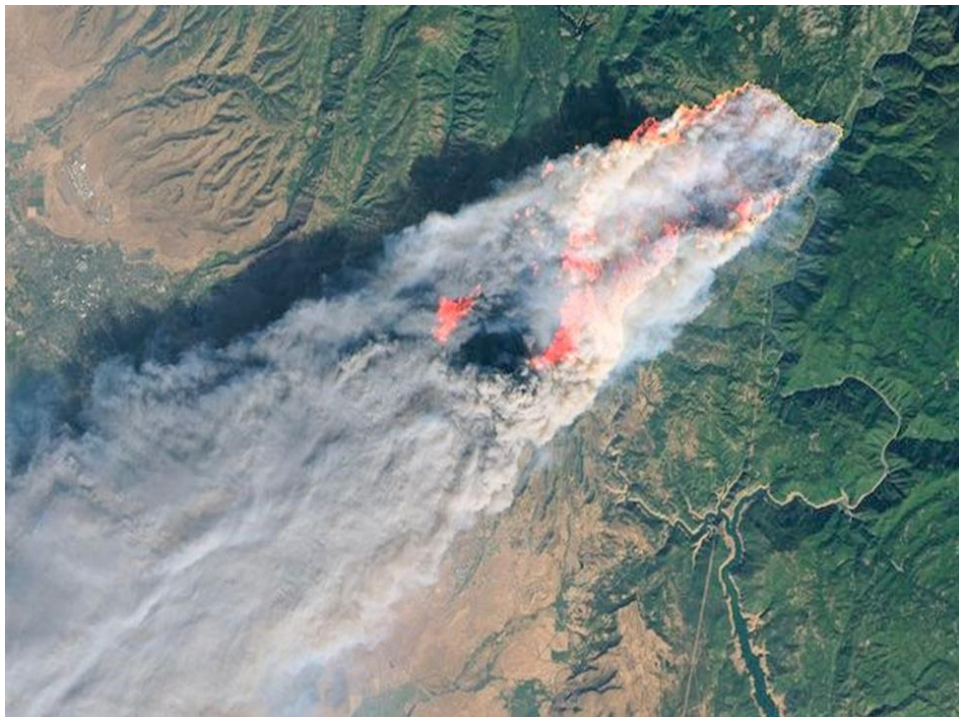




BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

Staff Report

Proposed Amendments to Regulation 5: Open Burning and Regulation 6: Particulate Matter and Visible Emissions, Rule 3: Wood-Burning Devices



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I. EXECUTIVE SUMMARY

California experienced some of the deadliest and most destructive wildfires in its history over the last two years. Wildfire events are becoming the new normal and new wildfire prevention initiatives and actions are needed. Studies show that climate change is not only causing higher temperatures and longer dry periods, but also lengthening the fire season and increasing the risk of wildfires throughout the state.^{1,2} Wildfires have the potential to destroy entire communities and burn everything in their path, producing a mixture of fine particulate matter and hazardous chemicals and compounds in the air we breathe.

Wildfire smoke presents immediate impacts to local air quality and public health, and atmospheric conditions can quickly transport smoke to affect the air quality of an entire region and even that of nearby states. The devastating fires in Napa and Sonoma County in 2017 and the Butte County Camp Fire in 2018 generated unprecedented levels of particulate matter, which reached hazardous levels never before experienced in the Bay Area. Wildfires are an imminent threat to air quality and public health in the Bay Area region and across the entire state.

Over the last year, in response to this unprecedented increase in wildfires, the Bay Area Air Quality Management District (Air District) developed the *Wildfire Air Quality Response Program (WAQRP)*, a comprehensive, multi-faceted program intended to prevent, prepare for, and respond to future wildfires, and to ensure that health-protective measures and strategies are in place during wildfire smoke events. One facet of the program is to ensure that Air District rules and regulations continue to protect and improve public health, air quality and the global climate.

To complement statewide wildfire prevention efforts, the Air District is proposing amendments to Regulation 5: Open Burning (Reg 5) and Regulation 6, Rule 3: Wood-Burning Devices (Rule 6-3). The proposed regulatory actions are consistent with new statewide initiatives and legislation intended to reduce the risk of catastrophic fires by implementing prescribed burning (e.g., SB1260 *Fire Prevention and Protection: Prescribed Burns*; SB901 *Wildfires*; Executive Order N-05-19)³. On March 22, 2019, Governor Newsom proclaimed a State of Emergency throughout California ahead of the upcoming fire season and directed the State to expedite fuel reduction projects in wildfire-vulnerable communities.⁴ These initiatives have called for statewide support from air quality regulators and fire protection agencies to encourage prescribed burning to prevent catastrophic wildfires similar to those experienced in 2017 and 2018.

The Air District is proposing amendments to Reg 5 to reduce potential cost barriers associated with prescribed burning in alignment with statewide efforts to prevent larger, more destructive wildfires through increased prescribed burning. The proposed Reg 5 amendments would:

- Exempt public agencies from paying Open Burning Operation Fees when conducting prescribed burns for the purpose of wildfire prevention (Reg 5, Section 113).

¹ Flannigan et al., 2000.

² Westerling, 2016.

³ In January 2019, Governor Newsom issued Executive Order N-05-19, which directed the California Department of Forestry and Fire Protection (CAL FIRE) to recommend immediate, medium, and long-term wildfire prevention measures. CAL FIRE published *The Community Wildfire Prevention and Mitigation Report* in February 2019.

⁴ March 22, 2019 Proclamation of a State of Emergency, Executive Department, State of California.

- Clarify that Crop Replacement, Hazardous Material, Range Management and Forest Management fires larger than 10 acres constitute “prescribed burning” (Reg 5, Section 401.2, 401.6, 401.11, 401.12) and that prescribed burns are permissible year-round.
- Clarify other existing requirements in the Regulation.

The Air District is also proposing amendments to Rule 6-3 to further help protect public health and air quality when wildfire smoke affects air quality in the Bay Area. The proposed Rule 6-3 amendments would:

- Extend the Air District’s authority to ban wood burning or combustion in wood-burning devices year-round when particulate matter is forecast to exceed 35 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) (Reg 6, Rule 3, Sections 211, 224 and 301). The rule currently only prohibits wood burning during the wintertime (November – February) and the proposed amendment will allow the Air District to ban wood burning any time unhealthy levels of particulate matter are forecast, such as during an emergency wildfire event.
- Clarify other existing requirements in the Rule.

In preparing the proposed amendments, the Air District reviewed similar regulations in other air districts and consulted with interested stakeholders including the Bay Area Prescribed Fire Council, local units of California of Department Forestry and Fire Protection (CAL FIRE), local fire agencies, public land managers, and interested members of the public. In July 2019, Air District staff conducted a public workshop to discuss the proposed rule amendments. The comments received during the workshop and 30-day comment period have been considered by the Air District and changes have been incorporated into this proposal where appropriate. In addition to the proposed changes to Regulation 5 and Rule 6-3, the Air District is also working on several updates to streamline its prescribed burning review process that do not require changes to the regulatory language.

Potential environmental impacts from the proposed rule amendments were reviewed by Air District staff. The Air District staff determined the amendments are exempt from the provisions of the California Environmental Quality Act (CEQA), as discussed herein. Additionally, and in the alternative, the Air District analyzed the potential impacts from banning wood burning during high particulate matter days in 2008 and concluded that this action would result in environmental benefits and no significant adverse environmental impacts in a certified Environmental Impact Report. The Air District continues to rely on this certified Environmental Impact Report. The Air District intends to file a Notice of Exemption / Determination pursuant to State CEQA Guidelines.

A socioeconomic analysis on the proposed rule amendments was conducted by Bay Area Economics. The findings of that analysis indicate that the changes to Regulation 5 are not expected to have any impacts, and the changes to Regulation 6, Rule 3 are not expected to have a potential for significant impacts on businesses.

II. BACKGROUND

A. Wildfire Behavior and Characteristics

Weather, terrain, fuel type and loading, and the stage of a fire can influence fire behavior and the impacts of its smoke plume. In general, windy conditions decrease smoke concentrations due to horizontal dispersion; however, windy conditions can also cause fires to spread more quickly, resulting in larger fires that produce more smoke. Regional weather patterns can dominate a fire's behavior for days and be the determining factor of where and how smoke may affect an area. For example, the October 2017 North Bay wildfires started during a Diablo wind event, when wind patterns in the Bay Area reversed to offshore, blowing from inland areas toward the coast, causing wildfire smoke to impact large portions of the Bay Area. These winds can also transport smoke over long distances into the Bay Area, as exemplified by the November 2018 Camp Fire in Butte County, which spread smoke across the Bay Area within hours of the fire's ignition even though the fire was located 200 miles away.

Terrain also influences fire behavior by altering wind flows. Mountains can cause turbulent airflow that may promote plume down-mixing and increased concentrations of ground-level smoke. In the evening wind speeds tend to be light and temperature inversions are common, especially in mountain valleys and low-lying areas. A temperature inversion occurs when the air near the ground is cooler than the air above, preventing upward air movement. These conditions favor smoke and pollutant accumulation in valleys at night.

The intense heat generated by a fire, especially soon after ignition, lofts smoke particulates high into the air that begin to descend when temperatures cool.⁵ The amount of smoke produced during a fire is affected by how much fuel is available, the type of fuel and its moisture content. Initial fire plumes tend to be driven by high wind events, which can facilitate the prediction of smoke impacts downwind. As the smoke moves downwind, it dilutes and becomes widespread, eventually descending to ground level.

B. Wildfire Smoke Composition

Wildfire smoke can contain a combination of hazardous chemicals and mixtures of microscopic particles that are products of incomplete combustion. The 2018 Camp Fire burned 153,336 acres (about 240 square miles) including the entire town of Paradise, with an approximate population of 27,000. Not only did trees, brush and vegetative material burn, but also approximately 18,800 structures and every object in its path.⁶

⁵ United States Environmental Protection Agency, 2016.

⁶ CAL FIRE, 2019. *Camp Fire Incident Report*.



Image 1. Camp Fire – Day 1, November 8, 2018 (GOES-16 Imagery).

The individual compounds present in wildfire smoke can number in the thousands. Different types of wood and vegetation are composed of varying amounts of cellulose, lignin, tannins and other polyphenols, oils, fats, resins, waxes and starches. Wildfire smoke can also include chemicals emitted from burning metals, plastics, shingles, asphalt, cement, insulation and fuels like gasoline. Finally, smoke composition depends on multiple factors including how efficiently a fuel burns, fuel type, moisture content, the fire temperature, wind conditions and other weather-related influences. When burned, these various fuels produce air contaminants that are released in the smoke.

C. Health Hazards of Fine Particulate Matter (PM_{2.5})

Particulate matter is the principal pollutant of concern from wildfire smoke for relatively short-term exposures that range from hours to weeks. The health effects from particulate matter exposure can vary from one person to another based on an individual's health, age and duration of exposure. Particulate matter smaller than 10 micrometers (PM₁₀) can irritate the eyes, nose and throat, while particulate matter less than 2.5 micrometers in diameter (PM_{2.5} or "fine particulate") can pose serious health concerns as fine particulates can be inhaled deep into the lungs.

People with respiratory illnesses, children, and the elderly are more sensitive to the effects of PM_{2.5}, but prolonged exposure can negatively affect everyone.⁷ Numerous scientific studies have linked PM_{2.5} exposure to a variety of health issues, including premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function and increased respiratory symptoms such as irritation of the airways, coughing or difficulty breathing.⁸ Healthy individuals can also experience acute effects from exposure to elevated levels of particulates in addition to these more serious health issues.

⁷ Bølling et al, 2009.

⁸ Bay Area Air Quality Management District, 2012.

D. Air Monitoring Network

The Air District operates 17 PM_{2.5} monitors throughout the Bay Area that continuously measure hourly particulate matter concentrations. These monitors were designed to track compliance with federal and state requirements, and are useful for tracking smoke impacts during wildfire events. Air District meteorologists provide daily air quality forecasts by analyzing PM_{2.5} measurements, satellite imagery, as well as numerical weather and smoke prediction models to determine particulate matter levels in the region. During wildfire events, Air District meteorologists provide more frequent monitoring updates due to the variable nature of wildfire smoke plumes, with the intent to keep the public informed of the latest smoke impacts.




Image 2. Air District Monitoring Network.

E. Air Quality Impacts from Wildfires

As the climate continues to warm and become drier, it is anticipated that the frequency of large wildfires will increase and negatively affect air quality in the Bay Area. In the last two years, eight of California's top 20 most destructive wildfires occurred (Figure 1). Three of these fires - the Tubbs, Nuns, and Atlas - were located in Bay Area counties.

Top 20 Most Destructive California Wildfires

FIRE NAME (CAUSE)	DATE	COUNTY	ACRES	STRUCTURES	DEATHS
1 CAMP FIRE (Under Investigation)	November 2018	Butte County	153,336	18,804	85
2 TUBBS (Electrical)	October 2017	Napa & Sonoma	36,807	5,636	22
3 TUNNEL - Oakland Hills (Rekindle)	October 1991	Alameda	1,600	2,900	25
4 CEDAR (Human Related)	October 2003	San Diego	273,246	2,820	15
5 VALLEY (Electrical)	September 2015	Lake, Napa & Sonoma	76,067	1,955	4
6 WITCH (Powerlines)	October 2007	San Diego	197,990	1,650	2
7 WOOLSEY (Under Investigation)	November 2018	Ventura	96,949	1,643	3
8 CARR (Human Related)	July 2018	Shasta County, Trinity County	229,651	1,614	8
9 NUNS (Powerline)	October 2017	Sonoma	54,382	1,355	3
10 THOMAS (Powerline)	December 2017	Ventura & Santa Barbara	281,893	1,063	2
11 OLD (Human Related)	October 2003	San Bernardino	91,281	1,003	6
12 JONES (Undetermined)	October 1999	Shasta	26,200	954	1
13 BUTTE (Powerlines)	September 2015	Amador & Calaveras	70,868	921	2
14 ATLAS (Powerline)	October 2017	Napa & Solano	51,624	783	6
15 PAIN T (Arson)	June 1990	Santa Barbara	4,900	641	1
16 FOUNTAIN (Arson)	August 1992	Shasta	63,960	636	0
17 SAYRE (Misc.)	November 2008	Los Angeles	11,262	604	0
18 CITY OF BERKELEY (Powerlines)	September 1923	Alameda	130	584	0
19 HARRIS (Undetermined)	October 2007	San Diego	90,440	548	8
20 REDWOOD VALLEY (Powerline)	October 2017	Mendocino	36,523	546	9



3/14/2019

***Structures* include homes, outbuildings (barns, garages, sheds, etc) and commercial properties destroyed.
 ***This list does not include fire jurisdiction. These are the Top 20 regardless of whether they were state, federal, or local responsibility.

Figure 1. Top 20 Most Destructive California Wildfires (CAL FIRE).

The 2017 and 2018 wildfires produced 16 of the 20 highest PM_{2.5} concentrations measured in the Bay Area since measurements began in 1999 (Figure 2).

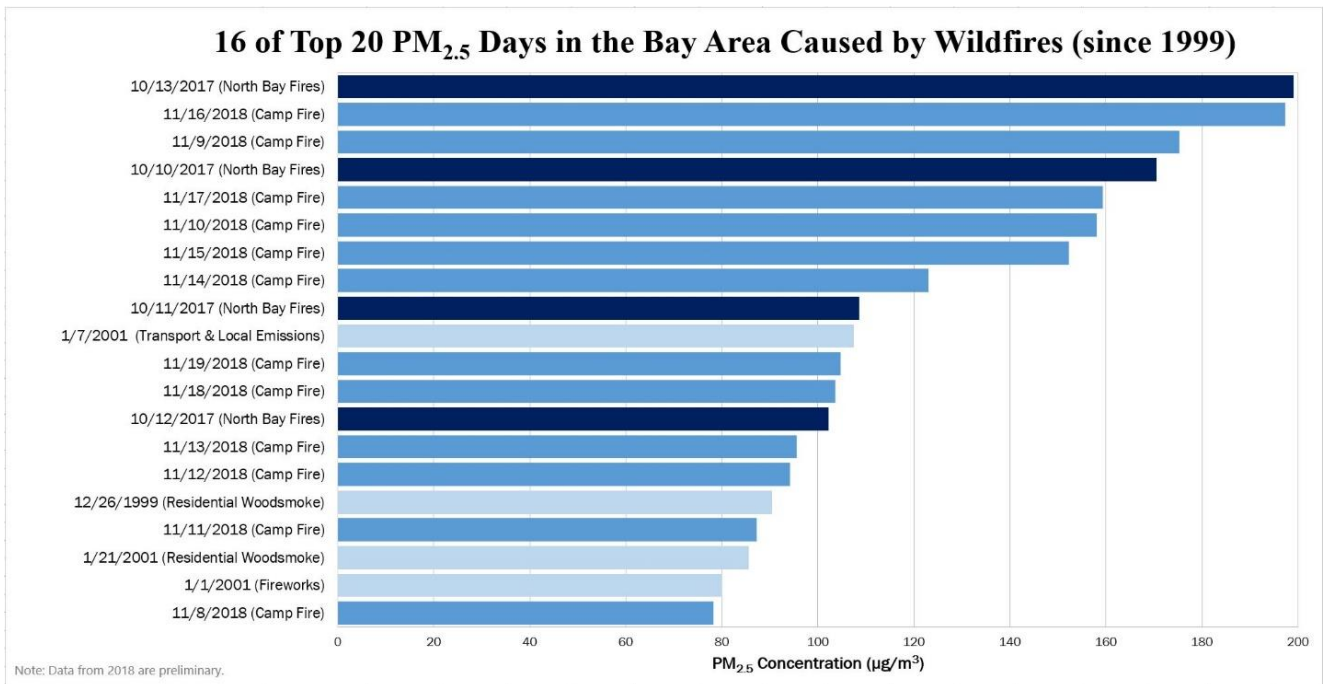


Figure 2. Top 20 24-hour average PM_{2.5} concentrations in the Bay Area.

The November 2018 Butte County Camp Fire accounted for 12 of those Top 20 PM_{2.5} days, with daily average PM_{2.5} levels in the Bay Area ranging from 78 µg/m³ to 197 µg/m³ during this event, even though the fire was burning nearly 200 miles away. The federal EPA considers ambient levels of PM_{2.5} higher than 35 µg/m³ to be unhealthy; this is the level at which the National Ambient Air Quality Standard (“NAAQS”) is set. During the 2018 Camp Fire, particulate matter concentrations in the Bay Area were elevated from November 8th through the 21st with numerous instances of hourly PM_{2.5} concentrations reaching “Very Unhealthy” (greater than 150 µg/m³) to “Hazardous” (greater than 250 µg/m³) levels (Figure 3). The fire created a public health emergency; the Bay Area suffered under a haze of unhealthy smoke for nearly two weeks.

In California, the amount of area that burns annually has increased due to a higher frequency and sizes of wildfires. California has experienced a fivefold increase in annual area burned during 1972-2018, mainly due to an eightfold increase in summer forest fires.⁹ Climate change has contributed to the increase in area burned due to rising temperatures that dry out fuels and create drier atmospheric conditions. In the Bay Area, higher temperatures and lower amounts of warm-season rainfall increase fire risk, especially during the fall when strong offshore Diablo winds can quickly dry fuels and spread wildfires when they occur. An abundance of dry fuels is one of the clearest links between increased California wildfire activity and climate change.⁹ Wildfires can also contribute to climate change in two main ways. Wildfires reduce forests and vegetation that sequester CO₂ from the atmosphere, and wildfires can emit a significant amount of greenhouse gases.¹⁰ California’s lands are a net greenhouse gases source, meaning that the lands are losing more carbon than they are sequestering. Wildfires are the largest cause of this carbon loss.¹¹

⁹ Williams et al., 2019.

¹⁰ Khadka, Navin Singh. “Climate change: Worries over CO₂ emissions from intensifying wildfires,” *BBC World Service*, November 15, 2018, World Service, Science & Environment. <https://www.bbc.com/news/science-environment-46212844>

¹¹ California Air Resources Board, Draft January 2019.

Most climate projections indicate that temperatures will continue to rise, which will further increase wildfire activity in California.

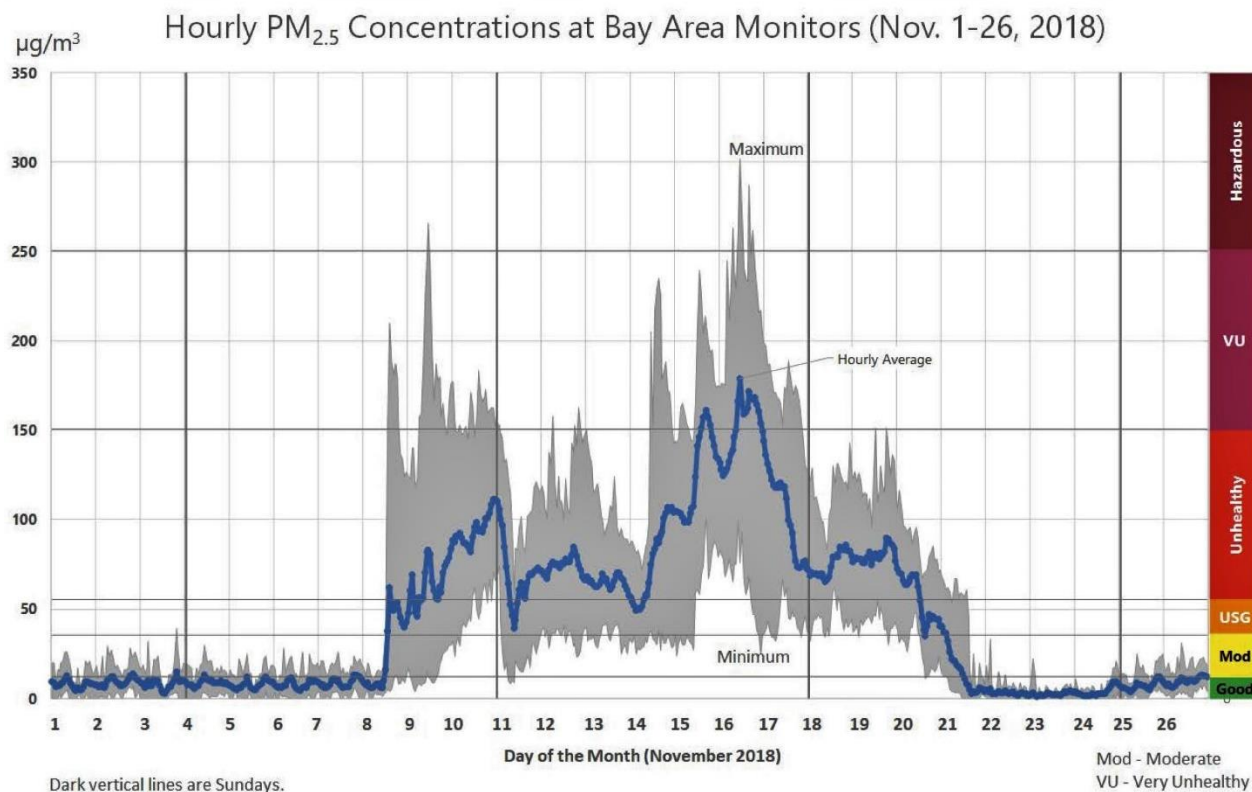


Figure 3. Hourly PM_{2.5} concentrations at Bay Area monitors from November 1 - 26, 2018.

III. PROPOSED AMENDMENTS TO REGULATION 5: OPEN BURNING

Outdoor fires, also known as open burning, produce an average of 175 tons of PM_{2.5} per year in the air we breathe in the Bay Area.¹² To minimize the impact on public health, Air District Reg 5 prohibits open burning. However, there are 17 types of fires that are conditionally allowed on designated permissive burn days and during predetermined permissive burn periods for the specific fire types. Permissive burn days are days when weather conditions are favorable for smoke dispersion. The allowable fires are primarily agricultural burns; however, there are several non-agricultural fire types.

One allowable fire type is “prescribed burning,” which is the planned, controlled application of fire to vegetation to achieve specific natural resource management objectives, including wildfire prevention and ensuring fire safety. Prescribed burns are designed to burn less intensely than wildfires and are ignited amid controlled conditions to minimize potential smoke impacts. Wildfire events are more likely to result in harmful air quality and public health impacts than prescribed

¹² California Emissions Projection Analysis Model 2016.
<https://www.arb.ca.gov/app/emsinv/fcemssumcat/fcemssumcat2016.php>

burning because wildfires are unplanned and typically larger compared to prescribed burns. Wildfires tend to last longer and burn more vegetation per acre than prescribed burns.¹³

In addition to fuel reduction benefits, prescribed burning also restores the structure and composition of forest ecosystems. Prescribed burns operate at lower temperatures than wildfires and decrease the likelihood that damaging, severe wildfire emergency events will occur.¹⁴ Wildfires can reach such high temperatures and intensity that they completely consume and destroy ecosystems, effectively sterilizing the burned area. Prescribed burns, however, make forest environments healthier, more stable, and more resilient to change. Due to historical fire suppression efforts, many forests in California contain excess amounts of vegetation that serve as fuel and, as a result, are highly susceptible to catastrophic wildfires. Prescribed burning is an effective way to reduce the potential for destructive emergency wildfire events and maintain healthy forest ecosystems.¹⁵

Air District Regulation 5 permits prescribed burning. Several fire types are regulated as prescribed burning, which is also referred to as “Wildland Vegetation Management fires” in Reg 5 (Reg 5-401.15). As discussed below, Crop Replacement, Range Management, Forest Management and certain Hazardous Material fires that are larger than 10 acres are regulated as Wildland Vegetation Management (Prescribed Burning) fires and are subject to Reg 5-401.15.

Any person seeking to conduct a prescribed burn must submit a smoke management plan, receive written approval from the Air District, and pay associated fees prior to burning. Reg 5 currently requires the plan to include a smoke management prescription, which includes measurable criteria when a prescribed burn may be ignited. Prescription criteria may include, but are not limited to, procedures to minimize smoke impacts, as well as safety, economic, public health, environmental, geographic, administrative, social or legal considerations. The Air District reviews smoke management plans to ensure prescribed burns are conducted during specific meteorological conditions that achieve favorable smoke dispersion and limits negative impacts to surrounding communities. The prescribed burns are only permitted when the Air District meteorologists determine it is a permissive burn day. This is necessary to protect the public health and air quality.

During the workshop process, the Air District received comments requesting that it be more flexible regarding scheduling and approval of prescribed burns. Air District staff are reviewing current policies and procedures to streamline the Prescribed Burning Program. Staff are also working with the California Air Resources Board to integrate the Air District’s existing program into the statewide Prescribed Fire Information Reporting System (PFIRS). PFIRS serves as an interface between air quality managers, land management agencies, and individuals that conduct prescribed burning in California. The web tool facilitates communications by providing access to a database containing information on burn planning, burn approvals, and emissions information. The integration of the Prescribed Burning Program into the PFIRS system does not require an amendment to Reg 5.

The Air District must continue to review and approve smoke management plans prior to authorizing prescribed burns. If the Air District failed to review and approve the meteorological prescriptions in smoke management plans prior to approving them, Bay Area residents could face hazardous levels of smoke from prescribed burns that are performed during weather conditions that are not favorable for smoke dispersion.

¹³ Berger et al, 2018.

¹⁴ Fernandes and Botelho, 2003.

¹⁵ California Air Resources Board, Draft January 2019.

On the day before the planned burn, the burn manager requests a burn allowance and acreage allocation from the Air District. On the morning of the planned burn, the Air District meteorologists review these requests based on the weather conditions for that day. If approved, the burn manager receives the acreage allocation from the Air District and the burn manager may conduct the burn in accordance with a District-approved smoke management plan. Prescribed burns are permissible year-round.

In California, the rate of fuel reduction projects through prescribed burning, fuel treatment, and thinning of forests averages approximately 250,000 acres per year. In 2018, Governor Brown directed the State to double its efforts within five years to at least 500,000 acres per year.¹⁶

Due to these statewide efforts to prevent wildfires, fuel reduction projects are expected to sharply increase throughout the next few years and beyond. While it is uncertain how many additional prescribed burns by public agencies the Air District will review, the Air District intends to support wildfire prevention measures taken to reduce fuels to prevent larger, more catastrophic wildfires that can create public health emergencies. The Air District proposes to amend Reg 5 to eliminate fees to public agencies that conduct prescribed burning for wildfire prevention for the benefit of the public and environment. The amendments are consistent with CAL FIRE's report *Community Wildfire Prevention and Mitigation Report*,¹⁷ which recommends CAL FIRE coordinate with air quality regulators to enable increased use of prescribed burning and to help reduce costs and complexities for the burners.

The Air District recognizes the role that prescribed burning plays in wildfire prevention. The fuel reduction and ecological benefits of prescribed burning are known, and the increased use of prescribed burning as a land management practice is necessary to prevent the types of devastating wildfires experienced in 2017 and 2018.

The section below provides a description of the proposed amendments to Reg 5.

A. Clarification and Amendment of General (Reg 5, Section 100)

The Air District proposes to clarify and add exemptions to Reg 5:

Rename "Conditional Exemptions" to "Special Conditions for Allowable Fires" (Section 111)

The existing "Conditional Exemptions" are a set of special conditions that must be met for the allowable fires (Reg 5, Section 401). The conditions must be complied with during any allowable fire. These include, but are not limited to burn start time, burn termination, material conditions, and ignition methods. The Air District proposes to rename the existing section of "Conditional Exemptions" to "Special Conditions for Allowable Fires." The amendment is administrative and intended to clarify that these conditions for allowable fires are not exemptions. It would not change the intended purpose of the section.

Limited Exemption, Public Agency Wildfire Prevention (Section 113)

The Air District proposes to amend Reg 5 by adding a limited exemption for any public agency conducting a prescribed burn for the purpose of wildfire prevention as approved by the Air

¹⁶ Governor Brown issued Executive Order B-52-18 in May 2018 to improve forest and community resilience to wildfire and other climate impacts.

¹⁷ <http://www.fire.ca.gov/downloads/45-Day%20Report-FINAL.pdf>

District. The proposed amendment complements statewide efforts by removing potential barriers to prescribed burning conducted for wildfire prevention purposes. It would exempt a public agency from having to pay an Open Burning Operation Fee, as required by Reg 5, Section 411. This exemption would also apply when a public agency conducts prescribed burning for wildfire prevention on land owned by a private entity or non-profit organization as long as there is a cooperative agreement or contract between the public agency and landowner.

In 2013, the Board of Directors adopted Regulation 3, Schedule V: Open Burning, which established open burning fees for each type of fire allowed pursuant to Reg 5.¹⁸ A person conducting one of the allowable fires,¹⁹ is required to pay the associated operation fee (Reg 5, Section 411). Currently, prescribed burn fee amounts are based on the proposed acreage to be burned. The Wildland Vegetation Management Fire fee, as outlined in Regulation 3, Schedule V, is the fee associated with prescribed burns.²⁰

In the past ten years, prescribed burning in the Bay Area conducted by public agencies peaked in 2010 at 2,331 acres and has been steadily declining ever since (Figure 4). After 2013, the total number of smoke management plans submitted to the Air District decreased, but the total acreage burned has remained consistent to previous years. In the past ten years, a majority of smoke management plans were submitted by public agencies, and the Air District anticipates this trend to continue.

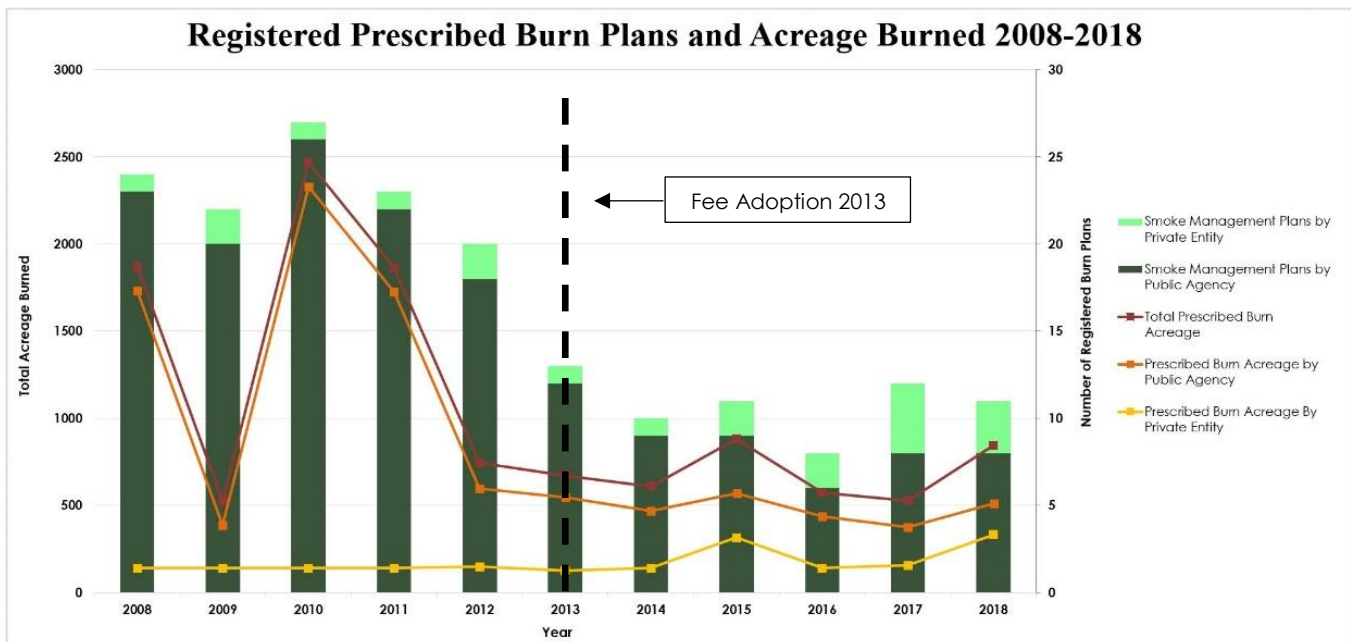


Figure 4. Registered Prescribed Burn Plans and Acreage Burned in the Bay Area (2008 – 2018).

¹⁸ BAAQMD Regulation 3 Fees: Schedule V: Open Burning. <http://www.baaqmd.gov/~media/dotgov/files/rules/archive-2018-regulation-3/documents/rg-0300-2018-pdf.pdf?la=en>.

¹⁹ See Regulation 5, Section 401

²⁰ As of July 1, 2019, the fee is \$602 for a proposed Wildland Vegetation Management Fire project less than or equal to 50 acres; \$816 for a proposed project 50 acres to 150 acres; and \$1,062 for a proposed project greater than 150 acres.

Since the fee schedule went into effect in July 2013, the Air District has collected approximately \$20,772 in Wildland Vegetation Management Fire fees from 45 prescribed burn applications submitted by public agencies (Table 1). On an annual basis, the Wildland Vegetation Management Fire Fees received from public agencies are less than 3% of all of the Open Burning Fees collected. The Air District does not anticipate this fee exemption to significantly impact program revenue; it is intended to complement statewide efforts to remove potential cost barriers associated with prescribed burning for wildfire prevention.

	2013	2014	2015	2016	2017	2018	Total
Fees Paid	\$3,400	\$4,075	\$2,214	\$3,925	\$3,463	\$3,695	\$20,772
Plans Submitted	5	9	9	6	8	8	45

Table 1: Total fees paid and plans submitted by public agencies to conduct prescribed burning since fee adoption.

B. Clarification and Amendment of Definitions (Reg 5, Section 200)

The Air District proposes to clarify and add definitions to Reg 5 to support the rule amendments:

Hazardous Material (Section 208)

The Air District proposes to remove the “For purposes of this Regulation” because the language is redundant. The proposed change is administrative and would not change the intended definition or purpose.

Mandatory Burn Ban (Section 223)

Reg 5 currently defines “Curtailed Period” as any period so declared to the public by the Air Pollution Control Officer (APCO) when a negative public health impact is anticipated from burning. The Air District proposes to rename “Curtailed Period” to “Mandatory Burn Ban” to be consistent with Regulation 6, Rule 3: Wood-Burning Devices Section 211. The proposed change is administrative and would not change the intended definition or purpose.

Public Agency (Section 225)

The proposed amendment adds the definition of a “Public Agency” to the regulation; a term that is used in the proposed limited exemption (Reg 5, Section 113) that exempts a public agency conducting a prescribed burn for the purpose of wildfire prevention from paying fees as required by Reg 5, Section 411.

C. Clarification of Standards (Reg 5, Section 300)

The Air District proposes to clarify a standard in Reg 5:

Mandatory Burn Ban for Recreational Fires (Section 302)

The Air District proposes to clarify that no person shall ignite or maintain any recreational fire during Mandatory Burn Ban periods. A recreational fire is a fire that is used for social, cultural, or other activities. Campfires and bonfires are examples of recreational fires. The Air District proposes to rename “Mandatory Curtailed” to “Mandatory Burn Ban” to be consistent with Reg 5, Section 223. The proposed change is administrative and does not change the intended definition or purpose.

D. Clarification of Administrative Requirements (Reg 5, Section 400)

The Air District proposes to clarify administrative requirements in Reg 5:

Allowable Fires: Crop Replacement (Section 401.2), Hazardous Material (Section 401.6), Range Management (Section 401.11), Forest Management (Section 401.12)

The Air District proposes to amend the Crop Replacement, Hazardous Material, Range Management and Forest Management fire types subsections by adding existing language from the “Prescribed Burning” definition (Reg 5, Section 213) to clarify that they are regulated as Wildland Vegetation Management (Prescribed Burning) fires (Reg 5, Section 401.15) when they are larger than 10 acres. During the workshop, some commenters expressed concern and confusion over the available burn windows and restrictions on certain types of prescribed burning. These amendments are intended to clarify that all prescribed burning plans are reviewed independently by the Air District and there are no set dates during which they must be conducted. Rather, prescribed burning may be conducted on any day so long as meteorological conditions are favorable such that it is a permissive burn day and the prescribed burn is conducted in accordance with an approved smoke management plan.

Specifically, the Air District will delineate within each subsection that certain fires greater than 10 acres in size, including any Crop Replacement fire, Range Management fire, Forest Management fire, and certain Hazardous Material fires, are considered prescribed burning and regulated as a Wildland Vegetation Management (Prescribed Burning) (Reg 5, Section 401.15) allowable fire. Prescribed burns are permissible year-round and must be conducted in accordance with an Air District-approved smoke management plan. Small fires (10 acres or smaller) are still subject to the Crop Replacement, Hazardous Material, Range Management and/or Forest Management requirements, as applicable. The proposed changes are administrative and would not change the intended definitions or purpose.

Allowable Fires: Marsh Management (Section 401.13)

Reg 5 currently limits Marsh Management fires to a Spring permissive burn period beginning February 1st and ending March 31st, and if heavy rainfall prevents a Spring burn season, the APCO has the authority to extend the season until June 30. In 2009, the Air District developed a policy to modify the Spring burn season to begin on March 1st and end on April 15th based on the marsh bird nesting season and guidance from the California Department of Fish and Wildlife.²¹ The Air District proposes to change the permissive burn period in Reg 5 to begin March 1st and end on April 15th to ensure consistency with the policy.

Allowable Fires: Wildland Management (Section 401.15)

The Wildland Vegetation Management fire type is currently defined in Reg 5, Section 401.15 as “prescribed burning by a state or federal agency or through a cooperative agreement involving the state or federal agency.” The Air District proposes to replace “state or federal” agency with “public” agency to be consistent with the proposed limited exemption for public agencies (Reg 5, Section 113).

²¹ BAAQMD Compliance & Enforcement Advisory 2009. http://www.baaqmd.gov/~media/files/compliance-and-enforcement/advisories/open-burning/changes_to_spring_marsh_burn_season_final.pdf?la=en

The Air District also proposes to add clarifying language that the burner shall comply with the approved smoke management plan. This change is consistent with the Air District published policies and procedures for the Open Burning program and is intended to clarify an existing requirement.²²

The Air District also proposes to remove references to dates that have already occurred. The proposed change is administrative and would not change the intended definition or purpose.²³

Wildland Vegetation Management Burn Requirements (Section 408)

The Air District proposes to remove references to dates that have already occurred. The proposed change is administrative and would not change the intended definition or purpose.

Open Burning Operation Fees (Section 411)

Reg 5 requires any person who conducts an allowable fire to pay an associated burn fee. The requirement currently does not specify when an applicant must pay the fee. The amendment is administrative and intended to clarify that the operation fee must be paid prior to burning.

IV. PROPOSED AMENDMENTS TO REGULATION 6: PARTICULATE MATTER AND VISIBLE EMISSIONS, RULE 3: WOOD-BURNING DEVICES

The purpose of Rule 6-3 is to protect public health by limiting emissions of particulate matter and visible emissions from wood-burning devices used for primary heat, supplemental heat or ambiance. When air quality is forecast to be unhealthy due to elevated levels of fine particulate matter, the rule allows the Air District to announce a Winter Spare the Air Alert and issue a Mandatory Burn Ban during the months of November through February to prohibit wood burning (Rule 6-3, Sections 211, 227, and 301). When particulate matter concentrations are forecast to exceed the federal NAAQS - 35 $\mu\text{g}/\text{m}^3$ in the wintertime, the Air District bans wood burning to protect public health.²⁴

When wood and other solid fuels are burned, the smoke emitted contains fine particulates, $\text{PM}_{2.5}$, that can penetrate deep into the lungs and cause serious health problems such as difficulty breathing, aggravated asthma and even premature death for people with heart or lung disease. Winter weather conditions, such as atmospheric inversions, can trap wood smoke close to the ground, concentrating air pollution to unhealthy levels. When these conditions occur, wood smoke accounts for the largest portion of wintertime fine particulate matter in the Bay Area.

The Air District recognizes that wildfires are becoming the new normal and is proposing amendments to Rule 6-3 to further protect public health year-round. As demonstrated by the Camp Fire, which occurred during November 2018, wildfires are not limited to the summer months and may occur at any time of the year. As discussed above, wildfires can cause air quality to be unhealthy and $\text{PM}_{2.5}$ levels to reach hazardous levels at times. If Bay Area residents were to burn wood during wildfire events, they would be contributing additional particulate matter to already

²² BAAQMD Compliance & Enforcement Division 2019. *Policy and Procedures Open Burning Regulation 5*. http://www.baaqmd.gov/~media/Files/Compliance%20and%20Enforcement/Policies%20and%20Procedures/reg5_guidelines_102003.ashx?la=en

²³ See Regulation 5, Section 401.15.

²⁴ Bay Area Air Quality Management District, 2008.

unhealthy air, exacerbating the existing public health emergency. The proposed amendments to Rule 6-3 would allow the Air District to prohibit wood burning throughout the year whenever particulate matter concentrations are forecast to exceed 35 $\mu\text{g}/\text{m}^3$.

The proposed rule changes do not affect the existing limited exemptions that allow wood burning when a Mandatory Burn Ban is in effect. Rule 6-3 limited exemptions for Sole Source of Heat (Section 110), Non-functional, Permanently Installed Heater (Section 111) and Loss of Natural Gas and/or Electric Power (Section 112) will continue to allow people who meet the limited exemption applicability, and who have registered EPA certified wood heaters (Section 404), to use a wood-burning device.

This section provides a description of the proposed amendments to Rule 6-3.

A. Clarification and Amendment of Definitions (Rule 6-3, Section 200)

The Air District proposes to amend the following definitions to support the rule amendments:

Mandatory Burn Ban (Section 211)

Currently, Rule 6-3 defines “Mandatory Burn Ban” as any period during which the air quality is forecast by the Air District to be unhealthy due to ambient levels of particulate matter and burning wood or any solid fuels is illegal in the Bay Area. The definition also specifies that a Mandatory Burn Ban is announced through a Winter Spare the Air Alert.

The Air District proposes to clarify the definition of a Mandatory Burn Ban by adding reference to the 24-hour $\text{PM}_{2.5}$ federal health standard of 35 $\mu\text{g}/\text{m}^3$. This is an administrative change as the $\text{PM}_{2.5}$ federal health standard is currently referenced in the definition of Winter Spare the Air Alert of the existing rule. There is no change to the $\text{PM}_{2.5}$ federal health standard of 35 $\mu\text{g}/\text{m}^3$.

Within the definition of Mandatory Burn Ban, the Air District also proposes to change how a Mandatory Burn Ban is announced by removing the word “winter” from “Winter Spare the Air Alert.” The proposed amendment clarifies that a Mandatory Burn Ban may be imposed whenever $\text{PM}_{2.5}$ concentrations are forecast to exceed 35 $\mu\text{g}/\text{m}^3$, regardless of the season. This proposed amendment is consistent with the proposed change in Section 224, Spare the Air Alert definition.

Rename “Winter Spare the Air Alert” to “Spare the Air Alert” (Section 224)

The purpose of the existing “Winter Spare the Air Alert” is to notify the general public when wood burning is prohibited due to anticipated unhealthy air quality from elevated $\text{PM}_{2.5}$ concentrations. The Air District proposes to rename the existing definition of “Winter Spare the Air Alert” to “Spare the Air Alert.” Removing the word “Winter” and renaming to “Spare the Air Alert” will allow the Air District to issue a Mandatory Burn Ban any time the Bay Area is forecast to be impacted by elevated concentrations of particulate matter. The proposed amendment also removes the 24-hour $\text{PM}_{2.5}$ federal health standard of 35 $\mu\text{g}/\text{m}^3$, which has been moved to the “Mandatory Burn Ban” definition (Section 211).

Remove “Winter Spare the Air Season” Definition (Section 228)

The Air District proposes to remove the definition of “Winter Spare the Air Season” to align with the proposed modifications to Sections 211 and 224. The removal of Section 228 would allow a “Spare the Air Alert” to be called any time the air quality in the Bay Area is forecast to be

unhealthy due to elevated levels of fine particulate matter. The purpose of this modification is to recognize that wildfires and associated particulate matter impacts can occur year-round.

B. Amendment of Standards (Rule 6-3, Section 300)

The Air District proposes to amend the following standard:

Mandatory Burn Ban (Section 301)

Rule 6-3 currently prohibits wood burning in the Bay Area during the months of November through February when air quality is forecast to exceed the 24-hour PM_{2.5} federal health standard of 35 µg/m³. To protect public health, the Air District announces a Winter Spare the Air Alert to notify the public that a Mandatory Burn Ban is in effect and burning wood or any other solid fuels is prohibited.

The Air District proposes to rename the “Mandatory Burn Ban” standard in Section 301 to “Burning Prohibited During Mandatory Burn Ban” to differentiate it from the “Mandatory Burn Ban” definition (Section 211). Since wildfires are unpredictable, emergency events that can occur at any time of the year and are not limited to the months of November through February, the Air District is also proposing to make the standard applicable year-round to better protect the health of Bay Area residents. The proposed amendment would extend the Air District’s authority to announce a Spare the Air Alert to issue a Mandatory Burn Ban any time PM_{2.5} concentrations are forecast to exceed 35 µg/m³. This change would ensure that air quality during wildfire events is not further exacerbated by wood-burning activities.

The proposed amendments are necessary to enhance enforceability of the rule and discourage individuals from operating wood-burning devices when the Bay Area is already being impacted by elevated particulate matter concentrations. In November 2018, the Air District issued a Winter Spare the Air Alert and Mandatory Burn Ban pursuant to Rule 6-3 due to the smoke impacts from the Butte County Camp Fire. The Burn Ban resulted in the issuance of 35 Notices of Violation to individuals who burned during the Mandatory Burn Ban. It is important to note that the Air District’s ability to issue the Notices of Violation was only possible because the wildfire occurred during the Winter Spare the Air Season (November – February). The proposed amendments would give the Air District authority to prohibit wood-burning activities should the Bay Area experience another devastating wildfire smoke event outside of the winter season.

Based on historical meteorology and emissions data, the Air District anticipates that projected PM_{2.5} exceedances and associated Mandatory Burn Bans would likely only occur during the wintertime (due to residential wood smoke) or when smoke from wildfires events impact the region. The Air District has never exceeded the federal PM_{2.5} standard outside of wintertime and wildfire-related PM_{2.5} events.

V. EMISSIONS REDUCTIONS

This section discusses the estimated changes in emissions as a result of the proposed amendments.

A. Regulation 5

In 2018 the Governor directed the State to increase the number of fuel reduction projects through prescribed burning, fuels treatment, and thinning of forests, and asked for regulators to align with statewide efforts. The Air District anticipates an increase in prescribed burning acreage and associated PM_{2.5} emissions from controlled burns due to statewide fuel reduction projects; however, the Air District's proposal to exempt Open Burning Operation Fees does not increase, or have an impact on PM_{2.5} emissions. Based on discussions with representatives from public agencies in the Bay Area that conduct prescribed burns, the Air District expects prescribed burning to increase whether or not it exempts public agencies from its Open Burning Operation Fees.

The Air District estimates that in 2017, the entire Open Burn program in the Bay Area generated a total of 175 tons of PM_{2.5}, which accounts for emissions from all 17 allowable fire types in Reg 5.²⁵ Prescribed burning is one of the 17 allowable fire types, and accounts for only a small fraction of the total PM_{2.5} emissions. In 2017, 527 acres were burned through prescribed burning, which generated 6.45 tons of PM_{2.5} emissions. In contrast, the 2017 North Bay wildfires (Tubbs, Nuns, and Atlas) burned approximately 155,000 acres in total and emitted approximately 49,000 tons of PM_{2.5}.²⁶

Controlled, prescribed burning has the potential to reduce PM_{2.5} emissions from catastrophic wildfire by reducing the amount of available fuel, but quantifying wildfire emission reductions from fuel reduction projects is not possible since wildfires are unpredictable, and there is not a comparable baseline of emission reductions.^{27, 28}

B. Rule 6-3

The Air District's proposal to prohibit wood-burning activities year-round, beyond the winter months of November – February when PM_{2.5} concentration is projected to exceed 35 ug/m³, is expected to further reduce PM_{2.5} emissions. The following emissions reduction calculations were performed by Air District staff using the 2011 emissions inventory and Bay Area survey data regarding woodburning patterns and frequency and assumes uniform burning throughout each day of the period between March 1 and October 31 of a given year, as well as a 100 percent compliance rate when the Air District prohibits wood burning through a Mandatory Burn Ban.

The Air District estimates that the proposed amendment to extend a Mandatory Burn Ban year-round would reduce PM_{2.5} emissions by an average of approximately 3.5 tons per day. This estimate is specifically for emissions reductions during the months of March through October and is based on the non-wintertime PM_{2.5} emissions inventory. Based on the historical evaluation of PM_{2.5} exceedances of 35 ug/m³, the Air District expects that projected PM_{2.5} exceedances and resultant Mandatory Burn Bans will likely only occur during the months of March through October if smoke from wildfire events impact the region. Between 2015 and 2018, wildfire smoke caused the Bay Area to exceed the PM_{2.5} standard of 35 ug/m³ a total of 33 times. Of these 33 days, 19 days occurred during the months of March through October. Averaging the 19 days over a 4-year

²⁵ California Emissions Projection Analysis Model 2016.

<https://www.arb.ca.gov/app/emsmv/fcemssumcat/fcemssumcat2016.php>

²⁶ US Forest Service BlueSky Inventory <https://www.fs.usda.gov/pnw/tools/bluesky-framework>

²⁷ Fernandes and Botelho, 2003.

²⁸ Berger et al, 2018.

period, results in approximately 5 days of wildfire-related exceedances per year outside of the current wintertime spare the air alert period. Using the calculated emissions reduction of 3.5 tons per day, if a Mandatory Burn Ban were to be called for each of these 5 days per year, PM_{2.5} emissions between the months of March through October would be reduced by approximately 17.5 tons annually.²⁹

VI. ECONOMIC IMPACTS

This section discusses the estimated costs and economic impacts associated with the proposed amendments.

A. Cost Effectiveness and Incremental Cost Effectiveness

Section 40920.6 of the California Health and Safety Code requires an air district to perform an incremental cost analysis for a proposed rule, if the purpose of the rule is to meet the requirement for best available retrofit control technology or for a feasible measure. The proposed amendments are not best available retrofit control technology requirements, nor are they a feasible measure required under the California Clean Air Act; therefore, an incremental cost analysis is not required.

B. Socioeconomic Impacts

Section 40728.5 of the California Health and Safety Code requires an air district to assess the socioeconomic impacts of the adoption, amendment, or repeal of a rule if the rule is one that “will significantly affect air quality or emissions limitations.” Bay Area Economics, Berkeley, California has conducted a separate socioeconomic study/analysis of the proposed amendments to Reg 5 and Rule 6-3. The analysis of Reg 5 concluded that there are no expected socioeconomic impacts associated with the proposed amendments. The analysis of the proposed amendments to Rule 6-3 concluded that the changes are not expected to impact households or other users affected by the ban and does not have the potential for significant impacts on businesses. The full analysis reports are included as Appendix A.

C. District Impacts

This section discusses the impacts to the Air District associated with the proposed amendments.

Regulation 5

The Air District does not anticipate the proposed public agency fee exemption to significantly impact program revenue; it is intended to complement statewide efforts to remove potential cost barriers associated with prescribed burning for wildfire prevention.

An increase in prescribed burning may result in an increased workload for staff in the Compliance and Enforcement and Meteorology and Measurements Divisions. This may include reviewing more smoke management plans and providing additional forecasting services. Air District staff are reviewing current policies and procedures to identify opportunities to streamline the Prescribed Burning Program, including integrating the Program into PFIRS.

²⁹ Bay Area Air Quality Management District, 2019

The Air District does not intend to hire additional staff to implement the proposed amendments to Reg 5.

Rule 6-3

The Air District anticipates increased outreach efforts to educate the public on the proposed changes to the Rule 6-3 and the corresponding Spare the Air program. As for the day-to-day program, current program staff can implement the proposed changes. The Air District does not intend to hire additional staff to implement the proposed amendments to Rule 6-3.

VII. REGULATORY IMPACTS

Section 40727.2 of the California Health and Safety Code requires an air district, in adopting, amending, or repealing an air district regulation, to identify existing federal and district air pollution control requirements for the equipment or source type affected by the proposed change in district rules. The district must then note any differences between these existing requirements and the requirements imposed by the proposed change. Adoption of these rule amendments do not conflict with any existing federal or Air District requirements.

VIII. ENVIRONMENTAL IMPACTS

The California Environmental Quality Act (CEQA), Public Resources Code section 21000 et seq., and the CEQA Guidelines, 14 CCR 15000 et seq., require a government agency that undertakes or approves a discretionary project to consider the potential impacts of that project on all environmental media. Certain types of agency actions are, however, exempt from CEQA requirements.

The proposed amendments to Reg 5 are necessary to prevent or mitigate wildfire-related public health and natural resource emergencies, and consist of the modification of public agency operating expense fees; thus, the amendments to Reg 5 are exempt from the provisions of CEQA pursuant to Public Resources Code section 21080(b)(4) (Specific actions necessary to prevent or mitigate an emergency [are exempt from CEQA]), and Public Resources Code section 21080(b)(8) (CEQA does not apply to “[t]he establishment, modification, structuring, restructuring, or approval of rates, tolls, fares, or other charges by public agencies”).

Likewise, because the amendments to Rule 6-3 are necessary to prevent or mitigate a public health emergency during wildfire events, the amendments to Rule 6-3 are also exempt from the provisions of CEQA pursuant to Public Resources Code section 21080(b)(4). The amendments to both Rules are also exempt from CEQA pursuant to CEQA Guidelines sections 15307 (action to assure the maintenance, restoration, or enhancement of a natural resource), 15308 (action to assure the maintenance, restoration, enhancement, or protection of the environment) and 15061(b)(3) (no possibility that the activity in question may have a significant effect on the environment).

In addition, and in the alternative, potential environmental impacts from banning wood burning during forecasted high particulate matter days was analyzed by the Air District when it first adopted Rule 6-3 on July 9, 2008 and certified a Final Environmental Impact Report (herein “EIR”) on that date. The Air District incorporates the EIR into the record, which found that the banning of wood burning on high particulate matter days would have considerable environmental benefits. These include a reduction of peak concentrations of PM_{2.5}, as well as a reduction in ozone-forming volatile

organic compounds, oxides of nitrogen, carbon monoxide, sulfur dioxide, and non-criteria pollutants, including toxic and carcinogenic compounds. The analysis also found that an increase in greenhouse gas emissions was not anticipated. No subsequent or supplemental EIR is required as there have not been substantial changes in the proposed project that would require major revisions to the EIR, there have not be substantial changes with respect to the circumstances under which the project is being undertaken that would require major revisions to the EIR, and there is no new information available that would change the analysis in the EIR. The analysis found that there would be no significant adverse environmental impacts from banning wood burning on days for which particulate matter is forecast to exceed the NAAQS. The 2008 Rule 6-3 adoption only banned wood burning if such forecasted particulate matter events occurred during wintertime, and the current proposed amendments will ban wood burning year-round during such forecasted events. However, the environmental impacts of banning wood remain the same or less significant under the current proposed Rule 6-3, as the Air District would expect more burning for ambiance rather than heat if wildfire events occur in warmer months and this burning would not be replaced by the burning of natural gas but cancelled altogether, reducing potential environmental impacts even further.

The Air District continues to believe both sets of amendments are exempt from CEQA. In the alternative, for the Rule 6-3 amendments, the Air District has also considered the EIR's findings that banning wood burning will not result in any significant adverse environmental impacts and will continue to rely on the EIR. The Air District plans to file a Notice of Exemption / Determination.

IX. RULE DEVELOPMENT / PUBLIC PARTICIPATION PROCESS

This rule amendment process included extensive outreach to ensure as many stakeholders as possible were involved in the development of this proposal. Outreach was made to the Bay Area Prescribed Fire Council, local units of CAL FIRE, local fire agencies, private and public land managers, Rule 6-3 stakeholders, and any interested members of the general public.

On June 25, 2019, the Air District issued a notice for a public workshop to discuss initial drafts of amendments to Reg 5: Open Burning and Rule 6-3: Wood-Burning Devices with interested parties. This notice was distributed to the Air District's Community Engagement stakeholders list, Rule Development stakeholder list, Prescribed Burners stakeholders list, Reg 5 Open Burners stakeholder list, and Rule 6-3 stakeholders list. On July 11, 2019, the Air District issued a news release to inform the media about the scheduled workshop. On July 24, 2019, a public workshop and simultaneous webcast was held to solicit comments from the public on the initial proposal.

The Air District published draft rule language for both rules and a workshop report on July 1, 2019 and those documents were available for an interim public comment period from July 1 to August 12, 2019. Public comments received were considered and appropriate changes were incorporated into the proposed rules and this staff report. The following is a summary of the public comments received during the interim public comment period:

- Concern with any increase in open burning in the Bay Area.
- Support for exempting Reg 5 fees for public agencies conducting prescribed burning.
- Confusion regarding and interest in streamlining the smoke management plan review process for prescribed burning.
- General questions about the current Reg 5 and Prescribed Burning Program procedures.

- Overall support for strengthening Rule 6-3 to protect public health.

The Air District has prepared a Hearing Package that will be published on the Air District website and made available for a 30-day public comment period in late-September 2019. The final rule amendment is scheduled to be presented to the Air District Board of Directors for consideration in November 2019.

X. CONCLUSION

Pursuant to Section 40727 of the California Health and Safety Code, the proposed rule amendment must meet findings of necessity, authority, clarity, consistency, non-duplication, and reference. The Air District has determined that the proposed rule amendments are:

- Necessary to protect public health by reducing particulate matter emissions to mitigate public health emergencies and assist in achieving state and federal ambient air quality standards for particulate matter and to remove potential cost barriers to prescribed burning for wildfire prevention in accordance with Executive Order N-05-19 and the March 22, 2019 Proclamation of a State of Emergency for California and CAL FIRE's recommendation that local air quality regulators encourage prescribed burning in *The Community Wildfire Prevention and Mitigation Report*, February 2019;
- Authorized by California Health and Safety Code Sections 40000, 40001, 40702, and 40725 through 40728;
- Clear, in that the new regulations specifically delineate the affected industry and persons, compliance options, and administrative requirements for industry and persons subject to the rules, so that their meaning can be easily understood by the persons directly affected by them;
- Consistent with other Air District rules, and not in conflict with state or federal law;
- Non-duplicative of other statutes, rules, or regulations; and
- Implementing, interpreting and making specific the provisions of the California Health and Safety Code sections 40000 and 40702.

The proposed rule amendments have met all legal noticing requirements, have been discussed with the regulated community, and reflect consideration of the input and comments of affected and interested parties. Air District staff recommends adoption of the proposed amendments to Regulation 5 and Regulation 6, Rule 3.

XI. REFERENCES

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XII. APPENDICES

- A. Socioeconomic Analysis**
- B. CEQA Analysis**
- C. Comments and Responses**