Title 17 of the California Code of Regulation.

Section 1170 Wood Waste Burning from Tree Crop or Land Use Conversion:

The following regulations shall apply to the use of open fires for the disposal of wood waste from property being developed for agricultural use, or tree crop removal burning, purposes:

A. All burning shall be ignited by approved ignition devices such as fuses, orchard torches, propane torches, pressurized flamethrower-type torches, jellied petroleum

devices, matches, fuselighters, commercial fuses, fuel blivets, drip torches, diesel sprayers or other such approved devices.

B. All material to be burned shall be free of material that is not produced in the clearance or grown on the property where the waste is to be burned. Tires, tarpaper and other rubbish likely to cause excessive smoke shall not be burned.

C. All material to be burned shall be arranged so that it will burn with a minimum of smoke and be reasonably free of dirt, soil and visible surface moisture.

D. Material shall be dried as follows:

1. Trees and branches over six (6) inches in diameter: sixty (60) days.
2. Vines and brush: thirty (30) days.
3. Prunings and smaller branches: fifteen (15) days.
4. Designated agencies may modify the above drying times as conditions warrant.

E. The total amount of material that may be burned in each designated district watershed shall not exceed that set forth in Table 9.

F. The burn shall be ignited as rapidly as practicable within applicable fire control restrictions.

G. Maximum care must be taken to keep smoke from drifting into populated areas such as the incorporated cities and their immediate surrounding populace. Wind direction, topography, thermal inversion and population density shall be considered to minimize smoke reaching nearby populated areas.

H. Unwanted trees over six (6) inches in diameter shall be felled and dried at least sixty (60) days.

I. Brush must be crushed, uprooted or desiccated with herbicides at least six (6) months prior to burning if economically and technically feasible.

J. An Agricultural Burning Permit (Land Clearing Permit) is required, and is valid only on burn days.