

# FINAL REGULATION ORDER

## Subchapter 2. Smoke Management Guidelines for Agricultural and Prescribed Burning

### Article 1. General Provisions

[Note: The amendments to section 80101 are identified by underline for the additions and ~~strikethrough~~ for deletions.]

Amend section 80101, title 17, California Code of Regulations (CCR), to read as follows:

#### **§80101. Definitions.**

- (a) “Agricultural burning” is defined in Health and Safety Code section 39011 as follows:
  - (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. 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. Prescribed burning is the planned application of fire to vegetation to achieve any specific objective on lands selected in advance of that application. The planned application of fire may also include natural or accidental ignition.
- (b) “Air Pollution Control District” (APCD), “Air Quality Management District” (AQMD), “air district,” or “district” means an air pollution control district or an air quality management district created or continued in existence pursuant to provisions of Health and Safety Code section 40000 et seq.
- (c) “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.

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- (d) "Ambient air" means that portion of the atmosphere, external to buildings, to which the general public has access.
- (e) "ARB" or "state board" means the Air Resources Board.
- (f) "Basinwide air quality factor" means an air quality factor which equals the 4:00 am to 6:00 am two hour average soiling index (COH\*10) ending at 6:00 am PST. The basinwide council may use other particulate matter measurements as an indicator of air quality if appropriate for its program.
- (g) "Biased Inspection Site" means an inspection site chosen, at the discretion of a field inspector, based upon the presence or anticipated presence of disease symptoms.<sup>1</sup>
- (gh) "Burn 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.
- (hi) "Burn project" means an active or planned prescribed burn or a naturally ignited wildland fire managed for resource benefits.
- (ij) "Class I Area" means a mandatory visibility protection area designated pursuant to section 169A of the federal Clean Air Act.
- (k) "Conditional Rice Straw Burn Permit" means a permit issued pursuant to sections 41865(f) and (h) of the Health and Safety Code by an Air Pollution Control Officer (APCO) to conduct one burn, on one field, within one year or shorter time period, as specified.
- (l) "Conditional Rice Straw Burn Permit Applicant" means the individual (or his/her agent) with control over the property containing the rice fields proposed for burning.
- (jm) "Designated agency" means any agency designated by the Air Resources Board as having authority to issue agricultural burning, including prescribed burning, permits. An air district may request such a designation for an agency. The U.S. Department of Agricultural (USDA) Forest Service and the California Department of Forestry and Fire Protection (CDF) are so designated within their respective areas of jurisdiction.

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<sup>1</sup> The terms "biased inspection site" and "unbiased inspection site" refer to inspection sites selected solely upon their biological characteristics. They could also be called "biologically biased inspection site" and "biologically unbiased inspection site" for this reason.

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- (n) “Disease Significance Threshold” means an estimated amount (expressed as a percentage of diseased stems) of a qualifying disease expected to result in significant decreased grain production (during the current or next growing season).
- (ko) “Fire protection 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.
- (lp) “Forty-eight hour forecast” means a prediction of the meteorological and air quality conditions that are expected to exist for a specific prescribed burn in a specific area 48 hours from the day of the prediction. The prediction shall indicate a degree of confidence.
- (q) “Growing Season” means the period of time from seedbed preparation through crop harvest.
- (mr) “Land manager” means any federal, state, local, or private entity that administers, directs, oversees, or controls the use of public or private land, including the application of fire to the land.
- (ns) “Marginal burn day” means a day when limited amounts of agricultural burning, including prescribed burning, for individual projects in specific areas for limited times is not prohibited by the state board and burning is authorized by the district consistent with these Guidelines.
- (ot) “National Ambient Air Quality Standards (NAAQS)” mean standards promulgated by the United States Environmental Protection Agency that specify the maximum acceptable concentrations of pollutants in the ambient air to protect public health with an adequate margin of safety, and to protect public welfare from any known or anticipated adverse effects of such pollutants (e.g., visibility impairment, soiling, harm to wildlife or vegetation, materials damage, etc.) in the ambient air.
- (pu) “Ninety-six hour trend” means a prediction of the meteorological and air quality conditions that are expected to exist for a specific prescribed burn in a specific area 96 hours from the day of the prediction.
- (qv) “No-burn day” means any day on which agricultural burning, including prescribed burning, is prohibited by the state board or the air district in which the burning will occur.
- (fw) “Open burning in agricultural operations in the growing of crops or raising of fowl or animals” means:
- (1) The burning in the open of materials produced wholly from operations in the growing and harvesting of crops or raising of fowl or animals for the primary purpose of making a profit, of providing a livelihood, or of conducting agricultural research or instruction by an educational institution.
  - (2) In connection with operations qualifying under paragraph (1):
    - (A) The burning of grass and weeds in or adjacent to fields in cultivation or being prepared for cultivation.

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- (B) The burning of materials not produced wholly from such operations, but which are intimately related to the growing or harvesting of crops and which are used in the field, except as prohibited by district regulations. Examples are trays for drying raisins, date palm protection paper, and fertilizer and pesticide sacks or containers, where the sacks or containers are emptied in the field.
- (~~sx~~) "Particulate matter (PM)" 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).
- (~~ty~~) "Permissive-burn day," or "burn day" means any day on which agricultural burning, including prescribed burning, is not prohibited by the state board and burning is authorized by the district consistent with these Guidelines.
- (~~uz~~) "Pre-fire fuel treatment" means techniques which can reasonably be employed prior to prescribed burning in order to reduce the emissions that would otherwise be produced in a prescribed fire.
- (~~vaa~~) "Prescribed burning" - see (a)(3). Tule burning in wildlands or wildland/urban interface is considered to be prescribed burning.
- (~~wbb~~) "Prescribed fire" means any fire ignited by management actions to meet specific objectives, and includes naturally-ignited wildland fires managed for resource benefits.
- (~~cc~~) "Qualified Rice Disease Inspector" means any person certified in accordance with the provisions of section 81057 of this regulation, other than agricultural commissioner staff, who conducts rice disease inspections on behalf of rice growers.
- (~~dd~~) "Qualifying Disease" means a rice disease that may cause significant yield loss and which the Secretary for the California Department of Food & Agriculture (CDFA) finds is controlled or effectively managed by the burning of straw, provided the ARB and CDFA have not determined, in accordance with section 41865(h) of the Health and Safety Code, that there are other economically and technically feasible alternative means of elimination that are not substantially more costly to the conditional rice straw burn permit applicant.
- (~~ee~~) "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.
- (~~ff~~) "Region" means two or more air districts within an air basin or adjoining air basins that sign a memorandum of understanding to implement a coordinated regional smoke management program pursuant to the requirements of Article 2 of this regulation.

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- (zgg) “Residential burning” means an open outdoor fire for the disposal of the combustible or flammable solid waste of a single-or two-family dwelling on its premises. Residential burning is not considered to be prescribed burning.
- (aahh) “Seventy-two hour outlook” means a prediction of the meteorological and air quality conditions that are expected to exist for a specific prescribed burn in a specific area 72 hours from the day of the prediction.
- (bbjj) “Smoke Management Plan” means a document prepared for each fire by land managers or fire managers that provides the information and procedures required in section 80160.
- (eejj) “Smoke management prescription” means measurable criteria that define conditions under which a prescribed fire may be ignited, guide selection of appropriate management responses, and indicate other required actions. Prescription criteria may include, but are not limited to, minimizing smoke impacts, and safety, economic, public health, environmental, geographic, administrative, social, or legal considerations such as complying with Health and Safety Code section 41700, public nuisance statute.
- (ddkk) “Smoke Management Program” means the program defined in these Guidelines.
- (eell) “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, towns and villages, campgrounds, trails, populated recreational areas, hospitals, nursing homes, schools, roads, airports, public events, shopping centers, and mandatory Class I areas.
- (ffmm) “State ambient air quality standards” means specified concentrations and durations of air pollutants which reflect the relationship between the intensity and composition of air pollution to undesirable effects, as established by the state board pursuant to Health and Safety Code section 39606.
- (nn) “Unbiased Inspection Site” means an inspection site at a specific location prescribed by a method that does not consider the location or anticipated location of disease symptoms.
- (ggoo) “Wildfire” means an unwanted wildland fire.
- (hhpp) “Wildland” means an area where development is generally limited to roads, railroads, power lines, and widely scattered structures. Such land is not cultivated (i.e., the soil is disturbed less frequently than once in 10 years), is not fallow, and is not in the United States Department of Agriculture (USDA) Conservation Reserve Program. The land may be neglected altogether or managed for such purposes as wood or forage production, wildlife, recreation, wetlands, or protective plant cover.
- For CDF only, “Wildland” as specified in California Public Resources Code (PRC) section 4464(a) means any land that is classified as a state responsibility area pursuant to article 3 (commencing with section 4125) of chapter 1, part 2 of division 4 and includes any such land having a plant cover consisting principally of

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grasses, forbs, or shrubs that are valuable for forage. "Wildland" also means any lands that are contiguous to lands classified as a state responsibility area if wildland fuel accumulation is such that a wildland fire occurring on these lands would pose a threat to the adjacent state responsibility area.

(#ggg) "Wildland fire" means any non-structural fire, other than prescribed fire, that occurs in the wildland.

For CDF only, "wildland fire" as specified in PRC section 4464(c) means any uncontrolled fire burning on wildland.

(jjrr) "Wildland/urban interface" means the line, area, or zone where structures and other human development meet or intermingle with the wildland.

NOTE: Authority cited: Sections 39600, 39601, 41856, and 41859, and 41865, Health and Safety Code. Reference: Sections 39011, 39025, 39053, 41850, 41852, 41853, 41854, 41855, 41856, 41857, 41858, 41859, 41861, 41862, ~~and 41863~~, and 41865, Health and Safety Code.

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[Note: For the remainder of this Final Regulation Order the following text is all new language to be added to title 17, CCR.]

Adopt sections 80156, 80157, 80158, and 80159, title 17, CCR, to read as follows:

## **§80156. Conditional Rice Straw Burning Permit Program for the Sacramento Valley Air Basin.**

- (a) The Sacramento Valley Basinwide Air Pollution Control Council (Basinwide Council) shall, by February 15, 2001, develop and submit to the state board a proposed rice straw burning permit program (program) for the issuance of conditional rice straw burning permits (permit) by the APCOs in the Sacramento Valley Air Basin. The program shall be adopted at a noticed public hearing of the Basinwide Council and shall implement and ensure compliance with the following requirements established by subdivisions (b) through (h).
- (b) The APCOs in the Sacramento Valley Air Basin may grant conditional rice straw burning permits only after the county agricultural commissioner has completed the following:
  - (1) Independently determined the significant presence of a pathogen located in the field proposed for burning in the county of his/her jurisdiction in an amount sufficient to constitute a rice disease during the growing season.
  - (2) Made a written finding, based upon the inspection results of methods specified in subdivision (e), that the existence of the pathogen will likely cause a significant, quantifiable reduction in yield in the field proposed for burning during the current or next growing season.
  - (3) Documented each applicant's compliance with the following terms and conditions:
    - (A) The fields proposed for burning are specifically described.
    - (B) The applicant has not violated any provision of section 41865 of the Health and Safety Code within the previous three years.
- (c) In making the finding and determinations described in subdivisions (b)(1) through (b)(3), the county agricultural commissioner may accept inspection reports from qualified rice disease inspectors. Prior to making the finding, the agricultural commissioner must review and evaluate the accuracy of all inspection reports prepared by qualified rice disease inspectors and conduct field inspections to confirm results on a minimum of five (5) percent of all inspection reports.
- (d) Until May 31, 2003, the Basinwide Council's program shall require the county agricultural commissioners, in determining disease significance pursuant to subdivision (b)(2), to base their determinations upon the following disease significance thresholds:

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- 1) For stem rot (*Sclerotium oryzae*), the disease significance threshold shall be 15 percent of the total stems sampled.
  - 2) For aggregate sheathspot (*Rhizoctonia oryzae-sativae*), the disease significance threshold shall be 15 percent of the total stems sampled.
  - 3) For neck blast (*Pyricularia grisea*), the disease significance threshold shall be 1.8 percent of the total stems sampled.
  - 4) The disease significance thresholds shall be compared against inspection results averaged over the field proposed for burning, in accordance with subdivision (e). If no disease significance threshold has been specified for the disease impact being evaluated by a county agricultural commissioner, the county agricultural commissioner shall utilize professional judgement in determining the significance of disease. Beginning June 1, 2003, the Basinwide Council's program may propose alternative methods for evaluating the severity of qualifying diseases in an applicant's field.
- (e) The Basinwide Council shall develop detailed procedures for each inspection method proposed for adoption. Such inspection methods shall be based upon sound field sampling principles. Biased or unbiased methods, or combinations thereof, may be considered. Until May 31, 2003, the Basinwide Council's program shall comply with the requirements of paragraphs (1) through (4), below. Beginning June 1, 2003, the Basinwide Council's program may propose alternative methods for approving fields for burning based upon the presence of qualifying diseases in accordance with paragraph (4), below.
- (1) Stem sampling inspection procedures that combine biased and unbiased inspection sites shall include, but shall not be limited to, the following provisions:
    - (A) Use a maximum of one (1) biased inspection site per field.
    - (B) Collect a minimum of fifty (50) stem samples at all inspection sites.
    - (C) Maintain a minimum ratio of biased to unbiased sampling sites of one (1) to three (3) in fields of 50 acres or less, and one (1) to five (5) in fields of greater than 50 acres.
    - (D) Determine the percentage of diseased stems at each inspection site.
    - (E) Sum the percentage values from paragraph (1)(D), above, and divide the sum by the total number of inspection sites to estimate the average percentage of diseased plants in the field proposed for burning.
    - (F) Allow for a field inspector to cease sampling at any time after the first biased site if the results indicate that the field qualifies for burning even with the remaining unsampled sites assumed to equal zero percent.
    - (G) If the field inspector elects to qualify the field using only one biased sampling site, the inspector must collect a minimum of one hundred (100) stem samples at that site. In all other sampling scenarios, the inspector shall collect a minimum of fifty samples per site.



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- (2) Visual assessment inspection procedures shall be limited to fields with readily apparent macro disease symptoms and shall include, but shall not be limited to, the following provisions:
  - (A) Assess and map the entire field for macro disease symptoms.
  - (B) Inspect for micro disease symptoms at a minimum of one (1) biased site.
  - (C) Require that a minimum of five (5) groups of at least twenty (20) plants be inspected for micro disease symptoms at each site.
  - (D) Estimate the average percentage of diseased stems at each focussed site.
- (3) Soil sampling inspection procedures that combine biased and unbiased inspection sites shall be restricted to assessment of stem rot and shall include, but shall not be limited to, the following provisions:
  - (A) Use a maximum of two (2) biased inspection sites per field.
  - (B) Collect a minimum of eight (8) soil samples per field, each at different locations.
  - (C) Maintain a minimum ratio of biased to unbiased sampling sites of one (1) to three (3).
  - (D) Determine the level of disease (in terms of average viable stem rot sclerotia per gram of soil) at each inspection site.
  - (E) Conduct the procedure in accordance with Webster's soil inoculum potential protocol for stem rot (Krause, R.A. & R.K. Webster, 1972, Mycologia 64:1333-1337).
- (4) Each procedure shall include, but is not limited to, the following information:
  - (A) Protocol for selecting inspection sites.
  - (B) Number of required inspection sites.
  - (C) Methods of plant/soil collection.
  - (D) Methods of collection, counting, and scoring of rice plants.
  - (E) Methods of collection, storage, and analysis of soil samples.
  - (F) Procedures for calculating percentage of disease, if required, at specific inspection sites and use of this information to estimate average percentage of disease in a total field.
- (f) The applicant shall submit an application form to the county agricultural commissioner to request the findings of terms and conditions specified in subdivision (b). The applications shall be available for public inspection for a period of three years. Each application form shall include, but shall not be limited to, the following information:
  - (1) Applicant's name.
  - (2) Applicant's identification number.
  - (3) Mailing address (property address, city, state, and zip code).
  - (4) Business telephone and fax number.
  - (5) Total planted rice acres.

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- (6) Site identification, location, and field acres proposed for burning.
  - (7) Description of diseases (type and indication of severity).
  - (8) A statement that inspection reports are required as an attachment to the application before it can be considered complete.
  - (9) A statement authorizing the county agricultural commissioner to inspect the sites for rice disease.
  - (10) Signature of the applicant.
  - (11) A place for the signature of the agricultural commissioner verifying compliance with required findings and determinations described in subdivision (b).
- (g) Qualified rice disease inspectors shall complete a field inspection reporting form for each inspection method and the grower shall submit the reporting form, with an application, to the county agricultural commissioner. The county agricultural commissioner must review and approve the submittal in accordance with the provisions of subdivisions (b), (c) and (d). Completed forms shall be filed in the county agricultural commissioner's office and made available for public inspection for at least three years. Each inspection form shall include, but shall not be limited to, the following information:
- (1) Applicant's name.
  - (2) Applicant's identification number.
  - (3) Mailing address (property address, city, state, and zip code).
  - (4) Business telephone and fax number.
  - (5) Location and description of inspected fields.
  - (6) Acreage of area proposed for burning.
  - (7) Description of diseases (type and indication of severity).
  - (8) Estimated average disease infection level in the total area proposed for burning, if required.
  - (9) Total planted rice acres.
  - (10) Name, title, and signature of inspector.
  - (11) Qualified rice disease inspector's certification number, if applicable.
- (h) Enforcement provisions shall be included to discourage false reporting. Inspectors who perform fraudulent inspections are subject to permanent revocation of certification and other penalties provided by law. Growers who file false reports shall be deemed in noncompliance with Health and Safety Code sections 41865 and 42402.2(b), and subject to penalties provided by law.

NOTE: Authority cited: sections 39600, 39601, 41856, 41859, and 41865 of the Health and Safety Code. Reference: sections 41850, 41852, 41853, 41857, 41858, 41863, and 41865 of the Health and Safety Code.

## **§80157. Inspection Training Requirements for Conditional Rice Straw Burning Permit Program for the Sacramento Valley Air Basin.**

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- (a) The Basinwide Council, in consultation with CDFA and ARB, shall establish a program to train and certify rice disease inspectors. The training program shall be implemented through an accredited agricultural educational facility, such as, but not limited to, the University of California Cooperative Extension. Successful completion of the training course shall be a prerequisite to certification. Trainers shall be experienced agricultural professionals with extensive in-field pest inspection and identification experience. Any individual, other than agricultural commissioners and their staff, performing inspections must be trained and certified. Agricultural commissioner staff shall be encouraged, though not required, to be trained through the program. The Basinwide Council may establish minimum criteria for entrance into the training program.
- (b) The certifications shall be issued by the training facility, Basinwide Council, or agricultural commissioner and shall be revocable by the issuer for cause. Issuance of certification shall be based upon evidence of completion of the training program and demonstrated knowledge of the following subject matter:
- (1) Commonly occurring qualifying and nonqualifying rice diseases.
  - (2) Life cycle or etiology of rice diseases.
  - (3) Inspection methods and their statistical limitations.
  - (4) Techniques of prioritizing suitable test methods based upon field and disease characteristics.
  - (5) Penalties associated with fraudulent inspections and/or related documentation.
  - (6) Estimation of acreage of fields, acreage of inspection areas, and acreage of disease infected areas.
  - (7) Webster's stem rot disease severity quantification protocol (Krause, R.A. & R.K. Webster, 1973, *Phytopathology* 63: 518-523).
  - (8) Webster's soil inoculum potential protocol for stem rot (Krause, R.A. & R.K. Webster, 1972, *Mycologia* 64:1333-1337).
  - (9) Disease survey and detection techniques.
  - (10) Visual inspection indicators, if available, that meet the disease significance thresholds defined in section 80101.

NOTE: Authority cited: sections 39600, 39601, 41856, 41859, and 41865 of the Health and Safety Code. Reference: sections 41850, 41852, 41853, 41857, 41858, 41863, and 41865 of the Health and Safety Code.

## **§80158. Annual Reporting Requirements for Conditional Rice Straw Burning Permit Program for the Sacramento Valley Air Basin.**

- (a) Beginning in 2002 and annually thereafter, the Basinwide Council shall submit to the ARB and CDFA, by July 15, a report on program implementation. The report shall include, but shall not be limited to, the following information, by county:
- (1) General assessment of program operation.
  - (2) Total acres requested to be burned.

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- (3) Total acres determined by county agricultural commissioners to meet the terms and conditions for burning.
- (4) Total acres approved for burning by the APCOs.
- (5) Total acres burned.
- (6) Total amount of planted acreage in the previous year.
- (7) Total amount of planted acreage in the current year.
- (8) Number of enforcement actions initiated for fraudulent inspections, and resolution of each.
- (9) Total amount of fees charged by each county agricultural commissioner.

NOTE: Authority cited: sections 39600, 39601, 41856, 41859, and 41865 of the Health and Safety Code. Reference: sections 41850, 41852, 41853, 41857, 41858, 41863, and 41865 of the Health and Safety Code.

## **§80159. State Approval Procedures for Conditional Rice Straw Burning Permit Program for the Sacramento Valley Air Basin.**

- (a) The Executive Officer shall approve, approve with conditions, disapprove, or indicate intent to disapprove any program, portion of a program, or amendment of a program within 90 days after submittal by the Basinwide Council. Reasons for disapproval, conditional approval, or intent to disapprove shall be provided to the Basinwide Council in writing. The Basinwide Council shall resubmit an amended plan addressing the ARB's concerns within 90 days of the ARB's communication of disapproval, conditional approval, or intent for disapproval.
- (b) If the Basinwide Council does not submit a program by March 1, 2001, or if the Executive Officer has not approved a program submitted by the Basinwide Council by July 15, 2001, the Air Resources Board shall develop and adopt an alternative program. An alternative program shall be adopted by the Board at a public meeting in the Sacramento Valley Air Basin.
- (c) An approved program may be amended by the Executive Officer with 90 days' prior written notice to, and in consultation with, the Basinwide Council. The Basinwide Council may submit proposed program amendments to the Executive Officer for approval. The Executive Officer may request the submittal of program amendments from the Basinwide Council. No program, amendments, or portion thereof shall be implemented until approved in writing by the Executive Officer.

NOTE: Authority cited: sections 39600, 39601, 41856, 41859, and 41865 of the Health and Safety Code. Reference: sections 41850, 41852, 41853, 41857, 41858, 41863, and 41865 of the Health and Safety Code.

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