



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

BOARD OF DIRECTORS REGULAR MEETING

November 20, 2019

A meeting of the Bay Area Air Quality Management District Board of Directors will be held at 9:30 a.m. in the 1st Floor Board Room at the Air District Headquarters, 375 Beale Street, San Francisco, California 94105.

Questions About an Agenda Item

The name, telephone number and e-mail of the appropriate staff person to contact for additional information or to resolve concerns is listed for each agenda item.

Meeting Procedures

The public meeting of the Air District Board of Directors begins at 9:30 a.m. The Board of Directors generally will consider items in the order listed on the agenda. However, any item may be considered in any order.

After action on any agenda item not requiring a public hearing, the Board may reconsider or amend the item at any time during the meeting.

This meeting will be webcast. To see the webcast, please visit www.baaqmd.gov/bodagendas at the time of the meeting. Closed captioning may contain errors and omissions, and are not certified for their content or form.

Public Comment Procedures

Persons wishing to make public comment must fill out a Public Comment Card indicating their name and the number of the agenda item on which they wish to speak, or that they intend to address the Board on matters not on the Agenda for the meeting.

Public Comment on Non-Agenda Matters, Pursuant to Government Code Section 54954.3 Speakers wishing to address the Board on non-agenda matters will be heard at the end of the agenda, and each will be allowed up to three minutes to address the Board at that time.

Members of the Board may engage only in very brief dialogue regarding non-agenda matters, and may refer issues raised to District staff for handling. In addition, the Chairperson may refer issues raised to appropriate Board Committees to be placed on a future agenda for discussion.

Public Comment on Agenda Items The public may comment on each item on the agenda as the item is taken up. Public Comment Cards for items on the agenda must be submitted in person to the Clerk of the Boards at the location of the meeting and prior to the Board taking up the particular item. Where an item was moved from the Consent Calendar to an Action item, no speaker who has already spoken on that item will be entitled to speak to that item again.

Speakers may speak for up to three minutes on each item on the Agenda. However, the Chairperson or other Board Member presiding at the meeting may limit the public comment for all speakers to fewer than three minutes per speaker, or make other rules to ensure that all speakers have an equal opportunity to be heard. The Chairperson or other Board Member presiding at the meeting may, with the consent of persons representing both sides of an issue, allocate a block of time (not to exceed six minutes) to each side to present their issue.

BOARD OF DIRECTORS REGULAR MEETING AGENDA

WEDNESDAY
NOVEMBER 20, 2019
9:30 A.M.

BOARD ROOM
1ST FLOOR

CALL TO ORDER

Chairperson, Katie Rice

1. **Opening Comments**
Roll Call
Pledge of Allegiance

The Chair shall call the meeting to order and make opening comments. The Clerk of the Boards shall take roll of the Board members. The Chair shall lead the Pledge of Allegiance.

PUBLIC COMMENT ON NON-AGENDA MATTERS

2. **Public Comment on Non-Agenda Items, Pursuant to Government Code Section 54954.3**
For the first round of public comment on non-agenda matters at the beginning of the agenda, ten persons selected by a drawing by the Clerk of the Boards from among the Public Comment Cards indicating they wish to speak on matters not on the agenda for the meeting will have two minutes each to address the Board on matters not on the agenda. For this first round of public comments on non-agenda matters, all Public Comment Cards must be submitted in person to the Clerk of the Board at the location of the meeting and prior to commencement of the meeting.

COMMENDATIONS/PROCLAMATIONS/AWARDS

3. *The Board of Directors will recognize Linda Duca for receiving the Rodney Swartzendruber Outstanding Inspector Award.*
4. *The Board of Directors will recognize Air District Staff who have been working on the Assembly Bill (AB) 617 West Oakland Community Action Plan.*

CONSENT CALENDAR (ITEMS 5-14)

Staff/Phone (415) 749-

5. Minutes of the Board of Directors Special Meeting of October 2, 2019

Clerk of the Boards/5073

The Board of Directors will consider approving the draft minutes of the Board of Directors Special Meeting of October 2, 2019.

6. Board Communications Received from October 2, 2019 through November 19, 2019
J. Broadbent/5052
jbroadbent@baaqmd.gov

A copy of communications directed to the Board of Directors received by the Air District from October 2, 2019 through November 19, 2019, if any, will be at each Board Member's place.

7. Notices of Violations Issued and Settlements in Excess of \$10,000 in the months of September 2019
J. Broadbent/5052
jbroadbent@baaqmd.gov

In accordance with Resolution No. 2012-08, the Board of Directors will receive a list of all Notices of Violations issued, and all settlements for amounts in excess of \$10,000 during the month of September 2019.

8. Air District Personnel on Out-of-State Business Travel
J. Broadbent/5052
jbroadbent@baaqmd.gov

In accordance with Section (b) of the Air District's Administrative Code, Fiscal Policies and Procedures Section, the Board is hereby notified that the attached memorandum lists Air District personnel who have traveled on out-of-state business in the preceding months.

9. Quarterly Report of California Air Resources Board Representative – Honorable John Gioia
J. Broadbent/5052
jbroadbent@baaqmd.gov

10. Quarterly Report of the Executive Office and Division Activities for the Months of July 2019 – September 2019
J. Broadbent/5052
jbroadbent@baaqmd.gov

A summary of Board of Directors, Hearing Board, and Advisory Council meeting activities for the third quarter is provided for information only. Also included is a summary of the Executive Office and Division Activities for the months of July 2019 – September 2019.

11. Authorization to Execute a Contract for Odor Attribution Study in the South Bay
J. Broadbent/5052
jbroadbent@baaqmd.gov

The Board of Directors will consider authorizing the Executive Officer/APCO to execute a contract with Jacobs Engineering Group (Jacobs) at a cost not to exceed \$500,000 to perform an odor attribution study in the South Bay.

12. Set a Public Hearing for December 4, 2019 to Consider Adoption of Proposed Amendments to Regulation 12: Miscellaneous Standards of Performance, Rule 15: Petroleum Refining Emissions Tracking; and Approval of Filing a Notice of Exemption from the California Environmental Quality Act (CEQA)

J. Broadbent/5052
jbroadbent@baaqmd.gov

At the December 4, 2019 meeting, the Board of Directors will consider adopting proposed amendments to Regulation 12: Miscellaneous Standards of Performance, Rule 15: Petroleum Refining Emissions Tracking; and approval of filing a Notice of Exemption from the California Environmental Quality Act (CEQA). The proposed amendments revise and establish emissions reporting deadlines to coordinate with state-level regulations.

13. Acceptance and Award of Grant Funding

J. Broadbent/5052
jbroadbent@baaqmd.gov

The Board of Directors will consider authorizing the Executive Officer/APCO to enter into all necessary agreements with partner air districts and Caltrans for a locomotive replacement project and accept, obligate, and expend new funding for the Fund Agricultural Reduction Measures for Emission Reductions Program and approve the authorizing resolution.

14. Delegate Authority to Metropolitan Transportation Commission (MTC) to Conduct a Public Hearing on Proposed Amendments to Bay Area Transportation Conformity and Interagency Consultation Procedures in the State Implementation Plan (SIP)

J. Broadbent/5052
jbroadbent@baaqmd.gov

The Board of Directors will consider delegating authority to MTC to conduct a public hearing on proposed amendments to Bay Area Transportation Conformity and Interagency Consultation Procedures for projects and programs in eastern Solano County.

COMMITTEE REPORTS

15. Report of the Technology Implementation Office Steering Committee Meeting of October 4, 2019

CHAIR: C. Chavez

J. Broadbent/5052
jbroadbent@baaqmd.gov

The Committee received the following reports:

A) Technology Implementation Office Overview

1) None; receive and file.

B) Climate Tech Finance Program Update

1) None; receive and file.

C) Programs to Accelerate Electric Vehicle Adoption

1) None; receive and file.

For the full Committee agenda packet and materials, click on the link below:

www.baaqmd.gov/bodagendas

16. Report of the Legislative Committee Meeting of October 9, 2019
CHAIR: M. Abe-Koga

J. Broadbent/5052
jbroadbent@baaqmd.gov

The Committee received the following reports:

A) **Recap of the 2019 Legislative Year**

1) *None; receive and file.*

B) **Assembly Bill (AB) 836 (Wicks) – Wildfire Smoke Clean Air Centers for Vulnerable Populations Incentive Pilot Program**

1) *None; receive and file.*

C) **2020 Legislative Priorities**

1) *The Committee will receive a report on potential legislative activities in 2020, providing direction as necessary.*

For the full Committee agenda packet and materials, click on the link below:

www.baaqmd.gov/bodagendas

17. Report of the Personnel Committee Meeting of October 16, 2019
CHAIR: J. Spering

J. Broadbent/5052
jbroadbent@baaqmd.gov

The Committee received the following reports:

A) **Request to Amend the Fiscal Year Ending (FYE) 2020 Budget to Increase Staffing**

1) *Recommend the Board of Directors (Board) amend the Fiscal Year Ending (FYE) 2020 budget to authorize the creation of ten (10) additional full-time regular positions.*

For the full Committee agenda packet and materials, click on the link below:

www.baaqmd.gov/bodagendas

18. Report of the Mobile Source Committee meeting of October 24, 2019
CHAIR: D. Canepa

J. Broadbent/5052
jbroadbent@baaqmd.gov

The Committee received the following reports:

A) **Projects and Contracts with Proposed Grant Awards Over \$100,000**

1) *Approve recommended projects with proposed grant awards over \$100,000 as shown in Attachment 1; and*

2) *Authorize the Executive Officer/APCO to enter into all necessary agreements with applicants for the recommended projects.*

B) Proposed Updates to the Transportation Fund for Clean Air (TFCA) County Program Manager Fund Policies for Fiscal Year Ending (FYE) 2021

- 1) *Recommend Board of Directors approve the proposed updates to the Transportation Fund for Clean Air (TFCA) County Program Manager Fund Policies for Fiscal Year Ending (FYE) 2021.*

C) Diesel Free by '33: Update on Zero-Emission Medium- and Heavy-Duty Mobile Source Technologies

- 1) *None; receive and file.*

For the full Committee agenda packet and materials, click on the link below:

www.baaqmd.gov/bodagendas

19. Report of the Advisory Council Meeting of October 28, 2019

BOARD LIAISON: R. Sinks

J. Broadbent/5052
jbroadbent@baaqmd.gov

The Council received the following report:

A) Particulate Matter (PM) Symposium

- 1) *None; receive and file.*

For the full Committee agenda packet and materials, click on the link below:

www.baaqmd.gov/ADVagendas

20. Report of the Community and Public Health Committee meeting of October 30, 2019

CHAIR: S. Zane

J. Broadbent/5052
jbroadbent@baaqmd.gov

The Committee received the following reports:

A) Youth for the Environment and Sustainability (YES) Conference Update

- 1) *None; receive and file.*

B) Assembly Bill (AB) 617 Implementation into 2020

- 1) *None; receive and file.*

C) Report on the NuStar Terminal Incident on October 15, 2019

- 1) *None; receive and file.*

For the full Committee agenda packet and materials, click on the link below:

www.baaqmd.gov/bodagendas

21. Report of the Executive Committee meeting of November 6, 2019

CHAIR: K. Rice

J. Broadbent/5052
jbroadbent@baaqmd.gov

The Committee received the following reports:

A) Hearing Board Quarterly Report: July 2019 – September 2019

1) *None; receive and file.*

B) Bay Area Regional Collaborative (BARC) Update

1) *None; receive and file.*

C) Report on the Advisory Council Meeting from October 28, 2019

1) *None; receive and file.*

D) Assembly Bill (AB) 617 Implementation into 2020

1) *None; receive and file.*

E) Report on Recent Incident Response Events

1) *None; receive and file.*

F) Request to Amend the Fiscal Year Ending (FYE) 2020 Budget to Increase Staffing

1) *Recommend the Board of Directors (Board) amend the Fiscal Year Ending (FYE) 2020 budget to authorize the creation of ten (10) additional full-time regular positions.*

For the full Committee agenda packet and materials, click on the link below:

www.baaqmd.gov/bodagendas

22. Report of the Nominating Committee meeting of November 20, 2019

CHAIR: K. Rice

J. Broadbent/5052
jbroadbent@baaqmd.gov

The Committee will receive the following report:

A) Consideration and Nomination of Board Officers for the Term of Office Commencing 2020

1) *Chairperson;*

2) *Vice Chairperson; and*

3) *Secretary.*

For the full Committee agenda packet and materials, click on the link below:

www.baaqmd.gov/bodagendas

PUBLIC HEARING

23. Public Hearing to Consider Adoption of Proposed Amendments to Regulation 5: Open Burning and Regulation 6: Particulate Matter and Visible Emissions, Rule 3: Wood Burning Devices; and Approval of Filing a Notice of Exemption/Determination Pursuant to the California Environmental Quality Act (CEQA)

The proposed amendments are part of the Air District's Wildfire Air Quality Response Program intended to prepare for, prevent, and respond to future wildfires and ensure health-protective measures and strategies are in place.

PRESENTATIONS

24. Report on the Air District Incident Response Role and Recent Incident Response Events

The Board of Directors will receive an overview on the Air District's Incident Response Role and Recent Incident Response Events.

25. Assembly Bill (AB) 617 Implementation into 2020

The Board of Directors will receive an overview of what has been accomplished through the Air District's Assembly Bill (AB) 617 Community Health Protection Program thus far and plans for the program over the coming year.

PUBLIC COMMENT ON NON-AGENDA MATTERS

26. **Public Comment on Non-Agenda Items, Pursuant to Government Code Section 54954.3**

Speakers who did not have the opportunity to address the Board in the first round of comments on non-agenda matters will be allowed two minutes each to address the Board on non-agenda matters.

BOARD MEMBERS' COMMENTS

27. *Any member of the Board, or its staff, on his or her own initiative or in response to questions posed by the public, may: ask a question for clarification, make a brief announcement or report on his or her own activities, provide a reference to staff regarding factual information, request staff to report back at a subsequent meeting concerning any matter or take action to direct staff to place a matter of business on a future agenda. (Gov't Code § 54954.2)*

OTHER BUSINESS

28. Report of the Executive Officer/APCO

29. Chairperson's Report

30. Time and Place of Next Meeting:

Wednesday, December 4, 2019, at 375 Beale Street, San Francisco, CA 94105 at 9:30 am

31. Adjournment

The Board meeting shall be adjourned by the Board Chair.

CONTACT:

MANAGER, EXECUTIVE OPERATIONS
375 BEALE STREET, SAN FRANCISCO, CA 94105
vjohnson@baaqmd.gov

(415) 749-4941
FAX: (415) 928-8560
BAAQMD homepage:
www.baaqmd.gov

- To submit written comments on an agenda item in advance of the meeting. Please note that all correspondence must be addressed to the “Members of the Board of Directors” and received at least 24 hours prior, excluding weekends and holidays, in order to be presented at that Board meeting. Any correspondence received after that time will be presented to the Board at the following meeting.
- To request, in advance of the meeting, to be placed on the list to testify on an agenda item.
- Any writing relating to an open session item on this Agenda that is distributed to all, or a majority of all, members of the body to which this Agenda relates shall be made available at the District’s offices at 375 Beale Street, Suite 600, San Francisco, CA 94105, at the time such writing is made available to all, or a majority of all, members of that body.

Accessibility and Non-Discrimination Policy

The Bay Area Air Quality Management District (Air District) does not discriminate on the basis of race, national origin, ethnic group identification, ancestry, religion, age, sex, sexual orientation, gender identity, gender expression, color, genetic information, medical condition, or mental or physical disability, or any other attribute or belief protected by law.

It is the Air District’s policy to provide fair and equal access to the benefits of a program or activity administered by Air District. The Air District will not tolerate discrimination against any person(s) seeking to participate in, or receive the benefits of, any program or activity offered or conducted by the Air District. Members of the public who believe they or others were unlawfully denied full and equal access to an Air District program or activity may file a discrimination complaint under this policy. This non-discrimination policy also applies to other people or entities affiliated with Air District, including contractors or grantees that the Air District utilizes to provide benefits and services to members of the public.

Auxiliary aids and services including, for example, qualified interpreters and/or listening devices, to individuals who are deaf or hard of hearing, and to other individuals as necessary to ensure effective communication or an equal opportunity to participate fully in the benefits, activities, programs and services will be provided by the Air District in a timely manner and in such a way as to protect the privacy and independence of the individual. Please contact the Non-Discrimination Coordinator identified below at least three days in advance of a meeting so that arrangements can be made accordingly.

If you believe discrimination has occurred with respect to an Air District program or activity, you may contact the Non-Discrimination Coordinator identified below or visit our website at www.baaqmd.gov/accessibility to learn how and where to file a complaint of discrimination.

Questions regarding this Policy should be directed to the Air District’s Non-Discrimination Coordinator, Rex Sanders, at (415) 749-4951 or by email at rsanders@baaqmd.gov.

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

375 BEALE STREET, SAN FRANCISCO, CA 94105

FOR QUESTIONS PLEASE CALL (415) 749-4941

EXECUTIVE OFFICE:

MONTHLY CALENDAR OF AIR DISTRICT MEETINGS

NOVEMBER 2019

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Board of Directors Stationary Source Committee – CANCELLED AND RESCHEDULED TO MONDAY, DECEMBER 16, 2019	Monday	18	9:30 a.m.	1 st Floor Board Room
Board of Directors Nominating Committee	Wednesday	20	9:00 a.m.	1 st Floor Board Room
Board of Directors Regular Meeting	Wednesday	20	9:30 a.m.	1 st Floor Board Room
Board of Directors Climate Protection Committee - CANCELLED	Thursday	21	9:30 a.m.	1 st Floor Board Room
Board of Directors Community & Public Health Committee - CANCELLED	Thursday	21	9:30 a.m.	1 st Floor Board Room
Board of Directors Budget & Finance Committee	Monday	25	9:30 a.m.	1 st Floor Board Room
Board of Directors Legislative Committee	Monday	25	10:45 a.m.	1 st Floor Board Room
Board of Directors Mobile Source Committee - CANCELLED	Thursday	28	9:30 a.m.	1 st Floor Board Room

DECEMBER 2019

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Board of Directors Climate Protection Committee	Monday	2	9:30 a.m.	1 st Floor Board Room
Board of Directors Regular Meeting	Wednesday	4	9:30 a.m.	1 st Floor Board Room
Advisory Council Meeting	Monday	9	10:00 a.m.	1 st Floor Board Room
Board of Directors Stationary Source Committee	Monday	16	9:30 a.m.	1 st Floor Board Room
Board of Directors Executive Committee - CANCELLED	Wednesday	18	9:30 a.m.	1 st Floor Board Room
Board of Directors Mobile Source Committee	Wednesday	18	9:30 a.m.	1 st Floor Yerba Buena Room
Board of Directors Budget & Finance Committee - CANCELLED	Wednesday	25	9:30 a.m.	1 st Floor Board Room
Board of Directors Mobile Source Committee – CANCELLED AND RESCHEDULED TO WEDNESDAY, DECEMBER 18, 2019	Thursday	26	9:30 a.m.	1 st Floor Board Room

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Katie Rice and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 13, 2019

Re: Minutes of the Board of Directors Special Meeting of October 2, 2019

RECOMMENDED ACTION

Approve the attached draft minutes of the Board of Directors Special Meeting of October 2, 2019.

DISCUSSION

Attached for your review and approval are the draft minutes of the Board of Directors Special Meeting of October 2, 2019.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Marcy Hiratzka
Reviewed by: Vanessa Johnson

Attachment 5A: Draft Minutes of the Board of Directors Special Meeting of October 2, 2019

AGENDA 5A – ATTACHMENT

Draft Minutes - Board of Directors Special Meeting of October 2, 2019

Waterfront Hotel
10 Washington Street, Spinnaker Room
Oakland, CA 94607

Board of Directors Special Meeting
Wednesday, October 2, 2019

DRAFT MINUTES

*Note: Audio recordings of the meeting are available on the website of the
Bay Area Air Quality Management District at
www.baaqmd.gov/bodagendas*

CALL TO ORDER

1. **Opening Comments:** Board of Directors (Board) Chairperson, Katie Rice, called the meeting to order at 10:33 a.m.

Roll Call:

Present: Chairperson Katie Rice; Vice Chairperson Rod Sinks; Secretary Cindy Chavez; and Directors Teresa Barrett, John J. Bauters, David J. Canepa, Pauline Russo Cutter, John Gioia, David Hudson, Tyrone Jue, Liz Kniss, Nate Miley, Karen Mitchoff, Mark Ross, Jim Sperring, Brad Wagenknecht, and Shirlee Zane.

Absent: Directors Margaret Abe-Koga, Carole Groom, Scott Haggerty, Doug Kim, Gordon Mar, Shamann Walton, and Lori Wilson.

PUBLIC COMMENT ON NON-AGENDA MATTERS

2. **Public Comment on Non-Agenda Items, Pursuant to Government Code Section 54954.3**

Public comments were given by Veronica Pardo, California Refuse Recycling Council.

CONSENT CALENDAR (ITEMS 3 – 7)

3. Minutes of the Board of Directors Meeting of September 18, 2019
4. Board Communications Received from September 18, 2019 through October 1, 2019
5. Set a Public Hearing for November 6, 2019 to Consider Adoption of Proposed Amendments to Regulation 5: Open Burning, Adoption of Proposed Amendments to Regulation 6: Particulate Matter and Visible Emissions, Rule 3: Wood Burning Devices; and Approval of Filing a Notice of Exemption from the California Environmental Quality Act (CEQA)
6. Authorization of a One-Year Intergovernmental Personnel Act Agreement with U.S. Environmental Protection Agency (EPA) Region 9
7. Authorization for Air District Payment to Hilltop Commercial Condominium Association (HOA) for Security Fencing and Gates at Richmond Headquarters East

Public Comments

Public comments were given by Tony Fisher, Coalition for Clean Air.

Board Comments

The Board and staff discussed the request that Air District staff informs the Board of procurement methods used when awarding Air District contracts; why the Air District plans to recommend proposed amendments to Regulation 5: Open Burning and Regulation 6: Particulate Matter and Visible Emissions, Rule 3: Wood Burning Devices in a single public hearing; and the Air District's revision of organic recovery rule schedules to accommodate further engagement with industry stakeholders.

Board Action:

Director Bauters made a motion, seconded by Director Hudson, to **approve** the Consent Calendar Items 3 through 7, inclusive; and the motion **carried** by the following vote of the Board:

- AYES: Barrett, Bauters, Chavez, Gioia, Hudson, Jue, Kniss, Mitchoff, Rice, Ross, Sinks, Spering, Wagenknecht, Zane.
- NOES: None.
- ABSTAIN: None.
- ABSENT: Abe-Koga, Canepa, Cutter, Groom, Haggerty, Kim, Mar, Miley, Walton, Wilson.

NOTED PRESENT: Director Canepa was noted present at 10:41 a.m.

COMMITTEE REPORTS

8. Report of the Climate Protection Committee Meeting of September 19, 2019

Climate Protection Committee Chair, Teresa Barrett, read the following Committee report:

The Climate Protection Committee met on Thursday, September 19, 2019, and due to a lack of a quorum, did not approve the minutes of June 10, 2019.

The Committee received and discussed the presentation Berkeley's Gas Prohibition Ordinance, presented by the Office of Berkeley Councilmember, Kate Harrison.

Finally, the Committee received and discussed the staff presentation Update on Region-Wide Fluorinated-Gases (F-Gas Strategy.)

The next meeting of the Climate Protection Committee will be held at the Call of the Chair. This concludes the Chair report of the Climate Protection Committee.

Public Comments

No requests received.

Board Comments

None.

Board Action

None; receive and file.

NOTED PRESENT: Director Cutter was noted present at 10:44 a.m.

9. Report of the Mobile Source Committee Meeting of September 26, 2019

Mobile Source Committee Chair, David J. Canepa, read the following Committee report:

The Committee met on Thursday, September 26, 2019, and approved the minutes of July 25, 2019.

The Committee reviewed and discussed the staff presentation Projects and Contracts with Proposed Grant Awards Over \$100,000. The Committee recommends the Board:

- 1. Approve recommended projects with proposed grant awards over \$100,000;*
- 2. Approve a recommended update to Fiscal Year Ending 2020 Transportation Fund for Clean Air Regional Fund Policies to clarify the requirement regarding vehicle weight classification; and*
- 3. Authorize the Executive Officer/Air Pollution Control Officer to enter into all necessary agreements with applicants for the recommended projects.*

The Committee then reviewed and discussed the staff presentation Charge! Program Projects and Contracts with Proposed Grant Awards Over \$100,000. The Committee recommends the Board:

- 1. Approve recommended Charge! Program projects with proposed grant awards over \$100,000; and*
- 2. Authorize the Executive Officer/Air Pollution Control Officer to enter into all necessary agreements with applicants for the recommended projects.*

The Committee then reviewed and discussed the staff presentation Update on Volkswagen Environmental Mitigation Trust Grant Program. The Committee recommends the Board:

- 1. Authorize the Executive Officer/Air Pollution Control Officer to enter into agreements with eligible applicants for all projects approved by the California Air Resources Board and funded by the Volkswagen Environmental Mitigation Trust.*

Finally, the Committee reviewed and discussed the staff presentation Update on National Highway Traffic Safety Administration / Environmental Protection Agency Proposed Safer Affordable Fuel-Efficient Vehicles Rule.

The next meeting of the Mobile Source Committee will be on Thursday, October 24, 2019, at 9:30 a.m. I move that the Board approve the Mobile Source Committee's recommendations. This concludes the Chair Report of the Mobile Source Committee.

Public Comments

No requests received.

Board Comments

None.

Board Action

Director Canepa made a motion, seconded by Director Kniss, to **approve** the recommendations of the Mobile Source Committee; and the motion **carried** by the following vote of the Board:

AYES: Barrett, Bauters, Canepa, Chavez, Cutter, Gioia, Hudson, Jue, Kniss, Mitchoff, Rice, Ross, Sinks, Spering, Wagenknecht, Zane.
NOES: None.
ABSTAIN: None.
ABSENT: Abe-Koga, Groom, Haggerty, Kim, Mar, Miley, Walton, Wilson.

PUBLIC HEARING

10. Public Hearing to Consider Certification of Final Environmental Impact Report and Adoption of Proposed Plan “Owning Our Air: The West Oakland Community Action Plan”

Gregory Nudd, Deputy Air Pollution Control Officer of Policy, introduced Henry Hilken, Director of Planning and Climate Protection, who gave the staff presentation *Owing Our Air – West Oakland Community Action Plan (Plan)*, including: Assembly Bill (AB) 617 communities; health indicator rates in West Oakland and Alameda County 2016-2017; Air District and West Oakland Environmental Indicators Project (WOEIP) partnership; the Steering Committee’s plan; air quality measurements inform the plan; air pollution block-by-block; neighborhood sources and targets; neighborhood pollution contributors; high standards for air quality and health; West Oakland strategies; Draft Plan; town hall; public comments on the Draft Plan; Proposed Final Plan; comments regarding Howard Terminal; compliance with CEQA; next steps; and recommended actions.

Ms. Margaret Gordon and Brian Beveridge of the West Oakland Environmental Indicators Project gave their perspective on AB 617 development with the Air District in West Oakland.

Chair Rice opened the Public Hearing.

Public Comments

Public comments were given by Bill Aboudi, AB Trucking; Richard Grow, US EPA; Alexandria McBride, City of Oakland; Bradley Cleveland, The Public Works; Taj Tashombe, Oakland Athletics; Jed Holtzman, 350 Bay Area; Roman Berenshteyn, Bay Planning Coalition; Richard Sinkoff, Port of Oakland; Hon. Rebecca Kaplan, City of Oakland; and Danny Wan, Port of Oakland.

Committee Comments

The Board and staff discussed whether the Air District is aware of Alameda County Transportation Commission’s San Pablo Avenue Multimodal Corridor Project, and the suggestion that the two agencies become aware of each other’s efforts in overlapping project territory; whether the health of residents that live south of Interstate 880 will be improved by the Plan; the need to be mindful of opportunities for job creation during the implementation of the Plan; how the Air District plans to measure the Plan’s implementation progress and make data available to the public; the suggestion that Board members engage with regional/local agencies that have land use authority to advocate for AB 617 efforts; how AB 617 implementation in West Oakland will be executed and what the Air District’s role will be; whether the dual tasks of implementing and planning will eventually put a strain on Air District staff resources, as more Bay Area communities are approved for AB 617 funding; the request that the Plan’s strategies that were designed to reduce emissions and exposure, and the Plan’s quantified emission reduction targets and benefits, be distributed to the Board members; the need to prioritize the reduction of emissions in disadvantaged communities; the need for younger generations to acknowledge and continue this work; appreciation for the clarity of the “Authority” column of the Plan’s strategies chart; the concern that AB 617 implementation in an area may lead to subsequent gentrification of that area, potentially pricing out the low-income residents who originally advocated for the improvements to the area; appreciation of Air District staff for holding public meetings in communities in which issues are occurring; the need for legislative advocacy to ensure long-term AB 617 funding; the importance of forming partnerships with communities and listening to their suggestions; whether it can be expected that regional local contributions to cancer risk will be reduced after the implementation of Air District Rule 11-18: Hazardous Pollutants, Reduction of Risk from Air Toxic Emissions at Existing Facilities; whether air filtration systems can be required in facilities of impacted communities, and whether the Air District can offer special incentives there; and the suggestion that the Bay Area Regional Collaborative brings the Plan before its Governing Board (composed of Commissioners and Board members of the Association of Bay Area Governments, the Air District, Metropolitan Transportation Commission, and Bay Conservation and Development Commission) to encourage other Bay Area jurisdictions to adopt the Plan and share stewardship and resources.

NOTED PRESENT: Director Miley was noted present at 11:37 a.m.

Chair Rice closed the Public Hearing.

Board Action

Director Bauters made a motion, seconded by Director Hudson, to **certify** the Final Environmental Impact Report (EIR) and **adopt** the findings set forth in the Final EIR for proposed plan *Owning Our Air: The West Oakland Community Action Plan*; and the motion **carried** by the following vote of the Board:

- AYES: Barrett, Bauters, Canepa, Chavez, Cutter, Gioia, Hudson, Jue, Kniss, Miley, Rice, Ross, Sinks, Spering, Wagenknecht, Zane.
- NOES: None.
- ABSTAIN: None.
- ABSENT: Abe-Koga, Groom, Haggerty, Kim, Mar, Mitchoff, Walton, Wilson.

Director Bauters made a motion, seconded by Director Hudson, to **adopt** the proposed plan *Owning Our Air: The West Oakland Community Action Plan*; and the motion **carried** by the following vote of the Board:

AYES: Barrett, Bauters, Canepa, Chavez, Cutter, Gioia, Hudson, Jue, Kniss, Miley, Rice, Ross, Sinks, Spering, Wagenknecht, Zane.
NOES: None.
ABSTAIN: None.
ABSENT: Abe-Koga, Groom, Haggerty, Kim, Mar, Mitchoff, Walton, Wilson.

CLOSED SESSION (12:27 p.m.)

11. CONFERENCE WITH LEGAL COUNSEL

A. EXISTING LITIGATION (Government Code Section § 54956.9(a))

Pursuant to Government Code Section 54956.9(a), a need exists to meet in closed session with legal counsel to consider the following case:

Michael Bachmann and Sarah Steele v. Bay Area AQMD, Contra Costa County Superior Court, Case No. C17-01565

Reportable Action: Brian Bunger, Air District Counsel, reported that the Board gave direction to Air District staff in terms of settlement of the aforementioned case.

OPEN SESSION (1:10 p.m.)

PUBLIC COMMENT ON NON-AGENDA MATTERS

12. Public Comment on Non-Agenda Items, Pursuant to Government Code Section 54954.3

No requests received.

BOARD MEMBERS' COMMENTS

13. Board Members' Comments

Director Bauters acknowledged Air District staff for including active transit options to the "Travel Reimbursement" form that Board members fill out at each public meeting they attend.

OTHER BUSINESS

14. Report of the Executive Officer/Air Pollution Control Officer

Mr. Broadbent reported the following:

- Governor Brown signed AB 836, the Air District-sponsored bill introduced by Assemblymember Buffy Wicks, regarding the Wildfire Smoke Clean Air Centers for Vulnerable Populations Incentive Program, on October 2, 2019.
- Annie Hargrove, formerly with the California Air Pollution Control Officers Association, has been hired as a Staff Specialist in the Air District's Legislative office.

- Thus far in 2019, Bay Area ozone levels have exceeded the National Ambient Air Quality Standards nine times, and the Air District anticipates that this trend will continue, due to climate change.
- Based on feedback from affected industry, municipal partners, and organic recovery advocates, the Air District is revising its approach to developing rules addressing emissions of methane and volatile organic compounds from organic recovery operations. Air District staff is making appropriate adjustments to the development of draft Rules 13-2: Organic Material Handling Operations, and 13-3: Composting Operations. The Air District's Revised Organic Recovery Rule Tentative Schedule will be posted on the Air District's website.
- The next meeting of the Air District's Advisory Council will be held on Monday, October 28, 2019, at 9:00 a.m. This meeting will also serve as the first of four Particulate Matter symposia to be facilitated by the Advisory Council. Gina McCarthy, former EPA Administrator, will give the keynote address at this meeting.

15. Chairperson's Report

Chair Rice reported the following:

- Board members will receive an e-mail from Air District staff requesting Board Officer nominations for the calendar year of 2020.
- Board members will receive an e-mail from Air District staff requesting interest in Board committee assignments for the calendar year of 2020.

16. Time and Place of Next Meeting

Wednesday, November 20, 2019, at 375 Beale Street, San Francisco, CA 94105 at 9:30 a.m.

17. Adjournment

The meeting adjourned at 1:18 p.m.

Marcy Hirtzka
Clerk of the Boards

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Katie Rice and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 13, 2019

Re: Board Communications Received from October 2, 2019 through November 19, 2019

RECOMMENDED ACTION

None; receive and file.

DISCUSSION

Copies of communications directed to the Board of Directors received by the Air District from October 2, 2019 through November 19, 2019, if any, will be at each Board Member's place at the November 20, 2019 Board meeting.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Aloha de Guzman

Reviewed by: Vanessa Johnson

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Katie Rice and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 13, 2019

Re: Notices of Violations Issued and Settlements in Excess of \$10,000 in the month of
September 2019

RECOMMENDED ACTION

None; receive and file.

DISCUSSION

In accordance with Resolution No. 2012-08, attached to this memorandum is a listing of all Notices of Violations issued, and all settlements for amounts in excess of \$10,000 during the calendar months prior to this report.

BUDGET CONSIDERATION/FINANCIAL IMPACT

The amounts of civil penalties collected are included in the Air District's general fund budget.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Brian C. Bunger

Attachment 7A: Notices of Violations for the Month of September 2019

NOTICES OF VIOLATIONS ISSUED

The following Notice(s) of Violations were issued in September 2019:

Alameda						
Site Name	Site #	City	NOV #	Issuance Date	Regulation	Comments
Allison Armstrong	Z6664	Oakland	A59153A	9/9/2019	11-2-401.3	Failure to Notify ASB110109 - App#49148
ASM Autobody & Repair	A9764	Hayward	A58829A	9/4/2019	2-1-302	Expired Permit to Operate
Auto Collision Experts	B2250	Hayward	A58830A	9/11/2019	2-1-302	Operating w/expired P/O (P/O expired 10/01/17)
Bay Ship & Yacht Co.	A9684	Alameda	A58831A	9/25/2019	8-43-320.2	Open Spent Solvent Container
Cafe Tartine LLC	E3256	Oakland	A58779A	9/5/2019	2-1-307	No Afterburner Temp Records
Clear Channel Outdoor	Z6730	Oakland	A59254A	9/18/2019	2-1-307	Static Pressure Performance Test Overdue (last done 02/20/18)
Ferma Co.	Z6636	Newark	A58590A	9/3/2019	11-2-401.5	Inaccurate Start Date / Scheduled for 08/21/19; Started 09/03/19 ASB109296
P.W. Stephens Environmental, Inc.	Z6634	Hayward	A58658A	9/3/2019	11-2-303.6	No Negative Air ASB109757
SFD	Z6745	Oakland	A59154A	9/25/2019	11-2-401.3	Failure to Notify
Synergy Enterprises	Z6542	Hayward	A59453A	9/5/2019	11-2-303	Section # 303.1 & 303.6 ASB110051
Synergy Enterprises	Z6542	Hayward	A59454A	9/5/2019	11-2-401.3	Late Submittal of Asbestos Renovation Notification ASB110051

Union Pacific Railroad	W4270	Oakland	A59253A	9/12/2019	2-1-307	Missing Pressure Decay Test 2015-2018
Contra Costa						
Site Name	Site #	City	NOV #	Issuance Date	Regulation	Comments
BNSF Railway Company	B4704	Richmond	A58662A	9/6/2019	11-2-401.3	Failure to Notify
Chevron Products Company	A0010	Richmond	A59403A	9/16/2019	10	40 CFR 60.104(a)(1) Deviation # 5129 - Flaring
Chevron Products Company	A0010	Richmond	A59404A	9/16/2019	10	40 CFR 60.104(a)(1) Flaring Deviation # 5196
Chevron Products Company	A0010	Richmond	A59405A	9/16/2019	10	40 CFR 60.104(a)(1) Flaring Deviation #5215
Chevron Products Company	A0010	Richmond	A59406A	9/16/2019	10	40 CFR 60.104(a)(1) Flaring Deviation #5216
Chevron Products Company	A0010	Richmond	A59407A	9/16/2019	10	40 CFR 60.104(a)(1) Flaring Deviation #5301
Chevron Products Company	A0010	Richmond	A59408A	9/16/2019	10	40 CFR 60.104(a)(1) Flaring Deviation #5302
Chevron Products Company	A0010	Richmond	A59409A	9/16/2019	10	40 CFR 60.104(a)(1) Flaring Deviation #5258
Chevron Products Company	A0010	Richmond	A59410A	9/16/2019	10	40 CFR 60.104(a)(1) Flaring Deviation #5153
Chevron Products Company	A0010	Richmond	A59411A	9/16/2019	2-6-307	Failure to Meet Permit Condition
Chevron Products Company	A0010	Richmond	A59411B	9/16/2019	6-1-302	PC# 10663C Opacity Excesses E07H81
City of Concord	Z6649	Concord	A58659A	9/4/2019	11-2-401.5	Inaccurate Start Date ASB108450

Independent Construction Co.	Z6581	Concord	A58085A	9/5/2019	6-1-301	Dirt Haul Operation Dust Emissions Greater than Ringlemann 1
New NGC, Inc.	A0706	Richmond	A58705A	9/17/2019	2-1-301	Unpermitted Stackpile
New NGC, Inc.	A0706	Richmond	A58705B	9/17/2019	2-1-302	Unpermitted Stackpile
Shell Chemical LP	B2870	Martinez	A57650A	9/26/2019	2-1-307	NH3 Exceedance / P/C 26292 part 11c / OS-7263 thru 7265
Shell Martinez Refinery	A0011	Martinez	A57649A	9/24/2019	9-1-307	SO2 EXCESS (RCA#07L33)
TransMontaigne Operating Company LP	A0745	Richmond	A57891A	9/6/2019	8-33-309.5	Failed Source Test 20021
TransMontaigne Operating LP	A7034	Martinez	A58891A	9/16/2019	8-5-306.2	Pressure Vacuum Valve not Gas Tight. >500 ppm
TransMontaigne Operating LP	A7034	Martinez	A58892A	9/30/2019	2-6-307	Hydrocarbon Concentration in Headspace Above 3000ppm from 2015-2019 Intermittent Failure to Report
West Contra Costa County Landfill	A1840	Richmond	A57892A	9/12/2019	8-34-301.2	Component Leak For (8)
West Contra Costa County Landfill	A1840	Richmond	A57893A	9/12/2019	8-34-303	CCR 17 95465(c)(1) (18) Surface Leaks Above Standard
West Contra Costa County Landfill	A1840	Richmond	A57894A	9/12/2019	8-34-305.1	CCR17 45464 (c) (5) Wells with Positive Pressure
West Contra Costa County Landfill	A1840	Richmond	A57895A	9/12/2019	6-1-301	VEE 6 Minutes Above Standard

Marin						
Site Name	Site #	City	NOV #	Issuance Date	Regulation	Comments
Redwood Landfill, Inc.	A1179	Novato	A58167A	9/3/2019	8-34-301.2	>1000 ppm Methane in Component.

San Francisco						
Site Name	Site #	City	NOV #	Issuance Date	Regulation	Comments
Auto City Food Mart	Z6702	San Francisco	A58814A	9/11/2019	2-1-307	Failure to Perform & Pass Annual Source Test.

San Mateo						
Site Name	Site #	City	NOV #	Issuance Date	Regulation	Comments
Blue Line Transfer, Inc.	E2099	South San Francisco	A58027A	9/5/2019	2-1-307	Failure to Meet P/C #25672 #11
Browning-Ferris Industries of CA, Inc.	A2266	Half Moon Bay	A58815A	9/25/2019	8-7-301.1	Uncertified Vapor Adaptor (MB 323SA Swivel type)
City of Burlingame	Z6773	Burlingame	A58816A	9/30/2019	8-7-301.1	Uncertified Part on a Fill Adaptor Cap, Equipment Under vR102 Equipment not Permitted
SFD	Z6734	Woodside	A58594A	9/30/2019	11-2-303.9	No Trained On-Site Rep; Improper Waste Disposal
SFD	Z6734	Woodside	A58594B	9/30/2019	11-2-304	No Trained On-Site Rep; Improper Waste Disposal
SFD	Z6768	Woodside	A58593A	9/25/2019	11-2-401.3	No Job #; No Notification for Demolition.

Santa Clara						
Site Name	Site #	City	NOV #	Issuance Date	Regulation	Comments
Alliance Enviromental Group	Z6632	San Jose	A58657A	9/3/2019	11-2-401.5	Inaccurate Start Date ASB109746
Cannery Apartments	Z6603	Campbell	A59455A	9/5/2019	11-2-303	Section #'s 303.6; 303.8; 303.9 & 304.1
Cannery Apartments	Z6603	Campbell	A59455B	9/5/2019	11-2-304	Section #'s 303.6; 303.8; 303.9 & 304.1
Cannery Apartments	Z6603	Campbell	A59456A	9/5/2019	11-2-401.3	Late Notification of Asbestos Renovation
Central Concrete Supply	B2577	San Jose	A58754A	9/12/2019	2-1-301	No P/O & A/C for 4 Baghouses Currently Operating at the Site
Central Concrete Supply	B2577	San Jose	A58754B	9/12/2019	2-1-302	No P/O & A/C for 4 Baghouses Currently Operating at the Site
Costco	Z6686	Sunnyvale	A59381A	9/12/2019	8-7-302.5	Pump #28 / Leak > 3 drops/min
Mix International	Z6729	Santa Clara	A57227A	9/18/2019	8-45-501	No Coating/Solvent Records

Solano						
Site Name	Site #	City	NOV #	Issuance Date	Regulation	Comments
Central Gas	Z6658	Vallejo	A58639A	9/6/2019	8-7-301.5	No Repair or Replacement of Drain Valve Handles Since Last NOV Issued (continued)
Central Gas	Z6658	Vallejo	A58639B	9/6/2019	8-7-307	No Re-Test or Annual After Fails

Central Gas	Z6658	Vallejo	A58640A	9/6/2019	2-1-302	Expired Permit to Operate for Non-Payment
Potrero Hills Landfill, Inc.	A2039	Suisun City	A56042A	9/4/2019	8-34-301.2	Component Leakwells #s 1801 & LNW-02
Potrero Hills Landfill, Inc.	A2039	Suisun City	A56043A	9/4/2019	8-34-303	14 Surface Leaks > 500 PPM
Potrero Hills Landfill, Inc.	A2039	Suisun City	A56043B	9/4/2019	10	CCR 17 - 95464(a)(1)
Potrero Hills Landfill, Inc.	A2039	Suisun City	A56045A	9/23/2019	8-34-303	Well# EW-17-01 / surface leak > 500PPM
Potrero Hills Landfill, Inc.	A2039	Suisun City	A56045B	9/23/2019	10	CCR 17 sec95464(a)(1)
Univar Solutions USA, Inc.	A7618	Fairfield	A56044A	9/12/2019	2-1-307	PRD RELEASE # 07M28 / CONDITION# 14829-11

Sonoma						
Site Name	Site #	City	NOV #	Issuance Date	Regulation	Comments
Republic Services of Sonoma County, Inc.	A2254	Petaluma	A58168A	9/26/2019	8-34-301.2	Component Leaks 4, 9, & 12 Greater than Normal
Republic Services of Sonoma County, Inc.	A2254	Petaluma	A58173A	9/9/2019	8-34-301.2	Positive Pressure and Component Leak
Republic Services of Sonoma County, Inc.	A2254	Petaluma	A58173B	9/9/2019	10	CCR 17 - 95484 (6) (1) (B)
Republic Services of Sonoma County, Inc.	A2254	Petaluma	A58174A	9/9/2019	8-34-301.2	Component Leaks V83R, V86A, V127R
Republic Services of Sonoma County, Inc.	A2254	Petaluma	A58175A	9/9/2019	8-34-303	Surface Leaks - Six Above Standard

Republic Services of Sonoma County, Inc.	A2254	Petaluma	A58175B	9/9/2019	10	17 CCR 95465 (a)(1)
Republic Services of Sonoma County, Inc.	A2254	Petaluma	A58176A	9/9/2019	8-34-305.1	4 Wells Under Positive Pressure
Republic Services of Sonoma County, Inc.	A2254	Petaluma	A58176B	9/9/2019	10	17 CCR 95464 (c)
SFD	Z6728	Santa Rosa	A59204A	9/24/2019	5-301.1	Illegal Burn

District Wide						
Site Name	Site #	City	NOV #	Issuance Date	Regulation	Comments
Disater Kleen Up Specialist	Y7256	Seaside	A58589A	9/3/2019	11-2-401.5	Improper Notification Started 8/31/19 Scheduled for 9/31/19
Kinley Construction Group	Z6663	Arlington	A58661A	9/6/2019	11-2-401.3	Failure to Notify ASB109961
PALS, Inc.	Z6651	Stockton	A58660A	9/4/2019	11-2-303.6	303.6 (No Viewports) ASB110103
Riverbank Interiors	J1131	Riverbank	A58591A	9/9/2019	11-2-401.5	Inaccurate Start Date ASB109553
Riverbank Interiors	J1131	Riverbank	A58592A	9/9/2019	11-2-405	Failure to Pay Fees ASB108311 / Invoice# 280233

SETTLEMENTS FOR \$10,000 OR MORE REACHED

There were two settlements for \$10,000 completed in September 2019.

1) On August 16, 2019, the Air District reached settlement with ARE – San Francisco for \$100,000, regarding the allegations contained in the following one Notice of Violation:

NOV #	Issuance Date	Occurrence Date	Regulation	Comments from Enforcement
A57576A	5/14/2019	5/7/2019	10	CCR 17 93105.e(2)(A)2 - Failure to adequately wet disturbed soil w/NOA

2) On September 23, 2019, the Air District reached settlement with TransMontaigne Operating LP for \$20,000, regarding the allegation contained in the following two Notices of Violations:

NOV #	Issuance Date	Occurrence Date	Regulation	Comments from Enforcement
A57314A	9/5/2017	8/31/2017	8-5-306.2	Leaking PRV > 500 ppm
A57315A	9/5/2017	8/31/2017	8-5-306.2	Hi-High gauge hatch gasket > 100 ppm

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Katie Rice and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 13, 2019

Re: Air District Personnel on Out-of-State Business Travel

RECOMMENDED ACTION

None; receive and file.

BACKGROUND

In accordance with Section 5.4 (b) of the District's Administrative Code, Fiscal Policies and Procedures Section, the Board is hereby notified of District personnel who have traveled on out-of-state business.

The report covers the out-of-state business travel for the months of September 2019 and October 2019. The monthly out-of-state business travel report is presented in the month following travel completion.

DISCUSSION

The following out-of-state business travel activities occurred in the month of September 2019:

- Jeff McKay, Chief Financial Officer, attended 2019 Association of Air Pollution Control Agencies Fall Business Meeting, Raleigh, North Carolina, August 26, 2019 – August 28, 2019.
- Jeff McKay, Chief Financial Officer, attended Environmental Protection Agency (EPA) Region 9 State & Tribal Environmental and Health Leadership Meeting, Newport, Oregon, September 3, 2019 – September 5, 2019.
- Regina Soo, Human Resources Analyst I, attended Equal Opportunity Publications 2019 STEM Diversity Career Expo, Manhattan, New York, September 5, 2019 – September 8, 2019.
- Bonyoung Koo, Senior Atmospheric Modeler, attended SCICHEM Training (A dispersion model for simulating primary and secondary PM), Washington, D.C., September 9, 2019 – September 11, 2019.

- Alan Abbs, Legislative Officer, attended California Air Pollution Control Officers Association Legislative Conference, Washington D.C., September 19, 2019 – September 25, 2019.
- Katherine Hoag, Assistant Manager, attended EPA LEAN Workshop on AQS and AirNow, Research Triangle Park, North Carolina, September 22, 2019 – September 27, 2019.
- Rex Sanders, Chief Administrative Officer, attended 2019 IPMA-HR International Training Conference & Expo, Miami, Florida, September 22, 2019 – September 29, 2019.
- John Chiladakis, Director of Information Services, attended SANS IT Network Security Training Seminar, Las Vegas, Nevada, September 7, 2019 – September 15, 2019.
- Derek Klein, Supervising Systems Analyst, attended SANS IT Network Security Training Seminar, Las Vegas, Nevada, September 7, 2019 – September 15, 2019.

The following out-of-state business travel activities occurred in the month of October 2019:

- Jeff McKay, Chief Financial Officer, attended Meeting of the Independent Particulate Matter Review Panel, Washington, D.C., October 9, 2019 – October 11, 2019.
- Chengfeng Wang, Manager, attended Air Waste & Management Ports of Entry Meeting, Newark, New Jersey, October 22, 2019 – October 24, 2019.
- Anitra Gibson, Human Resources Analyst, attended Neogov 2019 Training & Conference, Las Vegas, Nevada, October 7, 2019 – October 11, 2019.
- Joseph Huynh, Human Resources Analyst, attended Neogov 2019 Training & Conference, Las Vegas, Nevada, October 7, 2019 – October 11, 2019.
- Terri Levels, Human Resources Analyst, attended Neogov 2019 Training & Conference, Las Vegas, Nevada, October 7, 2019 – October 11, 2019.
- Alan Abbs, Legislative Officer, attended NACAA Conference, Washington D.C., October 19, 2019 – October 24, 2019.
- Jack P. Broadbent, Executive Officer/APCO, attended NACAA Conference, Washington D.C., October 19, 2019 – October 24, 2019.
- Lisa Fasano, Communications Officer, attended NACAA Conference, Washington D.C., October 19, 2019 – October 24, 2019.

- Bonyoung Koo, Senior Atmospheric Modeler, attended EPA's Community Modeling and Analysis System Conference, Chapel Hill, North Carolina, October 20, 2019 – October 23, 2019.
- Stephen Reid, Senior Atmospheric Modeler, attended EPA's Community Modeling and Analysis System Conference, Chapel Hill, North Carolina, October 20, 2019 – October 23, 2019.
- David Minuk, Senior Human Resources Analyst, attended Ceridian Insights, Las Vegas, Nevada, October 21, 2019 – October 24, 2019.
- Judy Yu, Manager, attended Ceridian Insights, Las Vegas, Nevada, October 21, 2019 – October 24, 2019.
- Tim Williams, Staff Specialist, attended SHRM Inclusion Conference and Training, New Orleans, Louisiana, October 26, 2019 - October 31, 2019.
- Mary Ann Okpalaugo, Manager, attended SHRM Inclusion Conference and Training, New Orleans, Louisiana, October 26, 2019 – October 31, 2019.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Stephanie Osaze
Reviewed by: Jeff McKay



Gavin Newsom, Governor
 Jared Blumenfeld, CalEPA Secretary
 Mary D. Nichols, Chair

TO: Members of the Board of Directors

FROM: Supervisor John Gioia
 Board Member

DATE: October 22, 2019

SUBJECT: **QUARTERLY REPORT OF MY ACTIVITIES AS AN AIR RESOURCES BOARD MEMBER**

The list below summarizes my activities as a California Air Resources Board member from July 1, 2019, through September 30, 2019:

July Activities

19th July Staff Briefing
 25th July Board Meeting

August Activities

29th Meeting with PG&E re: Tropical Forest Standard and Wildfires

June Activities

3rd Meeting with Sierra Club et al. re: Advanced Clean Trucks
 5th CARB Superior Accomplishment Awards
 13th September Staff Briefing
 19th September Staff Briefing
 23rd Meeting with Volk Industries re: Emerging Technology
 30th Meeting with SoCalGas re: HVIP/HD Trucks

Attachments: Public Agendas



PUBLIC MEETING AGENDA

**Thursday,
July 25, 2019**

[Webcast](#)

LOCATION:

California Environmental Protection Agency
California Air Resources Board
Byron Sher Auditorium, 2nd Floor
1001 I Street
Sacramento, California 95814

ADVANCE COPY

This facility is accessible by public transit. For transit information, call (916) 321-BUSS, website:

<http://www.sacrt.com>

(This facility is accessible to persons with disabilities.)

TO SUBMIT WRITTEN COMMENTS ON AN AGENDA ITEM IN ADVANCE OF THE MEETING GO TO:

<http://www.arb.ca.gov/lispub/comm/bclist.php>

**Thursday
July 25, 2019
9:00 a.m.**

DISCUSSION ITEMS:

Note: The following agenda items may be heard in a different order at the Board meeting.

Agenda Items #

19-7-1: Public Hearing to Consider Proposed Amendments to Certification Procedures for Vapor Recovery Systems for Aboveground Storage Tanks at Gasoline Dispensing Facilities

The California Air Resources Board (CARB or Board) will hear the proposal to amend Phase II Enhanced Vapor Recovery (EVR) requirements for existing aboveground storage tanks (AST) at gasoline dispensing facilities (GDF). The amendments clarify definitions and improve cost effectiveness of the Phase II EVR equipment upgrade requirements based on annual gasoline throughput at AST GDFs. The Board will also consider adoption of the environmental analysis set forth in the Initial Statement of Reasons.

[More Information](#)

[Staff Presentation](#)

19-7-3: Public Meeting to Hear an Informational Update on Prescribed Burning

The Board will hear an update on prescribed burning, CARB's role regarding prescribed fire, new legislation and Governor's Executive Orders regarding prescribed burning, and how CARB is coordinating with partner agencies on prescribed fire. This will be a joint presentation with other state, federal, and local agencies.

[More Information](#)

[Staff Presentation](#)

19-7-2: Public Meeting to Hear an Informational Update on the Status of Transitioning to Zero Emission Vehicles

The Board will hear an update to the Board on the progress toward transitioning to zero emission vehicles, including a discussion of programs that drive zero emission vehicle uptake and potential new policies to increase zero emission vehicles in the fleet.

[More Information](#)

[Staff Presentation](#)

CLOSED SESSION

The Board may hold a closed session, as authorized by Government Code section 11126(e), to confer with, and receive advice from, its legal counsel regarding the following pending or potential litigation, and as authorized by Government Code section 11126(a):

American Fuel and Petrochemical Manufacturers, et al. v. Jane O’Keeffe, et al., U.S. District Court (D. Ore. Portland), Case No. 3:15-CV-00467; Plaintiffs’ appeal, U.S. Court of Appeals, Ninth Circuit, Case No. 15-35834; Plaintiffs’ petitions for certiorari in United States Supreme Court, Case No. 18-881.

California Air Resources Board v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 18-1085.

Mexichem Fluor, Inc. v. U.S. EPA, (D.C. Cir. 2017) 866 F. 3d 451 (U.S. Court of Appeals, District of Columbia Circuit, Case Nos. 15-1328 and 15-1329).

Rocky Mountain Farmers Union, et al. v. Corey, U.S. District Court (E.D. Cal. Fresno), Case No. 1:09-CV-02234-LJO-DLB; ARB interlocutory appeal, U.S. Court of Appeals, Ninth Circuit, Case No. 12-15131.

American Fuels and Petrochemical Manufacturers, et al. v. Corey, et al., U.S. District Court (E.D. Cal. Fresno), Case No. 1:10-CV-00163-AWI-GSA; ARB’s interlocutory appeal, U.S. Court of Appeals, Ninth Circuit, Case No. 10-CV-00163. ; Plaintiffs’ petitions for certiorari in United States Supreme Court, Case No. 13-1149.

Sowinski v. California Air Resources Board, et al., United States District Court for the Central District of California, No. 8:15-cv-02123.

State of California, et al. v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 18-1114.

State of California, et al., v. United States Environmental Protection Agency (United States District Court, Northern District of California, Case No. 4:18-cv-03237)

State of California, et al. v. Ryan Zinke, et al., United States District Court, Northern District of California, Case No. 3:18-cv-5712-DMR

State of New York, et al. v. United States Environmental Protection Agency, U.S. District Court, District of Columbia, Case No. 1:18-cv-00773.

State of California, et al. v. United States Environmental Protection Agency et al., U.S. District Court, Northern District of California, Oakland Division, Case No. 4:17-cv-6936-HSG.

State of North Dakota, et al. v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 16-1242.

State of North Dakota v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 15-1381.

State of West Virginia et al. v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 15-1363.

State of Wyoming, et al. v. United States Department of the Interior, et al., U.S. District Court, District of Wyoming, Case No. 16-CV-285-SWS.

Truck Trailer Manufacturers Association, Inc. v. United States Environmental Protection Agency, et al., U.S. Court of Appeals, District of Columbia Circuit, Case No. 16-1430.

Alliance for California Business v. California State Transportation Agency, et al., Sacramento County Superior Court, Case No. 34-2016-80002491.

American Coatings Association, Inc. v. State of California and California Air Resources Board, Sacramento County Superior Court, Case No. 04CS01707.

Dalton Trucking, Inc. v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 13-1283 (dismissed), U.S. Court of Appeals, Ninth Circuit, Case No. 13-74019.

John R. Lawson Rock & Oil, Inc. et al. v. California Air Resources Board et al., Fresno County Superior Court, Case No. 14-CECG01494; ARB's appeal, Court of Appeal, Fifth District, Case No. F074003.

Murray Energy Corporation v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 15-1385.

Valero Refining Co. California v. Hearing Board of the Bay Area Air Quality Management District et al., Court of Appeal, First Appellate District, Case No. A151004.

Air Resources Board v. Key Disposal, Inc. and John Katangian, Los Angeles Superior Court, Case No. BC650014.

People v. Southern California Gas Company, Los Angeles Superior Court, Case No. BC 602973.

Air Resources Board v. Fiat Chrysler Automobiles N.V. and FCA US LLC, U.S. District Court, Northern District of California, Case No. 3:17-md-02777-EMC, 3:17-cv-3446-EMC, 3:19-cv-00151-EMC.

People v. Walgreens Co., Sacramento County, Case No. 34-2018-00244759.

In re Pacific Gas and Electric Company, U.S. Bankruptcy Court, Northern District of California, Case No. 19-30089.

California Air Resources Board vs. Cascade Sierra, Sacramento Superior Court, Case No. 34-2017-00223510.

Friends of Oceano Dunes, Inc. v. California Coastal Commission, et al., San Luis Obispo County Superior Court, Case No. 17CV-0576; U.S. District Court for the Central District of California, Case No. 2:17-cv-8733.

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ADVANCE COPY

PUBLIC MEETING AGENDA

**Thursday,
September 19, 2019**

[Webcast \(English\)](#)
[Webcast \(Español\)](#)

LOCATION:

California Environmental Protection Agency
California Air Resources Board
Byron Sher Auditorium, 2nd Floor
1001 I Street
Sacramento, California 95814

This facility is accessible by public transit. For transit information, call (916) 321-BUSS, website:

<http://www.sacrt.com>

(This facility is accessible to persons with disabilities.)

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<http://www.arb.ca.gov/lispub/comm/bclist.php>

**Thursday
September 19, 2019
9:00 a.m.**

CONSENT CALENDAR:

The following items on the consent calendar will be presented to the Board immediately after the start of the public meeting, unless removed from the consent calendar either upon a Board member's request or if someone in the audience wishes to speak.

Consent Items #

- 19-8-1: Public Meeting to Consider Research Contract with the University of California, Berkeley, Titled "Sources of On-Road Vehicle Emissions and their Impacts on Respiratory Disease Symptoms in California"**

The California Air Resources Board (CARB or Board) will consider approval of a research proposal that was developed in response to the Board-approved research projects for fiscal year 2019-2020. The objective of this project is to quantify the relationship between on-road vehicle emissions, including on-road non-exhaust pollutants, and sub-acute respiratory disease symptoms represented by medication use for 2870 patients in the major metropolitan areas of California.

[More Information](#)

- 19-8-2: Public Meeting to Consider Research Contract with the University of California, Davis, Titled "Determinants of Medium and Heavy Duty Truck Fleet Turnover"**

The Board will consider approval of a research proposal that was developed in response to the Board-approved research projects for fiscal year 2018-2019. This study proposed to identify and evaluate determinants of private-sector fleet turnover for medium and heavy-duty trucks operating in California in selected vehicle classifications and vocations.

[More Information](#)

19-8-3: Public Meeting to Consider Membership to the Sustainable Transportation Energy Pathways Research Consortium at the University of California, Davis

The Board will consider approval of the membership to the Sustainable Transportation Energy Pathways (STEPS) Research Consortium at the University of California, Davis. The four-year STEPS program membership will allow CARB to participate in the program's workshops, symposia, and Board meetings that bring together the world's leading automobile manufacturers, energy companies, and government agencies to understand sustainable vehicle and energy solutions.

[More Information](#)

DISCUSSION ITEMS:

Note: The following agenda items may be heard in a different order at the Board meeting.

Agenda Items #**19-8-5: Public Meeting to Consider Automobile Manufacturers' Framework for Vehicle Emissions**

Several automobile manufacturers approached staff and proposed a framework to address vehicle greenhouse emissions through 2026. The Board will hear an update on the framework and next steps and may provide additional direction.

[More Information](#)

[Staff Presentation](#)

19-8-4: Public Meeting to Hear an Informational Update on the 2018 PM2.5 State Implementation Plan for the San Joaquin Valley

Spanish translation will be provided at the Board Meeting for this item, Item 19-8-4.

The Board will hear an informational update on the status of implementing the 2018 PM2.5 State Implementation Plan (SIP) for the San Joaquin Valley. Staff will update the Board on recent PM2.5 air quality in the Valley, progress on developing rules and measures, and incentives used to accelerate emissions reductions.

[More Information](#)

[Staff Presentation](#)

19-8-6 Public Meeting to Consider Endorsement of an Updated California Tropical Forest Standard

Spanish and Portuguese translation will be provided at the Board Meeting for this item, Item 19-8-6.

The Board will consider endorsement of an updated Tropical Forest Standard (Standard), which values preserving tropical forests over destructive activities such as oil exploration and extraction. Following an initial November 2018 Board Hearing, staff assessed issues raised by the public and input from members of the Assembly, and has proposed revisions that strengthen, clarify, and bolster the Standard. Board endorsement will not result in any change to regulatory programs in California.

[More Information](#)

[Staff Presentation](#)

CLOSED SESSION

The Board may hold a closed session, as authorized by Government Code section 11126(e), to confer with, and receive advice from, its legal counsel regarding the following pending or potential litigation, and as authorized by Government Code section 11126(a):

California Air Resources Board v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 18-1085.

Mexichem Fluor, Inc. v. U.S. EPA, (D.C. Cir. 2017) 866 F. 3d 451 (U.S. Court of Appeals, District of Columbia Circuit, Case Nos. 15-1328 and 15-1329).

Rocky Mountain Farmers Union, et al. v. Corey, U.S. District Court (E.D. Cal. Fresno), Case No. 1:09-CV-02234-LJO-DLB; ARB interlocutory appeal, U.S. Court of Appeals, Ninth Circuit, Case No. 12-15131.

American Fuels and Petrochemical Manufacturers, et al. v. Corey, et al., U.S. District Court (E.D. Cal. Fresno), Case No. 1:10-CV-00163-AWI-GSA; ARB's interlocutory appeal, U.S. Court of Appeals, Ninth Circuit, Case No. 10-CV-00163. ; Plaintiffs' petitions for certiorari in United States Supreme Court, Case No. 13-1149.

Sowinski v. California Air Resources Board, et al., United States District Court for the Central District of California, No. 8:15-cv-02123.

State of California, et al. v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 18-1114.

State of California, et al., v. United States Environmental Protection Agency (United States District Court, Northern District of California, Case No. 4:18-cv-03237)

State of California, et al. v. David Bernhardt, et al., United States District Court, Northern District of California, Case No. 3:18-cv-5712-DMR.

State of New York, et al. v. United States Environmental Protection Agency, U.S. District Court, District of Columbia, Case No. 1:18-cv-00773.

State of California, et al. v. United States Environmental Protection Agency et al., U.S. District Court, Northern District of California, Oakland Division, Case No. 4:17-cv-6936-HSG.

State of North Dakota, et al. v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 16-1242.

State of North Dakota v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 15-1381.

State of West Virginia et al. v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 15-1363.

State of Wyoming, et al. v. United States Department of the Interior, et al., U.S. District Court, District of Wyoming, Case No. 16-CV-285-SWS.

Truck Trailer Manufacturers Association, Inc. v. United States Environmental Protection Agency, et al., U.S. Court of Appeals, District of Columbia Circuit, Case No. 16-1430.

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CEDING TIME GUIDELINES

If you plan on speaking to the Board on any item and wish to cede (give up) your time to another speaker, please see these [guidelines](#).

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BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Katie Rice and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 13, 2019

Re: Quarterly Report of the Executive Office and Division Activities for the Months of
July 2019 – September 2019

ADMINISTRATIVE RESOURCES DIVISION M. MARTINEZ, DIRECTOR
--

Human Resources

The Human Resources (HR) Office conducted 17 recruitments including exams for: Air Quality Instrument Specialist I/II, Assistant Manager (2), Assistant Staff Specialist I/II, Director/Officer, Executive Secretary, Hearing Board Member, Human Resources Analyst I/II, Manager, Radio/Telephone Operator, Secretary, Senior Air Quality Specialist (2), Senior Staff Specialist, Temporary Staff Specialist I/II, Supervising Air Quality Instrument Specialist, and Supervising Systems Analyst. In addition, the HR Office offered four (4) training sessions, including: Influencing Without Authority, Power BI, Management Strategies for Tomorrow's Leaders, and Air District 101: Climate Protection Team. The HR Office continues to administer payroll, benefits, safety/worker's compensation, labor/employee relations, and wellness activities. There are currently 371 regular employees, nine (9) temporary employees, and 34 budgeted vacant positions. There were 15 new employees, 13 promotions, and 15 separations from July to September 2019.

Business Office

The Business Office issued 586 purchase orders and executed 168 contracts. There were two (2) requests for proposals/qualifications issued during this period.

Fleet and Facilities Office

Fleet services disposed of one (1) vehicle, acquired eight (8) vehicles, and sent 37 vehicles for maintenance and/or body shop repairs. There were 380 vehicle requests (175 from Metropolitan Transportation Commission (MTC) staff and 205 from Air District staff), of which 184 were pool vehicles and 63 were Enterprise car rentals. There were 33 cancelled requests. There are currently 134 fleet vehicles: two (2) electric, three (3) hydrogen fuel cell, 68 plug-in hybrids, 23 gas, seven (7) compressed natural gas, and 31 hybrids. Facilities received 54 Workspeed/Angus requests,

facilitated seven (7) furniture orders and completed 81 ad-hoc projects/tasks. Facilities performed daily maintenance of the coffee machines, replenished coffee and tea supplies in the Air District coffee bar and pantries, and replenished office supplies in the copy/supply rooms.

COMPLIANCE AND ENFORCEMENT DIVISION
J. GOVE, DIRECTOR

Enforcement Program

Air District Staff documented 201 air pollution violations that resulted in Notice of Violations (NOV) and responded to 1016 general air pollution complaints. These activities addressed noncompliance with applicable Federal, State, and Air District regulations, and provided a mechanism for the public to voice their concerns about air pollution issues that might be in noncompliance status. Additionally, highlighted enforcement activities for the quarter are as follows:

On July 11, 2019, staff attended a multi-agency fire training event in Orinda. The purpose of the event was to train firefighters on how to manage wildland fires and conduct prescribed burns.

On July 23, 2019, staff conducted joint inspections with the United States Environmental Protection Agency, Region 9 (EPA) at two metal shredding facilities – Schnitzer Steel in Oakland and Sims Metal Management in Redwood City. EPA had concerns with potential volatile organic compound (VOC) and hazardous air pollutant (HAP) emissions from the metal shredding operations. Representatives from Schnitzer Steel said the facility was initiating emissions and effluent abatement upgrades including the installation of two thermal oxidizers; the metal shredder at Sims was enclosed but not abated for VOC or toxic emissions.

EPA and Air District staff met on August 20, 2019 to discuss the results of the July 23, 2019 joint inspections at Schnitzer Steel and Sims Metal Management. EPA discussed its findings and proposed a path forward to reduce VOC and HAP emissions from each facility.

On July 27, 2019, the Chevron Richmond Refinery (Chevron) experienced an upset at their Fluid Catalytic Cracking Unit (FCC) which led to approximately 20 minutes of flaring activity at the FCC flare. The flaring resulted in a visible flame and black smoke which could be seen by the surrounding community. The Air District received nine (9) complaints from the neighboring community during this incident. Air District inspection staff was on scene to monitor the situation and patrol for any offsite impacts. There were no elevated readings recorded on Chevron's ground level monitors for hydrogen sulfide or sulfur dioxide.

On August 8, 2019, staff attended a workshop hosted by Pacific, Gas, & Electric (PG&E) on the Public Safety Power Shutoff (PSPS) program. The workshop focused on instructing governmental agencies on how the PSPS program operated, when it would be implemented, how communities would be affected, and what resources are available to agencies to communicate power shutoff and restoration efforts. Representatives from Alameda and Contra Costa counties, as well as larger regional districts, were among attendants.

On August 19, 2019, staff responded to a 3-alarm fire on Scenic Avenue, Santa Rosa. The fire and resulting plume of heavy, black smoke resulted in a shelter in place for the southwestern portion of Santa Rosa. The smoke also caused delays for the Smart Train service. The cause of the fire was accidental and was started by a person working on the underside of a bus using an acetylene torch. In all, 14 buses were destroyed including a dumpster containing tires. The Air District received no complaints.

On September 12, 2019, the outside power and steam provider, Foster-Wheeler, for Tesoro Refinery in Martinez (Tesoro) tripped. Tesoro's increase producing the needed steam at their No. 7 Boiler to maintain operations resulted in excessive visible emissions. Visible emissions from the No. 7 Boiler continued until about 1200 hours on September 13, 2019, when steam production at the boiler ceased. On September 13, 2019, Tesoro had flaring with heavy visible smoke from 1408 – 1415 hours due to a unit startup. There were no complaints and no Ground Level Monitoring (GLM) hits related to these events.

On September 15, 2019, Shell Refinery in Martinez (Shell) reported flaring at the LOP flare. The flaring was caused by a furnace trip at the HP1 unit. On September 16, 2019, Shell also reported a small fire that took place in an oil transfer pump house which lasted three minutes. There were no complaints related to either of these events and no GLM excesses have been reported.

Compliance Assurance

Air District Staff conducted over 3,438 inspections of permitted facilities, gasoline dispensing stations, asbestos demolition and renovation jobs, open burning, portable equipment and mobile sources. Additionally, highlighted inspection activities for the quarter are as follows:

Staff held monthly conference calls with the California Air Resources Board (CARB) to work to integrate the Air District's existing prescribed burn and smoke management plan procedures into the statewide Prescribed Fire Information Reporting System (PFIRS). Progress is being made and integration is expected in 2020.

Compliance & Enforcement staff will be leading a series of public workshops to update the Air District's Complaint Policy. There will be five workshops, the first to begin on December 9, 2019, in San Francisco, followed by workshops on January 28, 2020, in Santa Rosa, January 30, 2020, in Oakland, February 4, 2020 in San Jose and February 5, 2020, in Martinez. There will be a live webcast on December 9, 2019, and the video presentation will be archived for those unavailable to attend. Staff plan to take the opportunity to educate the public on the current complaint investigation process and will be taking all comments and suggestions to improve the complaint policy and procedures.

Air District Compliance & Enforcement, Communications, Health and Legislative staff have been working together to develop a multi-faceted wildfire response program over the last year. Staff provided an overview of the wildfire program elements to the Advisory Council and Board of Directors and intend to continue providing updates as the program progresses.

Another important element as part of the Air District's Wildfire Air Quality Response Program (WAQRP) includes the rule amendment efforts underway for Regulation 5 (Open Burning) and Rule 6-3 (Wood Burning Devices). On July 24, 2019, the Air District hosted a public workshop in San Francisco and made the presentation available via webcast to solicit public input and comments regarding proposed rule amendments. The proposed amendments are scheduled to be presented to the Board of Directors for consideration on November 20, 2019.

On July 11, 2019, staff participated at the California Forest Management Task Force, Prescribed Fire Working Group meeting in San Francisco. Meeting participants included representatives from CARB, the Nature Conservancy, the California Air Pollution Control Officers Association (CAPCOA), CALFIRE and others. Staff provided an update on the Air District's Open Burning program including upcoming rule development efforts, integration into PFIRS, and ongoing outreach to fire agencies, public land managers, private landowners, and prescribed fire practitioners.

On July 15, 2019, the Air Pollution Control Officer (APCO), Technology Deputy APCO, and Directors of Enforcement and Engineering visited Lehigh Southwest Cement for a plant orientation and tour. Topics discussed with Lehigh staff included the proposed quarry expansion, implications of Air District Regulation 11, Rule 18 (Reduction of Risk from Air Toxic Emissions at Existing Facilities), Assembly Bill (AB) 617, and possible revisions to Regulation 9, Rule 13 (Nitrogen Oxides, Particulate Matter, and Toxic Air Contaminants) from Portland Cement Manufacturing.

On July 15, 2019, a memorandum of understanding (MOU) was executed between the Air District and CAPCOA, for the CAPCOA Prescribed Burn Reporting and Monitoring Support Program. Grant monies up to \$38,000 will be available for the Air District for costs associated with implementing the program.

On August 8, 2019, staff attended a workshop hosted by PG&E on the PSPS program. The workshop focused on instructing governmental agencies on how the PSPS program operated, when it would be implemented, how communities would be affected, and what resources are available to agencies to communicate power shutoff and restoration efforts. Representatives from Alameda and Contra Costa counties, as well as larger regional districts, were among attendants.

On August 27, 2019, staff participated in a conference call with representatives from the San Mateo County Office of Emergency Services (OES) and San Mateo County Sheriff's Department to discuss San Mateo's planning efforts for future wildfire smoke events.

On August 28, 2019, staff visited the Ranch Winery in St. Helena to view a large working winery and learn about the fermentation and wine storage processes. The Air District is gearing up its efforts to outreach to wineries, distilleries, and breweries about permitting requirements and upcoming deadlines for agricultural-use stationary diesel engines. Staff received excellent feedback from the winery on how to best reach out to the industry.

Staff participated at the Sonoma County Environmental Crimes Task Force meeting on September 5, 2019. The meeting provided staff an opportunity to hear about ongoing Sonoma County compliance cases and to communicate key Air District compliance and enforcement efforts.

On September 10, 2019, staff attended the Wine Institute Environmental Committee meeting in Modesto and gave a presentation on the Air District's upcoming outreach efforts to wineries, distilleries and breweries about permitting requirements and approaching deadlines for agricultural use, stationary diesel engines. Staff looks forward to a collaborative effort with the Wine Institute to communicate upcoming Air District activities that will affect their industry.

On September 16, 2019, staff provided an update to the Stationary Source Committee regarding the South Bay Odors and Odor Attribution Study. The presentation highlighted ongoing odor concerns of the community and efforts underway to help resolve and address the odor problem. Compliance & Enforcement staff also provided updates to two Particulate Matter (PM) Rules, Regulation 6, Rule 1, General Requirements to limit PM and Regulation 6, Rule 6, Prohibition of Track Out. As part of the presentation, staff identified best practices implemented by facilities across the Bay Area to reduce fugitive PM.

On September 16, 2019, staff participated at a Special Cupertino Council Townhall meeting moderated by the Air District's Board of Directors (Board) Vice-Chair Rod Sinks (Cupertino City Councilmember Sinks) regarding Lehigh Southwest Cement (Lehigh). The meeting provided local residents an opportunity to become more familiar with the Air District's efforts to reduce emissions from Lehigh and to ask Air District staff questions about their concerns. The meeting format included a short presentation, Q&A panel discussion and breakout sessions.

On September 18, 2019, staff attended the Bay View Hunters Point Environmental Justice Response Task Force meeting in San Francisco. The group discussed potential air monitoring sites in Bay View Hunters Point.

On September 19, 2019, staff attended a webinar hosted by CARB on smoke management. The training provided an overview of the smoke management regulatory framework and need for smoke management in California.

Staff participated in the monthly CAPCOA Prescribed Burn Workgroup meetings.

Compliance Assistance and Operations Program

Air District Staff received and evaluated over 1,905 plans, petitions, and notifications required by the asbestos, coatings, open burn, tank, and flare regulations. Staff received and responded to over 27 compliance assistance inquiries and green business review requests. Highlighted compliance assistance activities for the quarter also included the following:

Over the last year, staff have been part of the Air District's AB 617 team, working closely with CARB, West Oakland Environmental Indicators Project (WOEIP) co-leads, and the West

Oakland Steering Committee to identify enforcement strategies and actions that would help address air quality concerns, reduce air emissions and improve community health in the West Oakland community. On August 17, 2019, Compliance & Enforcement staff participated in the AB 617 West Oakland Town Hall Meeting as an opportunity to further reach out to community members and provide information on Air District Compliance and Enforcement Programs. City of Oakland Mayor, Libby Schaaf, attended the meeting in support of the AB 617 program and the community emissions reduction plan.

On October 9, 2019, the Air District's Board of Directors unanimously approved the West Oakland Community Action Plan, a significant milestone accomplished, marking the beginning and next phase of Air District work. Enforcement staff will continue to work with the AB 617 team and community over the next five (5) years to implement strategies identified in the Plan.

Air District staff sent out a compliance advisory to owners and operators of boilers, steam generators, and process heaters regarding Regulation 9, Rule 7 emission limits and registration requirements.

Air District staff approved four (4) prescribed burn smoke management plans in Contra Costa, Marin, and San Mateo County.

Air District staff completed the data verification and posting of refinery flare monitoring data through June 2019.

Air District staff conducted the following inspections for the Strategic Incentives Division (SID): 132 engines.

TECHNOLOGY IMPLEMENTATION OFFICE DERRICK TANG, ACTING OFFICER
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The Technology Implementation Office's (TIO) mission is to connect climate technologies and customers by providing financial incentives (through grants and loans) as well as technical and matchmaking support.

Climate Tech Finance

The Climate Tech Finance program accelerates emerging and lower-carbon technology for Bay Area industrial facilities. Through a partnership with the California Infrastructure and Economic Development Bank (IBank), the Air District offers public sector organizations loans up to \$30 million (M) and offers small businesses 90% guarantees on loans with commercial lenders. The program also offers technical assistance and matchmaking services to connect technology providers with technology adopters. www.baaqmd.gov/ctf

- Staff made presentations about Climate Tech Finance at the following events: (1) a panel at the California Air Resources Board CARB titled "The Role of the Industrial Sector in Meeting California's Carbon Neutrality Goals" held on July 9, 2019, to inform updates to

the Assembly Bill (AB) 32 Scoping Plan in light of EO B-55-18, (2) the annual Bay Area Clean Water Agencies (BACWA) -BAAQMD meeting as part of outreach to the wastewater sector, (3) a meeting of the Bay Area Biosolids Coalition on September 16, 2019, and (4) a meeting of the Bay Area Regional Energy Network (BayREN) on September 18, 2019.

- Staff has continued outreach wastewater treatment plants around the Bay Area and had discussions with representatives from over 20 facilities about support for upgrade projects that reduce greenhouse gases (GHG). We have one strong project lead and several prospects based on this outreach.
- Staff discussed financing opportunities with representatives from a dozen small businesses in the bioplastics, energy storage, recycling, and building energy efficiency sectors. We have one company enrolled in the loan guarantee program, a few strong leads, and a few prospects.
- To support its technology matchmaking and broad outreach, the program has offered two more Climate Tech Network events. Representatives from over 75 organizations have attended these two events.
- We have now had one-on-one conversations about Climate Tech Finance with more than 50 representatives from organizations to discuss potential carbon-reduction projects and make introductions to IBank. Our communications database now includes over a thousand technology vendors, consultants, trade associations, and potential technology users. We estimate that over a hundred organizations are now aware of the program, and we are finding that they are into the cycle of learning how to access it.

Climate Tech Network

The Climate Tech Network are Quarterly events for public agencies, small businesses, technology developers, and finance partners to discuss climate technology financing and project opportunities.

- To help organizations learn about lower-carbon opportunities, the Air District has created a series of quarterly events called the Climate Tech Network. This Network introduces potential technology users to vendors of lower-carbon technologies and provides opportunities to learn from peers with experience using them.
- The third event was held on August 27, 2019, and focused on applying battery storage technologies to better respond to wildfire power shutoffs.
- The fourth event was held on October 21, 2019, and focused on microgrids at wastewater treatment plants.

Clean Cars for All

Incentives for low income households to retire older, high-polluting vehicles and replace with a newer, cleaner vehicle or alternative transportation options (e.g. Clipper card). www.baaqmd.gov/cleancarsforall

- A grant from CARB provided \$5M for the program to run for two years. In June 2019, the Air District finalized an agreement with CARB for an additional \$5M to expand the program to the end of Fiscal Year Ending (FYE) 2021 and expand program eligibility.
- Staff implemented the new online grant management system and launched the program in April 2019, and successfully updated the system to reflect the expanded program eligibility.
- TIO Staff and Communications Office Public Information Officers (PIO) are preparing to announce the expansion of the program via social media and traditional press channels the week of October 21, 2019.
- Staff finalized partnerships with 28 local dealerships and two (2) vehicle scrappers (Seven (7) Bay Area locations).
- Staff successfully held and attended 20 outreach events across the Bay Area since March 2019.
- As of the end the third quarter of 2019, 224 applications had been submitted and 67 grants were awarded, totaling \$560,123.

CHARGE! Program for Electric Vehicle (EV) Infrastructure

Grants to install light-duty electric vehicle charging infrastructure, focusing on expanding the coverage of charging stations and multi-dwelling units. www.baaqmd.gov/charge

- The Charge! application period closed on June 30, 2019, with applications totaling over \$8M.
- Staff received approval from the Board for two (2) projects over \$100,000 and are still reviewing the record number of applications received.
- For previously awarded projects for this program, as of June 30, 2019, 487 Level 2 and 8 DC fast charging ports have been installed and 2,202 Level 2 and 47 DC fast charging ports are under construction.
- A contract to migrate the Charge! program to the Fluxx online grant management system was executed and staff has started to prepare for the necessary data migration.

Electric Vehicle (EV) Outreach and Partnerships

The Air District received \$5M of funding over five (5) years, for EV Outreach and Partnerships, and has been obligated by the Federal Highway Administration and CalTrans. This funding will support staff time and resources for EV outreach and partnerships that will support and enhance the EV incentives programs.

- Staff conducted Stakeholder Meetings across the Bay Area to gather input for the Bay Area EV Acceleration Plan (update to the 2013 Bay Area EV Readiness Plan).
- The quarterly EV Coordinating Council Meeting was held on August 26, 2019, with panels on curbside management and curbside EV charging. The next meeting will be held on November 5, 2019.
- The Air District began work with the Center for Sustainable Energy to perform market research and surveys to study perceptions, knowledge, and barriers among consumers across socioeconomic and geographic diversity, property managers, fleet managers, and dealers.

Technology Demonstration Projects

Staff are managing ongoing technology demonstration projects with:

- Metis Design - microturbine for combined heat and power

Completed technology demonstration projects include:

- MyGreenCar – electric vehicle cost-benefit app
- Sustainable Energy Accelerators – renewable hydrogen feasibility study
- Freewire –replace gas or diesel generators with a portable battery at the weekly Off the Grid event in Fort Mason in San Francisco

**ENGINEERING DIVISION
P. LEONG, DIRECTOR**

California Environmental Quality Act (CEQA) Projects

Schnitzer Steel’s Ocean-Going Vessel (OGV) Increase Project (Oakland): Schnitzer Steel submitted Air District Permit Application # 29411 to increase the allowable number of OGVs transporting materials from Schnitzer Steel’s scrap metal recycling facility in Oakland, California from 26 ship calls per calendar year to 32 ship calls per calendar year. Recently, smaller ships and partially loaded ships have been used to transport Schnitzer Steel’s scrap metal, resulting in the need to have more ship calls per year to transport the same amount of material. This application

will not change any of the existing throughput limits at this facility. The Air District expects to have the role of CEQA lead agency for this OGV Increase Project. The project does not involve any physical changes to the facility or to any associated equipment at the facility. This project also does not involve any change in the overall amount of scrap metal that the facility will process. Permit condition changes will be limited to the number of ship calls per calendar year and the definition of a ship call. The Air District posted a Request for Proposal (RFP) for a CEQA review consultant for this project on October 10, 2019. The RFP due date is November 13, 2019.

Impact Transportation (Oakland): In January 2019, the Air District received an application for a methyl bromide fumigation project to be located at the Port of Oakland. The applicant was required to modify the project in order to meet Toxics New Source Review requirements. The Authority to Construct will not be issued until the Alameda County Department of Agriculture issues Impact Transportation a permit, which will be used to meet CEQA requirements.

Permits and Projects

Phillips 66 Refinery (Rodeo): The Phillips 66 Refinery has proposed a change of condition to allow the use of an existing thermal oxidizer (A-53) as an alternate abatement device for a wastewater dissolved air flotation unit (S-1007 DAF). The S-1007 DAF is currently abated by A-49 DAF Thermal Oxidizer or A-51 DAF Carbon Bed. The change of condition will provide Phillips 66 with the flexibility to use the A-53 Thermal Oxidizer to abate the S-1007 DAF. A-53 has a greater abatement efficiency than the current abatement devices (A-49 and A51) and emissions will not increase. The change of condition was issued and a Notice of Exemption for CEQA was filed with Contra Costa County on July 8, 2019.

Chevron Richmond Refinery: On July 31, 2019, the Air District issued a Permit to Operate for an existing Tier 4 prime internal combustion engine (314 HP) that would no longer be eligible for CARB's Portable Equipment Registration Program. The engine supplies electrical power to the Ranch Area Maintenance Yard for contractors working at the refinery.

Chevron Richmond Technology Center: On August 5, 2019, the Air District issued a Permit to Operate for a thermal oxidizer at the Chevron Richmond Technology Center. An Authority to Construct was issued on September 20, 2018. The thermal oxidizer abates organic emissions from miscellaneous research laboratories.

Chevron Products Company (Richmond): Chevron has applied for a temporary Permit to Operate for S-6058, Temporary Cooling Tower and an Authority to Construct/Permit to Operate for S-6059, ISOMAX Cooling Tower. Chevron currently operates existing ISOMAX cooling tower S-4172. Chevron is planning to use a temporary cooling tower (S-6058), which will be brought onsite to compensate for the full shutdown of the existing cooling tower (S-4172), while the new cooling tower (S-6059) is being built at the existing location. Only one cooling tower will be operated at any one time. Within three months of issuing the temporary Permit to Operate for S-6058, the Authority to Construct for the permanent cooling tower S-6059 should be issued. S-6058 temporary cooling tower has a lower water recirculation rate than the existing S-4172 cooling tower and there will be no increase in emissions. The temporary permit is valid for three

months. S-6058 will be allowed to continue to operate under the future Authority to Construct of S-6059 until S-6059 is completely built. The Temporary Permit to Operate was issued and the Notice of Exemption for CEQA was filed with Contra Costa County on September 3, 2019.

Chevron Products Company (Richmond): Chevron applied for a Change of Permit Conditions for the following equipment at the new hydrogen plant: S-4449 Hydrogen Plant Train #1, S-4450 Hydrogen Plant Train #2, S-4471 Hydrogen Plant Train #1 Reformer Furnace, and S-4472 Hydrogen Plant Train #2 Reformer Furnace. In 2018, Chevron was issued an Authority to Construct permit for the modernization of the hydrogen plant. At that time, a different manufacturer of the hydrogen plant developed the startup, shutdown, and dry-out/warmup procedures that are included in the permit conditions. Ultimately, a different engineering and construction firm completed the manufacture of the hydrogen plant and recommends additional startup, shutdown, and dry-out/warmup periods. Permit conditions will be revised to add additional hours and time to attain pure hydrogen streams from the pressure swing adsorption units. All emissions for startup, shutdown and dry-out/warming is already included in the total annual emissions from the hydrogen plant, which are limited by permit condition. Chevron has not requested an increase in the emission limits and there will be no increase in emissions. A Change of Condition was issued and a Notice of Exemption (NOE) was filed with Contra Costa County on September 19, 2019.

Marathon Corporation (formerly Tesoro, Martinez): The Marathon Corporation has applied for a permit to operate (change in their permit condition) to increase the allowable hours of maintenance from 36 to 144 hours per consecutive rolling 12-months at the refinery vapor recovery system, A-14. The pipelines at the vapor recovery compressors require more than 36 hours of maintenance. The facility has nine (9) out of the 36 hours remaining for maintenance. The permit condition changes will be made to the Air District and Title V permit conditions. The permit action will not require any physical change to the equipment and will not result in an increase in emissions. Because there will be no increase in emissions, the existing source is considered altered. A Temporary Permit to Operate was issued and a Notice of Exemption for CEQA was filed with Contra Costa County on August 29, 2019.

Marathon Corporation (formerly Tesoro, Martinez): Marathon has applied for Authorities to Construct the following sources at the Amorcó Marine Terminal: S-59 Soil Vapor Extraction abated by A-59 Thermal Oxidizer, S-60 Groundwater Remediation Storage Tank abated by A-60 Carbon Adsorption, S-62 Groundwater Hydrocarbon Recovery System and S-63 Terminal Slop Oil Sump. They will also alter the S-601 Internal Floating Roof Slop Tank at the refinery. The marine terminal sources will replace an existing groundwater remediation system currently permitted by a contractor. The new system adds vapor extraction to the existing remediation wells. The majority of the project organic emissions are from the vapor extraction system which is abated by the thermal oxidizer with a 99.9% destruction efficiency. Organic emissions from the groundwater are abated by carbon. Recovered groundwater is pumped to the refinery slop oil system via tank S-601. Impacts to the refinery slop oil system are negligible (~1%) as compared with the current processing rates. Organics will increase by 0.631 tons per year and will be offset. A health risk assessment was conducted, and the project risk meets all the requirements of

Regulation 2-5 New Source Review for toxics. The Authority to Construct was issued and a Notice of Exemption for CEQA was filed with Contra Costa County on September 26, 2019.

Tesla Motors, Inc. (Fremont): Tesla applied for Authorities to Construct an additional two paint repair booths at the S-1 Auto Body Coating Operation and for S-2 Facility-wide Wipe Cleaning Operation. The Air District issued the Authorities to Construct on September 17, 2019.

Tesla Motors, Inc. (Fremont): Tesla applied for a change in formulation for windshield wiper fluid stored at S-4022 and S-4023. Emissions of organics will increase by less than 0.10 tons per year and will be offset. A change of condition was issued on September 23, 2019.

Tesla Motors, Inc. (Fremont): On July 29, 2019, staff accompanied personnel from the Compliance & Enforcement and Legal Divisions as well as U.S. EPA Region 9 to the Tesla facility in Fremont to review findings from a compliance audit conducted by an independent, third-party consultant. The voluntary audit was organized by Tesla.

Tesla, Inc. Pilot Battery Manufacturing Research and Development (Fremont): Tesla, Inc. submitted a permit application for a pilot battery manufacturing research and development operation in Fremont, California. The project includes coating manufacturing, solvent application, and battery cell preparation and formation. The facility is developing more efficient battery manufacturing practices. This unique operation was issued a Temporary Permit to Operate on September 23, 2019.

Russell City Energy Company and Marsh Landing Generating Station Black Start Capability Projects (Hayward and Antioch): These projects involve the addition of battery systems to allow each facility to start up without external assistance to support the restoration of the electrical grid during an emergency blackout condition. Black start operations will result in increases in short-term Oxides of Nitrogen (NO_x), Carbon Monoxide (CO), and Precursor Organic Compounds (POC) emissions. Engineering personnel worked with the California Energy Commission (CEC) while drafting the permit evaluations for these projects because the CEC has jurisdiction over these facilities through their CEQA-equivalent process under the Warren-Alquist Energy Resources Conservation and Development Act. The proposed permits were subject to public comment and extensive outreach was conducted due to considerable public interest that occurred during the original permitting of the Russell City Energy Company facility. The authorities to construct for both black start projects were issued in April 2019. The Title V significant revision associated with the Marsh Landing's project was issued on September 9, 2019. The Title V significant revision associated with the Russell City black start project was issued on September 24, 2019.

San Francisco Bay Aggregates Carbon Capture and Mineralization Facility (Pittsburg): The facility submitted a permit application for a pilot plant for carbon capture and mineralization in Pittsburg, California. The plant will remove carbon dioxide (CO₂) from a slipstream of flue gas from Calpine's Los Medanos Energy Center and combine the removed CO₂ with locally sourced demolished concrete to produce new CO₂ sequestered rock products. A letter of exemption was issued to the facility for all aggregate handling equipment on September 6, 2019. In addition, a

registration was issued for a small boiler. The CEQA lead agency, the City of Pittsburg, adopted a Mitigated Negative Declaration for this project in September 2019.

Wildfire: Public Safety Power Shutoff: On August 8, 2019, staff attended a PG&E PSPS workshop for government agencies in Pleasant Hill. PG&E presented the following topics: 1) factors that drive a PSPS event, 2) PG&E and agency communications and coordination, 3) efforts to prepare customers, communities and agencies, and 4) resources and information available before and during an event. Public agencies from Alameda and Contra Costa counties and other larger regional districts were also in attendance.

Lehigh Community Meeting (Cupertino): On September 16, 2019, staff from Engineering, Compliance & Enforcement, Community Engagement, and Meteorology & Measurement participated in a community meeting held at the Cupertino Civic Center. The purpose of the meeting was to present the steps that the Air District has undertaken and will undertake to address emissions and potential health impacts from the Lehigh Cement Plant. Approximately 100 community members attended including several city councilmembers and Board Vice-Chair Rod Sinks, who sponsored and organized the meeting.

CAPCOA Engineering Managers Committee: Staff participated in the Committee's quarterly meeting on August 5, 2019 and August 6, 2019. Items discussed included: CARB updates, EPA updates, AB 617 activity updates, air district cannabis-related activities, oil & gas operation, GHG state regulation activities, and planning for the CAPCOA Engineers Symposium.

National Association of Clean Air Agencies (NACAA) Permitting and New Source Review Committee: On July 17, 2019, and September 11, 2019, staff participated in NACAA conference calls. Items discussed included: EPA's proposed rule to codify rescission of its "Once-In-Always-In" policy for permitting of facilities that emit hazardous air pollutants, EPA's ongoing New Source Review actions, and NACAA's Air Permitting Resources Clearinghouse, which was developed as part of a project for the State of Oregon, EPA's proposed "Project Emissions Accounting Rule" for New Source Review, and EPA's effort to develop a policy on oversight of delegated permitting programs. NACAA plans to submit comments on the proposed "Project Emissions Account Rule, since the proposed changes could impact state and local agency permit requirements.

EPA's Electronic Permitting System (EPS) for EPA Review of Air Permits: On July 9, 2019, staff participated in a conference call of the state workgroup to discuss EPA's plan to rollout the use of EPS nationwide for permit submittals to EPA. The Air District already uses the EPS to submit its Title V permits to EPA Region 9 for review. At this first workgroup meeting, EPA provided some background information on the EPS, the plans for the state workgroup, and demonstrated the system. EPA also provided the workgroup with a draft charter on the background of the system and information on the goals of the workgroup. The EPS is designed to receive draft, proposed, and final Title V permits and draft and final New Source Review permits. EPA is also seeking input from the state workgroup on how to expand EPS to receive control technology information in a streamlined form to populate an improved EPA Reasonably Available

Control Technology/Best Available Control Technology/Lowest Achievable Emission Reduction (RACT/BACT/LAER) Clearinghouse database. The workgroup meets every two to four weeks.

Rule Development and Implementation

Regulation 11, Rule 18 (Rule 11-18), Reduction of Risk from Air Toxic Emissions at Existing Facilities: On July 8, 2019, staff updated the Stationary Source Committee about the status of Rule 11-18 implementation. In summary, the Air District is waiting for data submittals from seven (7) Phase I facilities, validating data for 25 Phase I facilities, and conducting Health Risk Assessments (HRAs) for three (3) Phase I facilities.

The Rule 11-18 Implementation Work Group met at Air District Head Quarters on September 20, 2019. Staff gave an update on implementation status and presented two draft guidance documents: Toxic Air Contaminant Emission Factor Guidelines and Health Risk Assessment Modeling Protocol. Staff also discussed plans for public noticing of health risk assessment results.

Regulation 12, Rule 15 (Rule 12-15), Petroleum Refining Emissions Tracking: All five refineries and several of their support facilities submitted their Annual Emissions Inventories required by Regulation 12-15-401 the week of June 30, 2019. Deficiency letters were mailed to the facilities on August 11, 2019, and responses have been received from all but one facility. Staff is currently reviewing facility responses for acceptance and identifying any remaining deficiencies.

Separately, staff proposed amending the rule to align an emissions inventory submittal deadline with deadlines included in the AB 617 inventory rule (Criteria and Toxics Reporting Regulation) that was adopted by CARB's Board of Directors in December 2018. Staff submitted an amended rule for public comments on June 5, 2019. As a result of requests made by several affected facilities, the public comment deadline was extended from July 8, 2019 to July 15, 2019. Staff received comments from two affected facilities (Air Products, Shell Martinez Refinery), and a trade association (Western States Petroleum Association). Staff met with the Western States Petroleum Association and the petroleum refineries on September 9, 2019, to discuss the comments and proposed changes. As a result of the meeting, staff revised the regulation to accommodate facility concern regarding previously proposed amendments.

Regulation 13 Methane Rules: Staff continues to participate in the rule development process for the following methane and VOC rules for organic recovery facilities:

- Regulation 13, Rule 2 (Rule 13-2): Material Recovery Facilities, Transfer Stations, and Chip & Grind
- Regulation 13, Rule 3 (Rule 13-3): Composting
- Regulation 13, Rule 4 (Rule 13-4): Sewage Treatment and Anaerobic Digestion
- Regulation 8, Rule 24 (Rule 8-24): Landfills

Organic Emission Estimation (OEE) Taskforce: Staff is participating in the OEE Taskforce and source-specific sub-groups in support of gathering emission data and assessing data gaps for the organic recovery rules discussed above.

Heavy Liquid Study: Staff is working with Legal, Enforcement, and Rule Development to address a path forward for developing revised average emission factors for fugitive emission leaks from heavy liquid service components. All five refineries have finished screening and bagging of study components and analytical lab results have been reviewed by the Source Test Section. Staff is participating on a biweekly conference call with Western States Petroleum Association's technical personnel to discuss methodologies for developing revised average emission factors.

AB 617 Criterial and Toxics Reporting Rule Uniform Emissions Inventory Workgroups: Engineering staff was responsible for soliciting volunteers and collecting nominations for source categories to study for the Uniform Emissions Inventory Workgroups through the CAPCOA Engineering Managers Committee. Staff led a conference call with other local air districts, CARB, and CAPCOA to discuss timing, process, and next steps for the electrical generation, petroleum refining and landfill workgroups. CARB also gave an update on the status of its second proposed modifications to the CTR regulation, which has an expected effective date of January 1, 2020. Update meetings were held on July 9, 2019 and August 28, 2019. The workgroups are targeting guidance documents to be drafted by early 2020.

West Oakland AB 617 Steering Committee: Staff participated in West Oakland AB 617 Steering Committee meetings in Oakland, CA on July 10, 2019 and August 7, 2019, and participated in the Air District's effort to respond to comments received on the draft West Oakland Community Action Plan that recently went through public review.

AB 617 BACT/BARCT Working Group: Staff participates in CARB's bi-weekly conference calls of the BACT/BARCT Working Group. CARB presented its current workplans and vendor contract updates. The participating air districts provided updates of their AB 617 Expedited BARCT rule development schedule and CARB introduced its new Manager of Permit Evaluation and Support, Courtney Graham. Also, CARB has demonstrated its BACT and BARCT databases under development for input.

LEGAL DIVISION
B. BUNGER, DISTRICT COUNSEL

The Air District Counsel's Office received 129 violations reflected in Notices of Violations (NOVs) for processing.

Mutual Settlement Program staff initiated settlement discussions regarding civil penalties or passing the Wood Smoke Awareness Course for 87 violations reflected in NOVs. In addition, 13 Final 30 Day Letters were sent regarding civil penalties for 18 violations reflected in NOVs. Finally, settlement negotiations resulted in collection of \$115,850 in civil penalties for 88 violations reflected in NOVs.

Counsel in the Air District Counsel's Office initiated settlement discussions regarding civil penalties for 24 violations reflected in NOVs. Settlement negotiations by counsel resulted in collection of \$113,800 in civil penalties for 25 violations reflected in NOVs. Also, the District Attorney of Contra Costa County reached a civil judgment with West Contra Costa Landfill for \$75,000 for nine (9) violations reflected in NOVs.

**COMMUNICATIONS AND PUBLIC INFORMATION DIVISION
K. ROSELIUS, ACTING OFFICER**

Media Inquiries

Staff responded to numerous media inquiries, including requests about:

- Chevron
- Generators
- Clean air centers
- Fireworks
- Valero
- Hydrogen shortage
- Backup generators
- West Oakland Community Action Plan
- Chevron flaring
- California Occupational Safety and Health Standards Board's emergency regulation
- Air monitoring
- Eastern Contra Costa County vegetation fire
- Chevron power outage
- Oregon fires
- Spare the Air Alerts
- UC Davis wildfire study
- Tesla settlement
- Tesla violation notices
- Clean Power Plan
- Chevron settlement
- Warehouse fire
- Vegetation fires
- Milpitas Odor study
- Bayview air monitoring
- San Jose asbestos at Communications Hill building site
- San Mateo air quality
- California emissions waiver
- Wildfire response program
- India Basin Development
- San Jose fire
- California refinery legislation
- Owing Our Air plan
- Stratford School in Fremont - Tri-City Rock
- Diesel generators
- Camp Fire
- Enforcement data
- Phillips 66 flaring
- Valero flaring

Media Highlights

The Air District was mentioned in 419 print/online stories and 686 radio/video clips from July 2019 through September 2019. Below are media coverage highlights:

- 9/29/2019 [Letter to the Editor: Proposed wood burning ban good public health policy](#)
- 9/27/2019 [Fearing PG&E outages are the new normal, Napa wineries look at alternative power](#)
- 9/27/2019 [Air district announces permissive burn periods for crop replacement, flood debris](#)
- 9/26/2019 [Bay Area air district board considers extension on wood-burning alert bans](#)
- 9/24/2019 [For California wineries during harvest, PG&E power outages could be disastrous](#)
- 9/24/2019 [Does California really have the country's worst air quality?](#)
- 9/24/2019 [Another Spare The Air Alert Issued For Wednesday](#)
- 9/23/2019 [Spare The Air Alert Issued For Tuesday](#)
- 9/21/2019 [Smog checks required for big trucks, under new law signed by Newsom](#)
- 9/17/2019 [7 San Francisco neighborhoods everyone should be watching](#)
- 9/16/2019 [Richmond Says "Yes" to Coal](#)
- 9/13/2019 [Bay Area officials advise residents against using N95 masks for wildfire smoke](#)
- 9/13/2019 [Third-Straight Spare The Air Alert Issued For Saturday](#)
- 9/12/2019 [Another Spare The Air Alert Issued For Friday](#)
- 9/11/2019 [Spare The Air Alert Issued For Thursday](#)
- 9/11/2019 ['Concern of air pollution' due to full-fledged forest fire season](#)
- 9/09/2019 [Wildfire season increases risk of bad air in Bay Area - and masks aren't the solution](#)
- 9/06/2019 [Climate action plan passed by Burlingame City Council](#)
- 9/06/2019 [During the mountain fire season, be careful to prevent air quality from getting worse.](#)
- 9/06/2019 [Drone monitoring of ship emissions could save lives, protect health](#)
- 8/30/2019 [Studies Aimed At Resolving South Bay Odor Issues](#)
- 8/28/2019 [Where there's wildfire, there's smoke. Protecting 'clean-air refugees.'](#)
- 8/26/2019 [San Jose Construction Site Shut Down Over Elevated Asbestos Levels](#)
- 8/25/2019 [Spare The Air Alert Issued For Monday For Expected Smoggy Conditions](#)
- 8/23/2019 [Guest Opinion: It's time to address leaf blowers \(again\)](#)
- 8/20/2019 [Emergency alert system under scrutiny after delayed warning of possibly toxic smoke from Santa Rosa fire](#)
- 8/19/2019 [For lack of \\$1 million, Napa's self-driving shuttle dream on hold](#)
- 8/18/2019 [Community-led efforts to monitor air quality in Bayview, Eastern neighborhoods gain traction](#)
- 8/15/2019 [\\$6 Million Grant To Reduce Vehicle Emissions Accepting Applications Now](#)
- 8/15/2019 [Another Spare The Air Alert As Heat Wave Continues Across Bay Area](#)
- 8/14/2019 [Heat Advisory, Spare The Air Alert Both In Effect For Thursday](#)
- 8/13/2019 [Second Straight Spare The Air Alert Issued For Wednesday](#)
- 8/12/2019 [Spare The Air Alert Issued For Tuesday In Bay Area](#)
- 8/12/2019 [Wind carries smoke from Moose Fire in Mendocino to Bay Area](#)
- 8/10/2019 [Flare-up at Richmond refinery spews plenty of smoke but no danger](#)

8/09/2019 [Update: Brush Fire Contained At 248 Acres](#)
8/07/2019 [Update: Air Quality Advisory Issued Due To Vegetation Fire](#)
8/03/2019 [Update: Brush Fires Burn 655 Acres, 50 Percent Contained](#)
8/03/2019 [Roads remain closed as firefighters fight 665-acre brush fire in Contra Costa County](#)
8/03/2019 [Smoke from Contra Costa fire fouls Solano air](#)
8/01/2019 [Hybrid Crane Engines Bring Immediate Clean-Air Relief in Oakland](#)
7/31/2019 [Wildfires prompt adoption of rule protecting California workers from smoky air](#)
7/31/2019 [Cleaner Skies are Coming to West Oakland](#)
7/28/2019 [Inhaled | The lessons learned](#)
7/27/2019 [Bay Area heat wave brings scorching temperatures, advisories](#)
7/27/2019 [Sizzling temperatures roast the East Bay](#)
7/27/2019 [Oregon wildfire smoke prompts air advisory for Bay Area](#)
7/26/2019 [Air District Issues Three-Day Spare The Air Alert](#)
7/26/2019 [Blazing heat wave expected to scorch Bay Area this weekend](#)
7/24/2019 [Open Forum: To prevent wildfires, California must bring back prescribed burns](#)
7/24/2019 [Wednesday Workshop Seeks Public Input On Wildfire Rule Amendments](#)
7/23/2019 [Genesee & Wyoming low-emissions locomotive tests completed](#)
7/23/2019 [New sensor network reveals telltale patterns in neighborhood air quality](#)
7/23/2019 [Open Forum: For cleaner air, more Californians must drive electric cars](#)
7/20/2019 [Into the 21st century: American cities: On getting with the program](#)
7/18/2019 [Mountain View Transit Association partners with Waze Carpool](#)
7/17/2019 [Chevron Richmond refinery flaring under investigation](#)
7/10/2019 [The Energy 202: Seattle opens clean air centers as worsening wildfires spark concerns about smoky skies](#)
7/07/2019 [Inhaled | ‘And then the fire happened’](#)
7/05/2019 [Port Tenant Says Using Hybrid Cranes Will Improve Air Quality](#)
7/02/2019 [San Rafael completes first leg of bike path to Larkspur](#)
7/02/2019 [That Old Gas Stove Is Not Your Friend](#)
7/01/2019 [Proposed Vallejo Waterfront Cement Factory Sleeps With the Fishes](#)

Press Releases

9/26/2019 [Permissive burn periods for crop replacement and flood debris fires open](#)
9/24/2019 [Air District issues another Spare the Air Alert for Wednesday](#)
9/24/2019 [Bay Area Air District statement on Trump Administration’s threat to pull California transportation funding](#)
9/23/2019 [Air District issues Spare the Air Alert for Tuesday](#)
9/18/2019 [Bay Area Air District statement on Trump Administration’s decision to revoke waiver allowing California to set its own emissions standards](#)
9/13/2019 [Air District issues third consecutive Spare the Air Alert and extends air quality advisory for smoke](#)
9/12/2019 [Air District issues another Spare the Air Alert for Friday and air quality advisory for smoke](#)
9/11/2019 [Air District issues Spare the Air Alert for Thursday](#)

- 8/27/2019 [Open burning season for double crop stubble ends; seasons for fall marsh management and stubble and straw begin](#)
- 8/25/2019 [Air District issues Spare the Air Alert for Monday](#)
- 8/15/2019 [Air District issues fourth straight Spare the Air Alert for Friday](#)
- 8/14/2019 [Air District issues third straight Spare the Air Alert for Thursday](#)
- 8/13/2019 [Air District supports state's lawsuit against Trump's plan to gut restrictions on coal-burning power plants](#)
- 8/13/2019 [Air District issues another Spare the Air Alert for Wednesday](#)
- 8/12/2019 [Air District opens Vehicle Trip Reduction Grant Program](#)
- 8/12/2019 [Air District issues Spare the Air Alert for Tuesday](#)
- 8/12/2019 [Air District hosts Clean Cars for All: Electric Vehicle Showcase in South San Francisco](#)
- 8/09/2019 [Air quality advisory for smoke in the Bay Area](#)
- 8/07/2019 [Air quality advisory for smoke in the Bay Area](#)
- 8/03/2019 [Air quality advisory for smoke in the Bay Area through Sunday](#)
- 8/01/2019 [Air District invites Bay Area residents to Clean Cars for All: Electric Vehicle Showcase in Oakland](#)
- 7/29/2019 [Air District releases joint community action plan to improve air quality in West Oakland](#)
- 7/27/2019 [Air quality advisory for smoke in the Bay Area through Sunday](#)
- 7/26/2019 [Air District issues Spare the Air Alerts Friday through Sunday](#)
- 7/11/2019 [Air District hosts public workshop on wildfire rule amendments](#)
- 7/02/2019 [Air District reminds residents of potential fire danger this Fourth of July](#)

Public Inquiries

Phone: 329 public calls

Events

Marin County Fair – San Rafael (July 3, 2019 – July 7, 2019)
 Alameda County Fair – Pleasanton (June 15, 2019 – June 16, 2019, June 21, 2019 – June 23, 2019, June 29, 2019 – June 30, 2019, July 4, 2019 – July 7, 2019)
 2nd Saturday @ Jack London Square – Oakland (July 13, 2019)
 Sunday Streets (Mission) – San Francisco (July 14, 2019)
 Stanford Environmental Health and Safety Fair – Menlo Park (July 15, 2019)
 Nvidia's Annual Commuter Fair – Santa Clara (July 18, 2019)
 10th Annual North Richmond Music Festival – Richmond (July 20, 2019)
 Menlo Summer Fest – Menlo Park (July 20, 2019 – July 21, 2019)
 Santa Clara County Fair – San Jose (August 1, 2019 -August 4, 2019)
 Sonoma County Fair – Santa Rosa (August 1, 2019 – August 11, 2019)
 Silicon Valley Bike Summit – Mountain View (August 1, 2019)
 Pedalfest – Oakland (August 3, 2019)
 Block Fest – East Palo Alto (August 10, 2019)
 San Raphael Art and Wine Festival – San Raphael (August 10, 2019)

Sunday Streets (SOMA) – San Francisco (August 18, 2019)
 Rotten City Block Party – Emeryville (August 24, 2019)
 Millbrae Art and Wine Festival – Millbrae (August 31, 2019 – September 1, 2019)
 Fitness Fair – Newark (September 4, 2019)
 First Responder's Stair Climb – San Francisco (September 7, 2019)
 Mountain View Art and Wine Festival – Mountain View (September 7, 2019 – September 8, 2019)
 Sunday Streets (Tenderloin) – San Francisco (September 8, 2019)
 SF Transit Week – San Francisco (September 10, 2019)
 Marin Music Festival – San Rafael (September 14, 2019)
 San Jose Fall Home Show – San Jose (September 14, 2019 – September 15, 2019)
 Oracle Wellness Fair – San Francisco (September 18, 2019)
 Healthy Living Festival – Oakland (September 19, 2019)
 Eat Real Festival – Oakland (September 21, 2019 – September 22, 2019)
 Fiesta de Artes – Los Gatos (September 21, 2019 – September 22, 2019)
 Sunday Streets (Western Addition) – San Francisco (September 22, 2019)
 Viva Calles SJ – San Jose (September 22, 2019)

Spare the Air

- Prosidio coordinated with the Cities of Dublin and San Bruno to install downtown light pole Spare the Air banners.
- A New Treasure Island banner was printed and Prosidio is following up with Treasure Island Development Authority regarding banner installation.
- Air District approved a digital billboard and eco-poster creative. First flight of eco-posters began running on August 5, 2019 through September 2, 2019. Second flight of eco-posters ran through the week of September 23, 2019. Billboards began running the week of August 5, 2019.
- Air District approved bus ads. Bus ads began running on August 5, 2019 and ran through September 29, 2019.
- Initial flight of Facebook ads finished running on July 1, 2019. Second flight of Facebook ads began running on August 1, 2019.
- Gavilon College ad published on August 23, 2019.
- Spare the Air print ad for the Air District's Wheels for Meals sponsorship approved.
- Air District approved 40 bicycle outreach events for Summer Spare the Air campaign. Bicycle events took place on July 4, 2019 in El Cerrito, July 7, 2019 in San Ramon, July 10, 2019 in Fairfax, July 12, 2019 in St. Helena, July 14, 2019 in Livermore, July 19, 2019 in Rohnert Park, July 20, 2019 in Pleasant Hill, July 27, 2019 in Alameda, July 30, 2019 in San Mateo, August 1, 2019 in Cotati, August 3, 2019 in Fremont, August 9, 2019 in San Rafael, August 10, 2019 in South San Francisco, August 18, 2019 in Martinez, August 24, 2019 in Palo Alto, August 31, 2019 in Millbrae, September 7, 2019 in Castro Valley, September 8, 2019 in Mountain View, September 10, 2019 in Novato, September 14, 2019 in Pleasanton, September 21, 2019 in Lafayette, September 21, 2019 in Millbrae, September 28, 2019 in Saratoga.

- A “casual carpool surprise” media and promotional event took place on September 12, 2019 in San Francisco on Spear Street – carpoolers were interviewed about casual carpooling in the Bay Area, branded cookies were given out and video/photos were taken for social media.
- Staff did iHeart Media San Francisco public affairs interview.
- Spanish interview with KIQI conducted on August 21, 2019 with Juan Ortellado.
- Prosio distributed the second PIO newsletter and social content email blast during the week of July 22, 2019.
- September and October 2019 social media content calendars approved.
- Social media comments guidelines updated on the Spare the Air Facebook page.
- Air District reviewing potential Instagram posts.
- Air District approved the 2019-2020 Employer Program proposal.

Winter Spare the Air

- Planning for the Winter Spare the Air 2019-2020 door-to-door outreach efforts in progress. Locations for door-to-door outreach include: Napa, Menlo Park, San Rafael, Petaluma. Locations for door hangers include: Lafayette, Vallejo and two locations in San Jose. Neighborhoods for in-person outreach and door hangers approved. Prosio provided an update to the Air District on September 19, 2109, regarding any permit requirements or restrictions for door-to-door outreach and will continue to coordinate with Air District/cities on any paperwork or other requirements.
- Air District provided input and approved the media buy, media relations plan and social strategy for the Winter Spare the Air campaign.

Spare the Air Social Media

Staff and Prosio actively monitored and posted on social media throughout Spare the Air season. Facebook, Twitter, and Instagram platforms were monitored.

- Post samples:
 - [Facebook](#)
 - [Twitter](#)
 - [Instagram](#)
- Response samples:
 - [Facebook](#)

In this quarter, follower numbers have increased to 9,498 on Facebook, 13,408 on Twitter, and 1,083 on Instagram.

Air District Social Media

Staff continues to run social posts daily including:

- Daily, two-day and five-day air quality forecasts
- Air quality updates
- Pride Parade post
- Electric for All Veloz video on EVs
- Jack P. Broadbent receiving Charles E. Gruber Award
- STEAM the Streets
- Clean Cars for all grantee post
- Fourth of July post
- Information on Advanced Energy Rebuild Program
- Information on Climate Tech Finance Program
- Staff feature on Linda Duca
- Veloz 7/17 event
- Share Your 30 contest
- Annual Report promotion
- Information on Wildfire Air Quality Response program
- Prescribed burn video
- Air District intern Jelly Belly Factory visit
- Let's Veloz Forum
- Wildfire Rule Amendments workshop post
- Air quality advisories
- Spare the Air Alerts
- Staff feature on Vanessa Johnson
- Air District intern visit to air quality monitoring station
- Climate Tech Finance update
- Clean Cars for All updates
- Japan Automobile Education Foundation visit
- Update regarding West Oakland Environmental Indicators joining community action plan with the Air District
- Staff feature on Yvette DiCarlo
- Quote from Jack Broadbent on California's lawsuit against Trump's plan to gut restrictions on coal-burning power plants
- Clean Cars for All ad
- EV owner testimonies via Veloz
- California Clean Air Day post
- Clean Cars for All grantee interview
- Tunisian Delegation
- Climate Tech Network meeting
- Electric Vehicle and E-Bike Test Drive event
- Veloz Kicking Gas campaign
- Reposted follower content
- National Drive Electric Week
- UC Davis Delegation
- Particulate Matter Conference invitation
- Carl Moyer Program grantee
- Owning Our Air Plan Board approval
- Staff feature on Alfonso Borja
- Town Hall on Air Quality video
- California Clean Air Day Pledge
- Community Health Protection Grant Program recipient
- Statement by Jack Broadbent regarding California waiver revocation
- Anti-idling/California Clean Air Day post
- Statements regarding Trump Administration's threat to rollback CA emissions waiver and withhold transportation funding
- Statement by Jack Broadbent regarding AB 836

In this quarter, Air District follower numbers have increased to 3,500 on Facebook, 7,160 on Twitter, and 1,365 on Instagram.

Videography

- Working with Community Engagement on script for instructional video for new software.
- Developed and posted new instructional video for Open Air Forum to YouTube and website.
- Working with web team to create an instructional video for new website (Gate 4) navigation; script under review.
- Updated AB 617 Community Action Plan video with new footage.
- Organized Clean Cars for All footage from August 10, 2019.
- Clean Cars for All grant recipient videos completed and first posted to social.
- Reviewing Clean Cars for All testimonial videos.
- Two videos for Technology Implementation Office under review.
- Webinar video for web team took place the week of September 23, 2019.

Other

- Working on variety of efforts related to the West Oakland Environmental Indicators Project (WOEIP). Working on flyer for WOEIP Workshop. Designed and developed graphics for the Executive Summary; completed and delivered on August 15, 2019. Two cover designs and Executive Summary edits are with Planning for final approval. Meeting took place on September 23, 2019 with Community Engagement to discuss certificates for WOEIP meeting on October 9, 2019; certificates being designed.
- Proceeding with Particulate Matter Conference. Logo designs and letterhead completed and approved. Site visit with event coordinator took place on July 3, 2019. Logistics meeting took place on August 28, 2019 with Facilities. Air District sent Eventbrite notice to potential attendees on September 4, 2019. Webpage went live the week of September 9, 2019. Working on website content. Securing logistics needs for conference.
- Proceeding with 2019 Annual Report. Met with contractor of 2018 Annual Report on July 1, 2019 to review process. Meeting to review web activity took place on August 20, 2019. Request for big accomplishments to include in 2019 Annual Report sent to management. Meeting to set 2019 theme took place on September 3, 2019. Interview with Executive team took place on September 17, 2019. Brainstorming meeting took place on September 23, 2019.
- Working with contractor on Spare the Air photos for social media. BART and San Jose biker photos complete. Helping on requests from Strategic Incentives Division. Shot 49ers fans/public transit photos. Working on Livermore transit and women bike commuter shots. Photographer covered two Air District events in September to add to photo library.
- Web intern making new edits to Spare the Air site. Forecast map updates for Spare the Air website under review.
- Purchased and will install iPad photobooth software for Spare the Air events.
- Spare the Air iOS app certificate being updated.
- Meltwater graphics on Spare the Air procedures being updated.
- Winter Spare the Air brochure complete and delivered.
- Activity book complete and delivered.

- Received details from event coordinator regarding Air Sensors International Conference sponsorship.
- Posters completed for the July 17, 2019 Veloz event.
- Posters, flyers and handout completed for the July 24, 2019 Wildfire Workshop.
- Wildfire Preparedness brochure and factsheet complete and printed.
- Spanish translation of Text Alert signage for tabling complete.
- Ad for CCAPC complete.
- Adapting the Wildfire Safety Tip Sheet for the Wildfire Safety Tips Website.
- Wildfire Air Quality Response Program pages are undergoing review before posting.
- Media visits conducted talking about preparedness for wildfire smoke, visited: KRON TV, KPIX, SF Chronicle, KCBS, KTSF, Skylink TV, Sing Tao Daily, World Journal, and China Press.
- Worked with graphic designer to redesign Clean Cars for All banners; banners with printer.
- Elective Vehicle Resource Center links updated to prepare for National Drive Electric Week social media posts.
- UC Davis graduate student visit took place on September 11, 2019.
- Working to schedule Tunisia delegation visit.
- Beijing Delegation Meeting planning in progress.
- Finalized project request form for Air District staff for Communications Office assistance.
- Technology Implementation Office project request follow-up meeting took place on September 18, 2019.
- Complaint working group meeting took place on September 18, 2019.
- Outstanding changes incorporated in bayareacommuteitips.org. Website brought into Sitecore.
- Patch install for History Display complete.
- New version of the Real-Time Air Quality site went live and is being QA-ed in conjunction with Meteorology & Measurement.
- Air Currents sent out on August 1, 2019.

**PLANNING AND CLIMATE PROTECTION DIVISION
H. HILKEN, DIRECTOR**

Planning

AB 617/West Oakland

In partnership with West Oakland Environmental Indicators Project (WOEIP) staff released the draft Owing Our Air: The West Oakland Community Action Plan (WOCAP) and draft Environmental Impact Report (DEIR) for public review and comment (July 23, 2019 through August 9, 2019). Staff transmitted the DEIR to the State Clearinghouse, posted the draft WOCAP and DEIR on the Air District's website and distributed copies in West Oakland. A total of 34 public comments were received from individuals and organizations: 11 on the DEIR and 23 on the draft WOCAP. Staff responded to all comments, incorporated changes, and completed the final WOCAP and final EIR. Staff completed a Plan Summary along with other materials to support a recommendation to the Board of Director to adopt the WOCAP and certify the EIR. The Board of Directors adopted the WOCAP at the October 2, 2019 meeting. Staff transmitted the Plan and associated materials to CARB and participated in CARB's October 5, 2019 public workshop on the

Plan. Staff continued to meet with WOEIP and the Steering Committee to transition to Plan implementation. Additionally, staff aided the Community Health Protection Grant Program by reviewing and scoring applications for local community capacity building and planning activities in AB 617 communities.

CEQA

Staff continued implementation of the Air District's California Environmental Quality Act (CEQA) Guidelines, including reviewing air quality analyses in CEQA documents, drafting comment letters, and responding to inquiries from consultants, local government, and businesses. Staff continue to analyze potential threshold update options and needed changes to the existing CEQA Guidelines with input from Climate Protection staff and Air District legal counsel. Staff completed Stationary Source Information requests for projects in Burlingame, Concord, Daly City, Emeryville, Livermore, Millbrae, Mountain View, Oakland, Pleasanton, San Francisco, San Jose, San Mateo, Sonoma and Sunnyvale. Staff provided CEQA comments on the Eagle Rock Aggregates Project at the Port of Oakland; the Sand Hill Wind Project in Alameda County; the Green Valley II Mixed-Use Project in the City of Fairfield; the Almaden Office and Avenues Silicon Valley Private School Projects in San Jose, and; the Balboa Reservoir Project in San Francisco. Staff coordinated a meeting with the City of San Francisco and the City of Dublin on site specific analysis for potential school sites. Staff met with City of Oakland staff to discuss comments on the Notice of Preparation of an EIR for the proposed Howard Terminal Oakland A's development in Oakland.

Air Quality Planning

Staff continue to participate in monthly California Air Pollution Control Officers Association (CAPCOA) Planning Managers and Land-Use Model subgroup meetings and presented at the annual CAPCOA Planning Managers symposium on AB 617 and CEQA thresholds. Staff worked with CARB and US EPA District 9 staff to identify any potential outstanding SIP submittals. Staff are engaged in MTC's Plan Bay Area 2050 efforts and continue to attend the Regional Advisory Working Group and attended the first Regional Equity Working Group meeting. Staff attended a multi-agency meeting with US EPA, Arizona Environmental Air Quality and consultants to explore emission reduction credits associated with a carpool incentive program. Staff continued to help coordinate the Particulate Matter Summit scheduled for October 2019.

Climate Protection

Climate Protection Grants – Staff continued to implement 16 projects of the Climate Protection Grant Program, including meeting with grantees to discuss progress, reviewing progress reports, and attending grant-related activities. Milestones in this quarter included:

- Staff convened four grantees working on building electrification, facilitating an exchange on best practices, program design, and future coordination. Several grantees have launched heat-pump water heater incentive programs, including [Silicon Valley Clean Energy](#) and [Electrify San Jose](#).

- Staff attended the Contra Costa County Board of Supervisors September 24, 2019 meeting to support the adoption of the county’s new [Cleaner Contra Costa Challenge](#). The Challenge is an online climate engagement platform spurring households to take action to reduce GHG emissions – over 400 households are participating already.
- Marin County staff presented on the County’s work under its grant to develop an ordinance and specifications for low-carbon concrete to local governments from across the state at the California Climate Action Planning Conference in August 2019.

Greenhouse Gas Reduction Initiatives - Staff continues to develop and make progress on the strategies targeting specific climate pollutants: CO₂, methane, and fluorinated gases (F-gases), including coordinating an inter-divisional effort to estimate emissions from composting, landfills, and wastewater treatment to support new Air District rule-making, and attended the North American Sustainable Refrigeration Council’s “California Low-GWP Refrigerants Workshop.”

As part of the Diesel Free by ’33 initiative, staff convened individual meetings with local government staff to determine what types of tools and tracking methods would be most useful to local jurisdictions.

As part of the building decarbonization effort, staff executed two contracts with building energy experts – the Building Decarbonization Network and Clean Energy Policy Advisors – to launch a collaboration to develop a suite of online tools and resources for local governments to accelerate building electrification in their jurisdictions.

Support to Local Governments - Staff continues to implement programs to support the development and updating of climate action plans, as well as the implementation of local GHG-reducing activities.

Staff completed an update of the [Local Climate Action Plan \(CAP\) Reduction Measures Database](#) with emission reduction measures from over 80 local CAPs adopted by June 2019. The Database was posted to the Air District’s website, providing local governments the ability to search and find over 3,000 measures contained within Bay Area local climate action plans.

Staff provided a variety of direct support to local governments as they develop and implement their climate action plans:

- Staff provided a letter to the San Jose Mayor and City Council in support of the Council’s adoption of a low-carbon building “reach” code that heavily incentivizes all-electric buildings and attended the San Jose City Council’s Transportation and Environment Committee meeting to provide Air District comments in support of the code.
- Staff reviewed and provided feedback on the City of Burlingame’s update to its Climate Action Plan.
- Staff met with staff from the City of Oakland to discuss the city’s development of an Equity Climate Action Plan and areas of potential collaboration.

- Staff met with the County of Marin, San Mateo County, and The Nature Conservancy regarding carbon sequestration in the Bay Area’s natural and working lands.

Collaborations and Presentations - Staff served on the Steering Committee for the Air and Waste Management Association’s December 2019 conference, “Bracing for Climate Change: Strategies for Resiliency and Mitigation Planning.” Staff served as Committee Chair for the CAPCOA Climate Protection Committee. Staff served on the Steering Committee for the California Climate Action Planning Conference in San Luis Obispo, and facilitated the panel, *Achieving Zero Net Carbon Emissions in a World of Rising VMT*. Staff participated in MTC’s Regional Advisory Working Group meeting for Plan Bay Area 2050. Staff participated in the Transportation Working Group of the Drawdown Marin program.

Staff presented to the Board of Directors’ Climate Protection Committee in September 2019 on the development of a region-wide strategy to reduce fluorinated gases (F-Gas Strategy). Staff presented programs of the Climate Protection Section to Air District staff through the agency’s *Air District 101* brown bag seminar series. Staff presented on the Air District’s work in developing GHG thresholds of significance at the American Planning Association, California Chapter’s annual conference, “A Resilient Future 2019.”

ASSESSMENT, INVENTORY AND MODELING
P. MARTIEN, DIRECTOR

Air Quality Modeling & Analysis

Staff continued to participate in AB 617 Technical Assessment Coordination and Internal Collaboration Protocols meetings. Staff participated in conference calls with CARB related to the West Oakland Community Air Action Plan (CAAP). Staff made emission forecasts for West Oakland for 2024 and 2029, updated the emission summary tables for the CAAP, and helped edit the Technical Assessment chapter of the CAAP document. Staff helped write and edit sections of the draft West Oakland Community Action Plan and responded to comments on the plan and the accompanying Technical Support Documents. Staff participated in meetings at the Port of Oakland and West Oakland to provide technical support for the Community Action Plan discussions and clarification. Staff participated in conference calls with CARB to discuss responses to their comments on the Action Plan. Staff began reviewing and analyzing black carbon measurements collected during the 100x100 study in West Oakland in preparation for comparisons with the AB 617 American Meteorological Society (AMS)/EPA Regulatory Model (AERMOD) simulation results for the community. Staff made progress in estimating health impacts of particulate matter (PM) in West Oakland. Staff reviewed regional particulate matter (PM) and air toxics modeling results for the San Jose area, participated in an AB 617 “drill down” meeting for San Jose, and created maps of San Jose PM and diesel PM concentrations. Staff participated in AB 617-related meetings on the Richmond-San Pablo technical assessment. Staff continued to improve estimates of meteorological parameters for air quality modeling. Staff began preparing for the development of 2018 regional modeling emissions inventories. Staff continued to participate in conference calls organized by the NASA Health and Air Quality Applied Sciences Team (HAQAST) to study health impacts of the October 2017 North Bay Wildfire. Staff assisted Rule Development staff on several

rule updates and revisions. Staff participated in a meeting on possible updates to Air District Regulation 6-2 on commercial cooking. In support of work on possible updates to Regulation 2 (permitting), staff prepared gridded emission summaries for Vallejo, East Oakland, and the Bayview/Hunters Point area of San Francisco, and created maps of cancer risk and diesel PM concentrations for the three communities. Staff prepared a summary of woodsmoke and open burning emission estimates to support amendments to Regulation 5 (open burning) and Rule 6-3 (wood burning devices). Staff met with Engineering staff to discuss updates to emission factors for coffee roasters. Staff reviewed meteorological data collected at the former New United Motor Manufacturing, Inc. (NUMMI) facility in Fremont for use on a health risk assessment of the Tesla Motors factory that currently resides on the same property as the former NUMMI plant. Staff participated in a call with San Jose State University on ceilometer measurements in the Bay Area. Staff participated in an CARB-organized call on the development of an updated ozone SIP emissions inventory for California. Staff attended the HAQAST6 meeting in Pasadena and the Meteorology and Climate – Modeling for Air Quality (MAC-MAQ) Conference at UC Davis.

**COMMUNITY ENGAGEMENT AND POLICY DIVISION
E. YURA, DIRECTOR**

Outreach and Engagement Programs

AB 617 Community Health Protection Program

- Staff continued to work on the Air District’s needs assessment, completing all needs assessments with civic leaders. Staff began developing a strategy for interviews with community leaders. This work implements the building capacity work plan, which supports the implementation of the strategic framework for building AB 617 high priority communities’ capacity to participate in emission reduction and monitoring plans. Between September 23, 2019 and October 4, 2019, staff met with Oakland City Staff. Between July 29, 2019 and August 9, 2019, interviews were conducted with Contra Costa Department of Public Health and Solano Department of Public Health. Between July 15, 2019 and July 26, 2019, staff held interviews with civic leaders in Pleasanton and Contra Costa County. Between June 14, 2019 and June 27, 2019, staff held interviews with civic leaders in Alameda CDPH and Livermore.
- Staff began reviewing applications for the 2019 Community Health Protection Grant program. The grant cycle closed on June 21, 2019 and received 20 applications. Seven applicants were selected and notified on August 7, 2019. Staff is working on executing Grant Agreements with Grantees.

West Oakland AB 617

- Staff continue to meet with our West Oakland Co-Leads (WOEIP) on a weekly basis to discuss elements of the Action Plan and design the following month’s Steering Committee meeting.

- **Wednesday, July 10, 2019 - AB 617 West Oakland Action Plan** – Staff hosted the thirteenth Steering Committee meeting at the West Oakland Senior Center. Air District staff, WOEIP Co-leads, and the steering committee reviewed the steering committee comments of the first version of the draft plan and discussed next steps for the public draft release.
- **Tuesday, August 6, 2019 - National Night Out in West Oakland-** Air District Interns, Viri along with Jhamere, handed out flyers and spoke with the community to outreach and promote the AB 617 West Oakland Action Plan Town Hall on August 17, 2019 at the West Oakland Youth Center.
- **Wednesday, August 7, 2019 - AB 617 West Oakland Action Plan** – Staff hosted the fourteenth Steering Committee meeting at the West Oakland Senior Center. Air District staff, WOEIP Co-leads, and the Steering Committee reviewed the comments of the draft plan and discussed next steps for the Town Hall on August 17, 2019.
- **Saturday, August 17, 2019 - AB 617 West Oakland Action Plan Town Hall–** Staff hosted the Town Hall at the West Oakland Youth Center. Air District staff, WOEIP Co-leads, and the Steering Committee presented the Action Plan to the public and built support and commitment from invited speakers and agencies for the implementation. Speakers included John Bauters, Air District Director and Emeryville Council Member; Mayor Libby Schaaf, City of Oakland; Honorable Nancy Skinner, California Legislature, Senate District 9; Honorable Rob Bonta, California Legislature, 18th Assembly District; Veronica Eady, Assistant Executive Officer, California Air Resources Board; Danny Wan, Interim Executive Director, Port of Oakland; Alexandria McBride, Chief Resilience Officer, City of Oakland; and Kimi Watkins-Tartt, Public Health Director, Alameda County Public Health Department.

Richmond AB 617

- Staff continue to meet with the Richmond Co-Lead Team (five community members representing: NAACP, First 5, RYSE Youth Center, Santa Fe Neighborhood Council, and a local resident from East Richmond) on a weekly basis to plan Steering Committee Meetings and discuss elements of the Community Air Monitoring Plan.
- **Wednesday, July 10, 2019 - AB 617 Richmond-San Pablo Area Steering Committee Meeting** - Staff co-hosted the fifth meeting at the Richmond Memorial Auditorium. Steering Committee members and the public were able to participate in a world café to discuss three focus areas for monitoring identified in previous meetings. The goal is to begin developing monitoring objectives and community engagement strategies within each of the focus areas. Attendees were also able to interact with various monitors and sensors that may be used in the Monitoring Plan.
- **Wednesday, August 14, 2019 - Richmond-San Pablo Steering Committee Meeting** - CARB will select the next communities for emissions reduction plans and community air monitoring plans this Fall/Winter. As part of this process, CARB is asking the community air monitoring steering committees around the state if they want to be designated as an emission reduction planning area in December 2019 by the CARB Board. The purpose of

the August 2019 meeting was to help the Steering Committee make an informed decision on whether or not they stay an air monitoring community, or instead ask to be designated as an emission reduction planning community starting next year. The Steering Committee heard presentations and panel discussions from: 1. CARB to share the timeline and high-level details about what is expected from a Community Emissions Reduction Plan. 2. The Air District to share information about current and upcoming emissions reduction strategies in the area that are happening outside of AB 617. 3. West Oakland Environmental Indicators Project to share their lived experience as a community co-lead working to write a Community Emissions Reduction Plan. 4. Communities for a Better Environment to share the information that has informed their advocacy campaign and to share their plan for meeting the legislative requirements if CARB selected Richmond for a Community Emissions Reduction Plan. A vote by the Steering Committee on if they want to become a Community Emissions Reduction Planning area next year will take place at the next Steering Committee meeting on September 11, 2019.

- **Wednesday, September 11, 2019 - Richmond-San Pablo Community Air Monitoring Plan Steering Committee Meeting** - Staff co-facilitated the September Steering Committee Meeting. The primary purpose of this meeting was for the Steering Committee members to decide whether they were ready to move into a CERP this December or wait until they can build readiness and capacity through community engagement and technical assessments, while continuing the monitoring plan development and implementation. The Steering Committee also spent some time in facilitated conversations about focus areas to inform monitoring plan objectives.

Spare the Air Youth

- **Monday, July 8, 2019 - San Mateo Office of Education (SMOE) Conference Call** - Staff met with San Mateo Office of Education staff via conference call to discuss how SMOE can collaborate and assist the Air District in promoting the upcoming 2020 YES Conference. The 2020 YES Conference is tentatively scheduled for Saturday, February 29, 2020, at El Camino High School in South San Francisco.
- **Wednesday, July 10, 2019 - Spare the Air Youth (STAY) High School Outreach Meeting** - Staff met with Raquel Trinidad, with MTC, Amy Jolly, with Center for Climate Protection, and Alta Planning staff to discuss outreach efforts to high schools around the Bay Area. The group discussed challenges in reaching high school students and will convene local stakeholder calls in each region to begin deeper outreach to individual school districts.
- **Monday, July 22, 2019 - Interview for YES Conference Event Planner** - Staff interviewed Fruition, Higher Ground and Clean Energy Associates as a potential event planner to assist with the planning of the YES Conference in 2020. The YES Conference is scheduled for Saturday, February 29, 2020, at El Camino High School in South San Francisco.
- **Wednesday, July 24, 2019 - North Fair Oaks Youth Initiative Meeting** - Staff met with Maritza Amaya, Assistant Director of Programs at the Siena Youth Center, via conference call, to discuss Student Advisory Committee applications, the 2020 YES Conference, and curriculum development for the North Fair Oaks Youth Initiative.

- **Wednesday, July 31, 2019 - Presentation to Galileo Summer Camp** - Staff provided an air quality presentation to the Galileo Summer Camp at Mercy High School in San Francisco. Community Engagement's summer interns wrote and performed a skit on air quality, the Air District, and the Spare the Air program. Approximately 25 K-5 students attended the presentation.
- **Wednesday, August 2, 2019 - YES Conference Kickoff Meeting with Fruition** - Staff met with Fruition staff, Air District's YES Conference event planner contractor, Raquel Trinidad, MTC, and Alta Planning representatives to discuss planning and logistics for the 2020 YES Conference. The team established a contract check-in process, discussed conference logistics, and outlined an outreach schedule. The YES Conference is scheduled for Saturday, February 29, 2020, at El Camino High School in South San Francisco.
- **Wednesday, August 7, 2019 - San Francisco Unified School District Meeting** - Staff met with Darya Soofi, Conservation Manager with the San Francisco Unified School District (SFUSD), to discuss SFUSD's sustainability competition, the Air District's YES Conference, and a potential partnership for the upcoming school year.
- **Friday, August 23, 2019 – YES Conference Student Advisory Council (SAC) Applications** - Staff received 23 applications regionwide from youth to participate on the SAC to prepare for the 2020 YES Conference.

Spare the Air Resource Teams

- **Thursday, July 11, 2019 - San Francisco Spare the Air Resource Team Meeting** - Staff participated in the conference call and provided an Air District update. The Team discussed the Transportation Demand Management (TDM) benchmarking survey to TDM representatives and discussed how to assist with the SFMTA and SFE employer TDM relocation project. The SFMTA and SF Department of the Environment are working on a project to develop tools, resources, and information that would help businesses as they relocate to or within San Francisco. The team welcomed Commutifi to explore this topic.
- **Wednesday, July 17, 2019 - San Francisco Spare the Air Resource Team Meeting** - Staff participated in the conference call and provided an Air District update. The Team discussed the TDM benchmarking survey to TDM representatives and discussed how to assist with the SFMTA and SFE employer TDM relocation project. The SFMTA and SF Department of the Environment are working on a project to develop tools, resources, and information that would help businesses as they relocate to or within San Francisco. The team welcomed LUUM to explore this topic.
- **Tuesday, July 23, 2019 - San Francisco Spare the Air Resource Team Meeting** - Staff participated in the conference call and provided an Air District update. The Team discussed TDM benchmarking survey to TDM representatives and discussed how to assist with the SFMTA and SFE employer TDM relocation project. The SFMTA and SF Department of the Environment are working on a project to develop tools, resources, and information that would help businesses as they relocate to or within San Francisco. The team welcomed RideAmigos to explore this topic.

- **Tuesday, August 13, 2019 - San Mateo County Spare the Air Resource Team Meeting** - Staff attended the meeting conference call and provided an Air District update. The Team discussed the circulation of the Employer TDM Benchmarking Survey, received an update assisting with TRANSFORM's event series - Connecting Communities, and explored a proposal to work with Commute.org on an event focused on Emergency Preparedness and TDM representatives.
- **Wednesday, August 14, 2019 - Santa Clara Spare the Air Resource Team Meeting** - Staff attended the meeting conference call and provided an Air District update. The Team focused on logistics for circulating the Employer TDM Benchmarking Survey and identified who the survey will be sent with FAQ's on how to complete the survey.
- **Tuesday, September 17, 2019 - San Mateo County Spare the Air Resource Team Meeting** - Staff attended the meeting and provided an Air District update. The Team discussed outreach for the Employer TDM Benchmarking survey, their Active Trips project, and brainstormed ideas for their next networking event.
- **Wednesday, September 25, 2019 - Santa Clara County Spare the Air Resource Team Meeting** - Staff attended the meeting and provided an Air District update. The Team discussed outreach for the Employer TDM Benchmarking survey, received an update on Transform's Connecting Communities event, and reviewed team members' participation on creating TDM case studies.

Community Meetings, Workshops and Site Visits

- **Wednesday, July 10, 2019 - Meeting with Vallejo CBO All Positives Possible** - Staff met with community members from a Vallejo-based CBO, All Positives Possible, to hear their local air quality concerns and discuss what efforts the Air District is currently taking or can take in the future to address them.
- **Thursday, July 11, 2019 - Moraga Valley Kiwanis Club Meeting** - Staff participated in the monthly meeting to present about air quality, the Air District, and its programs to approximately 50 attending members of the Kiwanis Club of Moraga Valley at the Moraga Valley Presbyterian Church.
- **Saturday, July 13, 2019 - East Oakland Neighborhoods Initiative (EONI) Community Event** - Air District staff attended EONI's final meeting in the community in which the partnership shared their findings from their series of workshops, where residents and stakeholders worked directly with City and community staff to evaluate infrastructure, design future projects, and provide feedback on neighborhood assets. This was a year-long community engagement process and this event was the last opportunity to solicit public input before the final report to the State of California is published.
- **Wednesday, July 17, 2019 - All Positives Possible Meeting** - Staff met with members of the community group, All Positives Possible, in Vallejo. Staff discussed the Air District's permitting processes, regulatory authority, and upcoming rule development initiatives with community members.

- **Wednesday, July 17, 2019 - Bayview Hunters Point Environmental Justice Task Force Meeting** - Staff attended the Bayview Hunters Point Environmental Justice Meeting hosted by GreenAction. The group reviewed complaints filed through the Identifying Violations Affecting your Neighborhood (IVAN) website and received presentations on pesticide drift, from Department of Pesticide Regulation, and an overview of DTSC's Strategic Plan.
- **Monday, July 22, 2019 - San Leandro Creek Urban Greenway Project Meeting** - Air District staff met with members of the Community Action Team to discuss community engagement strategies for meeting project deliverables.
- **Wednesday, July 24, 2019 - All Positives Possible Meeting** - Air District met with members of All Positives Possible to discuss upcoming AB 617 efforts in Vallejo and possible next steps in capacity building and developing community-based air pollution reduction strategies.
- **Wednesday, July 24, 2019 - Public Workshop on Wildfire Rule Amendments** - The Air District hosted a public workshop on two rule amendments that are part of the Air District's Wildfire Air Quality Response Program. Draft amendments to Regulation 5 complement statewide efforts to catastrophic wildfires through prescribed burning and draft amendments to Rule 6-3 aim to further protect public health when wildfire smoke affects air quality in the Bay Area. The workshop was also webcast.
- **Tuesday, August 6, 2019 - Refinery Rules 2019 Schedule Meeting** - Staff met with community members from community and environmental organizations, including Sunflower Alliance, Communities for a Better Environment, and Rodeo Citizens Association to provide information and answer questions about the Air District's refinery rules development schedule for 2019.
- **Wednesday, August 21, 2019 - Bayview Hunters Point Environmental Justice Task Force Meeting** - Staff attended the Bayview Hunters Point Environmental Justice Meeting hosted by GreenAction. The group reviewed complaints filed through the Identifying Violations Affecting your Neighborhood (IVAN) website, received information on "Monitoring VOCs in Bayview Hunters Point Air Samples" from Emily Fan and Peter Palmer, and received an update on the Navy's new testing plans and petition to revoke Tetra Tech's licenses.
- **Thursday, August 22, 2019 - Rodeo Citizens Association Meeting (RCA)** - Air District staff met with members of the RCA and Dr. Charles Miller, Superintendent for John Swett Unified School District. The meeting was held at the Gateway Apartments located at 710 Willow Avenue in Rodeo, CA. Air District staff listened to the concerns of the local CBO and shared information on the Air District's various grant programs, permitting process, and enforcement of rules and regulations.
- **Monday, September 16, 2019 - Cupertino Town Hall Meeting** - Staff attended the Town Hall meeting on the Lehigh facility in Cupertino. District staff provided a presentation on the Lehigh facility, answered questions related to the Lehigh permit, Air District authority and truck traffic, and assisted with meeting logistics.

- **Wednesday, September 18, 2019 - Bayview Hunters Point Environmental Justice Task Force Meeting** - Staff attended the Bayview Hunters Point Environmental Justice Meeting hosted by GreenAction. The group reviewed complaints filed through the Identifying Violations Affecting your Neighborhood (IVAN) website, discussed outreaching to additional agencies to attend the EJ Task Force meeting, and provided an update to the air monitoring project.

Other

- Staff participated in GARE training and internal GARE team meetings.
- **James Cary Smith Community Grant Program** – The grant cycle closed on June 7, 2019 and received 24 applications. Ten applicants were selected to receive awards totaling \$250,000 and were notified on July 22, 2019. Staff is working on executing Grant Agreements with Grantees.
- **Tuesday, July 9, 2019 – Meeting with Michael Ogletree** – Staff met with Michael Ogletree, Air Quality Program Manager with the City of Denver’s Department of Public Health & Environment, to discuss the Air District’s BayAir Center, data dissemination and education around sensor technology, and Bay Area air data in policy and planning.
- **Wednesday, July 10, 2019 – Meeting at Ryse Center** – Staff met with Randy Joseph, Ryse Center’s Member Engagement Coordinator, and various youth from Richmond to solicit feedback on the Air District’s youth engagement strategy, request Student Advisory Council application submissions, and provided information on the 2020 YES Conference.
- **Thursday, July 25, 2019 – Meeting with Director Sinks** – Staff met with Director Sinks and Dr. Gary Latshaw to discuss logistics for the next community meeting regarding the Lehigh Cement facility in Cupertino.
- **Wednesday, July 31, 2019 – Meeting with Milpitas Resident, Abhijit Basu** – Staff met with Abhijit Basu to discuss community concerns in and around the Milpitas area. Mr. Basu requested air quality education and public awareness information to share with his neighbors and community. Staff provided Air District’s Stationary Source Committee meeting information for September 16, 2019, which will be held in Milpitas.
- **Wednesday, August 7, 2019 – Kaiser Pulmonary Department’s Lung Condition Support Group Meeting** – Staff attended San Francisco Kaiser’s Pulmonary Department’s Lung Condition Support Group meeting to provide an overview presentation on the Air District and answered general air quality related questions.
- **Friday, September 6, 2019 – RYSE Center Groundbreaking** – Staff attended the RYSE Groundbreaking Ceremony for their new building. While there, staff shared information about the Richmond-San Pablo monitoring plan development and connected RYSE with New Voices Rising.

- **Thursday, September 12, 2019 – SmartTA Meeting** – Staff met with representatives from Sustainable Silicon Valley (SSV) and Greenaction to discuss the SmartTA community grant. SSV provided information on their air quality sensors, Greenaction discussed the youth leadership agenda, and the group discussed the upcoming community event in East Palo Alto on October 4, 2019.

Community Protection/AB 617 Rulemaking Efforts

Regulation 2: Permitting Rules

Over the last several years, residents in overburdened communities have become increasingly frustrated that the Air District continues to approve new and modified air permits which result in increased air pollution in their communities. AB 617's focus on neighborhood-level air pollution in addition to the Air District approving high-profile air permits (Phillips 66 and the crematorium in East Oakland), has galvanized this issue and prompted the Air District to further commit to exploring options to incorporate an analysis into its permitting process that takes existing sources into account, and their impact on local air quality. Last year, during an AB 617 public workshop, Air District leadership made a commitment to look at revising the agency's permitting process to better address the environmental justice issues raised by community activists. With the passing of AB 617, the Air District has new, explicit responsibilities to take the lead in improving the air quality in environmental justice communities within its jurisdiction. These responsibilities bolster the agency's continued desire to reduce air pollution impacting disadvantaged communities and improving health outcomes.

In striving to achieve the goals of improving permitting rules, Rule Development staff have met with other staff from the following divisions: Engineering; Community Engagement; Planning; Legal; Assessment, Inventory and Monitoring; Executive; and Public Health to understand what effective changes can be made to the permitting rules. Staff is working closely with these divisions, as well as members from the permit reform internal working group, to facilitate next steps in planning community meetings in East Oakland, Bayview-Hunters Point, and Vallejo. Staff plans to listen to and speak with community members during a community meeting on October 18, 2019 in Vallejo.

Rule 11-18: Reduction of Risk from Air Toxic Emissions at Existing Facilities

Rule 11-18 is the next step in the Air District's efforts to protect public health from toxic air pollution. The rule is expected to substantially reduce health risks posed by various facilities by requiring the implementation of all technically and economically feasible risk reduction measures to significant sources of toxic air contaminants (TACs). The rule will affect hundreds of facilities, from large facilities like petroleum refineries to much smaller businesses such as dry cleaners and crematoria. These facilities emit a variety of TACs that can adversely impact public health. These pollutants include compounds such as diesel particulate matter (DPM), benzene, polycyclic aromatic hydrocarbons (PAHs), and 1,3-butadiene.

On November 15, 2017, the Board unanimously approved the new rule. The adoption resolution included direction to staff to develop an implementation workgroup made up of impacted industry and impacted community members. It also directed staff to form a technical dispute resolution body

to serve as an arbiter of disagreements between industry and staff on engineering issues such as emissions estimates. The Engineering Division is leading implementation of Rule 11-18.

AB 617 Rule Development Review

Assembly Bill 617 requires air districts to develop action plans to reduce air pollution burdens in communities identified as having high cumulative air pollution exposure. The Air District rule development staff, in anticipation of its obligations under AB 617, has initiated a review of Air District rules and regulations to determine both their potential contributions and to identify any gaps where additional rulemaking may be necessary to fulfill those obligations.

Air District staff presented an overview of the new legislation and our efforts to implement this program to the Air District Board of Directors at the Board Retreat in San Ramon on Wednesday, January 17, 2018.

The Air District hosted an AB 617 community workshop here at the Air District offices on January 31, 2018. Both Air District staff and CARB staff made a presentation on AB 617 with a moderated community panel discussion that included Ms. Margaret of the West Oakland Environmental Indicators Project, Ken Szutu of Fresh Air Vallejo, Brian Butler of Greenaction, and Ernesto Arevalo of CBE (East Oakland). There were over 100 people in attendance, including 67 community members, seven (7) CARB staff members, and about 30 Air District staff, including the Executive Officer Jack Broadbent, DAPCOs Greg Nudd, Wayne Kino, and Damian Breen, and Air District Chair David Hudson. The workshop was webcast and follow-up engagement is available on [Open Air Forum](#).

Air District staff hosted a series of eleven community-specific workshops to inform the public of our progress toward identifying priority communities most impacted by air pollution. The first workshop was held in San Leandro on Wednesday, March 28, 2019. The following six were held in Vallejo on Tuesday, April 24, 2019; Bay Point on Wednesday, April 25, 2019; Pleasant Hill on Monday, April 30, 2019; Dublin on Thursday, May 10, 2019; San Pablo on Wednesday, May 17, 2019; and Oakland on Monday, June 4, 2019. The final was held here at the Air District Headquarters on Wednesday, June 20, 2019.

AB 617 BARCT Review

AB 617 requires air districts to review the control technology installed on industrial sources located at facilities subject to the Cap-and-Trade program. CARB further clarified that industrial sources refer to those facilities that are eligible for free allowance allocations under the Cap-and-Trade Program. The Air District has 19 of these industrial facilities which are subject to Cap-and-Trade. These 19 facilities have over 1,800 sources in 50 source categories. The Air District must review these sources and determine if BARCT is being used. For the sources where BARCT is not being used, the Air District must develop a preliminary BARCT determination for the source category and a schedule for finalizing the appropriate rules. That schedule was approved by the Board in 2018.

Staff briefed the Air District Board of Directors on the BARCT Schedule efforts on September 5, 2018. A public hearing was held at the Air District Board of Directors meeting on December 19, 2018, and the Board of Directors adopted the Expedited BARCT Implementation Schedule and certified the associated EIR.

Following the adoption of the AB 617 BARCT Schedule, staff initiated the formation of a Refinery Rules Technical Working Group to be comprised of refiners, WSPA, representatives from community organizations, other regulatory agencies, and Air District staff. The working group would augment the development efforts of refinery rules and amendments that stem from the AB 617 BARCT Schedule, the Methane Strategy, and the 2017 Clean Air Plan. The purpose of the working group is to work closely with participants to vet technical and cost information, discuss preliminary regulatory concepts, and serve as a forum for stakeholders to voice concerns and issues associated with development of rules affecting refineries.

Climate Rules

Regulation 13: Climate Pollutants

Regulation 13: Climate Pollutants would establish the necessary definitions and requirements that apply to regulating emissions of climate pollutants within the Air District's jurisdiction.

Regulation 13 would provide a foundation from which sector- or pollutant-specific rules addressing climate pollutants can be developed and would eliminate the need to make changes to multiple rules when broadly applicable measurement techniques or methods evolve in this area of rapid development and change.

Staff introduced the concepts of Regulation 13 to the public during public workshops in the fall of 2018. At Executive direction in June 2019, staff has indefinitely delayed development of an umbrella rule on climate pollutants.

Rule 13-1: General Prohibition on Significant Methane Releases

Methane and natural gas releases are currently exempt from most Air District regulations, with the exception of Rules 8-18 and 8-34, because the existing Regulation 8 Rules were designed to reduce ozone whereas methane emissions do not contribute to ozone formation. As a result, the Air District has no regulatory basis for requiring facilities to fix methane leaks. Rule 13-1 would address methane releases of more than 10,000 ppm and 10 pounds per day. This general prohibition will enable the Air District to compel facilities to fix major leaks while we develop more specific rules to address methane from particular source categories, such as landfills, oil and gas wells, refineries, and composting operations. This would be the first such rule in the United States.

The basic rule concepts for Rule 13-1 were presented to the Stationary Source Committee on September 17, 2018, and the Climate Protection Committee on September 20, 2018. Staff met with PG&E on November 1, 2018, to discuss PG&E's concerns with the draft rule. Rule 13-1 workshops occurred in conjunction with four workshops from November 1, 2018 through November 8, 2018, for the Regulation 13, Rule 13-2, Rule 13-3, Rule 13-4 and Rule 8-34 projects. Staff has received written comments from various stakeholders including WSPA, Waste Management, BACWA, PG&E, and others. Staff met with WSPA on November 15, 2018, to discuss their concerns regarding the draft rule. Staff met with CCEEB on Monday, March 4, 2019 to discuss their workshop comments and to receive an update of the direction of Rule 13-1. Based on written comments provided by stakeholders, changes are expected to be made to the rule that

will result in additional workshops in June 2019. We expect to bring Rule 13-1 to the Board during the last quarter of 2019.

During the Rule Development Council meeting on March 12, 2019, it was decided that the development of Rule 13-1 would be delayed. Instead, staff will develop source-specific rules for methane sources including but not limited to oil and gas wells, petroleum hydrogen plants, landfills, waste water treatment facilities, and composting operations. Staff intends to bring a refinery hydrogen producing operations rule, Rule 13-3, to a public hearing for adoption during the first quarter of 2020.

Rules 13-2: Organic Material Handling, and 13-3: Composting Operations

As part of its 75 percent by 2020 waste recycling goal and to reduce greenhouse gas emissions, California has mandated that organic waste be diverted from landfills. The increased volume of organic waste diverted from landfills is overwhelming the capacity of existing composting facilities, resulting in excess methane and volatile organic compound (VOC) emissions and significant odors from poorly managed composting operations, stockpiles, and other organic waste handling operations. CalRecycle estimates that these statewide organic waste diversion goals will nearly double the amount of organic waste processed in the Bay Area requiring 12 to 15 new facilities on top of the 20 facilities currently permitted in the Air District.

At a series of Climate Pollutant public workshops held in early November 2018, staff presented a concept paper for draft rules 13-2: Organic Material Handling, and 13-3: Composting Operations. Workshops were held in San Francisco, Martinez, Dublin, and San Jose.

At a Rule Development Council meeting held March 12, 2019, Executive Staff directed rule development staff to combine the two rules and in response to this executive direction, Staff developed Draft Rule 13-2: Composting Operations and Organic Material Handling.

Staff posted Draft regulatory language and a workshop report to the Air District Website on June 6, 2019, and shared these at a series of Public Workshops in San Francisco on June 13, 2019, Richmond on June 18, 2019, and in Milpitas on June 19, 2019. Staff accepted public comments through an extended comment period ending on July 12, 2019. Over 75 comment letters have been submitted by email, with nearly all comments coming from members of the affected industries.

Staff organized three industry-focused stakeholder meetings for the week of August 19, 2019, to explore the concerns raised and to solicit more detailed information from those who submitted comments. On the afternoon of August 20, 2019, operators of material recovery facilities and transfer stations were invited to the Bay Area Metro Center, and on August 22, 2019, staff met with wastewater treatment and anaerobic digester operators in the morning and composting facility operators in the afternoon. In all, over 50 industry representatives attended these stakeholder meetings, along with representatives from CalRecycle and staff from Rule Development, Planning & Climate Protection, Engineering, and Compliance & Enforcement.

Staff is considering comments and making appropriate adjustments to the development of the rule, most notably the bifurcation of the rule into 13-2: Organic Material Handling Operations, and 13-3: Composting Operations. The scope of Rule 13-2 will be limited to MRFs, Transfer Stations, and Chip & Grind facilities. Staff will be issuing a call for comments to the affected industries on

November 15, 2019, and will move continue to develop the rule for Board consideration in March or April of 2020. Rule 13-3 will likewise be further developed, with a second round of workshops in the first or second quarter of 2020 and an anticipated date for Board consideration in the third quarter of 2020.

Rule 13-5: Refinery Hydrogen Producing Operations

Hydrogen gas releases from petroleum refinery hydrogen plant operations, and from naphtha reforming operations, sometimes include methane gas. Such emissions are currently exempt from most Air District regulations because methane emissions do not contribute to ozone formation. As a result, the Air District has no regulatory basis for requiring facilities to control methane emissions from these operations. Now that the Air District is addressing methane emissions, a powerful GHG, staff will develop a rule to control methane emissions from hydrogen plants, one of the largest methane sources from petroleum refineries. Staff has conducted one-on-one meetings with refinery hydrogen plant process engineers and has visited every refinery hydrogen plant to gain a better understanding of hydrogen plant operations, including the reasons for, and locations of, methane emissions. On March 27, 2019, staff met with WSPA and refinery representatives to inform them that the project for draft Rule 13-1 (Significant Methane Releases) was being put on hold until the completion of the current suite of source-specific methane rules including Rule 13-5, Refinery Hydrogen Producing Operations. Air District staff will conduct source tests to better understand hydrogen plant emission parameters and possibly enhance hydrogen plant methane emission inventories. Staff have also begun an outreach effort with community members who are participating in the refinery technical workgroup. Staff conducted a briefing with the technical workgroup community members on June 27, 2019, to instruct them on the basic operations and primary processes of hydrogen plants and, thus, to better enable them to participate in technical workgroup discussions for the Rule 13-5 rule development project. Staff conducted the first refinery technical workgroup meeting on July 17, 2019, to discuss the availability and feasibility of all potential methane emission (vented) controls for hydrogen production equipment/processes. On August 21, 2019, staff submitted a comprehensive questionnaire to all hydrogen production operators requesting pertinent parametric and emissions data relating to all hydrogen venting occurrences during the past six years. The deadline to submit answers for the questionnaire was October 7, 2019. However, staff met with WSPA and the refineries on September 25, 2019, and it was decided that: A) due to volume and complexity of the questionnaire, it would be modified into two segments to facilitate refineries' submission of their emissions information in a timely manner; and, B) the deadline to submit the answers for the first segment would be extended a reasonable amount of time. The modified due date will be determined sometime during the week of September 30, 2019.

Criteria Pollutant Rules

Regulation 9, Rule 9: Nitrogen Oxides from Stationary Gas Turbines

This rule was last updated in 2006. Since then, improvements in technology have enabled the cost-effective control of nitrogen oxides (NO_x) from medium-size turbines. As a result, staff is preparing amendments to this rule that would require installation of NO_x controls on currently under-controlled turbines, including three at the Valero refinery in Benicia. This rule is expected to reduce NO_x emissions by at least 200 tpy, 195 tpy of which would be from the Valero refinery. The

reduction from Valero (at 7 ppm NOx) helps the Air District meet its goals of attaining state and federal ambient air quality standards for ozone.

A workshop report and a marked up draft Rule 9-9 have been created and both have been updated to reflect a 7ppm target for units between 100 and 499 MMBtu/hr. Units between 50 and 99 MMBTU/hr will see NOx limits reduced from 42 ppm to 25 ppm. Outreach efforts were initiated in December 2017, with a Valero visit. At 7 ppm, approximately seven facilities will be directly affected. The following facility site visits have been completed: Valero, San Jose State University (SJSU), Silicon Valley Power (City of Santa Clara), Cal Berkeley, Graphics Packaging, Calpine-Agnews, IPT/SRI Cogen, Phillips 66, and Martinez Cogen. Space constraints for an SCR retrofit have been claimed by two facilities that include Valero and Cal Berkeley. The Air District has hired a 3rd-party engineering contractor to provide an independent assessment of the technical feasibility of installing SCRs on the turbines at Valero. The independent assessment indicates that indeed space issues exist at two of the three turbines currently without SCR. Staff has proceeded with a Notice of Preparation/Initial Study (NOPIS) and legal has determined that an EIR is likely required. Cost effectiveness BARCT calculations for the Valero SCR projects are nearly three (3) times the published NOx BACT cost effectiveness thresholds. Smaller regulated facilities will comply by taking advantage of current output-based equations. Without Valero installing SCR systems – emission reductions are negligible.

The following facilities have provided written feedback on the 9-9 Rule: Valero (SCR design), SJSU, Cal Berkley, Phillips 66, and SV Power. A final draft Rule 9-9 and draft workshop report was provided for internal Air District workgroup level review on April 16, 2019.

Staff continues with the Rule 9-9 rulemaking process, considering the possible inclusion of 5 ppm NOx emissions limits, which allows SCAQMD to further develop their turbine rule effort. We have an opportunity to collaborate with SCAQMD as we move forward with NOx turbine Rule 9-9. As this rule is viewed from the AB 617 perspective, staff will be cognizant of other Air Districts turbine standards currently in development.

Refinery Rule Settlement Agreement Efforts

The Air District entered into a settlement agreement on March 24, 2017, that addresses three rules: Rule 6-5: Particulate Emissions from Refinery Fluidized Catalytic Cracking Units, Rule 8-18: Equipment Leaks, and Rule 11-10: Petroleum Refinery Cooling Towers that were approved on December 16, 2015. The Air District entered into a second settlement agreement on March 1, 2018, that addresses two rules: Rule 9-14: Petroleum Coke Calcining Operations, and Rule 12-15: Petroleum Refining Emissions Tracking that were approved on April 20, 2016. These five rules comprise the Air District's Refinery Strategy. The Settlement Agreements obligate the Air District to propose amendments to Rules 6-5, 8-18, and 11-10 by November 1, 2018, and propose amendments to Rule 12-15 by December 1, 2018. The Air District's Legal Division recommended conducting an EIR for these rulemaking projects because some of the amendments could be characterized as relaxation of the current rules.

The Air District staff proposed amendments Rule 6-5, Rule 11-10 and Rule 12-15 to meet the provisions of the settlement agreement. Rule 8-18 will be amended following the completion of the Heavy Liquid Study.¹ The Board of Directors adopted the amendments to Rule 6-5, Rule 11-10, and Rule 12-15 and certified the associated EIR at the Air District Board of Directors meeting on December 19, 2018.

Policy

CAFE/GHG Standards Update as of February 4, 2019

At the January 16, 2019 Andrew Wheeler confirmation hearing, it was noted that the agencies now plan to finalize an update for the national fuel economy and GHG standards that would require a 0.5 percent annual improvement, rather than a full freeze. A 0.5 percent yearly increase is ~10 times weaker than what is the required regulation. The likelihood of any near-term agreement being struck between the federal government and CARB is low. Wheeler noted that the EPA is on a tight deadline to finalize the proposal by March 30, 2019.

Other points of interest: Since the rollback was made public, both Colorado and Washington State have become Section 177 States, adopting California's stricter emission standards under that provision of the Clean Air Act (now there are 14 states total + Washington DC). California's Office of Administrative Law approved a CARB regulatory amendment (adopted by the Board on September 28, 2019) to clarify the "deemed to comply" term in their regulation. It is to let the auto companies know that they would not be in compliance unless they meet the current federal and state rules (not any less stringent rules that may be adopted by the current administration). Eight Section 177 states backed the CARB action and asked the Board on September 28, 2019, to swiftly approve the amendment to allow them to copy the measure into their own regulations. New York, Massachusetts, Connecticut, Vermont, New Jersey, Delaware, Oregon, Washington, and the Northeast States for Coordinated Air Use Management

2018 Development: An investigative report by the New York Times revealed the puppeteer pulling the strings in the Trump administration's rollback efforts: the oil industry (specifically, the Koch-funded American Legislative Exchange Council). A December 3, 2018 lawsuit urges the U.S. District Court for the Southern District of New York to compel EPA to release information related to a technology cost modeling tool (called OMEGA (Optimization Model for reducing Emissions of Greenhouse Gases from Automobiles)) that it has long used to develop vehicle GHG standards but omitted in the Trump administration's proposed rollback that was released. The lawsuit, NRDC and EDF v. EPA, asks the court to find that EPA has violated the Freedom of Information Act by failing to produce records sought "on or before" August 2018 related to OMEGA.

¹ The results of the Heavy Liquids Study impact the amendments required for Rule 12-15 as interim emission factors are currently included in the settlement agreement for Rule 12-15. Amendments to Rule 12-15 Section 405 clarify the Emissions Inventory Guideline update and review process. The Emissions Inventory Guidelines will reference final emissions factors for Heavy Liquid fugitive leaks that would be incorporated into the amendments to Rule 8-18.

OFFICE OF DIVERSITY, EQUITY, AND INCLUSION
G. NUDD, DAPCO

In the Third Quarter of 2019, the Office of Diversity, Equity & Inclusion (DE&I) focused on four functional areas; the Government Alliance on Race and Equity (GARE) internal program, human resources strategies, strategic planning, and cultural awareness communications and activities.

GARE – The DE&I team manages the GARE program and internal racial equity initiatives at the Air District. GARE Cohort participants are engaged in a year-long curriculum to gain foundational concept, terminology, and tools.

In July 2019, the Office of DE&I invited Dwayne Marsh, co-Director of GARE to present to the Board of Directors. Mr. Marsh’s presentation Advancing Racial Equity: The Role of Government, included: why we are all here; the message; is America possible; racial inequity in the United States; structural racism; why we lead with race; impacts of racism; current context; theory of change; national effective practice; types of racism; and the history of government and race; the GARE network; key components for learning cohorts to advance racial equity; benefits of jurisdictions’ participation; national best practices; core lessons; progress; what has worked; and what’s next.

The Office of DE&I, along with GARE cohorts Tim Williams, Katherine Hoag, and Derrick Tang, gave the staff presentation: Overview of the Air District’s Racial Equity program, including: outline; internal capacity building; building a framework for racial equity; workforce development; community health; public investment; operations; and emerging work: getting to impact. The Board of Director’s also presented the 2018 GARE Cohort with a proclamation.

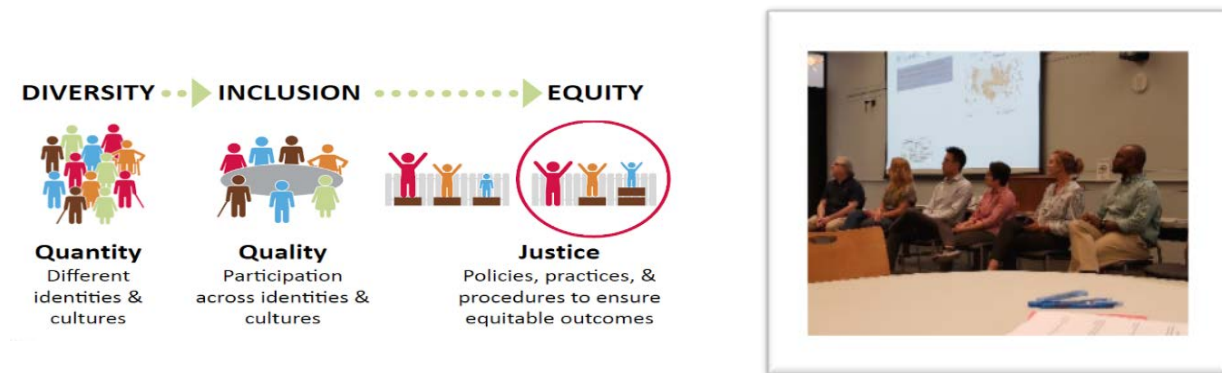
The Board requested the Office of DE&I prioritize workforce development and leadership training in racial equity at the Air District and recognize the importance of listening to the stories of those who have experienced marginalization.

In September 2019, the Office of DE&I registered seven (7) GARE cohort members to attend the GARE 2019 Statewide Convening held at the Marriott hotel in Oakland, CA. The purpose of the two-day gathering was to strengthen institutional and sectoral racial equity work across the State of California. At the 2019 Convening, the Office of DE&I Manager, Mary Ann Okpalauugo, participated on the first day Equity plenary with Glenn Harris, President of Race Forward, Dr. Tony Iton, Senior Vice-President of the Health Communities at the California Endowment, Dee Williams-Ridley, City Manager of Berkeley, Jarrod Schwartz, Director of a nonprofit in Santa Barbara County, leading community-government bridging work, and Shireen Malefkazali, County Health Official in San Mateo County.

A few themes came out of the 2019 GARE Convening, including looking at how building a movement for racial equity differs from just building a field of practice, and how the community-government relationship needs to shift to take on the new reality. There is a focus on the regional Bay Area, and room for government to work alongside our most impacted communities to overcome barriers to opportunities in employment, housing, transportation, healthcare, and the air we breathe, by aligning and adopting policies and investments to create better opportunities for everyone. There is now bridging community-government work - unlike any time within the last 30 years of social justice work; local governments are willing and even eager to talk openly and honestly about power, racism, classism, implicit bias, and other forms of inequality. We are at a

unique point in history, where community organizing efforts don't have to be adversarial, and we can shift from building social justice movements to fight against governments and government policies to building social justice movements whose aim is to collaborate with government towards mutually desired ends.

Also, in September 2019, the Office of DE&I worked with the Introductory Cohort to hold a Racial Equity Interactive Workshop for Air District, MTC, and BCDC employees. Workshop information included: opening remarks and overview of presentation by Ms. Okpalaugo; lessons learned this year during the GARE trainings; what is GARE; an early experience with race exercise; equity demonstrated; why racial equity; government's role; Air District demographics; and a laying it on the line exercise. Twenty-five employees from the agencies attended the interactive workshop.



(2019 Learning cohort)

Human Resources Strategies – The Office of DE&I met with the 2019 Air District Summer College Interns for a “Lunch and Learn” session on the Office of DE&I. The session was very interactive and participatory; an overview of the Office was provided along with a video titled “*Inclusion Starts with I.*” The interns were thoroughly engaged, asking questions about the Air District’s demographics, gender equity, upward mobility at the agencies training programs.

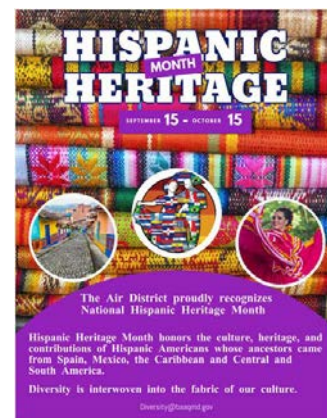
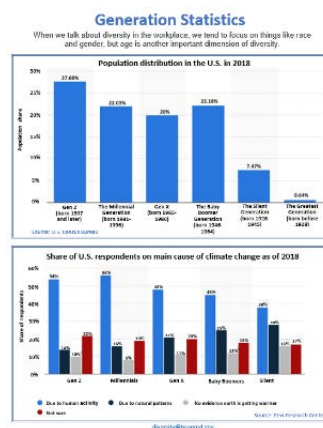
Also, as a part of our Human Resources strategies, the Office of DE&I participated in several hiring events and activities. The Office of DE&I continues to participate in job fairs. At the City of Oakland Career Expo, the Office assisted potential applicants with their resumes and shared employment opportunity information. Internally, the Office of DE&I participated in activities relative to internal job application panel screenings (evaluation of a pilot scoring system, the annual women in leadership employee luncheon).

Strategic Planning – The Office of DE&I issued a Request for Proposal for a Racial Equity Consultant in July 2019. The Office of DE&I assembled a panel to review the five (5) proposals received and to select the top proposals. The panel, comprised of the Office DE&I, the Human Resources Office, and an outside panel member from MTC, reviewed, scored individually, and conducted interviews of the top two proposals. ReadySet, Inc. was selected to receive the contract in an amount not to exceed \$93,500. The areas of focus in the scope of work were a comprehensive cultural and equity assessment, to assist in the internal development of a strategic equity plan that is a sustainable, integrated and comprehensive to embed across all parts of the agency. One which strengthens existing internal and external policies and practices; reflecting best practices in diverse programming, employee engagement and a more inclusive leadership.

In July 2019, the Office of DE&I met with representatives from CARB, and the Strategic Growth Council's Public Health Institute to discuss the Air District's Office of DE&I. As a part of the Strategic Growth Council's priorities, they will create a training plan on racial equity for CARB staff. The Office provided its blueprint of the work underway at the Air District, and shared best practices, discussed our change management strategies, and provided samples of our communications to staff.

Cultural Awareness Communications/Activities – The Office of DE&I continues to provide content and creative information in the diversity section of the Air District's internal bi-weekly Newsletter. Some examples include information on heritage month observations such as Hispanic Heritage Month (September 15, 2019 – October 15, 2019) and demographic data by generations (i.e. baby Boomers, Gen Y, and Gen X).

Sample Communications -



**STRATEGIC INCENTIVES DIVISION
K. SCHKOLNICK, DIRECTOR**

Open Solicitations Administered by SID

- **Community Health Protection Grant Program** – \$40 million (M) is available for eligible projects that reduce toxic air emissions and ozone-forming pollutants from mobile and stationary sources by replacing old, high-polluting vehicles and equipment. Priority is given to projects in the AB 617-identified communities of West Oakland, Richmond-San Pablo, East Oakland/San Leandro, eastern San Francisco, Pittsburg-Bay Point area, San Jose, Tri-Valley area, and Vallejo. Community input will play an important role by informing the Air District's project outreach and project identification processes. Applications are being accepted on a first-come, first-served basis until all funds are awarded to owners of eligible equipment and vehicles by June 2020. www.baaqmd.gov/ab617grants
- **Carl Moyer Program** –\$10M is available for eligible projects that upgrade or replace on-road vehicles, school buses, transit buses, off-road and agricultural equipment, marine equipment, and locomotives. Applications are being accepted on a first-come, first-served basis until all funds are awarded. www.baaqmd.gov/moyer

- **Lower-Emission School Bus Program** – Funding is available for public school districts, Joint Powers Authorities (JPAs), and contracted fleets in the Bay Area to do bus replacements, engine repowers or electric conversions, natural gas tank replacements, and electric charging and alternative fueling infrastructure projects. Applications are being accepted on a first-come, first served basis until all funds are awarded. www.baaqmd.gov/lesbpnt
- **Residential Wood Smoke Reduction Incentive Program** – Funding is available for eligible homeowners to help offset a portion of the cost to replace older, highly polluting fireplaces and wood-burning stoves with qualifying cleaner heating devices, including electric heat pumps and natural gas or propane heating stoves and inserts. Funding is also available to help homeowners decommission their existing wood-burning devices. Funding is limited to residents whose homes are located in [eligible areas](#), including Air District designated Community Air Risk Evaluation (CARE) areas and high wood smoke areas. www.baaqmd.gov/woodsmokegrant
- **Vehicle Buyback Program** – Pays Bay Area residents \$1,000 to turn in their operable, registered vehicle (model years 1996 and older) for scrapping. www.baaqmd.gov/vbb
- **Vehicle Trip Reduction Grant Program** – Approximately \$3.5M is available for eligible transportation services and bicycle facility projects that improve air quality and reduce greenhouse gas emissions by reducing single-occupancy vehicle trips. Applications are being accepted on a first-come, first-served basis until all funds are awarded. www.baaqmd.gov/tripreduction
- **West Oakland Zero-Emission Grant Program** - Approximately \$450,000 in Reformulated Gas Settlement Funding (RFG) is available to help owners and operators pay for a portion of the cost to purchase and deploy new on- and off-road zero-emission vehicles, infrastructure, and mobile and stationary equipment that will be operated and installed in West Oakland or the adjacent Air District designated CARE areas of Richmond and Western Alameda County. Applications being accepted on a first-come, first-served basis until all RFG funds are awarded. www.baaqmd.gov/WestOaklandZEV

Key Accomplishments and Outreach

Transportation Fund for Clean Air (TFCA) – Authorized by the State Legislature in 1991, funding is generated through a \$4 surcharge on motor vehicles registered within the nine-county Bay Area to implement projects that reduce on-road motor vehicle emissions within the Air District’s jurisdiction. On April 3, 2019, the Board of Directors (Board) approved the allocation of \$32.3M in TFCA revenue, including up to \$18.3M in carryover, and on June 5, 2019, the Board authorized proposed cost-effectiveness limits for Air District-sponsored programs and approved proposed updates to the TFCA Regional Fund Policies and Evaluation Criteria for FYE 2020.

- **Regional Fund and Air-District Sponsored Projects:** 60% of TFCA funds are awarded to eligible projects and programs implemented directly by the Air District and the Regional Fund, which provides funding for clean air vehicle and trip reduction projects:
 - **Vehicle Trip Reduction Program** – The solicitation opened on August 6, 2019. To date, 13 applications were received, including eight for microtransit services projects and five for non-microtransit projects. Seven eligible projects have been recommended for award, totaling \$2,373,000, to construct a Class IV bikeway overcrossing, provide shuttle services serving as a first-and-last mile connection to mass transit, and construct 350 new bike parking spaces at mass transit hubs. The remaining six projects are either being reviewed or have been deemed ineligible.
 - **Clean Air Vehicle Project** – Staff received an application from California State University Maritime Academy and recommended an award of \$13,500 for the purchase of one electric shuttle bus.
 - **Outreach:**
 - **July 18, 2019:** Staff met with a representative from ACE rail to discuss opportunities to fund a new shuttle route in Fremont.
 - **July 30, 2019:** Staff met with City of San Ramon and Sunset Development Company representatives to discuss the proposed bike and pedestrian overcrossing at Bollinger Canyon Road/Iron Horse Trail.
 - **August 19, 2019:** Staff met with Peninsula Corridor Joint Powers Board representatives to discuss documentation of matching funds for an existing shuttle project.
 - **August 20, 2019 and August 23, 2019:** Staff had teleconference meetings with the City of Cupertino and BART to discuss questions regarding their proposed trip reduction projects.
 - **October 7, 2019 and October 22, 2019:** Staff sent out semi-annual reporting reminders to grantees with active projects.
- **County Program Manager (CPM) Fund:** Forty percent of TFCA funds are distributed to a designated CPM in each of the Bay Area’s nine counties to implement their own air quality projects. During this quarter, staff hosted two CPM Work Group meetings to continue discussing potential changes to the FYE 2021 CPM Fund Policies. Comments from all the nine CPM liaisons were received by August 28, 2019 and were reviewed and prepared for Board of Directors’ consideration.
 - **Outreach:**
 - During this quarter, staff hosted four teleconference meetings with Santa Clara Valley Transportation Agency (VTA) to discuss VTA’s CPM projects.
 - **September 17, 2019:** Staff teleconferenced with Contra Costa Transportation Authority (CCTA) to discuss CCTA’s CPM projects.
 - **September 27, 2019:** Staff attended the Bay Area County Transportation Agencies Directors Meeting to provide an update on the Air District’s grant opportunities and to inform them about the updates to Rule 6 regarding dust mitigation requirements in Marin.

- **Audit 20:** Fiscal audits are conducted on all TFCA-funded projects to confirm whether TFCA funds were used to implement the approved projects in accordance with applicable state law. This quarter, staff have coordinated with auditors Simpson & Simpson to continue the audit of over 40 TFCA Regional Fund projects that were completed between July 1, 2017 and June 30, 2019. Staff met with representatives from Simpson & Simpson in person on July 17, 2019, and have held four additional status update meetings with Simpson & Simpson.
- **Other TFCA Outreach and Events:**
 - **August 21, 2019:** Staff teleconferenced with Department of Environment of San Francisco, Gladstein Neandross & Associates, and Penske to discuss an electric delivery truck (Farm to Table) project.
 - **July 15, 2019:** Staff attended MTC Regional Bicycle/Pedestrian count protocol stakeholder workshop.
 - **August 8, 2019:** Staff attended MTC's Active Transportation Working Group meeting.

CMP, School Bus Program, Funding Agricultural Replacement Measures for Emission Reductions Program (FARMER), and AB 617 – In cooperation with CARB, the Air District administers state-funded grant programs, including the Carl Moyer Program (CMP), Lower-Emission School Bus Program (LESP), FARMER, and AB 617 Community Health Protection Grant Program. These programs provide funding to reduce emissions from existing heavy-duty engines in on-road and off-road vehicles and equipment. This quarter, staff evaluated 24 projects with proposed individual award amount over \$100,000, requesting a total of approximately \$17.5M in funding. Staff conducted outreach to promote funding opportunities, submitted disbursement requests and funding reports, and participated in meetings and educational/informational events related to these programs.

- **Outreach:**
 - **July 17, 2019 and August 28, 2019:** Staff participated in CARB's One-Stop Diesel Truck Event.
 - **September 5, 2019:** Staff participated in a PG&E webinar on grant opportunities to incentivize equipment/vehicle electrification.
- **Requests and Reports:**
 - **July 2, 2019:** Staff received a disbursement of \$280,875 from CARB for CMP Year 21 State Reserve Project and administrative funds.
 - **July 8, 2019:** Staff sent out annual reporting reminders to grantees with active projects.
 - **July 17, 2019:** Staff submitted quarterly Diesel Emissions Reduction Act (DERA) grant reports to EPA for two active projects.
 - **July 25, 2019:** Staff received \$6,218,750 from CARB in CAP (Community Air Protection) 2/SB 856 funds.
 - **July 25, 2019:** Staff received \$107,738.20 in repayment funds requested from Global Diving Services for project non-performance.
 - **July 26, 2019:** Staff submitted quarterly reports to CARB for Prop 1B GMP (Proposition 1B Goods Movement Program).
 - **July 30, 2019:** Staff submitted quarterly reports to CARB for FARMER.
 - **August 12, 2019:** Staff received \$200,000 in repayment funds requested from Westar Marine Services for project non-performance.

- **August 26, 2019:** Staff submitted the CMP Yearly Report to CARB for 2019.
- **September 16, 2019:** Staff executed a grant agreement with CARB for \$1,922,690 in FARMER 2 grant funds.
- **Informational Events and Training:**
 - **July 11, 2019:** Staff attended the “Fund the Fleet: Funding Mechanisms to Assist and Accelerate ZEB Deployment” webinar.
 - **July 24, 2019:** Staff participated in CARB’s CARL (database system) webinar.
 - **July 24, 2019:** Staff attended an Air District PowerBI Pilot Demonstration.
 - **August 26, 2019:** Staff attended CARB’s Advanced Clean Trucks Regulation webinar.
 - **August 28, 2019:** Staff participated in CARB’s off-road regulation training in Livermore.
 - **August 29, 2019:** Staff attended CARB’s FARMER Program webinar.
- **Meetings and Events:**
 - **July 10, 2019, August 14, 2019 and September 11, 2019:** Staff attended the monthly CAPCOA Mobile Source Committee and Grants Committee meetings.
 - **August 1, 2019:** Staff participated in a site visit and meeting with Sysco.
 - **August 7, 2019:** Staff participated in a discussion with CARB regarding AB 617 stationary source projects.
 - **August 14, 2019:** Staff attended the AB 617 Steering Committee Meeting in Richmond.
 - **September 23, 2019:** Staff attended the Port of Oakland Trucker Working Group meeting.
 - **September 26, 2019:** Staff attended the NorCal MEMA (Municipal Equipment Maintenance Association) event in Discovery Bay.

Proposition 1B Goods Movement Program (GMP) – This program provided funding to upgrade or replace diesel equipment including trucks, locomotives, Transportation Refrigeration Units (TRUs), cargo handling equipment, and shore power equipment. This quarter, staff submitted a semi-annual GMP report.

Other Programs and Special Projects

- **AC Transit Hydrogen Fuel Cell Bus Project** – This Project is co-funded by CARB and \$1M TFCA to deploy 10 hydrogen fuel cell electric buses and to make upgrades to an existing fueling station in the City of Emeryville. This quarter, staff attended 10 meetings with Project partners to discuss Project progress. As of September 30, 2019, all 10 project buses were received by AC Transit.
- **Goodwill Electric Bus Project** – This Project is co-funded by TFCA and CARB, in partnership with SF Goodwill, the Center for Transportation and the Environment, and Build Your Dreams (BYD) Corporation and will test the viability of deploying a fleet of electric delivery trucks in the Bay Area, ultimately providing a model to electrify Goodwill’s truck fleet across the nation. As of October 2018, all 11 Project vehicles had been delivered to Goodwill for testing. This quarter, staff continued to host biweekly meetings with Project partners to discuss Project progress and made a site visit to a facility where work is performed on project vehicles.

- **Zero-Emission Hydrogen Ferry Demonstration Project** – This Project, funded by CARB and administered by the Air District, will demonstrate the advantages of hydrogen fuel cells for use in the commercial maritime industry by deploying a zero-emission hydrogen ferry in San Francisco Bay. Construction on the ferry started in November 2018 and is expected to be completed in early 2020. This quarter, staff hosted six meetings with the grantee and Project partners to discuss Project progress. Staff also submitted one disbursement request to CARB for \$203,980, which has been received by the Air District.
- **West Oakland Zero-Emission Grant Program** – Funding for this Program is provided by the Reformulated Gas Settlement Fund under contract to the Bay Area Clean Air Foundation to fund projects that reduce diesel use by accelerating the adoption of zero-emission vehicles and equipment in and around West Oakland and Oakland International Airport. To date, four funding agreements have been executed for approved projects and two additional applications received by September 19, 2019 are being reviewed. During this quarter, staff conducted two pre-application webinars.
- **Wood Smoke Reduction Incentive Program** – The Winter 2017/2018 Program cycle launched in January 2018 with approximately \$800,000 available for residents in CARE and High Wood Smoke Areas. As of October 1, 2019, 1,435 applications have been received, approximately 39 of which were received this quarter. For this cycle, a total of \$535,248 in funding has been encumbered, 232 projects have been paid, 42 are active and in progress, three (3) are under review, and six (6) have pending payment requests. 1,152 projects have been either withdrawn by the applicant or rejected by the Air District for not meeting program requirements. Staff continues to coordinate with Trinity Technology Group to discuss and implement improvements to the online application system.

Grant Programs in Development

Volkswagen (VW) Environmental Mitigation Trust Fund Program – The VW Environmental Mitigation Trust will provide approximately \$423M for California to mitigate the excess nitrogen oxide emissions caused by VW’s use of illegal emissions testing defeat devices. Under contract to CARB, San Joaquin Valley, South Coast, and Bay air districts will be administering VW Program funding, with Bay Area being responsible for the administration of funding for light-duty zero-emission vehicle infrastructure and zero-emission freight and marine projects. During this quarter, staff’s efforts were focused on program development: weekly meetings were held with GreenInfo Network, the website developer, and with Fluxx Labs, the provider of grants management systems as a service; and staff also participated in coordination meetings with the other administering air districts and CARB.

- The website for the Zero-Emission Freight and Marine program, <https://www.californiavwtrust.org/zero-freight-marine/>, went live on September 20, 2019.
- Solicitation for the zero-emission bus project category launched on October 21, 2019, and solicitations for other project categories are anticipated to open in phases in Fourth Quarter of 2019 and early 2020.
- Staff received a disbursement of \$1M for the light-duty zero-emission infrastructure program on July 2, 2019, and \$1.75M for the zero-emission freight and marine program on September 9, 2019 from the Trust.

Other SID Meetings and Events

- **July 9, 2019 - July 12, 2019:** Staff attended the Asilomar Conference: the 17th Biennial Conference on Transportation and Energy organized under the auspices of the Energy and Alternative Fuels Committees of the U.S. Transportation Research Board and hosted by the UC Davis Institute of Transportation Studies.
- **July 10, 2019:** Staff hosted a Japanese Delegation from the Japanese Automobile Education Foundation to discuss alternative vehicle technology, at Air District Headquarters.
- **July 16, 2019:** Staff met with Engie Energy to discuss proposed projects for the Port of Oakland and other Bay Area locations.
- **July 17, 2019:** Staff attended an introduction seminar for the Air District's Microsoft PowerBI Pilot Demonstration.
- **July 17, 2019:** Staff attended the Veloz Wired for Transportation Electrification Forum.
- **July 17, 2019:** Staff met with stakeholders to discuss potential collaboration with transportations management associations, the Manzanita Project, and the sub-regional formation of a TMA on the mid-Peninsula.
- **July 18, 2019:** Staff attended MTC's Transportation Demand Management working group meeting.
- **August 1, 2019:** Staff attended the monthly statewide governmental hydrogen update meeting.
- **August 4, 2019 - August 7, 2019:** Staff attended and presented at the Association for Commuter Transportation 2019 International Conference, New York City, NY.
- **August 5, 2019:** Staff attended the California Energy Commission's Advisory Committee Meeting and Public Workshop on the 2019-2020 Investment Plan Update for the Clean Transportation Program.
- **August 6, 2019:** Staff received a quarterly progress report from South Coast AQMD on the Statewide Electric Drayage Truck Deployment Project. Five trucks, including two BYD and three Peterbilt trucks, are deployed out of 13 total trucks.
- **August 7, 2019:** Staff attended an online CARB research seminar on assessing travel demand and co-benefit impacts of affordable transit-oriented development.
- **August 14, 2019:** Staff attended a Plan Bay Area 2050 webinar on the review of Horizon Perspective Paper #1 Autonomous Vehicles.
- **August 14, 2019:** Staff attended a Power BI Training.
- **August 20, 2019:** Staff met with representatives of MTC to discuss plan and funding opportunities for the deployment of zero-emission buses in the Bay Area.
- **August 20, 2019:** Staff attended MTC and Alameda County Transportation Commission's Goods Movement Executive Team meeting.
- **August 26, 2019:** Staff attended the Bay Area EV Coordinating Council.
- **September 4, 2019:** Staff attended a California Hydrogen Business Council Meeting.
- **September 5, 2019:** Staff attended the monthly hydrogen update meeting with California government staff.
- **September 5, 2019:** Staff attended the intra-agency CO2 strategy workgroup meeting.

- **September 6, 2019:** Staff attended and supported the CALSTART CORE (Clean Off-Road Equipment Voucher Incentive Project) Work Group Meeting at the Air District Headquarters.
- **September 10, 2019 - September 11, 2019:** Staff attended the H2@Ports Workshop hosted by the U.S. Department of Energy.
- **September 11, 2019:** Staff attended a CEC meeting on the proposed resolution approving the 2019-2020 Investment Plan Update for the Clean Transportation Program.
- **September 20, 2019:** Staff attended the Low Carbon Transportation Coalition Call, hosted by CalETC.
- **September 24, 2019:** Staff teleconferenced with a representative from the Netherlands to discuss the role of various organizations concerning reducing greenhouse gases and improving air quality in the ports.
- **September 25, 2019:** Staff attended a zero-emission bus tour and workshop at AC Transit.
- **September 26, 2019 - September 27, 2019:** Staff attended the International Zero Emission Bus Conference.

METEOROLOGY & MEASUREMENTS DIVISION
R. CHIANG, DIRECTOR

Air Quality Forecasting

	# of Days	Dates
Spare the Air alerts called	13	July 26, 27, 28 August 13, 14, 15, 16, 26 September 12, 13, 14, 24, 25
Exceedances of the national 8-hour ozone standard (70 ppb)	6	July 24, 25, 27 August 14, 15, 16

July 26, 2019 – July 28, 2019: Light winds and strong high pressure caused temperatures to reach the 90s throughout most of the Bay Area, with 100°F or higher occurring on July 24, 2019 and July 27, 2019 in Livermore. San Martin exceeded the national standard on July 24, 2019, while Livermore exceeded the national standard on July 25, 2019 and July 27, 2019.

August 13, 2019 – August 16, 2019: Light winds and strong high pressure caused temperatures to reach the 80s and 90s in San Francisco and the upper-90s to low-100s in inland locations. Livermore and San Martin exceeded the national standard on August 14, 2019, while Livermore exceeded the national standard on August 15, 2019 and August 16, 2019.

August 26, 2019: High pressure over California produced inland temperatures in the upper-90s. However, no exceedances occurred.

September 12, 2019 – September 14, 2019: High pressure over California produced light morning winds, followed by a late-arriving sea breeze, with inland temperatures reaching the upper-90s. Despite ideal conditions for ozone formation, no exceedances occurred.

September 24, 2019 and September 25, 2019: High pressure over the Pacific, combined with low pressure over the Desert Southwest, produced light offshore winds and high temperatures in the 90s across the Bay Area. No exceedances occurred.

Regulatory Air Monitoring

Thirty-one air monitoring sites and 14 meteorological towers were operational. The air monitoring team also worked to secure locations for additional monitoring sites:

- Benicia: Work continued to secure a viable site for a community air monitoring stations at Robert Semple Elementary School in Benicia.
- Livermore: Staff initiated the process to secure a lease with Lawrence Elementary School in Livermore for the location of the new EPA mandated Photochemical Assessment Monitoring Station (PAMS). Note: The lease was finalized on October 15, 2019.

Quality Assurance

All gas analyzers and particulate samplers were found to be operating within the Air District's established accuracy limits (25 monitoring stations, 79 parameters). The National Air Quality System Database was updated with all audit results.

- Ground-Level Monitoring (GLM) audits of Hydrogen Sulfide (H₂S) and Sulfur Dioxide (SO₂) analyzers: All GLM gas analyzers tested met the Air District's audit criteria. Audits were conducted at the Marathon, Chevron and Valero Refineries (10 GLM locations; 19 gas analyzers).
- Staff calibrated ozone equipment (analyzers/photometers and generators) for Dr. John Balmes and Hofer Wong of the Human Exposure Lab, University of California, San Francisco. This is a service that the Air District has provided UCSF on an ongoing basis for several years.
- Regular departmental duties continued, including: audits; report processing and review; database management; and equipment testing and maintenance.

Laboratory

The laboratory continues to perform its ongoing, routine analyses related to Air Monitoring activities.

In addition to regularly scheduled samples, the laboratory performed analyses in support of Compliance & Enforcement and Source Test actions.

Community Monitoring

Evaluation of measurement technologies and development of new air quality capabilities:

- Staff continued a collocation study to evaluate the difference in performance between a variety of particulate matter instruments.
- Work continued on developing the air quality monitoring van and other analytical methods.

Staff began work with Aclima to conduct mobile measurements throughout the Bay Area to identify air pollution hot spots and establish baseline concentrations of air pollutants.

- Aclima initiated a three month long, mobile air monitoring campaign in Richmond and San Pablo in response to a request by the AB 617 Steering Committee.
- Staff began work with Aclima on the Pro-Portal, a web-based tool for the Air District to visualize, analyze, and interpret data.

Technical Advising to Bay Area Communities and Stakeholders

For meetings:

- MQA attended the California Forest Management Task Force Prescribed Fire Working Group on September 12, 2019, and presented on our prescribed burn program. The task force includes local air districts, CARB, the United States Forest Service, and CalFire.
- MQA attended a meeting with the Orinda-Moraga Fire District on September 23, 2019, regarding the North Orinda Shaded Fuel Break Prescribed Fire Project. Meeting attendees included local fire districts, East Bay Municipal Utilities District, CalFire, consultants, and the Air District. This is a long-term plan over the next five years, including up to 57 individual projects, with one small project planned for fall 2019.

Community Meetings:

- Richmond-San Pablo AB 617 Steering Committee (monthly) and co-lead meetings (weekly).
- Bay View Hunters Point community meetings (August 21, 2019 and September 18, 2019)
- West Oakland Indicators Project Data Platform Conference (August 12, 2019)
- West Oakland Indicators Project and Tracking California: Community Air Monitoring Workshop (September 13, 2019)
- Lehigh Cement Town Hall in Cupertino (September 16, 2019)

Staff provided the technical oversight for the development and implementation of the Bay Air Center in coordination with the Community Engagement Office. Projects include the scoping and implementation of two Air District Community Grants and developing training materials (webinar) for air monitoring projects at schools.

AB 617

The Richmond/San Pablo Steering Committee decided the timeline for Emission Reduction Plan selection and completed the work to identify sources of concern and desired actions that would benefit from additional air quality data. Staff contributed technical expertise for Richmond-San Pablo Steering Committee and co-lead meetings for the monitoring plan development process.

Staff also continued technical coordination with CARB community grantees.

Air Quality Analysis

Staff attended an EPA Office of Air Quality Planning and Standards workshop to incorporate Bay Area priorities into an ongoing update to data systems for ambient air quality data.

Staff attended the Google Geo for Good Summit to identify potential new tools that could be of use for Air District work.

Source Test

- Evaluated and acquired new measurement technologies and developed test procedures to provide data to AB 617, Regulation 11-18 and emission inventory improvement.
- Drafting revisions to the Manual of Procedures Volumes IV and V, including preliminary exploration of methods to receive source test and continuous emission monitoring system (CEMS) data digitally.
- Oversight of South Bay Odor Study and Work Plan Development, including completion of panel interviews of RFP finalists, selection of odor study consultants, preliminary meeting with City of Milpitas staff to coordinate on independent study efforts and provided a status update to the Stationary Source Committee.
- Oversight of the Regulation 12-15 fence line monitoring programs, including receipt of Quality Assurance Project Plan (QAPP) revisions from refineries, performance of preliminary review of QAPP revisions, performed site visit to witness Hydrogen Sulfide (H₂S) Open Path Tunable Diode Laser (TDL) technology demonstration of bump test and detection limit capabilities, and delivered program update presentation at the Western States Petroleum Association (WSPA) Associates Luncheon.
- Provided update on source testing policies and emission inventory coordination at the September 10, 2019 California Council for Environmental and Economic Balance (CCEEB) meeting.
- Source tests conducted:
 - Continuous Emissions Monitoring Systems Field Accuracy Tests on monitors installed at large source emission points.
 - Determined emissions of precursor organic compounds, filterable and condensable particulate matter, and toxic air contaminants.
 - Assessed the compliance status of gasoline cargo tanks, gasoline dispensing facilities, gasoline terminal loading, and vapor recovery systems.
 - Evaluated source tests conducted by independent contractors to determine report acceptability and source compliance.
 - Evaluated CEMS installations and ongoing compliance, including monitoring plan review and approval.
 - Special study of refinery Ammonia CEMS accuracy.
- Technical advising (data interpretation, testing methodology recommendations and limitations) to Air District Divisions:
 - Refinery Heavy Liquids Study, including coordination and logistical meetings with refinery representatives.
 - Supported Engineering and Compliance & Enforcement on emission data interpretation, permit development, and recommendations for further evaluation indicating potential violations.

- Supported Rules Section on development of Rules 6-5, 8-5, 13-2, 13-3, and 13-5.
- Estimation of emissions from organics to support methane rules.
- Refinery Rules Technical Working Group (RRTWG).

New Hires

- Kenzie Bell, part-time temporary Laboratory Technician.
- Caroline Normile, Ph.D., Principal Air Quality Specialist
- Michael Flagg, Principal Air Quality Specialist

Promotions

- Max Dillon, Senior Air Quality Instrument Specialist

STATISTICS

STATISTICS			
<u>Administrative Services:</u>		<u>Compliance Assistance and Operations Program:</u>	
<u>Accounting/Purchasing/Comm.</u>		Asbestos Plans Received	1835
General Checks Issued	1336	Coating and other Petitions Evaluated	1
Purchase Orders Issued	586	Open Burn Notifications Received	21
Checks/Credit Cards Processed	4354	Prescribed Burn Plans Evaluate	4
Contracts Completed	168	Tank/Soil Removal Notifications Received	27
RFP/RFQ	2	Compliance Assistance Inquiries Received	23
		Green Business Reviews	4
<u>Executive Office:</u>		Refinery Flare Notifications	17
Air Pollution Control Officer's Meetings Attended	231		
Board Meetings Held	3	<u>Compliance Assurance Program:</u>	
Committee Meetings Held	10	Industrial Inspections Conducted	2795
Advisory Council Meetings Held	1	Gas Station Inspection Conducted	112
Hearing Board Meetings Held	1	Asbestos Inspections Conducted	481
Variances Received	1	Open Burning Inspections Conducted	0
		PERP Inspections Conducted	50
<u>Information Systems:</u>		Mobile Source Inspections	0
New Installation Completed	12	Grant Inspections Conducted	132
PC Upgrades Completed	14		
Service Calls Completed	1074	<u>Engineering Division:</u>	
		Annual Update Packages Completed	804
<u>Human Resources:</u>		New Applications Received	311
Manager/Employee Consultation (Hrs.)	350	Authorities to Construct Issued	188
Management Projects (Hrs.)	400	Permits to Operate Issued	210
Employee/Benefit Transaction	600	Exemptions	5
Training Sessions Conducted	4	New Facilities Added	92
Applications Processed	516	Registrations (New)	44
Exams Conducted	17	Health Risk Assessments (HRA)	75
New Hires	15	Regular Employees Staffed	60
Promotions	13	Position Vacancies	7
Separations	15	Temporary Employees Staffed	3
Payroll Administration (Hrs.)	800	Interns Staffed	0
Safety Administration	150		
Inquiries	4000	<u>Communications and Public Information:</u>	
		Responses to Media Inquires	69
<u>Facility/Vehicle:</u>		Events Staffed with Air District Booth	39
Request for Facility Service	93		
Vehicle Request(s)	380	<u>Community Engagement:</u>	
Vehicle Maintenance Request(s)	37	Presentations Made	10
		Visitors	0
		Air District Tours	0
		Community Meetings Attended	22

STATISTICS (continued)			
Compliance and Enforcement Division:		3rd Quarter 2019 Agricultural Burn Days	
Enforcement Program		July - September Permissive Burn Days-North	61
Violations Resulting in Notices of Violations	201	July - September No-Burn Days-North	31
Violations Resulting in Notice to Comply	0	July - September Permissive Burn Days-South	61
New Hearing Board Cases Reviewed	0	July - September No-Burn Days-South	31
Reportable Compliance Activity Investigated	151	July - September Permissive Burn Days-Coastal	51
General Complaints Investigated	1016	July - September No Burn Days-Coastal	41
Wood Smoke Complaints Received	135		
Mobile Source Violations	0	Laboratory	
		Sample Analyzed	1585
Meteorology Measurements & Rules:		Inter-Laboratory Analyses	0
3rd Quarter 2019 Ambient Air Monitoring			
Days Exceeding Nat'l 24-Hour PM _{2.5} Std.	0	Technical Library	
Days Exceeding Nat'l 24-Hour PM ₁₀ Std.	0	Titles Indexed/Cataloged	
Days Exceeding State 24-Hour PM ₁₀ Std.	0	Periodicals Received/Routed	
Days Exceeding the Nat'l 8-Hour Ozone Std.	6		
Days Exceeding the State 1-Hour Ozone Std.	3	Source Test	
Days Exceeding the State 8-Hour Ozone Std.	6	Cargo Tank Tests Performed	0
		Total Source Tests	49
Ozone Totals, Year to Date 2019		Pending Source Tests	1
Days Exceeding State 1-Hour Ozone Std.	6	Further Evaluation Notices Recommended	14
Days Exceeding Nat'l 8-Hour Ozone Std.	9	Contractor Source Tests Reviewed	3188
Days Exceeding State 8-Hour Ozone Std.	9	Outside Test Observed	20
		Further Evaluation Notices Recommended After Review	13
Particulate Totals, Year to Date 2019			
Days Exceeding Nat'l 24-Hour PM _{2.5} Std.	0	Continuous Emissions Monitoring (CEM)	
Days Exceeding Nat'l 24-Hour PM ₁₀ Std.	0		
Days Exceeding State 24-Hour PM ₁₀ Std.	0	Indicated Excess Emission Report Eval.	50
		Monthly CEM Reports Reviewed	122
PM_{2.5} Winter Season Totals for 2019 - 2020		Indicated Excesses from CEM	105
Days Exceeding Nat'l 24-Hour PM _{2.5} Std.	0	Field Accuracy Test Performed	9
		Ground Level Monitoring (GLM)	
		July - September Ground Level Monitoring SO ₂ Excess Reports	0
		July - September Ground Level Monitoring H ₂ S Excess Reports	0

These facilities have received one or more Notices of Violations
Report period: July 1, 2019 – September 30, 2019

Alameda County				
Status Date	Site #	Site Name	City	Regulation Title
9/25/2019	A9684	Bay Ship & Yacht Co	Alameda	Solvent Evaporative Loss Minimization
8/1/2019	A3276	Alameda County Water District	Fremont	GDF Standard Phase I CARB Certified Requirement
8/1/2019	A5249	California State University, East Bay	Hayward	GDF Standard Phase I CARB Certified Requirement
9/4/2019	A9764	ASM Autobody & Repair	Hayward	No Permit to Operate
9/5/2019	Z6542	Synergy Enterprises	Hayward	Asbestos; Written Plan or Notification
9/5/2019	Z6542	Synergy Enterprises	Hayward	Improper Demolition, Renovation and Removal
9/9/2019	Z6672	Commercial	Hayward	Asbestos; Schedule Changes and Updates
9/11/2019	B2250	Auto Collision Experts	Hayward	No Permit to Operate
7/31/2019	V4062	Grafco Station	Livermore	No Permit to Operate
7/31/2019	V4062	Grafco Station	Livermore	GDF Phase I Equipment Not Maintained
8/13/2019	Z6582	Gateway Station West	Newark	Excessive Visible Emissions
8/13/2019	Z6582	Gateway Station West	Newark	Standards for New Stationary Sources
8/23/2019	A9800	Classic Graphics	Newark	Failure to Meet Permit Conditions
7/2/2019	A0208	Schnitzer Steel Products Company	Oakland	Organic Compounds Misc Operations
7/8/2019	A0062	A B & I Foundry	Oakland	Non-Compliance; Major Facility Review
7/11/2019	Z6406	Mario Estell	Oakland	Asbestos; Written Plan or Notification
7/24/2019	Z6454	Commercial	Oakland	Asbestos; Written Plan or Notification
8/21/2019	Z6591	SFD	Oakland	Asbestos; Written Plan or Notification
8/27/2019	A0591	East Bay Municipal Utility District	Oakland	Non-Compliance; Major Facility Review
8/29/2019	A0146	CASS, Inc	Oakland	Failure to Meet Permit Conditions
9/5/2019	E3256	Cafe Tartine LLC	Oakland	Failure to Meet Permit Conditions
9/9/2019	Z6664	Allison Armstrong	Oakland	Asbestos; Written Plan or Notification
9/12/2019	W4270	Union Pacific Railroad	Oakland	Failure to Meet Permit Conditions
9/18/2019	P9903	Clear Channel Outdoor, Inc.	Oakland	Failure to Meet Permit Conditions
9/25/2019	Z6856	SFD	Oakland	Asbestos; Written Plan or Notification
8/15/2019	Z6560	SFD	Pleasanton	Asbestos; Written Plan or Notification
Contra Costa County				
Status Date	Site #	Site Name	City	Regulation Title
9/3/2019	Z6633	MFD	Antioch	Asbestos; Schedule Changes and Updates
9/3/2019	Z6635	SFD	Bay Point	Asbestos; Containment Requirement
7/18/2019	Z6444	COM	Concord	Asbestos; Schedule Changes and Updates
9/4/2019	M0859	City of Concord	Concord	Asbestos; Schedule Changes and Updates
9/5/2019	Z6581	Independent Construction Co.	Concord	Excessive Visible Emissions
7/23/2019	A0581	ST Shore Terminals LLC	Crockett	Non-Compliance; Major Facility Review
8/9/2019	B1911	C & H Sugar Company, Inc	Crockett	Non-Compliance; Major Facility Review
8/9/2019	A0581	ST Shore Terminals LLC	Crockett	Gasoline Bulk Terminals/Cargo Tanks Annual Source Test
8/21/2019	B1911	C & H Sugar Company, Inc	Crockett	Administrative Requirements; Fees
8/21/2019	B1911	C & H Sugar Company, Inc	Crockett	Asbestos Operation Fee
7/25/2019	B2759	Tesoro Refining & Marketing Company, LLC	Martinez	Non-Compliance; Major Facility Review
7/25/2019	B2759	Tesoro Refining & Marketing Company, LLC	Martinez	Non-Compliance; Major Facility Review
7/25/2019	B2759	Tesoro Refining & Marketing Company, LLC	Martinez	CO Emission Limit
7/25/2019	B2759	Tesoro Refining & Marketing Company, LLC	Martinez	Non-Compliance; Major Facility Review
7/25/2019	B2759	Tesoro Refining & Marketing Company, LLC	Martinez	Opacity Limitation
7/25/2019	B2759	Tesoro Refining & Marketing Company, LLC	Martinez	Non-Compliance; Major Facility Review
7/25/2019	B2759	Tesoro Refining & Marketing Company, LLC	Martinez	Emission Limitations for Sulfur Recovery Plants
7/25/2019	B2759	Tesoro Refining & Marketing Company, LLC	Martinez	Failure to Meet Permit Conditions
8/7/2019	A0011	Shell Martinez Refinery	Martinez	Limitations on Hydrogen Sulfide
8/7/2019	A0011	Shell Martinez Refinery	Martinez	Limitations on Hydrogen Sulfide
8/9/2019	Z6522	COM	Martinez	Asbestos; Schedule Changes and Updates
8/21/2019	A1464	Acme Fill Corporation	Martinez	Landfill Surface Requirements
8/28/2019	A1464	Acme Fill Corporation	Martinez	Landfill Emission Control System Requirement
8/28/2019	A1464	Acme Fill Corporation	Martinez	Landfill Emission Control System Requirement
9/16/2019	A7034	TransMontaigne Operating LP	Martinez	Not Gas Tight
9/24/2019	A0011	Shell Martinez Refinery	Martinez	Emission Limitations for Sulfur Recovery Plants
9/26/2019	B2870	Shell Chemical LP	Martinez	Failure to Meet Permit Conditions
7/18/2019	Z6446	SFD	Pinole	Asbestos; Containment Requirement
7/2/2019	A4618	Keller Canyon Landfill Company	Pittsburg	Wellhead Requirements: Shall Operate Under a Vacuum
7/2/2019	A4618	Keller Canyon Landfill Company	Pittsburg	Standards for New Stationary Sources
7/2/2019	A4618	Keller Canyon Landfill Company	Pittsburg	Non-Compliance; Major Facility Review
7/2/2019	A4618	Keller Canyon Landfill Company	Pittsburg	Landfill Surface Requirements
7/2/2019	A4618	Keller Canyon Landfill Company	Pittsburg	Standards for New Stationary Sources
7/2/2019	A4618	Keller Canyon Landfill Company	Pittsburg	Landfill Emission Control System Requirement
7/2/2019	A4618	Keller Canyon Landfill Company	Pittsburg	Solid Waste Facility Operating Records
7/18/2019	Z6459	Chevron Station #90222	Richmond	No Authority to Construct
7/23/2019	A0010	Chevron Products Company	Richmond	Non-Compliance; Major Facility Review

These facilities have received one or more Notices of Violations
Report period: July 1, 2019 – September 30, 2019
(continued)

Contra Costa County (Continued...)				
Status Date	Site #	Site Name	City	Regulation Title □
7/23/2019	A0010	Chevron Products Company	Richmond	Flare Monitoring Petroleum Refineries General Monitoring Requirement
7/25/2019	A0706	New NGC, Inc	Richmond	Failure to Meet Permit Conditions
7/25/2019	A0706	New NGC, Inc	Richmond	Failure to Meet Permit Conditions
8/6/2019	A0010	Chevron Products Company	Richmond	Non-Compliance; Major Facility Review
8/6/2019	Z6498	Chevron Long Wharf	Richmond	Excessive Visible Emissions
8/27/2019	A7943	Biorichland LLC	Richmond	No Permit to Operate
8/30/2019	A5558	523Rods	Richmond	No Permit to Operate
8/30/2019	A7847	Bay Marine Boatworks, Inc	Richmond	No Permit to Operate
9/6/2019	B4704	BNSF Railway Company	Richmond	Asbestos; Written Plan or Notification
9/6/2019	B4704	BNSF Railway Company	Richmond	Asbestos; Written Plan or Notification
9/6/2019	A0745	TransMontaigne Operating Company LP	Richmond	Vapor Leak Requirement
9/12/2019	A1840	West Contra Costa County Landfill	Richmond	Landfill Emission Control System Requirement
9/12/2019	A1840	West Contra Costa County Landfill	Richmond	Landfill Surface Requirements
9/12/2019	A1840	West Contra Costa County Landfill	Richmond	Wellhead Requirements: Shall Operate Under a Vacuum
9/12/2019	A1840	West Contra Costa County Landfill	Richmond	Excessive Visible Emissions
9/16/2019	A0010	Chevron Products Company	Richmond	Standards for New Stationary Sources
9/16/2019	A0010	Chevron Products Company	Richmond	Standards for New Stationary Sources
9/16/2019	A0010	Chevron Products Company	Richmond	Standards for New Stationary Sources
9/16/2019	A0010	Chevron Products Company	Richmond	Standards for New Stationary Sources
9/16/2019	A0010	Chevron Products Company	Richmond	Standards for New Stationary Sources
9/16/2019	A0010	Chevron Products Company	Richmond	Standards for New Stationary Sources
9/16/2019	A0010	Chevron Products Company	Richmond	Standards for New Stationary Sources
9/16/2019	A0010	Chevron Products Company	Richmond	Standards for New Stationary Sources
9/16/2019	A0010	Chevron Products Company	Richmond	Standards for New Stationary Sources
9/16/2019	A0010	Chevron Products Company	Richmond	Standards for New Stationary Sources
9/16/2019	A0010	Chevron Products Company	Richmond	Standards for New Stationary Sources
9/16/2019	A0010	Chevron Products Company	Richmond	Non-Compliance; Major Facility Review
9/16/2019	A0010	Chevron Products Company	Richmond	Opacity Limitation
9/17/2019	A0706	New NGC, Inc	Richmond	No Authority to Construct
9/17/2019	A0706	New NGC, Inc	Richmond	No Permit to Operate
7/3/2019	A0016	Phillips 66 Company - San Francisco Refinery	Rodeo	Non-Compliance; Major Facility Review
7/9/2019	A0016	Phillips 66 Company - San Francisco Refinery	Rodeo	Open - Ended Line or Valve
7/9/2019	A0016	Phillips 66 Company - San Francisco Refinery	Rodeo	Organic Compounds Recurrent Leak Schedule
7/9/2019	A0016	Phillips 66 Company - San Francisco Refinery	Rodeo	Equipment required Quarterly Inspections
7/9/2019	A0016	Phillips 66 Company - San Francisco Refinery	Rodeo	Organic Compounds Identification
8/13/2019	A0016	Phillips 66 Company - San Francisco Refinery	Rodeo	Open - Ended Line or Valve
8/13/2019	A0016	Phillips 66 Company - San Francisco Refinery	Rodeo	Organic Compounds Recurrent Leak Schedule
8/21/2019	Z6598	Gas and Shop	Rodeo	GDF Phase II Equipment Not Maintained
7/18/2019	Z6396	SFD	Walnut Creek	Asbestos; Written Plan or Notification
8/12/2019	Z6535	SFD	Walnut Creek	Asbestos; Written Plan or Notification
8/13/2019	Z6543	Condo	Walnut Creek	Asbestos; Written Plan or Notification
Marin County				
Status Date	Site #	Site Name	City	Regulation Title □
7/17/2019	Z6424	SFD	Kentfield	Asbestos; Written Plan or Notification
9/3/2019	A1179	Redwood Landfill Inc	Novato	Landfill Emission Control System Requirement
Napa County				
Status Date	Site #	Site Name	City	Regulation Title □
8/14/2019	C0131	Calif Dept of Forestry-Attn: Keith Hill	Napa	No Authority to Construct
8/14/2019	C0131	Calif Dept of Forestry-Attn: Keith Hill	Napa	No Permit to Operate
8/14/2019	C0131	Calif Dept of Forestry-Attn: Keith Hill	Napa	Failure to Meet Permit Conditions
San Francisco County				
Status Date	Site #	Site Name	City	Regulation Title □
7/12/2019	A9170	San Francisco Water Department	San Francisco	No Authority to Construct
7/12/2019	A9170	San Francisco Water Department	San Francisco	No Permit to Operate
7/12/2019	A9170	San Francisco Water Department	San Francisco	California Code of Regulations
7/12/2019	A9618	SF State University, Corp Yard	San Francisco	No Authority to Construct
7/12/2019	A9618	SF State University, Corp Yard	San Francisco	No Permit to Operate
7/12/2019	A9618	SF State University, Corp Yard	San Francisco	California Code of Regulations
7/25/2019	W9625	United Rentals Inc	San Francisco	GDF Phase I Requirement
7/25/2019	W9625	United Rentals Inc	San Francisco	GDF Standard Phase I CARB Certified Requirement
7/30/2019	Z6480	SFD	San Francisco	Asbestos; Schedule Changes and Updates

These facilities have received one or more Notices of Violations
Report period: July 1, 2019 – September 30, 2019
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San Francisco County (Continued...)				
Status Date	Site #	Site Name	City	Regulation Title
8/5/2019	Z6497	SFD	San Francisco	Asbestos; Containment Requirement
8/5/2019	Z6497	SFD	San Francisco	Asbestos Containing Waste Disposal
8/12/2019	Z6528	SFD	San Francisco	Asbestos; Written Plan or Notification
8/19/2019	X2639	Gas and Shop	San Francisco	Failure to Meet Permit Conditions
8/19/2019	X2639	Gas and Shop	San Francisco	GDF Recordkeeping Requirement
8/26/2019	S5763	Gashouse Cove Marina, Inc.	San Francisco	No Authority to Construct
8/26/2019	S5763	Gashouse Cove Marina, Inc.	San Francisco	No Permit to Operate
9/11/2019	Z6702	Auto City Food Mart	San Francisco	Failure to Meet Permit Conditions
San Mateo County				
Status Date	Site #	Site Name	City	Regulation Title
8/12/2019	Z6530	Bayshore Shell	Burlingame	GDF Periodic Testing Notification and Submission Requirements
8/19/2019	Z6567	ARCO Facility #02090	Daly City	GDF Phase I Requirement
8/13/2019	Z6546	SFD	Foster City	Asbestos; Written Plan or Notification
7/18/2019	A2266	Browning-Ferris Industries of CA, Inc	Half Moon Bay	Landfill Surface Requirements
7/18/2019	A2266	Browning-Ferris Industries of CA, Inc	Half Moon Bay	Standards for New Stationary Sources
7/18/2019	A2266	Browning-Ferris Industries of CA, Inc	Half Moon Bay	Landfill Emission Control System Requirement
7/19/2019	B7040	Ameresco Half Moon Bay LLC	Half Moon Bay	Non-Compliance; Major Facility Review
7/19/2019	B7040	Ameresco Half Moon Bay LLC	Half Moon Bay	Non-Compliance; Major Facility Review
8/1/2019	A2266	Browning-Ferris Industries of CA, Inc	Half Moon Bay	Non-Compliance; Major Facility Review
9/25/2019	A2266	Browning-Ferris Industries of CA, Inc	Half Moon Bay	GDF Standard Phase I CARB Certified Requirement
7/17/2019	A1784	San Francisco International Airport	San Francisco	No Authority to Construct
7/17/2019	A1784	San Francisco International Airport	San Francisco	No Permit to Operate
7/17/2019	A1784	San Francisco International Airport	San Francisco	Non-Compliance; Major Facility Review
7/17/2019	A1784	San Francisco International Airport	San Francisco	No Authority to Construct
7/17/2019	A1784	San Francisco International Airport	San Francisco	No Permit to Operate
7/25/2019	B1903	Cumaica Coffee	South San Francisco	Failure to Meet Permit Conditions
7/31/2019	Z6476	Hathaway Dinwiddie	South San Francisco	Standards for New Stationary Sources
9/5/2019	E2099	Blue Line Transfer, Inc	South San Francisco	Failure to Meet Permit Conditions
9/25/2019	Z6768	SFD	Woodside	Asbestos; Written Plan or Notification
9/25/2019	Z6768	SFD	Woodside	Asbestos; Written Plan or Notification
Santa Clara County				
Status Date	Site #	Site Name	City	Regulation Title
7/24/2019	Z6478	ARCO AM/PM	Campbell	Failure to Meet Permit Conditions
8/9/2019	Z6478	ARCO AM/PM	Campbell	No Authority to Construct
9/5/2019	Z6603	Cannery Apartments	Campbell	Improper Demolition, Renovation and Removal
9/5/2019	Z6603	Cannery Apartments	Campbell	Waste Disposal Procedures
9/5/2019	Z6603	Cannery Apartments	Campbell	Asbestos; Written Plan or Notification
7/25/2019	Z6466	SFD	Cupertino	Asbestos; Containment Requirement
7/9/2019	E3156	Cintas Corporation	Gilroy	Wastewater Sludge-dewatering Unit
7/11/2019	E0603	Christopher Ranch LLC	Gilroy	No Authority to Construct
7/11/2019	E0603	Christopher Ranch LLC	Gilroy	No Permit to Operate
7/29/2019	E0695	Best USA Logistics Inc	Milpitas	No Permit to Operate
7/31/2019	B5289	Valley Oil Company	Mountain View	Failure to Meet Permit Conditions
9/9/2019	Z6673	MFD	Mountain View	Administrative Requirements; Fees
8/8/2019	Z6517	SFD	Palo Alto	Asbestos; Schedule Changes and Updates
7/3/2019	Z6390	Homeowner	San Jose	Asbestos; Containment Requirement
7/23/2019	A0085	HGST, a Western Digital Company	San Jose	Semiconductor Wafer Fabrication Area Wipe Cleaning
7/24/2019	B3759	Microchip Technology Inc	San Jose	Failure to Meet Permit Conditions
7/31/2019	Z6479	Unocal #5995	San Jose	GDF Recordkeeping Requirement, Must retain records during last 12 months
8/21/2019	Z5219	Z-Con Specialty Services	San Jose	Administrative Requirements; Fees
8/21/2019	Z5219	Z-Con Specialty Services	San Jose	Asbestos Operation Fee
8/21/2019	A4020	SFPP, LP	San Jose	Vapor Leak Requirement
8/21/2019	A4020	SFPP, LP	San Jose	Storage of Organic Liquids Floating Roof Tank Fitting Requirements
8/28/2019	A4020	SFPP, LP	San Jose	Storage of Organic Liquids Floating Roof Tank Openings Sealed
9/12/2019	B2577	Central Concrete Supply	San Jose	No Authority to Construct
9/12/2019	B2577	Central Concrete Supply	San Jose	No Permit to Operate
8/15/2019	A0041	Owens Corning Insulating Systems, LLC	Santa Clara	Non-Compliance; Major Facility Review
9/18/2019	Z6729	Mix International	Santa Clara	Motor Vehicle & Mobile Equipment Coating Ops Records

These facilities have received one or more Notices of Violations
Report period: July 1, 2019 – September 30, 2019
(continued)

<i>Santa Clara County (Continued...)</i>				
Status Date	Site #	Site Name	City	Regulation Title
7/18/2019	Z6457	Sanborn Park	Saratoga	Failure to Meet Permit Conditions
9/3/2019	Z6695	MFD	Sunnyvale	Asbestos; Schedule Changes and Updates
9/3/2019	Z6638	COM	Sunnyvale	Asbestos; Schedule Changes and Updates
9/12/2019	Z6686	Costco	Sunnyvale	All Phase II vapor recovery equipment shall be both leak free and vapor tight
<i>Solano County</i>				
Status Date	Site #	Site Name	City	Regulation Title
8/15/2019	B2626	Valero Refining Company - California	Benicia	Non-Compliance; Major Facility Review
8/22/2019	B2626	Valero Refining Company - California	Benicia	Non-Compliance; Major Facility Review
8/22/2019	B2626	Valero Refining Company - California	Benicia	Emission Limitations for Sulfur Recovery Plants
8/8/2019	Z6519	SFD	Fairfield	Asbestos; Schedule Changes and Updates
9/12/2019	A7618	Univar Solutions USA, Inc	Fairfield	Failure to Meet Permit Conditions
9/4/2019	A2039	Potrero Hills Landfill, Inc	Suisun City	Landfill Emission Control System Requirement
9/4/2019	A2039	Potrero Hills Landfill, Inc	Suisun City	Landfill Surface Requirements
9/4/2019	A2039	Potrero Hills Landfill, Inc	Suisun City	Standards for New Stationary Sources
9/23/2019	A2039	Potrero Hills Landfill, Inc	Suisun City	Landfill Surface Requirements
9/23/2019	A2039	Potrero Hills Landfill, Inc	Suisun City	Standards for New Stationary Sources
9/4/2019	Z6652	SPSV High School	Vallejo	Asbestos; Containment Requirement
9/6/2019	Z6658	Central Gas	Vallejo	No Permit to Operate
9/6/2019	Z6658	Central Gas	Vallejo	GDF Phase I Equipment Not Maintained
9/6/2019	Z6658	Central Gas	Vallejo	GDF Phase II Requirement: Posting of Operating Instructions
<i>Sonoma County</i>				
Status Date	Site #	Site Name	City	Regulation Title
8/20/2019	R3890	SFD	Petaluma	Asbestos; Schedule Changes and Updates
8/20/2019	R3890	SFD	Petaluma	Asbestos Operation Fee
8/20/2019	Z6619	Bertolli Landscaping Inc	Petaluma	Failure to Meet Permit Conditions
9/9/2019	A2254	Republic Services of Sonoma County, Inc	Petaluma	Landfill Emission Control System Requirement
9/9/2019	A2254	Republic Services of Sonoma County, Inc	Petaluma	Standards for New Stationary Sources
9/9/2019	A2254	Republic Services of Sonoma County, Inc	Petaluma	Landfill Emission Control System Requirement
9/9/2019	A2254	Republic Services of Sonoma County, Inc	Petaluma	Landfill Surface Requirements
9/9/2019	A2254	Republic Services of Sonoma County, Inc	Petaluma	Standards for New Stationary Sources
9/9/2019	A2254	Republic Services of Sonoma County, Inc	Petaluma	Wellhead Requirements: Shall Operate Under a Vacuum
9/9/2019	A2254	Republic Services of Sonoma County, Inc	Petaluma	Standards for New Stationary Sources
9/26/2019	A2254	Republic Services of Sonoma County, Inc	Petaluma	Landfill Emission Control System Requirement
7/29/2019	B6173	Stocklin Iron Inc	Santa Rosa	No Permit to Operate
9/24/2019	Z6728	SFD	Santa Rosa	Prohibition of Fires: No Ignition

Closed Notice of Violations with Penalties by County July 1, 2019 – September 30, 2019

Alameda

Site Name	Site #	City	Penalty Amount	# of Violations Closed
58 Vasco Corporation	Z4802	Livermore	\$10,000	1
76 Gas Station	Z4759	Hayward	\$2,000	1
AC Transit District - Central Maintenance Building	A2258	Oakland	\$9,600	1
Amijot Trucking, LLC.	Z4816	Hayward	\$500	1
Bayview Environmental	G2974	Oakland	\$750	1
City of Emeryville	Z4776	Emeryville	\$500	1
City Of Hayward, Facilities Division	A2422	Hayward	\$500	1
FP Investments	Z6093	Pleasanton	\$500	1
Herc Rentals	Z5563	Oakland	\$1,000	1
Lake Merritt Gasoline	Z5742	Oakland	\$1,200	3
Lam Research Corporation - Fremont Campus	A3152	Fremont	\$1,000	1
Oakland Unified School	Z5673	Oakland	\$150	1
Oro Loma Sanitary District	A1067	San Lorenzo	\$1,000	1
P.W. Stephens Environmental, Inc.	Y5159	Fremont	\$5,000	1
P.W. Stephens Environmental, Inc.	Z3449	Hayward	\$750	1
Safeway Fuel Center	Z5818	Alameda	\$500	1
SFD	Z6058	Oakland	\$500	1
Thermo Fisher Scientific	B4976	Pleasanton	\$2,500	2
Unocal	Z5561	Oakland	\$6,000	1

Alameda Total Violations Closed: 22

Contra Costa

Site Name	Site #	City	Penalty Amount	# of Violations Closed
7-Eleven	N2664	Concord	\$250	1
Chevron Products Company	P4764	San Ramon	\$2,500	1
Gas of America	Z2893	Antioch	\$250	1
Harris Courts Inv. LLC	Z6442	Oakley	\$500	1
Home Quality Remodeling	Z6125	Concord	\$500	1
Los Medanos Energy Center	B1866	Pittsburg	\$3,000	2
NK Gas	Z4265	Antioch	\$1,250	2
Pinole-Hercules Wastewater Treatment Plant	A1194	Pinole	\$1,000	2
Richmond Country Club	W0697	Richmond	\$1,500	2
Safeway Fuel Center #2941	Z5930	Pleasant Hill	\$500	1
StoneMor California Subsidiary, Inc	A2634	Lafayette	\$10,000	1
Superstop	Z5546	Rodeo	\$1,100	3
West County Wastewater District	A1271	Richmond	\$2,250	1
West County Wastewater District	B4152	Richmond	\$750	1

Contra Costa Total Violations Closed: 20

Closed Notice of Violations with Penalties by County
July 1, 2019 – September 30, 2019
(continued)

Marin

Site Name	Site #	City	Penalty Amount	# of Violations Closed
Novato Sanitary District	A1275	Novato	\$23,500	6
Pacific Gas and Electric Company	A3031	San Rafael	\$1,000	1
SFD	Z6272	Sausalito	\$2,000	2

Marin Total Violations Closed: 9

Napa

Site Name	Site #	City	Penalty Amount	# of Violations Closed
Bureau of Reclamation	U2427	Napa	\$1,500	3
United Rentals	Z5049	Napa	\$1,000	1

Napa Total Violations Closed: 4

San Francisco

Site Name	Site #	City	Penalty Amount	# of Violations Closed
Ace Drilling & Excavation	R3799	San Francisco	\$500	1
ARE - San Francisco	Z6188	San Francisco	\$10,000	1
San Francisco Municipal Railway	A8420	San Francisco	\$500	2
San Francisco Public Utilities Commission	A4116	San Francisco	\$2,500	1
San Francisco South East Treatment Plant	A0568	San Francisco	\$1,000	2
Tosco Marketing	M9835	San Francisco	\$1,250	2
Unocal 5458	Z0791	San Francisco	\$750	1

San Francisco Total Violations Closed: 10

San Mateo

Site Name	Site #	City	Penalty Amount	# of Violations Closed
Double AA Transportation, Inc	R1549	South San Francisco	\$6,000	4
Guardant Health Inc.	Z6001	Redwood City	\$500	1
Paw Prints Inc	A7759	Redwood City	\$1,500	2
Residence	Z5983	Woodside	\$3,000	1
San Mateo Medical Center	A3887	San Mateo	\$48,000	4
Silicon Valley Clean Water	A1534	Redwood City	\$5,000	2

San Mateo Total Violations Closed: 14

Closed Notice of Violations with Penalties by County
July 1, 2019 – September 30, 2019
(continued)

Santa Clara

Site Name	Site #	City	Penalty Amount	# of Violations Closed
COBE Construction Inc	W6615	Campbell	\$250	1
Franklin Cleaners	B6408	Santa Clara	\$100	1
Kirby Petroleum Inc	Z5213	Los Gatos	\$1,000	1
Northrop Grumman Systems Corporation	B0861	Sunnyvale	\$2,000	2
Orinda Equity Partners	B6516	Milpitas	\$750	2
Renn Transportation, Inc.	Q2991	Gilroy	\$500	1
Stop and Save	Z5845	Milpitas	\$1,500	1
T&T Gas & Mini Mart	Z5664	San Jose	\$150	1

Santa Clara Total Violations Closed: 10

Solano

Site Name	Site #	City	Penalty Amount	# of Violations Closed
Discount Gas Grocery & Liquor	Z6175	Vallejo	\$1,700	2
Fairgrounds Gas Station	Z4535	Vallejo	\$1,000	2
Green Builders	Z5885	Vallejo	\$250	1
United Brothers Enterprise Inc	Z5704	Vallejo	\$1,500	2
Univar Solutions USA, Inc	A7618	Fairfield	\$15,000	1
W Texas Valero	Z4456	Fairfield	\$1,000	1

Solano Total Violations Closed: 9

Sonoma

Site Name	Site #	City	Penalty Amount	# of Violations Closed
CA Dept of Forestry	Z4419	Santa Rosa	\$500	1
City of Petaluma, Dept of Water Resources & Convs	A1071	Petaluma	\$500	1
City of Santa Rosa	S9991	Santa Rosa	\$4,000	1
City of Santa Rosa	Z6532	Santa Rosa	\$3,200	1
Farr West	Z6185	Rohnert Park	\$250	1
Herc Rentals	Z6009	Rohnert Park	\$1,000	1
Petaluma Creamery	B8712	Petaluma	\$10,000	4
Point Pacific Drilling	Z5986	Petaluma	\$600	2
SFD	Z6474	Sebastopol	\$350	1

Sonoma Total Violations Closed: 13

Closed Notice of Violations with Penalties by County
July 1, 2019 – September 30, 2019
 (continued)

District Wide

Site Name	Site #	City	Penalty Amount	# of Violations Closed
Carmax	Z4044	Richmond	\$3,000	1
P.W. Stephens Environmental, Inc.	Y5985	Rio Linda	\$750	1

District Wide Total Violations Closed: 2

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Katie Rice and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 13, 2019

Re: Authorization to Execute a Contract for Odor Attribution Study in the South Bay

RECOMMENDED ACTION

Recommend the Board of Directors authorize the Executive Officer/APCO to execute a contract with Jacobs Engineering Group (Jacobs) at a cost not to exceed \$500,000 to perform an odor attribution study in the South Bay.

BACKGROUND

Communities in and around Milpitas, near a cluster of waste handling facilities, have experienced air quality and odor issues for many years. These facilities include the Newby Island Landfill and associated composting facility, operated by Republic Services; the San Jose-Santa Clara Regional Wastewater Facility, operated by the City of San Jose; and a dry anaerobic food waste digestion facility, operated by ZeroWaste Energy Development Company. There have been improvements to air quality in Milpitas due to Air District actions with assistance from the community. However, odors continue to be a concern.

The South Bay Odor Stakeholder Group (SBOSG) was formed in 2015 to provide a transparent forum to address odors that affect the Milpitas community and discuss enforcement activities, permit and regulatory requirements, and odor mitigation and controls measures. Quarterly meetings are attended by community and industry stakeholders; Air District staff; staff representing the Cities of Fremont, Milpitas, and San Jose; staff representing Assemblymember Kansen Chu, Congressman Ro Khanna, and Senator Bob Wieckowski; and Rod Sinks, Stationary Source Committee Chair, representing Santa Clara County. Over the last year, the SBOSG has identified the need for an odor study to better understand the contribution of different odor sources on the Milpitas community.

In January 2019, the Air District committed to conduct an Odor Attribution Study to identify compounds from odor-producing facilities that are impacting Milpitas and nearby communities. The three facilities are located close together and have similar odor profiles. The proximity and similarity of the facilities has made it difficult to trace the odors experienced by community members to specific facilities, which is required for the Air District to be able to take regulatory or enforcement actions. The goal of the Odor Attribution Study is to determine the contribution and variability of odors from these facilities and measure how often, and at what concentration,

these odors may be passing into the local community to inform future actions to reduce odors.

DISCUSSION

The Air District released a Request for Proposals (RFP 2019-004 Odor Study) to identify contractors with the expertise to measure sources of odors from the landfill, transfer station, sewage treatment plant, compost, and organic waste processing operations in Milpitas. The RFP was released on March 11, 2019 and closed on April 24, 2019. Six applicants submitted responses and were ranked by a panel of five Air District staff and an outside expert from the South Coast Air Quality Management District. The three proposals that received the highest scores were invited to be interviewed by staff and the outside participant. The proposals were scored based on expertise, skill, approach, cost, references, certified green business status, and local business status. Based on the proposal scoring and the interviews, two complementary proposals were recommended for funding (Table 1).

Table 1

Respondent	Project Scope	Proposed Budget
Jacobs Engineering Group	Characterize diurnal and seasonal odors by conducting focused field sampling and data collection at representative times over a minimum of three seasons; develop odor intensity persistency curves; perform data analysis for critical chemical odorant compound identification; conduct odor dispersion modeling; perform electronic nose evaluations; develop ongoing fence-line measurement methods; prepare progress and final reports and participate in public meetings.	\$500,000
Montrose Environmental Group	Deploy advanced real time and integrated air measurement and sampling technologies on a mobile laboratory platform, during a targeted sampling event, to identify odor causing species and facility chemical markers in the part per billion and part per trillion range, providing data and information to focus the efforts of other study participants.	\$92,000

The Jacobs proposal exceeded the \$100,000 Administrative Code limit and requires approval from the Board of Directors. The Jacobs proposal outlined an approach to identify odorant compounds impacting the area of concern via comprehensive quantitative and qualitative analyses, and to determine the relative contribution and variability of the odor-causing compounds emitted from the key source facilities. The panel found Jacobs integrated approach, qualifications, and extensive direct experience to provide the best opportunity to successfully achieve the goals of the study,

including source attribution and development of a strategy for continuous real-time measurement of odor causing compounds. The study will take place over a minimum of three seasons and will include measurements at the facilities' boundaries, as well as in the community.

The Jacobs proposal includes five main tasks:

- Reviewing existing odor, concentration, and meteorological data from previous studies
- Odor causing compound, contributor, and masking effect identification
- Modeling source attribution of odorous releases based on compound identification results
- Develop a method to measure ongoing performance of the facilities at reducing odors
- Conduct public meetings for community members to receive regular updates on the results of the study

Staff have presented information about this project to the SBOSG and the Stationary Source Committee (September 16, 2019) regarding this process.

The Montrose Environmental Group proposal had a limited scope and short study timeframe (one month) and, with a smaller budget, does not require Board approval. This project will provide very low concentration trace chemical species and chemical marker data, which will help to identify compounds for Jacobs to focus their resources on during contributor identification and source attribution phases. The panel feels this highly advanced technical approach will aide in development of chemical profiles contributing to the odors and enhance source attribution efforts. The sample analysis will primarily use Proton Transfer Reaction – Time of Flight – Mass Spectrometer (PTR-TOF-MS) at the facilities' fence lines, which can identify a wide range of individual compounds at the parts per trillion (ppt) level in real time.

BUDGET CONSIDERATION/FINANCIAL IMPACT

Funding for this contract will come from the General Fund Budget for Fiscal Year Ending 2020.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Jerry Bovee
Reviewed by: Ranyee Chiang

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Katie Rice and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 13, 2019

Re: Set a Public Hearing for December 4, 2019 to Consider Adoption of Proposed Amendments to Regulation 12: Miscellaneous Standards of Performance, Rule 15: Petroleum Refining Emissions Tracking; and Approval of Filing a Notice of Exemption from the California Environmental Quality Act (CEQA)

RECOMMENDED ACTION

Request that the Board of Directors set a Public Hearing for December 4, 2019, to consider adoption of proposed amendments to Regulation 12: Miscellaneous Standards of Performance, Rule 15: Petroleum Refining Emissions Tracking; and approval of filing a CEQA Notice of Exemption.

BACKGROUND

Regulation 12, Rule 15 (Petroleum Refinery Emissions Tracking) currently requires Petroleum Refineries and Support facilities to report previous-calendar-year annual emissions inventories of criteria pollutants, Toxic Air Contaminants (TACs), and Greenhouse Gases (GHGs) to the Air District by June 30th of each year.

In December 2018, the California Air Resources Board (CARB) adopted the “Regulation for the Reporting of Criteria Air Pollutants and Toxic Air Contaminants” (CTR Regulation), which established requirements and deadlines associated with reporting of criteria pollutant and TAC emissions. The CTR Regulation included deadlines for subject facilities to report information to the local air districts by May 1st of each year, and for the air districts to report information to CARB by August 1st of each year. The CTR regulation allows the districts to specify an earlier submittal date to supersede the May 1st due date.

In addition, CARB’s Mandatory Reporting Regulation for Greenhouse Gases (MRR) requires subject facilities to report GHG emission estimates to CARB by April 10th of each year, and third-party verified GHG emissions to CARB by August 10th of each year.

DISCUSSION

The proposed changes to Rule 12-15 revise the reporting deadline requirements to coordinate with the CTR Regulation and MRR deadlines, as shown in Table 1.

Table 1: Summary of Reporting Deadlines for Annual Emissions Inventories
(Deadlines refer to submissions due to the Air District, unless otherwise specified)

Pollutant	Existing 12-15	CTR Regulation	MRR	Proposed 12-15
Criteria	June 30	May 1 From Air District to CARB: August 1	N/A	April 15
TAC	June 30	May 1 From Air District to CARB: August 1	N/A	April 15
GHG	June 30	N/A	From Facility to CARB: April 10	April 15
3 rd -Party Verified GHG	N/A	N/A	From Facility to CARB August 10	August 15

The CTR Regulation requires the Air District to provide the criteria pollutant and TAC annual emissions inventories to CARB by August 1st of each year. To allow for sufficient time to review and approve the annual emissions inventory, the Air District proposes revising the reporting deadline to the Air District to April 15th of each year.

The MRR Regulation requires subject facilities to submit initial GHG emissions information to CARB on April 10th, and third-party verified GHG emissions information on August 10th. The proposed amendments to Rule 12-15 would require submission to the Air District of the GHG emissions information required with the annual emissions inventory on April 15th, five days after the GHG emissions information required by the MRR Regulation is due to CARB. Additionally, facilities would be required to submit the third-party verified GHG emissions information that is due to CARB on August 10th to the Air District on August 15th.

RULE DEVELOPMENT PROCESS

Staff published the draft amendments and a request for comments in June 2019. Following the request for comments, Air District staff met extensively with refineries and affected facilities regarding their concerns about the accelerated reporting deadlines. In consideration of these comments, staff revised the amendments and incorporated changes into this version of the proposed amendments to Rule 12-15.

On November 1, 2019, a Public Hearing Notice was published and distributed indicating that the Board of Directors is scheduled to conduct a public hearing on December 4, 2019. This notice was issued in order to satisfy the notification requirements of the California Government Code 54950 et seq. ("Ralph M. Brown Act").

Because the amendments to Rule 12-15 are administrative in nature and have no possibility of causing significant environmental effects, staff intends to file a CEQA Notice of Exemption.

BUDGET CONSIDERATION/FINANCIAL IMPACT

The Air District currently receives and processes the Annual Emissions Inventories (AEIs) for all subject facilities. As familiarity with the submissions increases and steps are taken by the subject facilities to shorten the time need for a proper Air District review, resource requirements are expected to decrease. Revising the submission deadline for the AEIs is not expected to appreciably impact staffing load, provided electronic submittals and the facilities implement measures to reduce the time needed to review AEIs.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Mark Gage
Reviewed by: Pamela Leong, Nicholas Maiden, and Damian Breen

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Katie Rice and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 13, 2019

Re: Acceptance and Award of Grant Funding

RECOMMENDED ACTION

Recommend the Board of Directors authorize the Executive Officer/APCO to:

1. Enter into all necessary agreements with partner air districts and Caltrans for a locomotive replacement project; and
2. Accept, obligate, and expend new funding for the Funding Agricultural Reduction Measures for Emission Reductions Program and approve the authorizing resolution.

BACKGROUND

The Bay Area Air Quality Management District (Air District) has participated in the Carl Moyer Program (CMP), in cooperation with the California Air Resources Board (CARB), since the program began in fiscal year 1998-1999. The CMP provides grants to public and private entities to reduce emissions of oxides of nitrogen (NOx), reactive organic gases (ROG) and particulate matter (PM) from existing heavy-duty engines by either replacing or retrofitting them. Eligible heavy-duty diesel engine applications include on-road trucks and buses, off-road equipment, marine vessels, locomotives, and stationary agricultural pump engines.

In 2017, Assembly Bill (AB) 617 directed CARB, in conjunction with local air districts, to establish the Community Air Protection Program. AB 617 provides a new community-focused action framework to improve air quality and reduce exposure to criteria air pollutants and toxic air contaminants in communities most impacted by air pollution. AB 134 (2017) appropriated \$250 million from the Greenhouse Gas Reduction Fund (GGRF) to reduce mobile source emissions, including criteria pollutants, toxic air contaminants, and greenhouse gases in those communities. The Bay Area was allocated \$50 million of these funds for emission reduction projects. These funds will be used to implement projects under the CMP, and optionally on-road truck replacements under the Proposition 1B Goods Movement Emission Reduction Program.

The 2020 California State Budget appropriated \$65 million in Fiscal Year Ending (FYE) 2020 GGRF funds to CARB for the continued reduction of criteria, toxic, and greenhouse gas emissions from the agricultural sector through the Funding Agricultural Reduction Measures for Emission Reductions (FARMER) Program.

DISCUSSION

Caltrans locomotive project

On March 6, 2019, the Air District's Board of Directors approved an award of \$7,400,000 in Carl Moyer/Community Health Protection grant funding for California Department of Transportation (Caltrans) to replace two diesel passenger locomotives with new, cleaner locomotives powered by Tier 4 engines. The total cost of the new locomotives is \$14.7 million. The locomotives operate on the Capitol Corridor service that travels between the Bay Area and Placer County, passing through Sacramento. The new locomotives will benefit several communities in Northern California, so staff have been working with colleagues from the Sacramento Metropolitan Air Quality Management District and Placer County Air Pollution Control District on potential co-funding for this project. Staff proposes the Air District Board of Directors authorize the Executive Officer/APCO to enter into all necessary agreements with partner air districts and Caltrans to receive and award additional grant funding for this project. The additional funding will be added to the Air District's existing grant agreement with Caltrans for the project to increase the portion of the project covered by air districts.

FYE 2020 FARMER program

The FYE 2020 State Budget appropriated \$65 million to CARB to reduce criteria, toxic, and greenhouse gas emissions from the agricultural sector. In 2017, CARB developed the FARMER Program to meet the Legislature's objectives and help meet the state's criteria, toxic, and greenhouse gas emission reduction goals. In November 2019, the Air District submitted an application to CARB requesting \$5 million for the participation in the third round of the FARMER program in the Bay Area. Up to 6.25% of the funds received may be used for administrative costs to administer the program. Staff proposes the Air District Board of Directors authorize the Executive Officer/APCO to enter into all necessary agreements with CARB to continue participation in the FARMER program.

BUDGET CONSIDERATION/FINANCIAL IMPACT

None. The Air District distributes CMP, FARMER, and Community Health Protection Grant Program funding to public agencies and private entities on a reimbursement basis. Funding for administrative costs is provided by each funding source.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Anthony Fournier

Reviewed by: Damian Breen

Attachment 13A: FYE 2020 FARMER Board Resolution (Draft)

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

RESOLUTION No. 2019 -

**Resolution Accepting FYE 2020 FARMER Incentive Funding
From the California Air Resources Board**

WHEREAS, in 2019 \$65 million from the Fiscal Year Ending (FYE) 2020 State Budget was appropriated to the California Air Resources Board (CARB) for the reduction of criteria, toxic, and greenhouse gas emissions from the agricultural sector;

WHEREAS, CARB developed the Funding Agricultural Replacement Measures for Emission Reductions (FARMER) Program to meet the Legislature's objectives and help meet the State's criteria, toxic and greenhouse gas emission reduction goals;

WHEREAS, the funding for the FARMER program comes from the Greenhouse Gas Reduction Fund (GGRF);

WHEREAS, the Bay Area Air Quality Management District (District) submitted an application to CARB requesting \$5 million in FARMER funds to implement projects pursuant to the FARMER Program guidelines;

WHEREAS, the District may use up to 6.25 percent of the funds it receives to pay the reasonable costs of implementing the incentive program;

WHEREAS, there are specific legislative requirements (e.g., expenditure records, quantification methodology, annual reporting, and disadvantaged/low income community investments) of the cap and trade proceeds that the District will need to adhere to;

NOW, THEREFORE, BE IT RESOLVED, the Board of Directors hereby approves the District's acceptance of the FARMER funds to be awarded to eligible projects in accordance with the legislative and applicable program requirements.

BE IT FURTHER RESOLVED, the Executive Officer/Air Pollution Control Officer is hereby authorized and empowered to execute on behalf of the District grant agreements with CARB and all other necessary documents to implement and carry out the purposes of this resolution.

The foregoing resolution was duly and regularly introduced, passed and adopted at a regular meeting of the Board of Directors of the Bay Area Air Quality Management District on the Motion of Director _____, seconded by Director _____, on the ____ day of _____, 2019, by the following vote of the Board:

AYES:

NOES:

ABSENT:

Katie Rice
Chairperson of the Board of Directors

ATTEST:

Cindy Chavez
Secretary of the Board of Directors

DRAFT

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Katie Rice and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 13, 2019

Re: Delegate Authority to Metropolitan Transportation Commission (MTC) to Conduct a
Public Hearing on Proposed Amendments to Bay Area Transportation Conformity and
Interagency Consultation Procedures in the State Implementation Plan (SIP)

RECOMMENDED ACTION

Staff recommends the Board of Directors delegate authority to the Metropolitan Transportation Commission (MTC) to conduct a public hearing on proposed revisions to Bay Area Transportation Air Quality Conformity and Interagency Consultation Procedures in the State Implementation Plan.

BACKGROUND

MTC is the Metropolitan Planning Organization (MPO) responsible for coordinating Bay Area transportation air quality conformity procedures for the nine-county Bay Area. MTC's San Francisco Bay Area jurisdiction is defined as the nine counties of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma. With respect to air quality planning, however, the eastern half of Solano County is within the Sacramento Metropolitan air quality planning area. The Sacramento Area Council of Governments (SACOG) is the MPO responsible for transportation planning and air quality conformity procedures in this area, in coordination with Sacramento, Solano, Yolo, Yuba, Sutter, El Dorado, and Placer Counties.

A Memorandum of Understanding (MOU) to coordinate air quality conformity requirements for transportation projects and programs in eastern Solano County was developed between MTC and SACOG. The original MOU signed in 1998 was revised in 2006 and incorporated into the SIP, which is the statewide plan to achieve national ambient air quality standards. This MOU is outdated and should to be replaced with updated information.

DISCUSSION

Staff from the Air District and MTC are proposing to revise Bay Area Transportation Air Quality Conformity Procedures and Interagency Consultation Procedures with updated MOU language to provide clarity on air quality conformity procedures for projects and programs in eastern Solano County.

An updated MOU was developed and agreed upon between MTC and SACOG staff, and it has been reviewed by MTC's Air Quality Conformity Task Force. The updated MOU is intended to guide transportation air quality conformity procedures for the following activities:

- 1) Exchanging travel data for emissions inventories, and
- 2) Conducting project-level conformity in eastern Solano County.

The next step in this process is a public hearing on the updated MOU language. Air District staff is recommending delegating authority to MTC to conduct this public hearing, scheduled to occur December 2019. Upon completion of the public hearing and public comment period, MTC and the Air District would consider approval of the proposed amendments in early 2020. If approved, the amendments would then be transmitted to the California Air Resources Board for approval and incorporation into the SIP.

BUDGET CONSIDERATION/FINANCIAL IMPACT

None.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Andrea Gordon
Reviewed by: Henry Hilken

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Katie Rice and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 13, 2019

Re: Report of the Technology Implementation Office Steering Committee Meeting of
October 4, 2019

RECOMMENDED ACTION

The Technology Implementation Office Steering Committee (Committee) received only informational items and have no recommendations of approval by the Board of Directors (Board).

BACKGROUND

The Committee met on Friday, October 4, 2019, and received the following reports:

- A) Technology Implementation Office Overview;
- B) Climate Tech Finance Program Update; and
- C) Programs to Accelerate Electric Vehicle Adoption.

Chairperson Cindy Chavez will provide an oral report of the Committee meeting.

BUDGET CONSIDERATION/FINANCIAL IMPACT

- A) None;
- B) None; and
- C) None.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Aloha de Guzman
Reviewed by: Vanessa Johnson

Attachment 15A: 10/04/2019 – Technology Implementation Office Steering Committee Meeting
Agenda #4

Attachment 15B: 10/04/2019 – Technology Implementation Office Steering Committee Meeting
Agenda #5

Attachment 15C: 10/04/2019 – Technology Implementation Office Steering Committee Meeting
Agenda #6

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Cindy Chavez and Members
of the Technology Implementation Office Steering Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: September 24, 2019

Re: Technology Implementation Office Overview

RECOMMENDED ACTION

None; receive and file.

BACKGROUND

The Air District established the Technology Implementation Office (TIO) in 2017, to advance emerging, cost-effective technologies to reduce greenhouse gas emissions in the Bay Area, that are also replicable in other regions. TIO's programs utilize partnerships and incentives (grants and loans) for climate technologies, including electric vehicles (EVs), EV charging infrastructure, energy storage, waste management, and other technologies relevant for industrial facilities. The major programs include:

- Bay Area EV Coordinating Council – quarterly convening of Bay Area facilities, businesses, and local governments to coordinate EV programs;
- Charge! – grants for installing publicly available charging infrastructure;
- Clean Cars for All – incentives for low-income residents to turn in an older vehicle and purchase or lease a clean vehicle, or get a transportation card (e.g. Clipper card);
- Climate Tech Finance – loan and loan guarantee program for industrial facilities; and
- Climate Tech Network – quarterly convening of technology developers, facility managers, financing organizations, and local governments.

DISCUSSION

As part of this agenda item, staff will welcome new members to the Steering Committee; give an overview of the TIO – its mission and programs; as well as providing a refresher on the structure and role of the Committee.

BUDGET CONSIDERATION / FINANCIAL IMPACT

None.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Derrick Tang
Reviewed by: Damian Breen

TECHNOLOGY IMPLEMENTATION OFFICE
STEERING COMMITTEE MEETING
OF 10/04/2019

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Cindy Chavez and Members
of the Technology Implementation Office Steering Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: September 24, 2019

Re: Climate Tech Finance Program Update

RECOMMENDED ACTION

None; receive and file.

BACKGROUND

The Climate Tech Finance program is the Air District's first incentive program to reduce greenhouse gas emissions at industrial facilities. The program offers two financing vehicles: loan guarantees to improve access to credit for climate technology developers, and direct loans to improve local government access to capital when buying greenhouse gas-lowering technologies. These financial products are offered through a partnership with the California Infrastructure and Economic Development Bank (IBank). The Air District has committed an initial amount of \$4 million for this revolving loan program.

In October 2018, the Air District published the *Climate Technology Review*, an assessment of emerging climate technologies evaluated by industry sector. The Climate Tech Finance program was officially announced in November 2018. Staff developed a website and outreach materials, hosted events and webinars, and performed targeted outreach to introduce facilities, governments, and partnership organizations to technology and financing opportunities.

DISCUSSION

The Air District's *Climate Technology Review* report identified the wastewater treatment sector as an area of focus for climate incentives. As a strategy to identify potential loan projects, staff conducted targeted outreach in the wastewater sector by convening and attending events with industry stakeholders, pursuing a series of conversations with individual wastewater treatment plants to discuss projects and financing opportunities. This engagement has resulted in multiple potential loan projects, as well as examples of the program's ability to connect technology developers with facilities for demonstration projects and technology scale-up.

The *Climate Technology Review* also highlighted advanced energy storage technologies as an area of focus. As a strategy to identify potential loan guarantee projects with small businesses developing these technologies, staff developed relationships with other technology innovation programs, attended conferences, and connected with new technology companies. Staff worked with IBank to introduce technology companies to commercial lenders and secure financing. This work has resulted in several project prospects seeking financing assistance by year end.

Staff will update the Steering Committee on lessons learned from these outreach efforts to targeted industry and technology sectors. Staff are seeking input from the Steering Committee on responses to these lessons learned, including additional sectors to target and ways to enhance the financial offerings of the Climate Tech Finance program.

BUDGET CONSIDERATION / FINANCIAL IMPACT

None.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Chad White
Reviewed by: Derrick Tang

TECHNOLOGY IMPLEMENTATION OFFICE
STEERING COMMITTEE MEETING
OF 10/04/2019

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Cindy Chavez and Members
of the Technology Implementation Office Steering Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: September 24, 2019

Re: Programs to Accelerate Electric Vehicle Adoption

RECOMMENDED ACTION

None; receive and file.

BACKGROUND

Since 2010, the Air District has awarded over \$19 million through incentive programs to target identified barriers to electric vehicle (EV) adoption. The programs and policies the Air District has implemented to date have focused on getting the Bay Area EV market started. Over the next 30 years, Bay Area EVs will need to grow from 3% to 90% of the region's fleet. EVs are currently in the early adopter phase, which tends to include users with greater financial means than the average consumer. With the diversity of socioeconomic, geographic, and transportation needs in the region, the Bay Area must ensure that technology transitions do not leave behind or further harm specific communities.

DISCUSSION

To help transition the Bay Area EV market from early adopters to majority adopters, the Air District is developing an EV Acceleration Plan (Plan) in partnership with Bay Area stakeholders. The Plan will build off various EV plans and initiatives at the local, county, and regional level, and include several action items, toolkits, and resources to help the Bay Area community accelerate EV adoption. Staff have initiated a phased process to develop the Plan:

1. Stakeholder Workshops
2. EV Market Research and Surveys
3. Plan Development

Incentives also play a vital role in EV acceleration. The Air District's Clean Cars for All Program provides grants for low-income households (up to 400% of the Federal Poverty Level) to retire older, high-polluting vehicles and replace them with newer, cleaner vehicles, or with alternative transportation options (e.g. Clipper card). Eligible vehicles for purchase or lease include hybrid

electric, plug-in hybrid, or EVs. The program was launched in March 2019, and has \$10 million in funding from the California Air Resources Board (through California Climate Investments Cap-and-Trade dollars and Volkswagen settlement funds).

As part of this agenda item, staff will provide details on the goals for each of the phases of its planning efforts and share updates on progress to date. Staff are seeking feedback from the Steering Committee on the Plan, including segments of the EV market or community that may be overlooked, and case studies that would be useful to include in the Plan. Staff also seek input on best practices for implementing regional plans: how to balance state and local outreach for the Plan, and keys to success to ensure that the Plan is shared and used broadly.

Staff will also update the Steering Committee on the outreach, launch, and progress of the Clean Cars for All program. Staff is also seeking input from the Steering Committee on additional outreach channels and opportunities for program expansion throughout the Bay Area.

BUDGET CONSIDERATION / FINANCIAL IMPACT

None.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Rebecca Fisher and Tin Le

Reviewed by: Derrick Tang

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Katie Rice and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 13, 2019

Re: Report of the Legislative Committee Meeting of October 9, 2019

RECOMMENDED ACTION

The Legislative Committee (Committee) recommends Board of Directors approval of the following items:

- A) Recap of the 2019 Legislative Year
 - 1) None; receive and file.
- B) Assembly Bill (AB) 836 (Wicks) – Wildfire Smoke Clean Air Centers for Vulnerable Populations Incentive Pilot Program
 - 1) None; receive and file.
- C) 2020 Legislative Priorities
 - 1) The Committee will receive a report on potential legislative activities in 2020, providing direction as necessary.

BACKGROUND

The Committee met on Wednesday, October 9, 2019, and received the following reports:

- A) Recap of the 2019 Legislative Year;
- B) Assembly Bill (AB) 836 (Wicks) – Wildfire Smoke Clean Air Centers for Vulnerable Populations Incentive Pilot Program; and
- C) 2020 Legislative Priorities.

Chairperson Margaret Abe-Koga will provide an oral report of the Committee meeting.

BUDGET CONSIDERATION/FINANCIAL IMPACT

- A) None;
- B) None; and
- C) None at this time.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Aloha de Guzman
Reviewed by: Vanessa Johnson

Attachment 16A: 10/09/2019 – Legislative Committee Meeting Agenda #4
Attachment 16B: 10/09/2019 – Legislative Committee Meeting Agenda #5
Attachment 16C: 10/09/2019 – Legislative Committee Meeting Agenda #6

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Margaret Abe-Koga and Members
of the Legislative Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: October 3, 2019

Re: Recap of the 2019 Legislative Year

RECOMMENDED ACTION

None; receive and file.

BACKGROUND

The Committee will discuss and review the attached list, as well as an updated list of bill activity provided at the meeting.

DISCUSSION

Staff will provide a brief summary of bills on the attached list, with a focus on the following bills:

Assembly Bill (AB) 1714 was a “gut and amend” bill from Assemblymember Cecilia Aguiar-Curry (D-Winters) that started as a bill on state health care budgeting in the beginning of 2019. The bill was amended in the waning days of session, seeking to exempt wine fermentation tanks from air quality regulations. At the time of the amendments, the bill had already made it through the Assembly and was in the Senate. However, the bill required a rule waiver to be heard in Senate Environmental Quality, prior to going to a full Senate Floor vote. The amendments were made at the request of the Wine Institute, and the Bay Area Air Quality Management District (Air District) was not informed in advance, only finding out through normal bill review. This was a tactic the Wine Institute also tried at the same time last year by attempting to amend another Assembly bill in the final days of the 2018 session. As the Committee is aware, from previous meetings, Senator McGuire (D-Healdsburg) had contemplated a wine fermentation bill earlier this year, but ultimately did not proceed after hosting a meeting with the Wine Institute and several air districts in May 2019.

AB 1714, as amended, conflicted with air district responsibilities under the Federal Clean Air Act in several ways, and the Air District took an oppose position in accordance with previous committee discussion and direction. Ultimately, the bill received a rules waiver but did not receive a hearing in Senate Environmental Quality. The bill may still be heard in 2020.

Senate Bill (SB) 44 by Senator Nancy Skinner (D-Berkeley) requires the California Air Resources Board to develop a comprehensive strategy for the deployment of medium- and heavy-duty vehicles in the state, for the purpose of bringing the state into compliance with federal ambient air quality standards and reducing motor vehicle greenhouse gas emissions from the medium- and heavy-duty vehicle sector. The bill would authorize the state board to establish a process to identify medium- and heavy-duty vehicle segments that can more quickly reduce motor vehicle emissions, and to implement additional emissions reduction strategies and motor vehicle deployment goals consistent with the comprehensive strategy. The Air District supported this bill throughout the legislative year, and it was recently signed by the Governor.

SB 210 by Senator Connie Leyva (D-Chino) establishes a heavy-duty vehicle inspection and maintenance program, similar to smog check programs, for light duty vehicles. The Air District supported this bill throughout the legislative year, and it was recently signed by the Governor.

BUDGET CONSIDERATION / FINANCIAL IMPACT

None.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Alan Abbs
Reviewed by: Jack P. Broadbent

Attachment 4A: BAAQMD Bill Discussion List, as of October 2, 2019
Attachment 4B: 2019 Assembly Bill 1714 (Aguiar-Curry)
Attachment 4C: 2019 Senate Bill 44 (Skinner)
Attachment 4D: 2019 Senate Bill 210 (Leyva)

BAAQMD Bill Discussion List

As of October 2, 2019

BILL #	AUTHOR	SUBJECT	STATUS	DESCRIPTION
AB 40	Ting	Air Quality Improvement Program: Clean Vehicle Rebate Program	Trans - 2 YEAR	Support (original version) Subject Change
AB 126	Cooper	Air Quality Improvement Program: Clean Vehicle Rebate Program	Trans - 2 YEAR	
AB 144	Aguiar-Curry	Public Resource Management: Organic Waste	Approps. Suspense - 2 YEAR	
AB 148	Quirk-Silva	Regional Transportation Plans: Sustainable Community Strategies	Trans - 2 YEAR	
AB 185	Grayson	California Transportation Commission: Transportation and Transportation-related Policies: Joint Meetings	Governor's Desk	
AB 210	Voepel	Smog Check: Exemption	Trans - 2 YEAR	Oppose
AB 257	Mathis	Solid Waste: Woody Biomass: Collection and Conversion	Approps. Suspense - 2 YEAR	
AB 285	Friedman	California Transportation Plan	Governor's Desk	
AB 293	E. Garcia	Greenhouse Gases: Offset Protocols	Signed by Governor	
AB 296	Cooley	Climate Change: Climate Innovation Grant Program: Voluntary Tax Contributions	Vetoed by Governor	
AB 343	Patterson	Forestry: Fuels Transportation Program: Grant Program	Approps. Suspense - 2 YEAR	
AB 345	Muratsuchi	Oil and Gas: Operations: Location Restrictions	Approps. Suspense - 2 YEAR	
AB 352	E. Garcia	Wildfire Prevention, Safe Drinking Water, Drought Preparation, and Flood Protection Bond Act of 2020	Senate EQ	
AB 383	Mayes	Clean Energy Financing Clearinghouse	Approps. Suspense - 2 YEAR	
AB 386	E. Garcia	Agricultural Working Poor Energy Efficient Housing Program	Governor's Desk	
AB 409	Limón	Climate Change: Agriculture: Agriculture Climate Adaptation Tools Programs: Grants	Approps. Suspense - 2 YEAR	
AB 423	Gloria	San Diego County Air Pollution Control District: Members and Duties	Governor's Desk	
AB 457	Quirk	Occupational Safety and Health: Lead: Permissible Exposure Levels	Inactive File - 2 YEAR	
AB 464	C. Garcia	California Global Warming Solutions Act of 2006	Nat Res - 2 YEAR	
AB 470	Limón	California Green Business Program	Approps. Suspense - 2 YEAR	
AB 490	Salas	California Environmental Quality Act: Affordable Housing Development Projects: Administrative and Judicial Streamlining	Nat Res - 2 YEAR	
AB 491	B. Rubio	Energy: Hydrogen	Approps. Suspense - 2 YEAR	
AB 556	Carrillo	Outdoor Experiences: Community Access program: Grant Program	Governor's Desk	
AB 639	Cervantes	Task Force on Addressing Workforce Impacts of Transitioning Seaports to a Lower Carbon Economy: California Workforce Development Board: Informational Report	Inactive File - 2 YEAR	
AB 661	McCarty	Wildfire Smoke Air Pollution Emergency Plan: Sacramento Metropolitan AQMD	Signed by Governor	
AB 735	Melendez	Vehicular Air Pollution: Child Labor	Trans - 2 YEAR	

BILL #	AUTHOR	SUBJECT	STATUS	DESCRIPTION
AB 755	Holden	California Tire Fee: Stormwater Permit Compliance Fund	Inactive File	
AB 784	Mullin	Sales and Use Taxes: Exemption: California Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project: Transit Buses	Governor's Desk	
AB 821	O'Donnell	Transportation: Trade Corridor Enhancement Account: Project Nomination: California Port Efficiency Program	Trans - 2 YEAR	
AB 836	Wicks	Wildfire Smoke Clean Air Centers for Vulnerable Populations Incentive Pilot Program	Signed by Governor	Support
AB 839	Mullin	Climate Adaptation Strategy: Strategic Resiliency Framework: Resiliency Through Adaptation, Economic Vitality, and Equity Account.	Approps. Suspense - 2 YEAR	
AB 915	Mayes	California Renewables Portfolio Standards Program	U. & E. - 2 YEAR	
AB 935	R. Rivas	Oil and Gas: Facilities and Operations: Monitoring and Reporting	Nat Res - 2 YEAR	
AB 939	Frazier	Administrative Procedures Act: Major Regulations	A. & A.R. - 2 YEAR	
AB 966	Bonta	Cement Plants	Nat Res - 2 YEAR	
AB 970	Salas	California Department of Aging: Grants: Transportation	Governor's Desk	
AB 983	Boerner Horvath	Transportation Electrification	U. & E. - 2 YEAR	
AB 1046	Ting	Air Quality Improvement Program: Clean Vehicle Rebate Program	Approps. Suspense - 2 YEAR	Similar to AB 40 & AB 126
AB 1100	Kamlager-Dove	Electric Vehicles: Parking Requirements	Governor's Desk	
AB 1115	Quirk-Silva	California Global Warming Solutions Act of 2006: Low-Carbon Fuel Standard Regulations	Nat Res - 2 YEAR	
AB 1124	Maienschein	Employment Safety: Outdoor Workers: Wildfire Smoke	Inactive File	
AB 1142	Friedman	Regional Transportation Plans: Transportation Network Companies.	Approps. Suspense - 2 YEAR	
AB 1143	Quirk	Energy: Renewable Gas Building Program	U. & E. - 2 YEAR	
AB 1156	E. Garcia	Methane: Dairy and Livestock: Pilot Financial Mechanism: Environmental Credit Insurance Program	Approps. Suspense - 2 YEAR	
AB 1167	Mathis	Greenhouse Gas Reduction Fund: High-speed Rail: Forestry and Fire Protection	Failed Trans. Reconsideration granted.	Trans - Failed passage. Reconsideration granted.
AB 1195	O'Donnell	California Global Warming Solutions Act of 2006: Low Carbon Fuel Standard regulations	Governor's Desk	
AB 1236	Lackey	Public Resources: Greenhouse Gases: Recycling: California Environmental Quality Act	Approps. Suspense - 2 YEAR	
AB 1238	Cunningham	Electric Vehicle Charging Stations	Trans - 2 YEAR	
AB 1262	O'Donnell	California Sustainable Freight Action Plan	Approps. Suspense - 2 YEAR	
AB 1276	Bonta	Green New Deal	Print - 2 YEAR	
AB 1284	Carrillo	Carbon Neutrality	Nat Res - 2 YEAR	

BILL #	AUTHOR	SUBJECT	STATUS	DESCRIPTION
AB 1298	Mullin	Climate Resiliency, Fire Risk Reduction, Recycling, Groundwater and Drinking Water Supply, Clean Beaches, and Jobs Infrastructure Bond Act of 2020	W., P., & W.	
AB 1299	Salas	Petroleum Refineries: Air Monitoring Systems.	Third Reading - 2 YEAR	
AB 1347	Boerner Horvath	Electricity: Renewable Energy and Zero-carbon Resources: State and Local Government Buildings	U. & E. - 2 YEAR	
AB 1350	Gonzalez	Youth Transit Pass Pilot Program	Trans - 2 YEAR	
AB 1371	Cunningham	California Renewables Portfolio Standard Program: Offshore Wind Generation	U. & E. - 2 YEAR	
AB 1406	O'Donnell	Alternative and Renewable Fuel and Vehicle Technology Program	Approps. Suspense - 2 YEAR	
AB 1411	Reyes	Integrated Action Plan for Sustainable Freight	Trans - 2 YEAR	
AB 1418	Chiu	Transportation Electrification: Electric School Buses	U. & E. - 2 YEAR	
AB 1424	Berman	Electric Vehicle Charging Stations Open Access Act	Approps. Suspense - 2 YEAR	
AB 1430	E. Garcia	State Government: Public Investment Opportunities: Cost-effectiveness Definition	Approps. Suspense - 2 YEAR	
AB 1445	Gloria	Climate Change: Emergency Declaration and Policy	Print - 2 YEAR	
AB 1463	Gabriel	California Global Warming Solutions Act of 2006	Print - 2 YEAR	
AB 1500	Carrillo	Hazardous Substances	Approps. Suspense - 2 YEAR	
AB 1578	L. Rivas	School Pavement to Parks Grant Program	Governor's Desk	
AB 1589	Salas	Carl Moyer Memorial Air Quality Standards Attainment Program : Heavy-duty Off-road Equipment	Approps. Suspense - 2 YEAR	
AB 1594	Bauer-Kahan	Heavy Duty Vehicles: Electric Vehicle Charging Stations: Ports	Trans - 2 YEAR	
AB 1621	Frazier	Alternative and Renewable Fuel and Vehicle Technology Program	Print - 2 YEAR	
AB 1655	O'Donnell	Hydrogen Fuel	Nat Res - 2 YEAR	
AB 1673	Salas	California Environmental Quality Act: Judicial Challenge: Litigation Transparency: Identification of Contributors	Nat Res - 2 YEAR	
AB 1714	Aguiar-Curry	Emissions Limitations: Wine Fermentation	E. Q. - 2 YEAR	
AB 1744	Salas	State Air Resources Board: Regulations: Emission Reduction Credit Program	Trans - 2 YEAR	Oppose
AB 1778	Boerner Horvath	Greenhouse Gas Reduction Fund: Investment Plan	Print - 2 YEAR	
AJR 7	Gloria	Green New Deal	Rules	
AJR 10	Reyes	Federal Clean Air Act	Filed with Secretary of State. Chaptered.	Relative to vehicular air pollution
SB 1	Atkins, Portantino, Stern	California Environmental, Public Health, and Worker Defense Act of 2019	Vetoed by the Governor. In Senate. Consideration of Governor's veto pending.	

BILL #	AUTHOR	SUBJECT	STATUS	DESCRIPTION
SB 43	Allen	Carbon Intensity and Pricing: Retail Products	Rev & Tax - 2 YEAR	
SB 44	Skinner	Medium-duty and Heavy-duty Vehicles: Comprehensive Strategy	Signed by Governor	Support
SB 45	Allen	Wildfire Prevention, Safe Drinking Water, Drought Preparation, and Flood Protection Bond Act of 2020	Amended. Re-referred to Approps.	Support, if amended
SB 59	Allen	California Transportation Commission: Advisory Committee: Autonomous Vehicle Technology	Approps. Suspense - 2 YEAR	
SB 69	Wiener	Ocean Resiliency Act of 2019	Approps. Suspense - 2 YEAR	
SB 127	Wiener	Transportation Funding: Active Transportation: Complete Streets	Governor's Desk	
SB 168	Wieckowski	Climate Change: Chief Climate Resilience Officer	Approps. Suspense - 2 YEAR	
SB 209	Dodd	Office of Emergency Services: Wildfire Forecast and Threat Intelligence Integration Center	Signed by Governor	
SB 210	Leyva	Heavy-Duty Vehicle Inspections and Maintenance Program	Signed by Governor	Support
SB 216	Galgiani	Carl Moyer Memorial Air Quality Standards Attainment Program: Used Heavy-duty Truck Exchange	Approps. Suspense - 2 YEAR	
SB 236	Wilk	Low Carbon Innovation Grant Program: Low Carbon Innovation Panel	B., P. & E.D. - 2 YEAR	
SB 293	Skinner	Infrastructure Financing Districts: Formation: Issuance of Bonds: City of Oakland	Governor's Desk	
SB 319	Moorlach	State Highways: Dept of Transportation: German Autobahn Report	Rules	
SB 369	Hertzberg	Vehicle Repair Assistance Program: Safe Parking Program Participants	Trans - 2 YEAR	
SB 400	Umberg	Reduction of Greenhouse Gases Emissions: Mobility Options	Signed by Governor	
SB 460	Beall	Vehicles: Biennial Registration	Approps. Suspense - 2 YEAR	
SB 498	Hurtado	Trade Corridors Improvement Fund: Grant Program: Short-line Railroads	Trans - 2 YEAR	
SB 515	Caballero	Public Utilities Commission: High Hazard Zone Fuel: Report	Approps. Suspense - 2 YEAR	
SB 535	Moorlach	Greenhouse Gases: Wildfires and Forest Fires: Air Emissions	Approps. Suspense - 2 YEAR	
SB 613	Stern	State Agency Greenhouse Gas Emissions Reduction Report Cards	Approps. Suspense - 2 YEAR	
SB 629	McGuire	Air Districts: Hearing Boards: Notice Requirements	Nat Res - 2 YEAR	
SB 662	Archuleta	Green Electrolytic Hydrogen	U. & E. - 2 YEAR	
SB 676	Bradford	Transportation Electrification: Electric Vehicles: Grid Integration	Signed by Governor	
SB 682	Allen	Climate Change: Radiative Forcing Management Climate Accounting Protocol	Approps. Suspense - 2 YEAR	

AMENDED IN SENATE AUGUST 28, 2019

AMENDED IN ASSEMBLY APRIL 3, 2019

CALIFORNIA LEGISLATURE—2019—20 REGULAR SESSION

ASSEMBLY BILL

No. 1714

**Introduced by Assembly Member ~~Blanca Rubio Aguiar-Curry~~
(Coauthor: Assembly Member Blanca Rubio)**

February 22, 2019

~~An act to add Sections 13335.1 and 13335.3 to the Government Code, relating to state government. An act to add Article 8.5 (commencing with Section 41990) to Chapter 3 of Part 4 of Division 26 of the Health and Safety Code, relating to nonvehicular air pollution.~~

LEGISLATIVE COUNSEL'S DIGEST

AB 1714, as amended, ~~Blanca Rubio Aguiar-Curry~~. State budget. Emissions limitations: wine fermentation.

(1) Existing law generally designates air pollution control and air quality management districts with the primary responsibility for the control of air pollution from all sources other than vehicular sources. Existing law requires each district to attain ambient air standards for specified air pollutants, including, among others, ozone.

This bill would require the State Air Resources Board to convene a working group with a specified membership for the purposes of reviewing the state of air pollution control technologies, operational or maintenance standards, and work practices that may be applied to wine fermentation tanks, and the costs and benefits of those technologies, standards, and practices. The bill also would require the state board to review options for the reduction of emissions from wine fermentation tanks that, to the maximum extent feasible, preserve and protect the

quality, taste, and other unique attributes associated with wine while complying with air quality standards and objectives and would require the state board to provide air districts a summary of all cost-effective options to achieve the emissions reductions from wine fermentation tanks in addition to those options' respective abilities to preserve and protect the quality, taste, and other unique attributes associated with wine.

This bill would require air districts, as specified, when an air district adopts a rule or issues a permit requiring air pollution control technology to be installed on wine fermentation tanks, to include as part of that action specified findings. By adding to the duties of air districts when adopting a rule on wine fermentation tanks, the bill would impose a state-mandated local program.

This bill would require the state board to allocate \$1,000,000, available upon appropriation, to the University of California Davis School of Viticulture and Enology for a study that makes recommendations on options to address air emissions from wine fermentation tanks in a manner that is in full compliance with state and federal air quality laws, as specified. The bill would require the study to be prepared and submitted to the Governor and the Legislature, as specified.

(2) The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for a specified reason.

~~(1) Under existing law, a state agency for which an appropriation is made is generally required to submit to the Department of Finance for approval a complete and detailed budget setting forth all proposed expenditures and estimated revenues for the ensuing fiscal year.~~

~~The bill would require the budget of the State Department of Health Care Services submitted to the department, to utilize performance-based budgeting, as defined, for all programs administered by the State Department of Health Care Services, as specified.~~

~~(2) The California Constitution requires the Governor to submit annually to the Legislature a budget itemizing state expenditures and estimating state revenues and requires the Legislature to pass the Budget Bill by midnight on June 15.~~

~~This bill would require, for the budget submitted by the Governor to the Legislature for the 2020–21 fiscal year and each fiscal year thereafter, that the Department of Finance require the State Department of Health Care Services to use performance-based budgeting for the applicable fiscal year.~~

Vote: majority. Appropriation: no. Fiscal committee: yes.
State-mandated local program: ~~no~~-yes.

The people of the State of California do enact as follows:

1 SECTION 1. Article 8.5 (commencing with Section 41990) is
2 added to Chapter 3 of Part 4 of Division 26 of the Health and
3 Safety Code, to read:

4
5 Article 8.5. Wine Fermentation
6

7 41990. (a) The Legislature finds and declares all of the
8 following:

9 (1) The wine industry in California is an important and iconic
10 part of the agricultural industry in the state.

11 (2) The wine industry employs 325,000 state residents, generates
12 \$57.6 billion in annual economic activity in the state, pays \$7.6
13 billion in state taxes, attracts 23.6 million tourist visits annually,
14 and generates \$7.2 billion in annual tourism expenditures.

15 (3) Clean air is vital to our communities and to the state as a
16 whole.

17 (b) It is the intent of the Legislature that the purpose of this
18 article is to ensure there is a full, open, thorough, and public
19 process for emissions limitations on wine facilities that is consistent
20 with state and federal clean air laws while ensuring districts take
21 into account considerations unique to the wine industry in the
22 state.

23 41991. The state board shall do all of the following:

24 (a) Convene a working group, for the purposes of reviewing the
25 state of air pollution control technologies, operational or
26 maintenance standards, and work practices that may be applied
27 to wine fermentation tanks, and the costs and benefits of those
28 technologies, standards, and practices, with a membership that
29 consists of all of the following:

30 (1) Members of the public.

- 1 (2) *Experts from the wine industry.*
2 (3) *Public health and environmental experts.*
3 (4) *One or more districts in which wineries are located in the*
4 *state.*

5 (b) *Review options for the reduction of emissions from wine*
6 *fermentation tanks that, to the maximum extent feasible, preserve*
7 *and protect the quality, taste, and other unique attributes*
8 *associated with wine while complying with air quality standards*
9 *and objectives.*

10 (c) *Provide districts a summary of all cost-effective options to*
11 *achieve the emissions reductions from wine fermentation tanks in*
12 *addition to those options' respective abilities to preserve and*
13 *protect the quality, taste, and other unique attributes associated*
14 *with wine.*

15 41992. *Consistent with federal law, when a district adopts a*
16 *rule or issues a permit requiring air pollution control technology*
17 *to be installed on wine fermentation tanks, the district shall include*
18 *as part of that action all of the following:*

19 (a) *Either of the following:*

20 (1) *A finding that the results of the study described in Section*
21 *41993 demonstrate that the air pollution control technology will*
22 *not affect the quality, sanitation, style, or marketability of the wine*
23 *expected to be fermented in the tank.*

24 (2) *A finding, if the study described in Section 41993 has not*
25 *been completed, that the air pollution control technology is not*
26 *expected to affect the quality, sanitation, style, or marketability of*
27 *the wine expected to be fermented in the tank based on the best*
28 *judgment of the district in consultation with the working group*
29 *established pursuant to subdivision (a) of Section 41991.*

30 (b) *A finding that disposal is readily available and cost effective*
31 *for the sludges, condensates, discharges, or other wastes produced*
32 *by the air pollution control technology.*

33 (c) *A finding that operational or maintenance standards or work*
34 *practices will not achieve emission reductions equivalent to the*
35 *net reductions expected from installation of the air pollution*
36 *control technology.*

37 (d) *A finding that the installation of the air pollution control*
38 *technology is required by federal law.*

39 41993. (a) (1) *The state board shall allocate one million*
40 *dollars (\$1,000,000), available upon appropriation by the*

1 Legislature, to the University of California Davis School of
2 Viticulture and Enology for a study that makes recommendations
3 on options to address air emissions from wine fermentation tanks
4 in a manner that is in full compliance with state and federal air
5 quality laws. The study shall be prepared and submitted to the
6 Governor and the Legislature.

7 (2) No later than January 1, 2021, a report shall be submitted
8 to the Governor and Legislature describing the status of the study
9 and future steps required, if any.

10 (b) The study shall be performed in consultation and cooperation
11 with the state board, districts, and experts from the wine industry.

12 (c) The study shall review all of the following:

13 (1) The effects of air pollution control technology on wine
14 fermentation tanks that contain multiple vintages and multiple
15 varietals, on aging, on consumer and market preference changes,
16 and on varying tank designs.

17 (2) A representative sample of wine types, wine styles, and
18 anticipated wine styles that may be driven by consumers.

19 (3) Tank size variability and impact.

20 (4) The potential contamination risks of ducted versus unducted
21 air pollution control technology.

22 (5) Impacts, if any, on wine flavor, quality, and marketability.

23 (6) Potential alternatives to air pollution control technology
24 that achieve the equivalent or greater in emissions reductions.

25 (7) Options for the disposal of captured ethanol.

26 (8) Effects of related laws, such as the federal FDA Food Safety
27 Modernization Act (Public Law 111-353).

28 (9) Effects on worker safety and associated wine equipment.

29 (d) The study shall be made available for public comment prior
30 to being submitted to the Governor and Legislature pursuant to
31 subdivision (a).

32 (e) A report to be submitted pursuant to this section shall be
33 submitted in compliance with Section 9795 of the Government
34 Code.

35 41994. This article does not apply to a district that had a rule
36 in effect as of January 1, 2020, that imposes an emissions limit on
37 wine fermentation tanks.

38 SEC. 2. No reimbursement is required by this act pursuant to
39 Section 6 of Article XIII B of the California Constitution because
40 a local agency or school district has the authority to levy service

1 *charges, fees, or assessments sufficient to pay for the program or*
2 *level of service mandated by this act, within the meaning of Section*
3 *17556 of the Government Code.*

4 SECTION 1. ~~Section 13335.1 is added to the Government~~
5 ~~Code, to read:~~

6 ~~13335.1. (a) As used in this article, “performance-based~~
7 ~~budgeting” means a system of budgeting that uses information on~~
8 ~~performance to inform resource allocation decisions, thereby~~
9 ~~establishing clear accountability.~~

10 ~~(b) The purpose of performance-based budgeting is to inform~~
11 ~~policy, fiscal, and oversight decisions by the Governor and~~
12 ~~Members of the Legislature; to focus managers, supervisors, and~~
13 ~~rank-and-file workers on achieving desired goals; and to~~
14 ~~communicate to the public the value of public programs, progress~~
15 ~~toward desired results, and the choices available to improve the~~
16 ~~expenditure of public funds.~~

17 ~~(c) The State Department of Health Care Services shall submit~~
18 ~~to the department for approval a complete and detailed budget at~~
19 ~~the time and in the form prescribed by the plan developed by the~~
20 ~~department pursuant to Section 13335.3 that sets forth all proposed~~
21 ~~expenditures and estimated revenues for the ensuing fiscal year.~~

22 ~~(d) A budget submitted to the department pursuant to subdivision~~
23 ~~(c) shall use performance-based budgeting to make clear to~~
24 ~~policymakers and the public the value and results of existing~~
25 ~~operations and proposed changes.~~

26 ~~(e) A budget using performance-based budgeting shall identify~~
27 ~~and update all of the following:~~

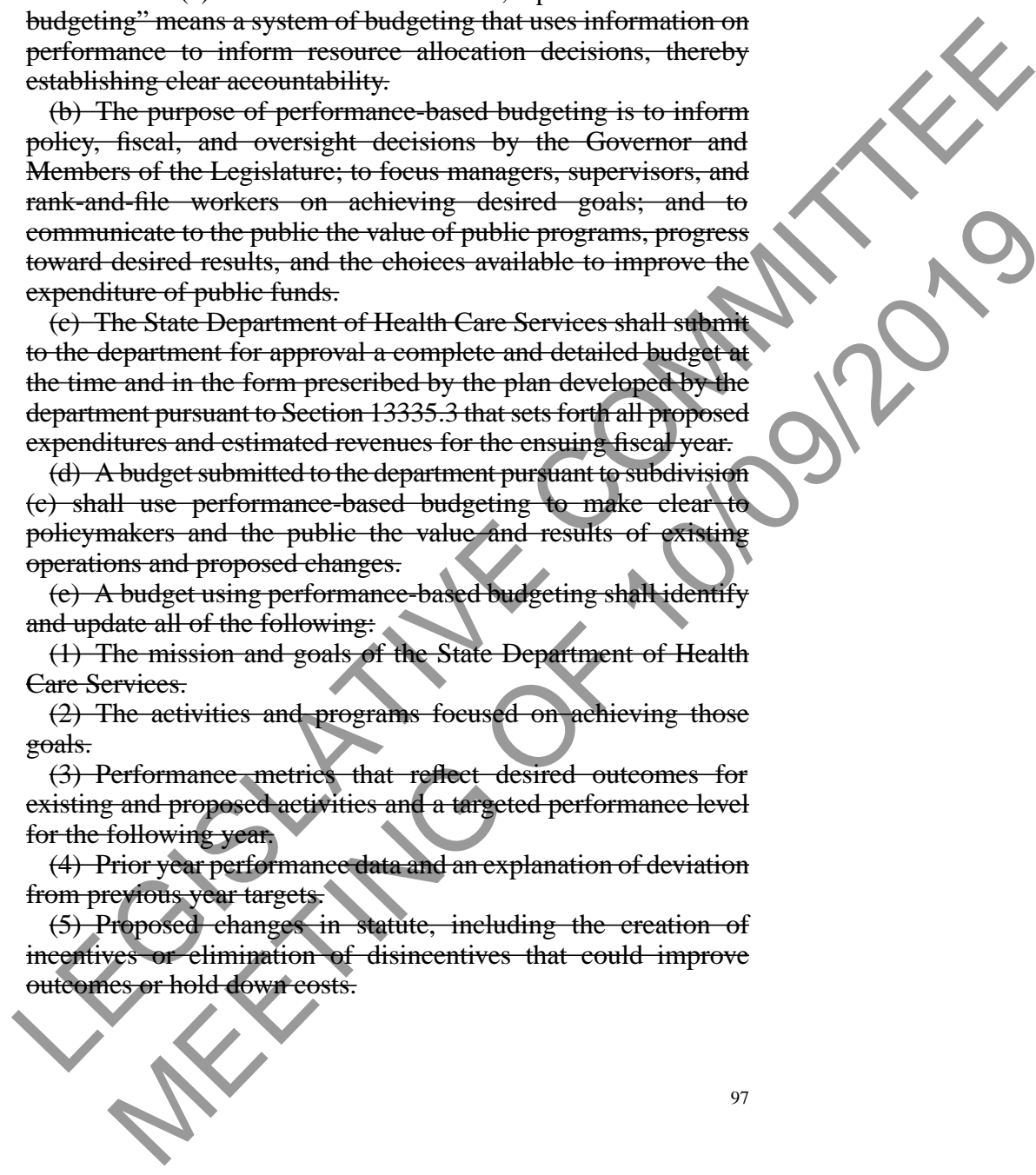
28 ~~(1) The mission and goals of the State Department of Health~~
29 ~~Care Services.~~

30 ~~(2) The activities and programs focused on achieving those~~
31 ~~goals.~~

32 ~~(3) Performance metrics that reflect desired outcomes for~~
33 ~~existing and proposed activities and a targeted performance level~~
34 ~~for the following year.~~

35 ~~(4) Prior year performance data and an explanation of deviation~~
36 ~~from previous year targets.~~

37 ~~(5) Proposed changes in statute, including the creation of~~
38 ~~incentives or elimination of disincentives that could improve~~
39 ~~outcomes or hold down costs.~~



1 ~~(6) A description of the impacts and consequences to parties~~
2 ~~affected by a program proposed for modification or elimination.~~

3 ~~SEC. 2. Section 13335.3 is added to the Government Code, to~~
4 ~~read:~~

5 ~~13335.3. (a) Beginning with the budget submitted by the~~
6 ~~Governor to the Legislature pursuant to Section 12 of Article IV~~
7 ~~of the California Constitution for the 2020–21 fiscal year, the~~
8 ~~department shall require the State Department of Health Care~~
9 ~~Services to use performance-based budgeting for the applicable~~
10 ~~fiscal year.~~

11 ~~(b) The Legislative Analyst’s Office shall review the adequacy~~
12 ~~of performance metrics and progress toward targeted outcomes~~
13 ~~with regard to programs administered by the State Department of~~
14 ~~Health Care Services in preparing its review of the Governor’s~~
15 ~~budget proposal.~~

LEGISLATIVE COMMITTEE
MEETING OF 10/09/2019

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Senate Bill No. 44

CHAPTER 297

An act to add Section 43024.2 to the Health and Safety Code, relating to vehicular air pollution.

[Approved by Governor September 20, 2019. Filed with Secretary of State September 20, 2019.]

LEGISLATIVE COUNSEL'S DIGEST

SB 44, Skinner. Medium- and heavy-duty vehicles: comprehensive strategy.

The California Global Warming Solutions Act of 2006 designates the State Air Resources Board as the state agency charged with monitoring and regulating sources of emissions of greenhouse gases.

The California Clean Truck, Bus, and Off-Road Vehicle and Equipment Technology Program funds zero- and near-zero-emission truck, bus, and off-road vehicle and equipment technologies and related projects, including, but not limited to, technology development, demonstration, precommercial pilots, and early commercial deployments of zero- and near-zero-emission medium- and heavy-duty truck technology.

This bill would require the state board, no later than January 1, 2021, and at least every 5 years thereafter, in consultation with the Department of Transportation, the State Energy Resources Conservation and Development Commission, and the Governor's Office of Business and Economic Development and in collaboration with relevant stakeholders, to update the state board's 2016 mobile source strategy to include a comprehensive strategy for the deployment of medium-duty and heavy-duty vehicles in the state for the purpose of bringing the state into compliance with federal ambient air quality standards and reducing motor vehicle greenhouse gas emissions from the medium-duty and heavy-duty vehicle sector. The bill would require the state board to recommend reasonable and achievable goals, based on specified factors, for reducing emissions from medium-duty and heavy-duty vehicles by 2030 and 2050, respectively, as part of the comprehensive strategy. The bill also would require the state board to include other specified information in the updates to the 2016 mobile source strategy. The bill would authorize the state board to establish a process to identify medium-duty and heavy-duty vehicle segments that can more quickly reduce motor vehicle emissions, consistent with the California Clean Truck, Bus, and Off-Road Vehicle and Equipment Technology Program, with a beachhead market analysis.

The people of the State of California do enact as follows:

SECTION 1. The Legislature finds and declares all of the following:

(a) Diesel-fueled trucks are responsible for 33 percent of statewide oxides of nitrogen emissions annually. These same trucks emit more particulate matter than all of the state's powerplants.

(b) People who live near freeways and busy roadways are at high risk for exposure to these health-threatening air pollutants emitted by these medium- and heavy-duty vehicles.

(c) In 1998, the State Air Resources Board identified diesel particulate matter as a toxic air contaminant based on published evidence of a relationship between diesel exhaust exposure and lung cancer.

(d) Diesel particulate matter also contributes to noncancer health effects, like premature death, hospitalizations, and emergency department visits for exacerbated chronic heart and lung disease, including asthma, increased respiratory symptoms, and decreased lung function in children.

(e) Children are particularly vulnerable to the negative effect of diesel because they have higher respiration rates than adults and this can increase their exposure to air pollutants relative to their body weight.

(f) Children exposed to high levels of diesel exhaust are five times more likely than other children to have underdeveloped lungs.

(g) Increased respiratory symptoms, such as cough wheeze, runny nose, and doctor-diagnosed asthma, have been linked to traffic exposure.

(h) Studies have shown that children who live in high-density traffic areas have higher rates of doctor visits for asthma and increased use of asthma medication than children who live near low-density traffic areas.

(i) Reducing emissions of these pollutants can have an immediate beneficial impact on air quality and on public health.

(j) The largest source of the state's greenhouse gas emissions comes from the transportation sector, accounting for nearly 50 percent of statewide emissions.

(k) While diesel-fueled trucks and buses make up just 3 percent of the vehicles on the state's roads, they produce 23 percent of greenhouse gas emissions from the transportation sector.

(l) Nearly all of the diesel-related air quality challenges can be attributed to old diesel-fueled trucks still operating on California's roads, which has prompted the State Air Resources Board to take actions to address these air quality challenges, making some progress in moving California toward cleaner medium- and heavy-duty vehicles, including, but not limited to, the following measures:

(1) The On-Road Heavy-Duty Diesel Vehicles (In-Use) Regulation (Section 2025 of Title 13 of the California Code of Regulations), adopted on September 28, 2006, requires nearly all diesel-fueled trucks and buses that operate in California to be upgraded or replaced with 2010 model year engines or equivalent by January 1, 2023.

(2) The In-Use Off-Road Diesel-Fueled Fleets Regulation (Section 2025 of Title 13 of the California Code of Regulations), adopted on July 26, 2007,

aims to reduce diesel particulate matter and oxides of nitrogen emissions from existing off-road heavy-duty diesel vehicles operating in California, such as vehicles used in construction, mining, and industrial operations.

(m) However, the state must take additional actions to immediately reduce health-threatening criteria air pollution and climate-threatening greenhouse gas emissions by outlining a clear path to convert medium- and heavy-duty vehicle segments, as well as off-road equipment, to cleaner technologies and fuels.

(n) Actions to reduce pollution and greenhouse gas emissions may include, but are not limited to, vehicle replacement, improved engine efficiency, fuels replacement, mode shifting, and operational efficiencies, including changes to vehicle deployment schedules.

(o) Providing consistent, multiyear funding is imperative to reduce emissions of criteria air pollutants and greenhouse gases associated with medium- and heavy-duty vehicles where this technology is commercially available but still costs a premium and to help support commercialization paths for new technologies that are not currently market ready.

SEC. 2. Section 43024.2 is added to the Health and Safety Code, to read:

43024.2. (a) (1) No later than January 1, 2021, and at least every five years thereafter, the state board, in consultation with the Department of Transportation, the State Energy Resources Conservation and Development Commission, and the Governor's Office of Business and Economic Development and in collaboration with relevant stakeholders, shall update the state board's 2016 mobile source strategy to include a comprehensive strategy for the deployment of medium duty and heavy-duty vehicles in the state for the purpose of bringing the state into compliance with federal ambient air quality standards and reducing motor vehicle greenhouse gas emissions from the medium duty and heavy-duty vehicle sector. The state board shall recommend reasonable and achievable goals for reducing emissions from medium duty and heavy-duty vehicles by 2030 and 2050, respectively, as part of the comprehensive strategy based on factors that include, but are not limited to, the state's overarching emissions reduction goal established in Section 38566, the goals established in the California Sustainable Freight Action Plan completed in response to Executive Order No. B-32-15, technological feasibility, and cost-effectiveness.

(2) The state board's updates to the mobile source strategy shall include both of the following:

(A) An identification of policies that provide advantages to fleets that reduce greenhouse gas emissions earlier than required by law.

(B) The coordination of plans for the attainment of federal ambient air quality standards with relevant greenhouse gas emissions reduction goals.

(b) In developing the comprehensive strategy, the state board shall do all of the following:

(1) Seek to maximize the reduction of criteria air pollutants.

(2) Identify regulation that could improve market acceptance, spur technology advancements, reduce technology costs, and support the

commercialization and deployment of medium duty and heavy-duty vehicles that reduce emissions of greenhouse gases.

(3) Identify research needs to address any data gaps.

(4) Identify areas where the state should coordinate with other state agencies, districts, utilities providers, and technology providers to implement measures identified as part of the comprehensive strategy.

(5) Identify benefits to low-income communities and communities disproportionately impacted by diesel pollution.

(6) Identify policies that provide advantages to fleets that reduce greenhouse gas emissions early.

(c) The state board, through a public process, may establish a process to identify medium duty and heavy-duty vehicle segments that can more quickly reduce motor vehicle emissions, consistent with the state board's three-year heavy-duty vehicle investment strategy required pursuant to the California Clean Truck, Bus, and Off-Road Vehicle and Equipment Technology Program, established pursuant to Section 39719.2, with a beachhead market analysis.

(d) The state board shall submit the updated mobile source strategy to the relevant policy and fiscal committees of the Legislature.



Senate Bill No. 210

CHAPTER 298

An act to add Chapter 5.5 (commencing with Section 44150) to Part 5 of Division 26 of the Health and Safety Code, and to amend Section 27153 of, and to add Sections 4000.17, 4156.5, 24019, 27158.1, and 27158.2 to, the Vehicle Code, relating to vehicular air pollution.

[Approved by Governor September 20, 2019. Filed with Secretary of State September 20, 2019.]

LEGISLATIVE COUNSEL'S DIGEST

SB 210, Leyva. Heavy-Duty Vehicle Inspection and Maintenance Program.

(1) Existing law requires the State Air Resources Board, in consultation with the Bureau of Automotive Repair and a specified review committee, to adopt regulations requiring owners or operators of heavy-duty diesel motor vehicles to perform regular inspections of their vehicles for excessive emissions of smoke. Existing law requires the state board, in consultation with the State Energy Resources Conservation and Development Commission, to adopt regulations requiring heavy-duty diesel motor vehicles to use emission control equipment and alternative fuels.

This bill would require the state board, in consultation with the bureau and other specified entities, to implement a pilot program that develops and demonstrates technologies that show potential for readily bringing heavy-duty vehicles into an inspection and maintenance program. The bill would require the state board, no later than 2 years after the completion of the pilot program, to develop and implement a Heavy-Duty Vehicle Inspection and Maintenance Program for nongasoline heavy-duty onroad motor vehicles, as specified. The bill would authorize the state board to assess a fee and penalties as part of the program, as specified. The bill would create the Truck Emission Check (TEC) Fund, with all the moneys deposited in the fund to be available upon appropriation. The bill would require the state board, at least 60 days prior to the first hearing of the state board to consider the adoption of any rules or regulations initially implementing the program, to submit those proposed rules and regulations to the Joint Legislative Budget Committee and to the appropriate policy committees of the Legislature.

This bill would require the state board, upon the implementation of the Heavy-Duty Vehicle Inspection and Maintenance Program, to provide mechanisms for out-of-state owners of heavy-duty vehicles to establish and verify compliance prior to entering the state. This bill would additionally require the state board, within 4 years following full implementation, to provide on its internet website 2 biennial reports, including information

regarding enforcement and operational downtime in addition to an estimate of the emissions reduced and cost-effectiveness.

(2) Existing law generally requires the registration of vehicles by the Department of Motor Vehicles. Under existing law, a violation of the Vehicle Code is an infraction, unless otherwise specified.

This bill, no later than one year after the effective date of a regulation implementing the Heavy-Duty Vehicle Inspection and Maintenance Program, would require the department to confirm that a heavy-duty vehicle, as specified, is compliant with, or exempt from, the program prior to the initial registration, the transfer of ownership, or the renewal of registration, except as specified. The bill would require the state board to notify the department of the vehicles allowed to be registered pursuant to these provisions.

This bill would authorize the department to issue a temporary permit, valid for a specified period and subject to certain conditions, to operate a vehicle for which registration may be refused pursuant to the above-described provisions, as specified. The bill would require the payment of a \$50 fee, as specified, for the temporary permit, to be deposited in the Truck Emission Check (TEC) Fund.

This bill, commencing one year after the effective date of a regulation implementing the Heavy-Duty Vehicle Inspection and Maintenance Program, would require a legal owner or registered owner of the heavy-duty vehicle to maintain a certificate of compliance with the vehicle, with exceptions, and would make a violation of this provision subject to a notice issued by an officer to correct the violation, as specified. The bill would require the driver of the vehicle to present the certificate of compliance for examination upon demand by a peace officer.

This bill would prohibit the operation of a heavy-duty vehicle on a public road in this state if that vehicle has an illuminated malfunction indicator light displaying a specified engine symbol, and would make a violation of this provision subject to a notice issued by an officer to correct the violation on the basis of its designation as a mechanical violation. The bill would specify that a violation of this requirement is a correctable violation if the correction is made, as specified.

This bill would prohibit the operation of a heavy-duty vehicle in a manner resulting in the escape of visible smoke, except during active regeneration. The bill would specify that a violation of this requirement is a correctable violation if the correction is made, as specified.

By creating new crimes, this bill would impose a state-mandated local program.

The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for a specified reason.

The people of the State of California do enact as follows:

SECTION 1. (a) The Legislature finds and declares all of the following:

(1) Communities in the state are too often exposed to unhealthy air. Communities near hubs of activity, such as warehouses and distribution centers, ports, highways, and roads with high levels of truck traffic, bear the burden of heavy-duty trucks that are not maintained.

(2) Trade corridors, such as those in the Inland Empire and Central Valley, consist of some of the most environmentally disadvantaged cities in the state.

(3) As of 2016, heavy-duty trucks operating in the state emitted nearly 60 percent of all oxides of nitrogen emissions from onroad mobile sources, which are the most significant contributor to both federal ozone and fine particulate matter (PM_{2.5}) air quality standard violations across the state. Heavy-duty diesel trucks are also the largest source of diesel particulate matter emissions in the state. Diesel particulate matter is a carcinogen and toxic air contaminant. Risks are particularly high in urban areas and along busy roadways where trucks operate.

(4) Statewide, about 12 million residents live in communities that exceed the federal ozone and PM_{2.5} standards. The health and economic impacts of exposure to elevated levels of ozone and PM_{2.5} in the state are considerable. Meeting air quality standards will pay substantial dividends in terms of reducing costs associated with emergency room visits and hospitalizations, lost work and school days, and, most importantly, premature mortality.

(5) While the state has made significant progress in improving air quality through existing programs by the state and air pollution control and air quality management districts, further action must be taken to achieve our public health, air quality, and climate goals.

(6) The Heavy-Duty Vehicle Inspection and Maintenance Program established by Section 44152 of the Health and Safety Code is a key step in achieving the state's goals to improve public health and meeting our environmental imperatives.

(b) (1) It is the intent of the Legislature that the Heavy-Duty Vehicle Inspection and Maintenance Program be developed in partnership between affected state agencies, the public, industry, and other stakeholders to address the inspection of, tampering with, and maintenance of emissions control systems. It is further the intent of the Legislature that the State Air Resources Board work with other relevant agencies in conducting a pilot program prior to the full-scale implementation of the Heavy-Duty Vehicle Inspection and Maintenance Program in order for this program to be developed in a way that minimizes costs to truck owners and fleets; provides a level playing field for industry through effective enforcement; and provides flexibility for the program to adapt as truck technology and industry evolves.

(2) It is the intent of the Legislature that the State Air Resources Board minimize the duplication of programs and program requirements related to heavy-duty vehicle inspection and maintenance. It is further the intent of

the Legislature that, to the extent feasible, the creation and implementation of the Heavy-Duty Vehicle Inspection and Maintenance Program established by Section 44152 of the Health and Safety Code minimizes duplicative programs and program requirements in a way that reduces compliance requirements and costs to truck owners and fleets.

(3) It is the intent of the Legislature, in enacting Chapter 5.5 (commencing with Section 44150) of Part 5 of Division 26 of the Health and Safety Code, that, if the procedure described in subparagraph (B) of paragraph (1) of subdivision (a) of Section 44152 of the Health and Safety Code requires onsite testing, the procedure should be available in geographic locations and in a quantity similar to commercial vehicle enforcement facilities throughout the state. This paragraph does not prevent the State Air Resources Board from locating these testing procedure sites at other public or privately operated locations or from making a remote testing procedure available.

SEC. 2. Chapter 5.5 (commencing with Section 44150) is added to Part 5 of Division 26 of the Health and Safety Code, to read:

CHAPTER 5.5. HEAVY-DUTY VEHICLE INSPECTION AND MAINTENANCE PROGRAM

44150. For purposes of this chapter, “program” means the Heavy-Duty Vehicle Inspection and Maintenance Program established pursuant to Section 44152.

44152. (a) No later than two years after the completion of the pilot program required by Section 44156 and to the extent authorized by federal law, the state board, in consultation with the bureau and the Department of Motor Vehicles, shall adopt and implement a regulation for a Heavy-Duty Vehicle Inspection and Maintenance Program for nongasoline heavy-duty onroad motor vehicles with a gross vehicle weight rating of more than 14,000 pounds, as defined by the state board, including, but not limited to, single-vehicle fleets and other vehicles that are registered in another state but operate on California roads. In adopting a regulation implementing the program, the state board shall do all of the following:

(1) (A) Establish test procedures for different motor vehicle model years and emissions control technologies that measure the effectiveness of the control of emissions of oxides of nitrogen and particulate matter. The procedures may include, but are not limited to, procedures for the use of onboard diagnostics system data and test procedures that measure the effectiveness of the control of emissions of greenhouse gases.

(B) In establishing the test procedures pursuant to this paragraph, the state board shall ensure that at least one test procedure does not result in charges, in aggregate, including the compliance fee required pursuant to Section 44154, imposed on owners of vehicles subject to the program that exceed the maximum allowable amount of the compliance fee specified in Section 44154, except for the necessary repair costs to bring a vehicle into

compliance with the program. The state board shall ensure that this testing procedure is reasonably accessible to those owners.

(2) Require a motor vehicle to pass the test procedures in order to register or operate in the state. The state board may establish in the regulation full or partial exemptions from the requirements of this section for categories of vehicles it determines on the basis of substantial evidence that the economic costs of compliance substantially outweigh the benefits of compliance, including public health benefits.

(3) Allow a streamlined process for the owner or operator of a vehicle fleet who has an established compliance history with the program, including, but not limited to, the use of the electronic transmission of emissions data in lieu of the annual physical testing of the vehicles as determined by the state board. The streamlined process shall not include an exemption from the requirements of paragraph (2).

(4) Establish program validation methods for evaluating program effectiveness, fraud investigation, and research purposes.

(5) Develop and implement enforcement methods to ensure continuing compliance with this section and Section 27153 of the Vehicle Code. The enforcement methods may include, but are not limited to, all of the following:

- (A) Visual inspections.
- (B) Functional inspections.
- (C) Requiring emissions testing of vehicles.

(6) Develop, in coordination with the Department of Motor Vehicles, an information technology database to collect and track vehicle test data, assess the data to determine compliance, and regularly generate lists of compliant vehicle identification numbers and transmit them to the Department of Motor Vehicles in order for annual vehicle registration notices to be issued.

(7) Exempt all of the following:

- (A) Zero-emission motor vehicles.
- (B) A publicly owned authorized emergency vehicle operated by a peace officer, as defined in Section 830 of the Penal Code, only as necessary to ensure the ability to respond to emergencies.

(C) An authorized emergency vehicle, as defined in Section 165 of the Vehicle Code, and used for fighting fires or responding to emergency fire calls by entities described in paragraph (2) of subdivision (b) of, or subdivision (c) or (d) of, Section 165 of the Vehicle Code, only as necessary to ensure the ability to respond to emergencies.

(D) A publicly owned authorized emergency vehicle used by an emergency medical technician-paramedic, as defined in Section 1797.84, only as necessary to ensure the ability to respond to emergencies.

(E) A tactical vehicle operated by the military as necessary for testing or training purposes.

(F) New vehicles certified to meet the most stringent optional reduced emissions of oxides of nitrogen emission standard for four years from the time inspections begin under the program.

(b) The state board may establish licensing standards for persons engaged in the business of the inspection, diagnosis, and repair of heavy-duty motor

vehicles. The board also may establish qualification standards or approval, operational, or licensure standards for testing equipment, including protocols, hardware, and software used for the submission of vehicle test data to the state board or its contractors.

(c) (1) As part of the program, the state board shall develop a Heavy-Duty Vehicle Inspection and Maintenance Compliance Certificate. The state board shall issue the certificate to the legal owner, registered owner, or designee of a vehicle that, at the discretion of the state board, meets the requirements of the program so that vehicle owners and operators may easily demonstrate proof of compliance, as required pursuant to Sections 27158.1 and 27158.2 of the Vehicle Code.

(2) The Heavy-Duty Vehicle Inspection and Maintenance Compliance Certificate shall contain information determined to be necessary by the state board that includes, but need not be limited to, all of the following:

- (A) Date issued.
- (B) Date of expiration.
- (C) Name and residence or business address or mailing address of the legal owner or registered owner.
- (D) Vehicle identification number assigned to the vehicle.
- (E) Description of the vehicle that includes the year, make, and model of the vehicle.

(d) The Department of Transportation, the Department of Food and Agriculture, and the Department of the California Highway Patrol may provide any necessary information to help facilitate the installation of equipment necessary to implement the program.

(e) The state board, the Department of Motor Vehicles, and the Department of Food and Agriculture may develop initiatives for outreach and education to help ensure compliance with the program.

(f) (1) The state board shall request a permit to deploy equipment on the state highway system, as defined in Article 3 (commencing with Section 300) of Chapter 2 of Division 1 of the Streets and Highways Code, in accordance with Chapter 3 (commencing with Section 660) of Division 1 of the Streets and Highways Code and in cooperation with the Department of the California Highway Patrol.

(2) If the Department of Transportation denies a permit requested by the state board pursuant to paragraph (1), the Department of Transportation shall provide the state board the necessary information regarding how equipment can be deployed in a manner consistent with both the requirements of the program and other laws.

(g) The state board may inspect vehicles subject to this section in conjunction with the safety and weight enforcement activities of the Department of the California Highway Patrol or at other locations selected by the state board in consultation with the Department of the California Highway Patrol. Inspection locations may include instate private facilities where fleet vehicles are serviced or maintained. The state board and the Department of the California Highway Patrol may conduct these inspections

cooperatively or independently, and the state board may contract for assistance in the conduct of these inspections.

(h) (1) (A) The state board may issue a citation to the owner of a vehicle in violation of this section or a regulation promulgated pursuant to this section. The state board may require the operator of a vehicle to submit to a test procedure and may specify that refusal to submit is an admission constituting proof of a violation. The state board may require that, when a citation has been issued pursuant to this section, the owner of a vehicle in violation of the regulation shall be required to correct every deficiency specified in the citation within a timeframe determined by the state board, but that is not less than 45 days.

(B) A vehicle used exclusively in the conduct of agricultural operations shall be required to correct deficiencies specified in the citation within a timeframe determined by the state board that is not less than 75 days from the date of the citation.

(2) When deciding whether to issue a citation, the state board may take into account whether the owner of the vehicle has obtained a temporary permit to operate the vehicle pursuant to Section 4156.5 of the Vehicle Code.

(3) Except as provided in paragraph (4), a vehicle found in violation of this section or a regulation promulgated pursuant to this section shall not be prohibited from being used during this time.

(4) Notwithstanding paragraph (3), a vehicle found to have willfully tampered emission controls, including the vehicle's onboard diagnostics system, shall not be operated.

(i) The state board shall provide an owner cited as violating this section an opportunity for an administrative hearing consistent with the process established pursuant to Article 3 (commencing with Section 60065.1) and Article 4 (commencing with Section 60075.1) of Subchapter 1.25 of Chapter 1 of Division 3 of Title 17 of the California Code of Regulations. Following notice and an opportunity for an administrative hearing, the state board, at its discretion, may use the procedure set forth in subdivision (j) of Section 44011.6 for a vehicle owner cited pursuant to this section.

(j) After an order imposing an administrative penalty becomes final pursuant to the hearing procedures identified in subdivision (i) and no petition for a writ of mandate has been filed within the time allotted for seeking judicial review of the order, the state board may apply to the Superior Court for the County of Sacramento for a judgment in the amount of the administrative penalty. The application, which shall include a certified copy of the final order of the administrative hearing officer, shall constitute a sufficient showing to warrant the issuance of the judgment.

(k) Upon the implementation of the program, the state board shall provide mechanisms for out-of-state owners of heavy-duty vehicles to establish and verify compliance prior to entering the state, including attainment of a Heavy-Duty Vehicle Inspection and Maintenance Compliance Certificate.

(l) Upon the full implementation of the program, the state board shall sunset the requirements of the Periodic Smoke Inspection Program in Chapter

3.6 (commencing with Section 2190) of Division 3 of Title 13 of the California Code of Regulations.

(m) Within four years following the full implementation of the program, the state board shall provide two biennial reports on its internet website. This report shall include, but is not limited to, enforcement, operational downtime, and an estimate of emissions reduced and cost-effectiveness.

44154. (a) (1) The state board shall assess a compliance fee, not to exceed thirty dollars (\$30), to fund the reasonable costs of implementing the program. A fee assessed pursuant to this section shall be limited exclusively to covering the costs of the program and shall be structured to ensure the equitable distribution of any costs among feepayers.

(2) The compliance fee and the maximum amount allowable shall be adjusted annually based on the California Consumer Price Index as compiled and reported by the Department of Labor Relations.

(b) All fees collected by the state board pursuant to this chapter shall be deposited in the Truck Emission Check (TEC) Fund, which is hereby created in the State Treasury. All moneys in the fund shall be available upon appropriation by the Legislature to the state board for the regulatory purposes of the program.

(c) All penalty moneys collected by the state board pursuant to this chapter shall be deposited in the Air Pollution Control Fund.

44156. (a) In order to implement the program, the state board, in consultation with the bureau, the Department of Transportation, the Department of Motor Vehicles, the Department of the California Highway Patrol, other interested state agencies, and stakeholders as part of a public process, shall implement a pilot program that develops and demonstrates technologies that show potential for readily bringing vehicles into the program. The state board shall report the findings of the pilot program on its internet website.

(b) No later than two years following the completion of the pilot program required pursuant to this section, and before adopting and implementing the program, the state board shall report to the transportation and environmental committees of the Legislature on the following:

(1) A review of all investigated test procedures, hardware and software, and an assessment of which pathway was found to be the most cost effective, enforceable, and least burdensome for compliant truck operators, including, but not limited to, the estimated operational downtime associated with each test method.

(2) A comprehensive enforcement strategy to ensure the fair application of the program.

(3) A description of how the agency will harmonize the program with existing regulations to ensure stakeholders do not face duplicative requirements.

(4) Steps the state board will take to ensure emission reductions attributed to this program will be accounted for and credited in planning and technical documents including, but not limited to, the state implementation plan, scoping plans, and emissions models.

44158. At least 60 days prior to the first hearing of the state board considering the adoption of any rules or regulations first implementing the program, the state board shall submit the then-current draft of those proposed rules and regulations to the Joint Legislative Budget Committee, the Senate Committee on Environmental Quality, the Senate Committee on Transportation, the Assembly Committee on Natural Resources, and the Assembly Committee on Transportation.

SEC. 3. Section 4000.17 is added to the Vehicle Code, immediately following Section 4000.15, to read:

4000.17. (a) For purposes of this section, “heavy-duty vehicle” means a nongasoline heavy-duty onroad motor vehicle with a gross vehicle weight rating of more than 14,000 pounds, as defined by the State Air Resources Board pursuant to Section 44152 of the Health and Safety Code.

(b) No later than one year after the effective date of a regulation implementing the Heavy-Duty Vehicle Inspection and Maintenance Program (Chapter 5.5 (commencing with Section 44150) of Part 5 of Division 26 of the Health and Safety Code), the department shall confirm prior to the initial registration, the transfer of ownership, or the renewal of registration that a heavy-duty vehicle is compliant with, or exempt from, the Heavy-Duty Vehicle Inspection and Maintenance Program.

(c) Subdivision (b) does not apply to a transfer of ownership and registration under any of the following circumstances:

(1) A motor vehicle registered to a sole proprietorship is transferred to the proprietor as owner.

(2) The transfer is between companies the principal business of which is leasing motor vehicles, if there is no change in the lessee or operator of the motor vehicle or between the lessor and the person who has been, for at least one year, the lessee’s operator of the motor vehicle.

(3) The transfer is between the lessor and lessee of the motor vehicle, if there is no change in the lessee or operator of the motor vehicle.

(4) An additional individual is added as a registered owner of the motor vehicle.

(d) The State Air Resources Board shall notify the department of the motor vehicles allowed to be registered pursuant to this section.

SEC. 4. Section 4156.5 is added to the Vehicle Code, to read:

4156.5. (a) Except as provided in subdivision (b), the department in its discretion may issue a temporary permit to operate a vehicle when a payment of fees has been accepted in an amount to be determined by, and paid to, the department by the owner or other person in lawful possession of the vehicle, for a vehicle for which registration may be refused pursuant to Section 4000.17. The permit shall be subject to the terms and conditions that the department shall deem appropriate under the circumstances.

(b) The department shall not issue a temporary permit pursuant to subdivision (a) to operate a vehicle for which a certificate of compliance is required pursuant to Section 4000.17, and for which that certificate of compliance has not been issued, unless the department is presented with sufficient evidence, as determined by the department, that the vehicle has

failed its most recent inspection pursuant to the Heavy-Duty Vehicle Inspection and Maintenance Program (Chapter 5.5 (commencing with Section 44150) of Part 5 of Division 26 of the Health and Safety Code).

(c) Only one temporary permit may be issued pursuant to this section for any vehicle, unless otherwise approved by the State Air Resources Board.

(d) A temporary permit issued pursuant to this section is valid for either 60 days after the expiration of the registration of the vehicle or 60 days after the date that vehicle is removed from nonoperation, whichever is applicable at the time the temporary permit is issued.

(e) (1) A fee of fifty dollars (\$50) shall be paid for a temporary permit issued pursuant to this section.

(2) The fee authorized pursuant to paragraph (1) shall be adjusted annually based on the California Consumer Price Index as compiled and reported by the Department of Industrial Relations.

(3) After deducting its administrative costs, the department shall deposit fees collected pursuant to paragraph (1) in the Truck Emission Check (TEC) Fund created pursuant to Section 44154 of the Health and Safety Code, to be used for regulatory activities under the Heavy-Duty Vehicle Inspection and Maintenance Program (Chapter 5.5 (commencing with Section 44150) of Part 5 of Division 26 of the Health and Safety Code).

SEC. 5. Section 24019 is added to the Vehicle Code, to read:

24019. (a) A nongasoline heavy-duty onroad motor vehicle with a gross vehicle weight rating of more than 14,000 pounds shall not be operated on a public road in this state if that vehicle has an illuminated malfunction indicator light (MIL) displaying the International Standards Organization (ISO) 2575 engine symbol F01, consistent with subdivision (d) of Section 1971.1 of Title 13 of the California Code of Regulations.

(b) A violation of this section shall be considered a mechanical violation under Section 40610. A peace officer shall not stop a vehicle solely on suspicion of a violation of this section.

(c) (1) A violation of this section is a correctable violation pursuant to Article 4 (commencing with Section 40610) of Chapter 2 of Division 17. Except as provided in subdivision (d), an owner or operator of a vehicle found to be in violation of this section shall have 45 days to correct the violation and the vehicle shall not be prohibited from being used during this time.

(2) Except as provided in subdivision (d), an owner or operator of a vehicle that is used exclusively in the conduct of agricultural operations and that is found to be in violation of this section shall have a time period determined by the State Air Resources Board that is not less than 75 days from the date of the citation to correct the violation and the vehicle shall not be prohibited from being used during that time.

(d) Notwithstanding subdivision (c), a vehicle found to have willfully tampered emission controls, including the vehicle's onboard diagnostics system, shall not be operated.

SEC. 6. Section 27153 of the Vehicle Code is amended to read:

27153. (a) A motor vehicle shall not be operated in a manner resulting in the escape of excessive smoke, flame, gas, oil, or fuel residue.

(b) A nongasoline heavy-duty onroad motor vehicle with a gross vehicle weight rating of more than 14,000 pounds shall not be operated in a manner resulting in the escape of visible smoke, except during active regeneration.

(c) (1) A violation of this section is a correctable violation pursuant to Article 4 (commencing with Section 40610) of Chapter 2 of Division 17. Except as provided in paragraph (2) and subdivision (d), an owner or operator of a vehicle found to be in violation of this section shall have 45 days to correct the violation and the vehicle shall not be prohibited from being used during this time.

(2) Except as provided in subdivision (d), an owner or operator of a vehicle that is used exclusively in the conduct of agricultural operations and that is found to be in violation of this section shall have a time period determined by the State Air Resources Board that is not less than 75 days from the date of the citation to correct the violation and the vehicle shall not be prohibited from being used during that time.

(d) Notwithstanding subdivision (c), a vehicle found to have willfully tampered emission controls, including the vehicle's onboard diagnostics system, shall not be operated.

(e) This section applies to motor vehicles of the United States or its agencies, to the extent authorized by federal law.

SEC. 7. Section 27158.1 is added to the Vehicle Code, to read:

27158.1. (a) Commencing one year after the effective date of a regulation implementing the Heavy-Duty Vehicle Inspection and Maintenance Program (Chapter 5.5 (commencing with Section 44150) of Part 5 of Division 26 of the Health and Safety Code), a legal owner or registered owner of a nongasoline heavy-duty onroad motor vehicle with a gross vehicle weight rating of more than 14,000 pounds shall maintain a Heavy-Duty Vehicle Inspection and Maintenance Compliance Certificate, as described in Section 44152 of the Health and Safety Code, or a facsimile or electronic copy of that certificate of compliance, with the vehicle for which the certificate is issued.

(b) Subdivision (a) does not apply when a Heavy-Duty Vehicle Inspection and Maintenance Compliance Certificate is necessarily removed from the vehicle for the purpose of renewal or when the vehicle is left unattended.

(c) A violation of this section shall be cited in accordance with Section 40610.

SEC. 8. Section 27158.2 is added to the Vehicle Code, to read:

27158.2. (a) The driver of a nongasoline heavy-duty onroad motor vehicle with a gross vehicle weight rating of more than 14,000 pounds shall present a Heavy-Duty Vehicle Inspection and Maintenance Compliance Certificate, as described in Section 44152 of the Health and Safety Code, or other evidence of that certificate of compliance, of the vehicle under the driver's immediate control for examination upon demand by any peace officer.

(b) The driver of the vehicle described in subdivision (a) shall not present to any peace officer a Heavy-Duty Vehicle Inspection and Maintenance Compliance Certificate not issued for that vehicle.

SEC. 9. No reimbursement is required by this act pursuant to Section 6 of Article XIII B of the California Constitution because the only costs that may be incurred by a local agency or school district will be incurred because this act creates a new crime or infraction, eliminates a crime or infraction, or changes the penalty for a crime or infraction, within the meaning of Section 17556 of the Government Code, or changes the definition of a crime within the meaning of Section 6 of Article XIII B of the California Constitution.

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Margaret Abe-Koga and Members
of the Legislative Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: October 3, 2019

Re: Assembly Bill (AB) 836 (Wicks) – Wildfire Smoke Clean Air Centers for Vulnerable
Populations Incentive Pilot Program

RECOMMENDED ACTION

None; receive and file.

DISCUSSION

As of the last Legislative Committee meeting, on May 22, 2019, Assembly Bill (AB) 836 – Buffy Wicks (D-Oakland) had been referred to the Assembly Suspense File. Over the summer, the bill successfully made it off suspense and was voted off the Assembly Floor and through the Senate without a single “no” vote. On October 2, 2019, the Governor signed Assembly Bill 836. We received support throughout the process from the below organizations, as noted in the final bill analysis:

350 Silicon Valley
Alliance of Nurses for Healthy Environments
American Academy of Pediatrics, California Chapter
American Heart Association
American Lung Association Coalition
American Lung Association in California
Asian Pacific Environmental Network
Bay Area Regional Health Inequities Initiative
BREATHE California
Butte County Air Quality Management District
California Air Pollution Control Officers Association
California Health Care Climate Alliance
California League of Conservation Voters
California Thoracic Society
Center for Climate Change and Health
City of Oakland
Coalition for Clean Air
County of San Diego
Environmental Working Group

Feather River Air Quality Management District
League of California Cities
Regional Asthma Management and Prevention
Sierra Club California
South Coast Air Quality Management District
TreePeople
Union of Concerned Scientists

During the Senate Appropriations process, at the request of the Chairperson, Senator Anthony Portantino (D-La Cañada Flintridge), we provided amended language to underscore that future program funding would be prioritized in areas to serve low income and racially and ethnically diverse populations. We also accepted a program sunset in five years, as a pilot program. This can be changed through future legislative action, if long term funding becomes available. The final bill, as signed by the Governor, is attached.

BUDGET CONSIDERATION / FINANCIAL IMPACT

None.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Alan Abbs
Reviewed by: Jack P. Broadbent

Attachment 5A: 2019 Assembly Bill 836 (Wicks), as Chaptered
Attachment 5B: Press Release: Governor Newsom Signs Bills to Enhance Wildfire Mitigation, Preparedness and Response Efforts

Assembly Bill No. 836

CHAPTER 393

An act to add and repeal Chapter 9.5 (commencing with Section 39960) of Part 2 of Division 26 of the Health and Safety Code, relating to nonvehicular air pollution.

[Approved by Governor October 2, 2019. Filed with Secretary of State October 2, 2019.]

LEGISLATIVE COUNSEL'S DIGEST

AB 836, Wicks. Wildfire Smoke Clean Air Centers for Vulnerable Populations Incentive Pilot Program.

Existing law generally designates the State Air Resources Board as the state agency with the primary responsibility for the control of vehicular air pollution and air pollution control and air quality management districts with the primary responsibility for the control of air pollution from all sources other than vehicular sources.

This bill would establish until January 1, 2025, the Wildfire Smoke Clean Air Centers for Vulnerable Populations Incentive Pilot Program, to be administered by the state board, to provide funding through a grant program to retrofit ventilation systems to create a network of clean air centers in order to mitigate the adverse public health impacts due to wildfires and other smoke events, as specified. The bill would specify that moneys for the program would be available upon appropriation, and that the implementation of these provisions is contingent upon an appropriation by the Legislature in the annual Budget Act or another statute for this purpose.

The people of the State of California do enact as follows:

SECTION 1. Chapter 9.5 (commencing with Section 39960) is added to Part 2 of Division 26 of the Health and Safety Code, to read:

CHAPTER 9.5 WILDFIRE SMOKE CLEAN AIR CENTERS FOR VULNERABLE POPULATIONS INCENTIVE PILOT PROGRAM

39960. (a) (1) The Wildfire Smoke Clean Air Centers for Vulnerable Populations Incentive Pilot Program is hereby established to be administered by the state board to provide funding through a grant program to retrofit ventilation systems to create a network of clean air centers in order to mitigate the adverse public health impacts due to wildfires and other smoke events.

(2) Moneys for the program shall be available upon appropriation by the Legislature.

(b) Qualified applicants shall include, but need not be limited to, all of the following:

- (1) Schools.
- (2) Community centers.
- (3) Senior centers.
- (4) Sports centers.
- (5) Libraries.

(c) The state board shall develop guidelines and eligibility criteria for the program in consultation with districts, cities, counties, public health agencies, school districts, and other stakeholders. The guidelines and eligibility criteria shall consider all of the following:

(1) Identification of vulnerable populations, including, but not limited to, communities with diverse racial and ethnic populations and communities with low-income communities, as defined in Section 39713.

(2) Location of the applicant’s facility relative to local vulnerable populations.

(3) Capacity of the applicant’s facility.

(4) Facility ventilation characteristics that could provide healthier indoor air quality in the event of a localized smoke impact.

(d) (1) The state board shall prioritize applications to the program where the project is located in an area with documented high cumulative smoke exposure burden.

(2) Within areas described in paragraph (1), the state board shall give priority to a school maintained by a local educational agency that has at least 40 percent of its pupils being from low-income families, as specified pursuant to Title I of the federal Elementary and Secondary Act of 1965 (20 U.S.C. Sec. 6301 et seq.).

39961. (a) Implementation of this chapter is contingent upon an appropriation by the Legislature in the annual Budget Act or another statute for this purpose.

(b) This chapter shall remain in effect only until January 1, 2025, and as of that date is repealed.

LEGISLATIVE COMMITTEE MEETING OF 10/09/2019

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Governor Newsom Signs Bills to Enhance Wildfire Mitigation, Preparedness and Response Efforts

Published: Oct 02, 2019

New laws reflect key recommendations made by Governor's Strike Force Report on Wildfires & build on \$1 billion wildfire and emergency investment in the budget

In July, Governor signed a catastrophic wildfire and safety bill, moving the state toward a safer, more reliable and affordable energy future

SACRAMENTO – Today, Governor Gavin Newsom signed a series of bills aimed at improving California's wildfire prevention, mitigation and response efforts and continuing progress toward our clean energy goals. The 22 bills cover various areas for a comprehensive approach to these issues, and reflect recommendations in of the [Governor's Strike Force](#) report released in June. The report provided guidance on how the state can build a safe, reliable and affordable energy future.

"This has been a top priority in my Administration since day one, and we were able to work collaboratively and effectively with the Legislature to ensure California has a framework for today and for future generations," said Governor Newsom. "Given the realities of climate change and extreme weather events, the work is not done but these bills represent important steps forward on prevention, community resilience, and utility oversight. I commend the Legislature for making progress on these difficult issues."

The Governor's Strike Force report included the following areas of focus:

- Catastrophic Wildfire Prevention and Response
- Mitigating Climate Change through Clean Energy Policies
- Fair Allocation of Catastrophic Wildfire Damages
- A More Effective California Public Utilities Commission (CPUC) with the Tools to Manage a Changing Utility Market
- Holding PG&E Accountable and Building a Utility that Prioritizes Safety

Below is a list of bills the Governor signed to address recommendations made in the report, producing tangible results for all Californians.

Catastrophic Wildfire Prevention and Response

The Strike Force report recommended the administration, the CPUC, local communities, and utilities work together to reduce the incidence and severity of wildfires. The following legislation will step up both community resilience and the state's response capabilities:

- AB 38 by Assemblymember Jim Wood (D-Santa Rosa) provides mechanisms to develop best practices for community-wide resilience against wildfires through home hardening, defensible space, and other measures.
- SB 190 by Senator Bill Dodd (D-Napa) includes a specific requirement to develop best models for defensible space and additional standards for home hardening and construction materials to increase the resilience of communities.
- SB 70 by Senator Jim Nielsen (R-Gerber) requires IOUs to include information about consideration of undergrounding utility lines in their Wildfire Mitigation Plans (WMPs).
- SB 167 by Senator Bill Dodd (D-Napa) requires IOUs to improve their WMPs by including specified requirements to mitigate the impacts of Public Safety Power Shutoffs (PSPS).
- SB 247 by Senator Bill Dodd (D-Napa) requires increased oversight of the IOUs' WMPs, enhances requirements for fair wages and improves safety by ensuring a skilled and trained workforce.
- SB 209 by Senator Bill Dodd (D-Napa) requires establishment of a new weather technology center modeled after the state's intelligence fusion centers.

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- AB 836 by Assemblymember Buffy Wicks (D-Oakland) establishes a program for retrofits of air ventilation systems to create community clean air centers, prioritizing areas with high cumulative smoke exposure burden.
- AB 661 by Assemblymember Kevin McCarty (D-Sacramento) requires the Sacramento Metropolitan Air Quality Management District to prepare a wildfire smoke air pollution emergency plan to serve as an informational source for local agencies and the public during an air pollution emergency caused by wildfire smoke.
- SB 560 by Senator Mike McGuire (D-Healdsburg) will mitigate impacts of PSPS.
- SB 160 by Senator Hannah-Beth Jackson (D-Santa Barbara) will improve engagement with culturally diverse communities for local emergency planning.
- SB 670 by Senator Mike McGuire (D-Healdsburg) will improve the coordination of emergency communication systems during 9-1-1 outages.
- SB 632 by Senator Cathleen Galgiani (D-Stockton) sets a deadline for completion of CAL FIRE's vegetation management environmental review.
- AB 1823 by Assemblymember Laura Friedman (D-Glendale) which facilitates fuel reduction and other forest health projects.

Mitigating Climate Change Through Clean Energy Policies

The Strike Force report recommended that, given climate change is a core driver of heightened wildfire risk, the state must continue the transition to clean energy, mitigate risk and build resilience. The following legislation will ensure that California continues to make progress toward its clean energy goals:

- SB 520 by Senator Robert Hertzberg (D-Van Nuys) establishes requirements for an energy provider of last resort given the increasing number of customers receiving power from entities other than IOUs.
- SB 255 by Senator Steven Bradford (D-Gardena) requires additional reporting to the CPUC of efforts of community choice aggregators to comply with contracting diversity guidelines, and encourages other load-serving entities to participate.
- SB 155 by Senator Steven Bradford (D-Gardena) improves CPUC oversight of renewable procurement and long-term energy supply contracts.
- AB 1144 by Assemblymember Laura Friedman (D-Glendale) requires use of a portion of the Self-Generation Incentive Program, which provides incentives for battery storage, to provide additional benefits for community resiliency.
- AB 1584 by Assemblymember Bill Quirk (D-Hayward) supports load-serving entities' decisions to take actions that benefit the grid and recognizes resources that serve overall needs.

A More Effective CPUC with the Tools to Manage a Changing Utility Market

The Strike Force report recommended an increased focus on effective safety regulation at the CPUC. The following legislation strengthens utility regulation by expanding the CPUC's safety review process:

- SB 550 by Senator Jerry Hill (D-San Mateo) provides requirements for additional CPUC safety reviews, conducted together with the CPUC's review of utility asset transactions.
- AB 1362 by Assemblymember Patrick O'Donnell (D-Long Beach) which requires posting of information by load serving entities to increase consumer access to information about their energy bills.

Additional Legislation

- AB 1699 by Assemblymember Marc Levine (D-San Rafael) prohibits a mobile internet service provider from impairing or degrading the lawful internet traffic of first response agencies during an emergency.
- AB 1513 by Assemblymember Chris Holden (D-Pasadena) makes several technical and clarifying changes to current law which concern programs under the jurisdiction of, and the authority of, the California Public Utilities Commission and other energy programs to address the increasing threat of wildfires and utility liability related to those fires.

In July, the Legislature passed and the Governor [signed](#) wildfire safety and accountability legislation, which moved our state toward a safer, more affordable and reliable energy future. [AB 1054](#) created a more fair allocation of catastrophic wildfire damages and will hold PG&E accountable for prioritizing safety, and required the California Public Utilities Commission to take a number of actions.

Governor Newsom has made wildfire prevention and mitigation a top priority since taking office. The Governor proactively declared a [state of emergency](#) to fast-track 35 [critical forest-management projects](#) to protect more than 200 of California's highest-risk communities and [redirected National Guard members](#) from the border to undertake fire prevention activities throughout the state. The governor also included \$1 billion in additional funding in the state budget to enhance our state's preparedness and expand our capacity to respond to emergencies. The budget included 13 new fire engines. He also:

- Invested \$127.2 million to expand CAL FIRE'S fleet with C-130 air tankers and modified Black Hawk helicopters for nighttime firefighting operations,
- Signed an executive order [authorizing the surge of almost 400 seasonal firefighters](#) to CAL FIRE this year,
- Began overdue modernization of California's [9-1-1 system](#),
- Announced the selection of the first two contracts for the [Wildfire Innovation Sprint](#), intended to modernize the way the state contracts for acquisition and development of technology systems, with the goal of getting cutting-edge firefighting technology in the hands of emergency responders by next fire season,
- Supporting local fire operations, including \$2 million for the Butte County Fire Department to maintain its current level of service and continue operation of one year-round fire station through its cooperative agreement with CAL FIRE,
- Partnered with the federal government to secure state access to remote sensor-based technology to detect wildfire ignitions, including securing delegation of authority from the Secretary of Defense to fly infrared equipped Unmanned Aerial System in support of CAL FIRE missions,
- Invested \$210 million Greenhouse Gas Reduction Fund for forest health and fire prevention projects and programs to enable CAL FIRE to complete more fuel reduction projects and increase the pace and scale of fire prevention, and
- Developed and implemented the Forestry Corps Program, to operate four Forestry Corps crews that will undertake forest health and hazardous fuel reduction projects in areas of high fire risk.
- During his [State of the State Address](#), the Governor announced the creation of a Strike Force to develop a comprehensive strategy within 60 days, to address the destabilizing effects of catastrophic wildfires on California's energy future.

###

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Margaret Abe-Koga and Members
of the Legislative Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: October 3, 2019

Re: 2020 Legislative Priorities

RECOMMENDED ACTION

The Committee will receive a report on potential legislative activities in 2020, providing direction as necessary.

DISCUSSION

With 2020 being the second year of the two-year legislative cycle, and with the upcoming primary and general elections, it will be a busy year. Looking ahead, below are some areas the Bay Area Air Quality Management District (Air District) plans to be involved in.

Bond Ballot Measures

The Legislature has already sent a bill to place a \$15 billion school modernization bond measure on the March 2020 ballot. Individual legislators, including Assemblymember Eduardo Garcia (D-Coachella), Assemblymember Kevin Mullin (D-South San Francisco), and Senator Ben Allen (D-Santa Monica), are also currently working on climate/water/wildfire bond measure bills for the fall 2020 general election; Assembly Bill (AB) 352, AB 1298, and Senate Bill (SB) 45, respectively. Each of the current versions of the bills are in the \$4-5 billion range, with funding categories in AB 352 and SB 45 having significant overlap, and also identify funding for wildfire smoke clean air centers. The three bills are in various stages of a stakeholder input process and may eventually be combined into a single bill, or identical Assembly and Senate bills. The Air District is participating in stakeholder discussions as they occur. To make the fall general election, a bill will need to get to the Governor by late April 2020. If the measure is on the ballot, it will be interesting to see if the education bond influences people's willingness for the state to take on further debt. The Governor has also stated that he would like a "wildfire resilience" bond on the fall 2020 ballot, but it is unknown if this would be a separate bond from the three above.

State Budget

The Fiscal Year Ending (FYE) 2021 budget process has already begun behind the scenes, but will really start rolling with the Governor's first budget proposal in early January 2020. As in previous years, we will be interested in funding for AB 617 implementation, to support our

ongoing work in West Oakland and Richmond/San Pablo, as well as capacity building in other communities to support potential future inclusion into the AB 617 program. It will also be important to maintain, or increase, AB 617 incentive funding levels, in order to expedite emission reductions in our most impacted communities.

In the summer of 2018, air districts received a two-year promise of AB 617 implementation funding at a level of \$50 million in each year, with the Air District receiving \$10 million of that funding each year. While not specifically promised, air districts received \$245 million in incentive funding each year to replace older diesel equipment, as well as supporting emission reduction projects at some stationary sources, with the Air District receiving \$42 million each year. As part of our efforts to sustain or increase incentive and implementation funding, we will be working with other air districts to educate our state elected officials on the importance of the program, including tours highlighting our work to date, and hearing from our community partners.

The majority of funding for the AB 617 program, as well as other incentive funding we receive, comes from the Greenhouse Gas Reduction Fund (i.e. Cap-and-Trade). As the committee may have noticed from news reports during the negotiations for the FYE 2020 budget, the Governor and Legislature agreed to use GGRF funding in the amount of \$130 million per year for 10 years to fund operational costs of drinking water programs in communities without safe drinking water. This could foretell a worrying trend of accessing GGRF funding for programs without clear climate and air pollution benefits. Advocating for GGRF funding between programs with clear climate and air pollution benefits is already a zero-sum game, and it will be important to be active in promoting our programs to the Legislature to ensure stable funding.

We will also continue to seek funding for support of our clean air center legislation, separate from any funding that may be available from future bond measures.

Federal Activities

Working with the South Coast Air Quality Management District, we have had some initial discussions with legislators and staff at the federal level about ways the Air District could be involved in future infrastructure, transportation, and air quality funding discussions, as well as advocacy for state and local air quality programs. As an example, Senator Jeff Merkley (D-Oregon) has introduced a series of wildfire smoke funding bills, including a bill to provide clean air center funding that we have asked Senators Harris and Feinstein to support. Other California legislators have been working on bills or ideas related to transportation corridor electrification, vessel speed reduction, extension of electric vehicle tax credits, and renewable energy generation. There is also an ongoing attempt to rollback regulations critical to air districts in California in which the Air District can provide expertise to a significant number of California representatives. While we may not be successful in securing immediate funding, educating and advocating with our sister agencies may provide benefits in future years.

Two-Year Bills

As previously discussed, several bills we have been following will be able to continue their legislative journey in 2020, and we will take the opportunity to advocate as necessary before the Legislature reconvenes, as well as during the normal legislative process. Bills in this category include the Wine Institute bill, AB 1714; the Ocean Protection bill, SB 69; and the recently amended AB 40, which would restrict Clean Vehicle Rebate Project (CVRP) rebates to only cars from manufacturers siding with California on the clean car standards.

Potential Air District-Sponsored Bills

Staff is currently considering ideas for potential bills to sponsor. As we get further along, we will agendaize these for further discussion later in fall 2020. Ideas include the following:

- Expansion of indirect source or magnet source authority: The West Oakland Emissions Reduction Plan has identified this as a task for the Air District to explore. We believe current authority provided in the Health and Safety Code limits the Air District in our ability to develop magnet source regulations due to its linkage to criteria pollutants and ambient air quality standards, to the passage of Proposition 26 requiring a supermajority vote to pass new fees and taxes, and to air district limitations on regulating mobile sources. A previous legislative effort by the California Air Pollution Control Officers Association (CAPCOA) in 2005, to include air toxics under magnet source authority, was unsuccessful. More information on this can be discussed at the meeting.
- In consideration of issues associated with construction of the Stratford School, staff has been asked to look at potential legislative ideas that would prevent similar scenarios in the future. Oversight of public school construction is very robust at the state and local level, but does not appear to be as strong when addressing construction of private schools and charter schools. After a school is operating, however, Health and Safety Code Section 42301.7 provides a mechanism to notice a school, parents of school children, and the nearby community when a stationary source within 1,000 feet requests a permit or permit modification under certain conditions. One potential option that could be explored would be to add a requirement in the Health and Safety Code requiring a notification process related to new school construction, which would likely duplicate notification provided during public school construction but provide new notification for private school and charter school construction. Staff would also need to explore whether changes to the Health and Safety Code are the best remedy, and whether it would be more appropriate for an air district or a land use agency to oversee the requirement. More information on this will be discussed at the meeting.
- Board members have previously suggested potential requirements related to new school construction, and major modifications required to improve HVAC systems, to filter wildfire smoke and other particulates. This would likely require changes to Title 24 building standards. Title 24 standards are updated approximately every five years and incremental changes may be possible without a legislative effort. More information on this will be discussed at the meeting.

BUDGET CONSIDERATION / FINANCIAL IMPACT

None at this time.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Alan Abbs
Reviewed by: Jack P. Broadbent

Attachment 6A: Health and Safety Code Section 42301.7

LEGISLATIVE COMMITTEE
MEETING OF 10/09/2019



State of California

HEALTH AND SAFETY CODE

Section 42301.7

42301.7. (a) If the air pollution control officer determines there is a reasonably foreseeable threat of a release of an air contaminant from a source within 1,000 feet of the boundary of a school that would result in a violation of Section 41700 and impact persons at the school, the officer shall, within 24 hours, notify the administering agency and the fire department having jurisdiction over the school.

(b) The administering agency may, in responding to a reasonably foreseeable threat of a release, do any of the following:

(1) Review the facility's risk management and prevention plan prepared pursuant to Section 25534 to determine whether the program should be modified, and, if so, require submission of appropriate modifications. Notwithstanding any other provision of law, the administering agency may order modification and implementation of a revised risk management and prevention plan at the earliest feasible date.

(2) If the facility has not filed a risk management and prevention plan with the administering agency, require the preparation and submission of a plan to the administering agency pursuant to Section 25534. Notwithstanding any other provision of law, the administering agency may require the filing of a risk management and prevention plan and its implementation at the earliest feasible date.

(c) The air pollution control officer may, in responding to a reasonably foreseeable threat of a release, do any of the following:

(1) If necessary, issue an immediate order to prevent the release or mitigate the reasonably foreseeable threat of a release in violation of Section 41700 pending a hearing pursuant to Section 42450 when there is a substantial probability of an injury to persons at a school resulting from a release that makes it reasonably necessary to take immediate action to prevent, reduce, or mitigate that injury. The officer may not issue such an order unless there is written concurrence to issue the order by a representative of the administering agency.

(2) Apply to the district board for issuance of an order for abatement pursuant to Section 42450.

(d) Nothing in this section limits any existing authority of any district.

(Added by Stats. 1988, Ch. 1589, Sec. 9.)

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Katie Rice and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 13, 2019

Re: Report of the Personnel Committee Meeting of October 16, 2019

RECOMMENDED ACTION

The Personnel Committee (Committee) recommends Board of Directors approval of the following item:

- A) Request to Amend the Fiscal Year Ending (FYE) 2020 Budget to Increase Staffing
 - 1) Recommend the Board of Directors (Board) amend the Fiscal Year Ending (FYE) 2020 budget to authorize the creation of ten (10) additional full-time regular positions.

BACKGROUND

The Committee met on Wednesday, October 16, 2019, and received the following report:

- A) Request to Amend the Fiscal Year Ending (FYE) 2020 Budget to Increase Staffing.

Chairperson Jim Spering will provide an oral report of the Committee meeting.

BUDGET CONSIDERATION/FINANCIAL IMPACT

- A) The addition of the ten (10) positions will add approximately \$1,830,000 in Personnel Expenditures to the FYE 2020 Budget.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Aloha de Guzman
Reviewed by: Vanessa Johnson

Attachment 17A: 10/16/2019 – Personnel Committee Meeting Agenda #6

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Jim Spering and Members
of the Personnel Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: October 9, 2019

Re: Request to Amend the Fiscal Year Ending (FYE) 2020 Budget to Increase Staffing

RECOMMENDED ACTION

Recommend the Board of Directors (Board) amend the Fiscal Year Ending (FYE) 2020 budget to authorize the creation of ten (10) additional full-time regular positions.

BACKGROUND

The Air District is currently authorized for staffing at 405 regular full-time positions in the FYE 2020 Budget. During budget discussions, staff advised the Board that there would be a mid-year staffing augmentation request once resources and funding related to Assembly Bill (AB) 617 were assessed.

DISCUSSION

As a result of resources required to support AB 617, staff is proposing to augment its staffing numbers to increase by ten (10) full-time regular positions. These positions include support for AB 617 and backfilling staffing resources previously diverted to support AB 617 from the Air District's Engineering and Enforcement Divisions. As part of this agenda item, staff will discuss the proposed new positions and current and future staffing needs.

BUDGET CONSIDERATION / FINANCIAL IMPACT

The addition of the ten positions will add approximately \$1,830,000 in Personnel Expenditures to the FYE 2020 Budget.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Rex Sanders

PERSONNEL COMMITTEE
MEETING OF 10/16/2019

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Katie Rice and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 13, 2019

Re: Report of the Mobile Source Committee Meeting of October 24, 2019

RECOMMENDED ACTION

The Mobile Source Committee (Committee) recommends Board of Directors approval of the following items:

- A) Projects and Contracts with Proposed Grant Awards Over \$100,000
 - 1) Approve recommended projects with proposed grant awards over \$100,000 as shown in Attachment 1; and
 - 2) Authorize the Executive Officer/APCO to enter into all necessary agreements with applicants for the recommended projects.
- B) Proposed Updates to the Transportation Fund for Clean Air (TFCA) County Program Manager Fund Policies for Fiscal Year Ending (FYE) 2021
 - 1) Recommend Board of Directors approve the proposed updates to the Transportation Fund for Clean Air (TFCA) County Program Manager Fund Policies for Fiscal Year Ending (FYE) 2021.
- C) Diesel Free by '33: Update on Zero-Emission Medium- and Heavy-Duty Mobile Source Technologies
 - 1) None; receive and file.

BACKGROUND

The Committee met on Thursday, October 24, 2019, and received the following reports:

- A) Projects and Contracts with Proposed Grant Awards Over \$100,000;
- B) Proposed Updates to the Transportation Fund for Clean Air (TFCA) County Program Manager Fund Policies for Fiscal Year Ending (FYE) 2021; and

- C) Diesel Free by '33: Update on Zero-Emission Medium- and Heavy-Duty Mobile Source Technologies.

Chairperson David Canepa will provide an oral report of the Committee meeting.

BUDGET CONSIDERATION/FINANCIAL IMPACT

- A) None. The Air District distributes CMP, MSIF, CHP, and TFCA funding to project sponsors on a reimbursement basis. Funding for administrative costs is provided by each funding source;
- B) None. The recommended policy updates have no impact on the Air District's budget; and
- C) None.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Aloha de Guzman
Reviewed by: Vanessa Johnson

Attachment 18A: 10/24/2019 – Mobile Source Committee Meeting Agenda #4
Attachment 18B: 10/24/2019 – Mobile Source Committee Meeting Agenda #5
Attachment 18C: 10/24/2019 – Mobile Source Committee Meeting Agenda #6

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson David Canepa and Members
of the Mobile Source Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: October 10, 2019

Re: Projects and Contracts with Proposed Grant Awards Over \$100,000

RECOMMENDED ACTION

Recommend Board of Directors:

1. Approve recommended projects with proposed grant awards over \$100,000 as shown in Attachment 1;
2. Authorize the Executive Officer/APCO to enter into all necessary agreements with applicants for the recommended projects.

BACKGROUND

The Bay Area Air Quality Management District (Air District) has participated in the Carl Moyer Program (CMP), in cooperation with the California Air Resources Board (CARB), since the program began in Fiscal Year Ending (FYE) 1999. The CMP provides grants to public and private entities to reduce emissions of oxides of nitrogen (NOx), reactive organic gases (ROG), and particulate matter (PM) from existing heavy-duty engines by either replacing or retrofitting them. Eligible heavy-duty diesel engine applications include on-road trucks and buses, off-road equipment, marine vessels, locomotives, and stationary agricultural pump engines.

Assembly Bill (AB) 923 (Firebaugh), enacted in 2004 (codified as Health and Safety Code (HSC) Section 44225), authorized local air districts to increase their motor vehicle registration surcharge up to an additional \$2 per vehicle. The revenues from the additional \$2 surcharge are deposited in the Air District's Mobile Source Incentive Fund (MSIF). AB 923 stipulates that air districts may use the revenues generated by the additional \$2 surcharge for projects eligible under the CMP. On February 6, 2019, the Board of Directors (Board) authorized Air District participation in Year 21 of the CMP, and authorized the Executive Officer/APCO to execute Grant Agreements and amendments for projects funded with CMP funds or MSIF revenues, with individual grant award amounts up to \$100,000.

In 2017, AB 617 directed CARB, in conjunction with local air districts, to establish the Community Air Protection Program. AB 617 provides a new community-focused action framework to improve air quality and reduce exposure to criteria air pollutants and toxic air contaminants in communities

most impacted by air pollution. In advance of the development of the Community Air Protection Program, the Governor and legislature established an early action component to AB 617 to use existing incentive programs to get immediate emission reductions in the communities most affected by air pollution. AB 134 (2017) appropriated \$50 million from the Greenhouse Gas Reduction Fund (GGRF) to reduce mobile source emissions, including criteria pollutants, toxic air contaminants, and greenhouse gases in those communities within the Bay Area. Senate Bill (SB) 856 (2018) continued support for these project types and appropriated \$245 million from the GGRF statewide, of which \$40 million was awarded to the Air District for Bay Area emission reduction projects. These funds will be used to implement projects under the Community Health Protection Grant Program (CHP), and optionally on-road truck replacements under the Proposition 1B Goods Movement Emission Reduction Program. On April 3, 2019, the Board authorized the Air District to accept, obligate, and expend SB 856 grant funding.

In 1991, the California State Legislature authorized the Air District to impose a \$4 surcharge on motor vehicles registered within the nine-county Bay Area to fund projects that reduce on-road motor vehicle emissions within the Air District's jurisdiction. The statutory authority for the Transportation Fund for Clean Air (TFCA) and requirements of the program are set forth in the HSC Sections 44241 and 44242. Sixty percent of TFCA funds are awarded by the Air District to eligible projects and programs implemented directly by the Air District (e.g. Spare the Air, electric vehicle charging station program) and to a program referred to as the TFCA Regional Fund. Each year, the Board allocates funding and adopts policies and evaluation criteria that govern the expenditure of TFCA Regional Fund monies. The remaining 40% of TFCA funds are pass-through funds to the designated County Program Manager (CPM) in each of the nine counties within the Air District's jurisdiction.

On April 3, 2019, the Board authorized funding allocations for use of the 60% of the TFCA revenue in Fiscal Year Ending (FYE) 2020, cost-effectiveness limits for Air District-sponsored FYE 2020 programs, and the Executive Officer/APCO to execute grant agreements and amendments for TFCA-revenue funded projects with individual grant award amounts up to \$100,000. On June 5, 2019, the Board adopted policies and evaluation criteria for the FYE 2020 TFCA Regional Fund program.

Projects with grant award amounts over \$100,000 are brought to the Mobile Source Committee for consideration on at least a quarterly basis. Staff reviews and evaluates grant applications based upon the respective governing policies and guidelines established by CARB, the Board, and other funding agencies.

DISCUSSION

Carl Moyer Program and Community Health Protection Grant Program:

For the CMP Year 21 cycle, the Air District had more than \$11 million available for eligible CMP and school bus projects from a combination of MSIF and CMP funds. The Air District started accepting project applications for the CMP Year 21 funding cycle on June 17, 2019, and applications are accepted and evaluated on a first-come, first-served basis.

As of October 3, 2019, the Air District had received 79 project applications. Of the applications that have been evaluated between September 5, 2019 and October 3, 2019, 11 eligible projects have proposed individual grant awards over \$100,000. These projects will replace six pieces of off-road agricultural equipment, nine pieces of off-road equipment, six marine engines, and 18 school buses. These projects will reduce over 28 tons of NOx, ROG, and PM per year. Staff recommends the allocation of \$9,643,718 for these projects from a combination of CMP funds and MSIF revenues. Attachment 1, Table 1, provides additional information on these projects.

Attachment 2 lists all of the eligible projects that have been received by the Air District as of October 3, 2019, including information about the equipment category, award amounts, estimated emissions reductions, and county location. Approximately 83% of the funds have been awarded to projects that reduce emissions in highly impacted Bay Area communities. Attachment 4, Figures 4 and 5, summarize the cumulative allocation of CMP, MSIF, and CHP funding since 2009 (more than \$291 million awarded to 1,232 projects).

Transportation Fund for Clean Air Program:

In FYE 2020, the Air District had approximately \$32 million in TFCA monies for eligible projects. The Air District opened the FYE 2020 Vehicle Trip Reduction Program and started accepting applications on August 9, 2019.

As of October 3, 2019, the Air District had received 18 project applications. In addition, staff continued to evaluate project applications received through the Air District's FYE 2019 *Charge!* program. Of the applications that were evaluated between September 5, 2019 and October 3, 2019, staff is proposing grant awards of over \$100,000 for seven eligible TFCA projects. These projects will:

- Install and operate 15 Level 2 and one DC Fast electric vehicle charging stations;
- Support one on-demand shuttle project pilot and two existing shuttle services (11 routes);
- Construct 0.2 miles of class 1 bike way; and
- Install 80 electronic bicycle lockers and one bike station with 270 new secure bicycle parking spaces.

These projects will reduce over 11 tons of NOx, ROG, and PM per year. Staff recommends the allocation of \$2,416,000 for these projects. Attachment 1, Table 1, provides additional information on these projects.

Attachment 3, Table 1, lists all eligible TFCA projects that were evaluated and awarded between July 1, 2019 and October 3, 2019, including information about the equipment category, award amounts, estimated emissions reductions, and county location. Approximately 40% of the funds have been awarded to projects that reduce emissions in highly impacted Bay Area communities.

BUDGET CONSIDERATION / FINANCIAL IMPACT

None. The Air District distributes CMP, MSIF, CHP, and TFCA funding to project sponsors on a reimbursement basis. Funding for administrative costs is provided by each funding source.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Anthony Fournier and Hannah Cha
Reviewed by: Karen Schkolnick, Chengfeng Wang, and Ken Mak

- Attachment 1: Projects with grant awards greater than \$100,000
- Attachment 2: CMP/MSIF, FARMER and Community Health Protection Grant Program approved projects
- Attachment 3: TFCA approved and eligible projects
- Attachment 4: Summary of funding awarded between 7/1/19 and 10/3/19

AGENDA 4 - ATTACHMENT 1

Table 1 - Carl Moyer Program/ Mobile Source Incentive Fund, FARMER, and Community Health Protection Grant Program projects with grant awards greater than \$100k (Evaluated between 9/5/19 and 10/3/19)

Project #	Applicant name	Equipment Category	Project Description	Proposed contract award	Total project cost	Emission Reductions (Tons per year)			County
						NOx	ROG	PM	
21MOY19	Nissen Vineyard Services, Inc.	Ag/ off-road	Replacement of 3 pieces of diesel off-road agricultural equipment	\$ 127,400	\$ 159,276	0.487	0.088	0.066	Napa
21MOY59	Concrush, Inc.	Off-road	Replacement of 1 diesel off-road construction loader	\$ 167,500	\$ 363,254	0.696	0.065	0.037	Solano
21MOY64	Achadinha Cheese, Inc.	Ag/ off-road	Replacement of 1 piece of diesel off-road agricultural equipment	\$ 170,250	\$ 212,849	1.546	0.171	0.097	Sonoma
21MOY73	Robert Giacomini Dairy, Inc.	Off-road	Replacement of 2 pieces of diesel off-road agricultural equipment	\$ 153,699	\$ 200,599	0.276	0.040	0.023	Marin
21MOY60	Bass Tub Fishing	Marine	Replacement of two diesel main engines	\$ 276,000	\$ 348,347	0.489	0.000	0.026	Contra Costa
21MOY71	Foss Maritime	Marine	Replacement of two diesel main engines	\$ 3,814,000	\$ 4,488,140	15.352	1.518	0.504	Contra Costa
21SBP77	Mt. Diablo Unified School District	School bus	Replacement of 16 diesel school buses with electric buses and infrastructure	\$ 3,478,697	\$ 5,622,988	1.040	0.075	0.005	Contra Costa
20MOY103	Westar Marine Services	Marine	Replacement of two diesel main engines	\$ 130,000	\$ 522,314	0.221	-0.007	0.014	San Francisco
21MOY61	Amazon Recycling and Disposal, Inc.	Off-road	Replacement of 6 pieces of diesel off-road equipment	\$ 811,875	\$ 959,511	3.679	0.584	0.369	Alameda
20SBP23	Sonoma Valley Unified School District	School bus	Replacement of two diesel buses with electric buses and infrastructure Increase of ~\$12k from 3/6/19 approval	\$ 373,861	\$ 813,861	0.131	0.009	0.001	Sonoma
21MOY65	Simoni & Massoni Farms, LLC	Ag/ off-road	Replacement of 2 pieces of diesel off-road agricultural equipment	\$ 140,440	\$ 175,550	0.695	0.103	0.064	Contra Costa
11 Projects				\$ 9,643,718	\$ 13,866,689	24.612	2.646	1.206	

Table 2 - Transportation Fund for Clean Air projects
with grant awards greater than \$100k (Evaluated between 9/5/19 and 10/3/19)

Project #	Applicant name	Project Category	Project Description	Proposed contract award	Total project cost	Emission Reductions (Tons per year)			County
						NO _x	ROG	PM	
19EV076	Milpitas - District 1 Associates, LLC	LD Infrastructure	Install and operate 15 single-port Level 2 (high) and 1 DC Fast charging stations at 1 multi-dwelling unit facility in Milpitas	\$ 123,000	\$ 277,799	0.029	0.043	0.001	Santa Clara
20R06	Presidio Trust	Trip Reduction	PresidiGo Downtown Shuttle	\$ 120,000	\$ 580,220	0.130	0.210	0.430	San Francisco
20R10	Peninsula Corridor Joint Powers Board	Trip Reduction	Caltrain Shuttle Program	\$ 485,000	\$ 2,963,000	1.890	2.280	5.290	Multi-County
20R13	Santa Clara Valley Transportation Authority (VTA)	Trip Reduction	Cupertino On-Demand Shuttle Pilot Program	\$ 423,000	\$ 1,204,519	0.122	0.134	0.308	Santa Clara
20R09	City of San Ramon	Bicycle Facilities	Install 0.2 miles of Class I bikeway in San Ramon	\$ 390,000	\$ 15,326,070	0.012	0.018	0.041	Contra Costa
20R17	Peninsula Corridor Joint Powers Board	Bicycle Facilities	Install and maintain 80 bicycle electronic lockers in Belmont, Redwood City, Mountain View, Lawrence, and San Jose	\$ 200,000	\$ 280,000	0.030	0.040	0.080	San Mateo and Santa Clara
20R19	San Francisco Bay Area Rapid Transit District	Bicycle Facilities	Construct and maintain a bike station with 270 new secure bike parking spaces in Oakland	\$ 675,000	\$ 3,217,231	0.070	0.100	0.240	Alameda
7 Projects				\$ 2,416,000	\$ 23,848,839	2.284	2.825	6.390	

AGENDA 4 - ATTACHMENT 2

*CMP/MSIF, FARMER and Community Health Protection Grant Program approved projects
(between 7/3/19 and 10/3/19)*

Project #	Equipment category	Project type	# of engines	Proposed contract award	Applicant name	Emission Reductions (Tons per year)			Board approval date	County
						NOx	ROG	PM		
20MOY230	Ag/ off-road	Equipment replacement	1	\$ 16,965.00	Cornerstone Certified Vineyard	0.024	0.019	0.006	APCO	Sonoma
20MOY235	Ag/ off-road	Equipment replacement	1	\$ 46,690.00	Goldridge Pinot, LLC dba Emeritus Vineyards	0.170	0.026	0.019	APCO	Sonoma
20MOY241	Ag/ off-road	Equipment replacement	3	\$ 129,500.00	Linda Pierce Wedemeyer Exemption Trust	0.217	0.039	0.021	10/2/2019	Solano
21MOY9	On-road	Equipment replacement	1	\$ 60,000.00	Prime Tank Lines, LLC	0.302	0.060	0.005	APCO	Contra Costa
20MOY248	On-road	Equipment replacement	1	\$ 40,000.00	Amritpal Singh (Truck owner/operator)	0.604	0.052	0.000	APCO	Alameda
21MOY1	On-road	Equipment replacement	1	\$ 40,000.00	Freight 98 Express Inc. (Truck owner/operator)	0.210	0.024	0.000	APCO	Alameda
20MOY86	On-road	Equipment replacement	1	\$ 25,000.00	Sears Keith (Truck owner/operator)	0.195	0.016	0.000	APCO	Sacramento
20MOY150	On-road	Equipment replacement	1	\$ 40,000.00	Sukhjeet Singh Cheema (Truck owner/operator)	0.667	0.057	0.000	APCO	San Joaquin
21SBP2	School bus	Equipment replacement	1	\$ 178,500.00	Campbell Union School District	0.064	0.005	0.000	10/2/2019	Santa Clara
20MOY227	On-road	Equipment replacement	1	\$ 30,000.00	JSK Trucking (Truck owner/ operator)	0.193	0.016	0.000	APCO	San Joaquin
20MOY239a	On-road	Equipment replacement	1	\$ 30,000.00	DNA Trucking, Inc.	0.252	0.021	0.000	APCO	Solano
20MOY239b	On-road	Equipment replacement	1	\$ 20,000.00	DNA Trucking, Inc.	0.203	0.017	0.000	APCO	Solano
20MOY245a	On-road	Equipment replacement	1	\$ 60,000.00	Jorge Quintero DBA QDS Transportation	1.271	0.097	0.008	APCO	Alameda
20MOY245b	On-road	Equipment replacement	1	\$ 60,000.00	QDS Transportation	0.817	0.061	0.005	APCO	Alameda
20MOY245c	On-road	Equipment replacement	1	\$ 60,000.00	Ignacio Quintero (Truck owner/ operator)	0.900	0.068	0.005	APCO	Alameda
20MOY82	On-road	Equipment replacement	1	\$ 35,000.00	Surinder Atwal (Truck owner/ operator)	0.258	0.022	0.000	APCO	Sacramento

AGENDA 4 - ATTACHMENT 2

Project #	Equipment category	Project type	# of engines	Proposed contract award	Applicant name	Emission Reductions (Tons per year)			Board approval date	County
						NOx	ROG	PM		
20MOY232	On-road	Equipment replacement	1	\$ 40,000.00	Mahmoud Rastegar DBA: Prosper Dedicates Lines	0.452	0.039	0.000	APCO	Placer
20MOY218	On-road	Infrastructure	1	\$ 13,717.00	Penske Truck Leasing Co., L.P.	0.000	0.000	0.000	APCO	Alameda/ San Francisco
21MOY28	Ag/ off-road	Equipment replacement	1	\$ 63,850.00	Bains Farms, LLC	0.082	0.014	0.010	APCO	Solano
21MOY17	Ag/ off-road	Equipment replacement	1	\$ 43,350.00	Sweet Lane Nursery and Vineyards, Inc.	0.041	0.009	0.008	APCO	Sonoma
21MOY23	Ag/ off-road	Equipment replacement	2	\$ 86,100.00	Trefethen Farming, LLC	0.178	0.043	0.034	APCO	Napa
20MOY250	Marine	Engine replacement	4	\$ 1,288,000.00	Amnav Maritime Corporation (Vessel: Patricia Ann)	8.609	0.270	0.476	10/2/2019	Alameda
21MOY31	Ag/ off-road	Equipment replacement	1	\$ 185,400.00	Gerald & Kristy Spaletta (Dairy)	0.566	0.074	0.052	10/2/2019	Sonoma
21MOY25	On-road	Equipment replacement	1	\$ 49,500.00	J and A Trucking, Inc.	1.350	0.202	0.010	APCO	Alameda
21MOY21	Ag/ off-road	Equipment replacement	4	\$ 249,600.00	Renteria Vineyard Management, LLC	0.790	0.121	0.089	10/2/2019	Napa
21MOY41	Ag/ off-road	Equipment replacement	2	\$ 81,750.00	Geoffrey Allen (Nursery)	0.105	0.030	0.012	APCO	San Mateo
21MOY30	Ag/ off-road	Equipment replacement	2	\$ 67,100.00	Jaswant S. Bains (Farmer)	0.289	0.044	0.025	APCO	Solano
21MOY33	Off-road	Equipment replacement	2	\$ 355,500.00	S.E.G Trucking	1.044	0.074	0.052	10/2/2019	Contra Costa
21MO12	On-road	Equipment replacement	1	\$ 40,000.00	Oscar Transport/ Oscar Rivera (Truck owner/ operator)	0.501	0.036	0.000	APCO	Alameda
21MOY34	Ag/ off-road	Equipment replacement	2	\$ 456,200.00	Custom Tractor Service	2.260	0.211	0.115	10/2/2019	Sonoma
21MOY14	Ag/ off-road	Equipment replacement	5	\$ 198,850.00	Bayview Vineyards Corp.	0.826	0.164	0.090	10/2/2019	Napa
21MOY47	Ag/ off-road	Equipment replacement	1	\$ 151,000.00	DeBernardi Dairy, Inc.	0.438	0.040	0.022	10/2/2019	Sonoma
21MOY51	Marine	Engine replacement	4	\$ 2,916,000.00	Crowley Marine Services	43.259	4.409	1.420	10/2/2019	Alameda

AGENDA 4 - ATTACHMENT 2

Project #	Equipment category	Project type	# of engines	Proposed contract award	Applicant name	Emission Reductions (Tons per year)			Board approval date	County
						NOx	ROG	PM		
21MOY36	Off-road	Equipment replacement	1	\$ 74,000.00	John Benward Co.	0.564	0.028	0.021	APCO	Sonoma
20MOY217	Off-road	Portable equipment replacement	1	\$ 863,500.00	Oakland Pallet Co., Inc.	2.577	0.215	0.076	10/2/2019	Alameda
20SBP246	School bus	Equipment replacement	2	\$ 179,020.00	Newark Unified School District	0.037	0.002	0.000	10/2/2019	Alameda
21MOY46	Off-road	Equipment replacement	6	\$ 772,500.00	Bigge Crane and Rigging Company	4.210	0.435	0.254	10/2/2019	Alameda
21MOY37	On-road	Equipment replacement	1	\$ 30,000.00	Joginder Singh (Truck owner/ operator)	0.332	0.033	0.000	APCO	Alameda
21MOY19	Ag/ off-road	Equipment replacement	3	\$ 127,400.00	Nissen Vineyard Services, Inc.	0.487	0.088	0.066	TBD	Napa
21MOY56	Ag/ off-road	Equipment replacement	1	\$ 21,550.00	Grotti Vineyards and Winery, LLC	0.047	0.038	0.010	APCO	Napa
21MOY54	Ag/ off-road	Equipment replacement	1	\$ 31,100.00	Siebert Vineyards	0.079	0.012	0.007	APCO	Sonoma
21MOY53	Ag/ off-road	Equipment replacement	1	\$ 63,150.00	St. Supery, Inc.	0.159	0.025	0.019	APCO	Napa
21MOY59	Off-road	Equipment replacement	1	\$ 167,500.00	Concrush, Inc.	0.696	0.065	0.037	TBD	Solano
21MOY64	Ag/ off-road	Equipment replacement	1	\$ 170,250.00	Achadinha Cheese, Inc.	1.546	0.171	0.097	TBD	Sonoma
21MOY50	On-road	Equipment replacement	1	\$ 35,000.00	Bal transport, Inc.	0.464	0.033	0.000	APCO	Alameda
21MOY73	Ag/ off-road	Equipment replacement	2	\$ 153,695.00	Robert Giacomini Dairy, Inc.	0.276	0.040	0.023	TBD	Marin
21MOY60	Marine	Engine replacement	2	\$ 276,000.00	Bass Tub Fishing	0.489	0.000	0.026	TBD	Contra Costa
21MOY71	Marine	Engine replacement	2	\$ 3,814,000.00	Foss Maritime	15.352	1.518	0.504	TBD	Contra Costa
21SBP77	School bus	Equipment replacement	16	\$ 3,478,697.00	Mt. Diablo Unified School District	1.040	0.075	0.005	TBD	Contra Costa
20MOY103	Marine	Engine replacement	2	\$ 130,000.00	Westar Marine Services	0.221	-0.007	0.014	TBD	San Francisco

AGENDA 4 - ATTACHMENT 2

Project #	Equipment category	Project type	# of engines	Proposed contract award	Applicant name	Emission Reductions (Tons per year)			Board approval date	County
						NOx	ROG	PM		
21MOY61	Off-road	Equipment replacement	6	\$ 811,875.00	Amazon Recycling and Disposal, Inc.	3.679	0.584	0.369	TBD	Alameda
20SBP23	School bus	Equipment replacement	2	\$ 373,861.00	Sonoma Valley Unified School District - Increase of ~\$12k from 3/6/19 approval	0.131	0.009	0.001	TBD	Sonoma
21MOY65	Ag/ off-road	Equipment replacement	2	\$ 140,440.00	Simoni & Massoni Farms, LLC	0.695	0.103	0.064	TBD	Contra Costa
53 Projects			107	\$ 18,871,110.00		100.848	9.348	4.076		

MOBILE SOURCE COMMITTEE
MEETING OF 10/24/2019

AGENDA 4 - ATTACHMENT 3

Table 1 - Summary of all TFCA approved and eligible projects (evaluated between 7/1/19 and 10/3/19)

Project #	Project Category	Project Description	Award Amount	Applicant Name	Emission Reductions (Tons per year)			Board/APCO Approval Date	CARE Area	County
					NO _x	ROG	PM			
19EV017	LD Infrastructure	Install and operate 2 single-port Level 2 (high) charging stations with a 17.28 kW solar array at a Destination facility in Richmond	\$12,000	AHAH LLC	0.003	0.004	0.000	7/2/19	Yes	Contra Costa
19EV023	LD Infrastructure	Install and operate 3 dual-port Level 2 (high) charging stations at a MUD facility in San Mateo	\$24,000	Mode Residences, LLC	0.006	0.008	0.000	7/31/19	No	San Mateo
19EV034	LD Infrastructure	Install and operate 2 single-port Level 2 (high) and 24 dual-port Level 2 (high) charging stations at 1 workplace facility in Milpitas	\$78,000	View, Inc.	0.036	0.053	0.001	8/20/19	No	Santa Clara
19EV057	LD Infrastructure	Install and operate 8 single-port Level 2 (high) and 28 dual-port Level 2 (high) charging stations at 3 workplace facilities in Atherton and Redwood City	\$99,000	Redwood City School District	0.046	0.068	0.001	8/30/19	No	San Mateo
19EV065	LD Infrastructure	Install and operate 606 single-port Level 2 (high) and 6 DC Fast charging stations at 18 Multi-dwelling unit and workplace facilities in San Francisco, San Jose, Walnut Creek, Palo Alto, Sunnyvale, Belmont, Oakland, and Livermore	\$2,500,000	PowerFlex Systems, LLC	0.881	1.309	0.026	10/2/19	Yes	Multi-County
19EV077	LD Infrastructure	Install and operate 40 DC Fast charging stations at 9 Transportation Corridor facilities in San Francisco, Daly City, Millbrae, Newark, Cupertino, Castro Valley, and Emeryville	\$1,000,000	Evgo Services, LLC	0.336	0.499	0.010	10/2/19	Yes	Multi-County
19EV076	LD Infrastructure	Install and operate 15 single-port Level 2 (high) and 1 DC Fast charging stations at 1 multi-dwelling unit facility in Milpitas	\$123,000	Milpitas - District 1 Associates, LLC	0.029	0.043	0.001	Pending	No	Santa Clara
20R26	On-road Trucks & Buses	Purchase and operate one battery-electric shuttle	\$13,500	California State University - Maritime Academy	0.005	0.003	0.001	10/2/19	Yes	Solano
20R02	LD Vehicles	Vehicle Buy Back Program	\$150,000	BAAQMD	N/A	N/A	N/A	NA	No	Regional
20R01	Trip Reduction	Enhanced Mobile Source & Commuter Benefits Enforcement	\$80,230	BAAQMD	N/A	N/A	N/A	NA	No	Regional
20R03	Trip Reduction	Spare The Air/Intermittent Control Programs	\$2,185,138	BAAQMD	N/A	N/A	N/A	NA	No	Regional
20R06	Trip Reduction	PresidiGo Downtown Shuttle	\$120,000	Presidio Trust	0.130	0.210	0.430	Pending	Yes	San Francisco
20R08	Trip Reduction	Pleasanton Connector Shuttles	\$80,000	San Joaquin Regional Rail Commission	0.200	0.290	0.770	Pending	Yes	Alameda
20R10	Trip Reduction	Caltrain Shuttle Program	\$485,000	Peninsula Corridor Joint Powers Board	1.890	2.280	5.290	Pending	No	Regional
20R13	Trip Reduction	Cupertino On-Demand Shuttle Pilot Program	\$423,000	Santa Clara Valley Transportation Authority (VTA)	0.122	0.134	0.308	Pending	No	Santa Clara
20R09	Bicycle Facilities	Install 0.2 miles of Class 1 bikeway in San Ramon	\$390,000	City of San Ramon	0.012	0.018	0.041	Pending	Yes	Contra Costa
20R17	Bicycle Facilities	Install and maintain 80 bicycle electronic lockers in Belmont, Redwood City, Mountain View, Lawrence, and San Jose	\$200,000	Peninsula Corridor Joint Powers Board	0.030	0.040	0.080	Pending	Yes	Regional
20R19	Bicycle Facilities	Construct and maintain a bike station with 270 new secure bike parking spaces in Oakland	\$675,000	San Francisco Bay Area Rapid Transit District	0.070	0.100	0.240	Pending	Yes	Alameda

18 Projects

\$8,637,868

3.795

5.059

7.199

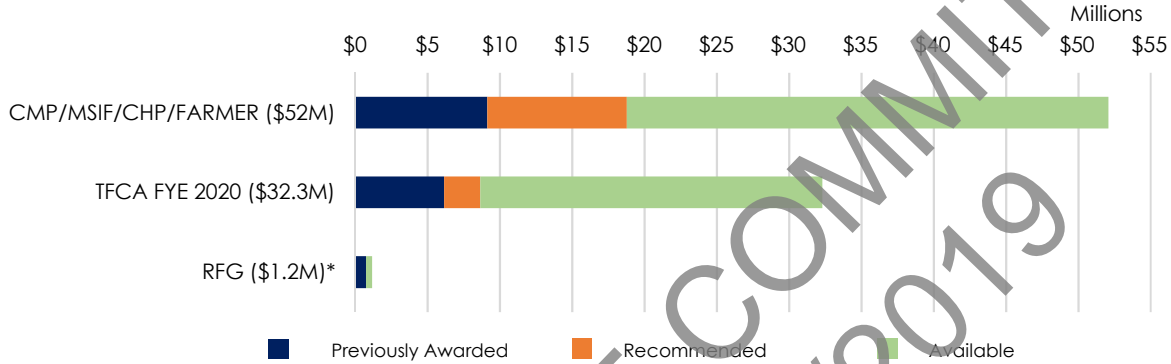
AGENDA 4 - ATTACHMENT 4

Figures 1-3 shown below summarize funding awarded between 7/1/19 and 10/3/19 from funding sources including:

- Carl Moyer Program (CMP)
- Community Health Protection Program (CHP)
- Funding Agricultural Replacement Measures for Emission Reductions (FARMER)
- Mobile Source Incentive Fund (MSIF)
- Transportation Fund for Clean Air (TFCA)
- Reformulated Gasoline Settlement Fund (RFG)

Figure 1. Status of FYE 2020 funding by source

includes funds awarded, recommended for award, and available



* Includes funding awarded in FYE 2019

Figure 2. Funding awarded in FYE 2020 by county:

includes funds awarded & recommended for award

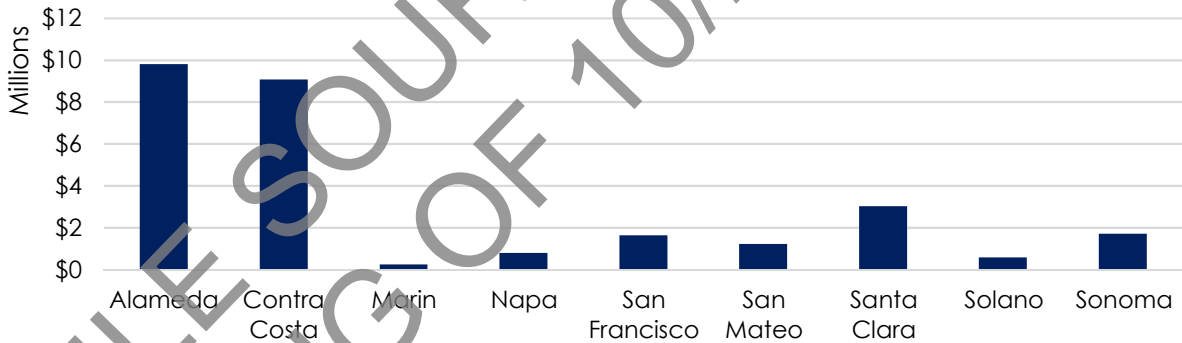
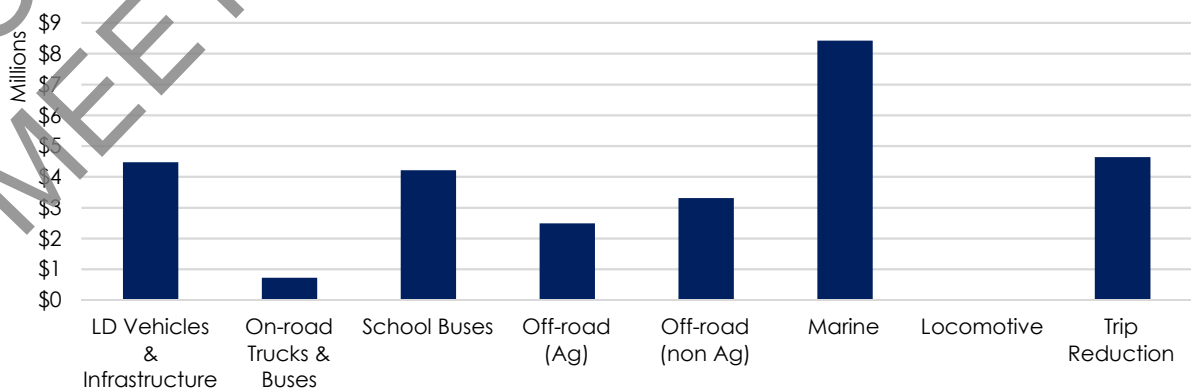


Figure 3. Funding awarded in FYE 2020 by project category

includes funds awarded & recommended for award



AGENDA 4 - ATTACHMENT 4

Figure 4. CMP/MSIF/CHP/FARMER funding awarded since 2009 by county

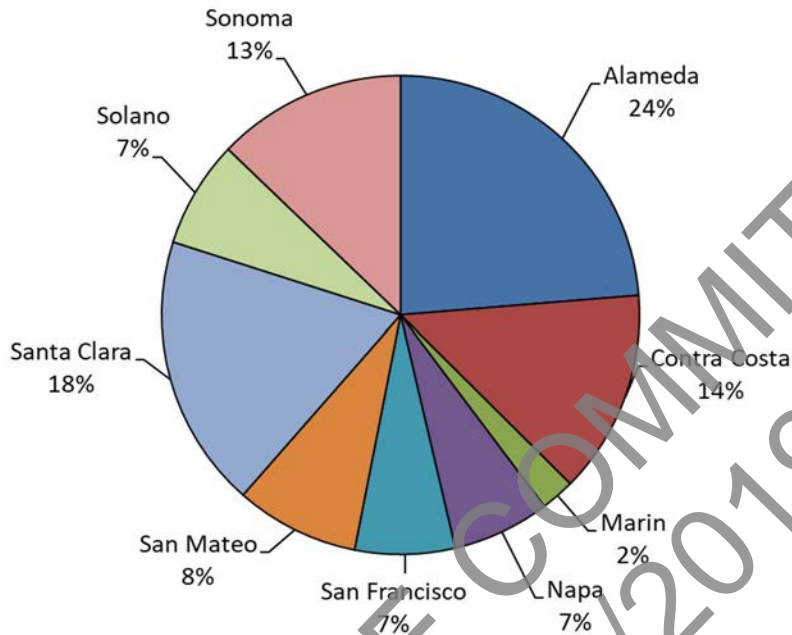
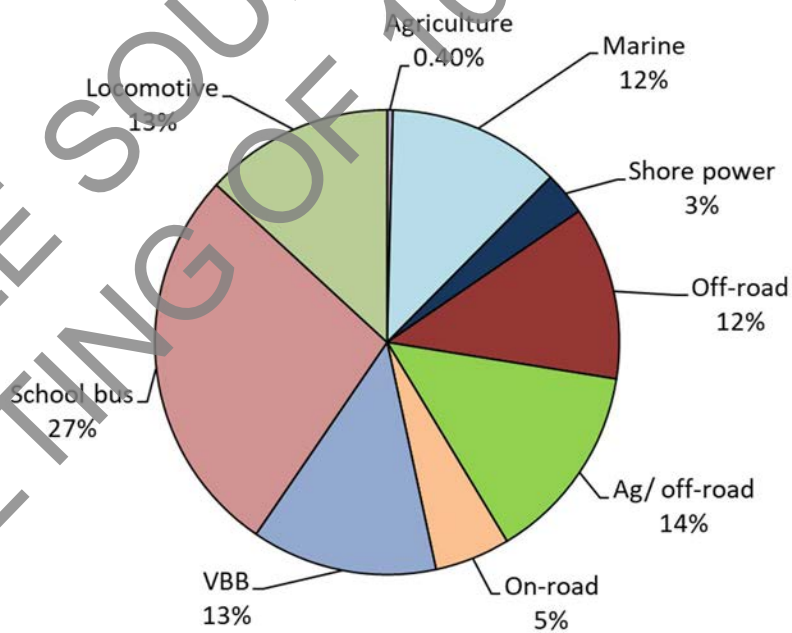


Figure 5. CMP/MSIF/CHP/FARMER funding awarded since 2009 by category



BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson David Canepa and Members
of the Mobile Source Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: October 10, 2019

Re: Proposed Updates to the Transportation Fund for Clean Air (TFCA) County Program
Manager Fund Policies for Fiscal Year Ending (FYE) 2021

RECOMMENDED ACTION

Recommend Board of Directors approve the proposed updates to the Transportation Fund for Clean Air (TFCA) County Program Manager Fund Policies for Fiscal Year Ending (FYE) 2021.

BACKGROUND

In 1991, the California State Legislature authorized the Bay Area Air Quality Management District (Air District) to impose a \$4 surcharge on motor vehicles registered within the Air District jurisdiction to fund projects that reduce on-road motor vehicle emissions. This surcharge is used to fund eligible projects through the Air District's Transportation Fund for Clean Air (TFCA) program. The statutory authority for the TFCA and requirements of the program are set forth in California Health and Safety Code (HSC) Sections 44241 and 44242.

Sixty percent of TFCA funds are awarded by the Air District to eligible projects and programs implemented directly by the Air District (e.g., Spare the Air, electric vehicle charging station program) and to a program referred to as the TFCA Regional Fund. The remaining 40% of TFCA Funds are passed-through to the County Program Manager (CPM) Fund, based on each county's proportionate share of vehicle registration fees paid, and awarded by the nine designated agencies within the Air District's jurisdiction. Each year, the Air District Board of Directors (Board) adopts proposed updates to the TFCA CPM Fund Policies to maximize emissions reductions and public health benefits.

DISCUSSION

The annual update process for the TFCA CPM Policies for Fiscal Year Ending (FYE) 2021 began early this year. This process involved Air District staff reviewing the current year policies, developing a draft to re-align the CPM policies with recent updates made to the TFCA Regional Fund Policies, and incorporating feedback and comments received during the past year from the CPMs. On February 20, 2019, Air District staff issued a proposed draft to the CPMs for public comment. The Air District held five meetings, on January 16, April 17, May 8, August 12, and September 24 of 2019, with CPM representatives, to discuss the proposed policy updates, and followed up by phone with CPMs on specific questions and issues related to the proposed updates.

Written comments were submitted by three of the nine CPMs.

The following are the key proposed updates to the TFCA CPM Policies for FYE 2021:

- Increase of cost-effectiveness limit in Policy #2 ***TFCA Cost-Effectiveness*** for ***Alternative Fuel Light-Duty Vehicles*** and ***Alternative Fuel Heavy-Duty Vehicles and Buses*** projects.
- Clarification of the cost-effectiveness limit for ***Bicycle Projects*** in Policy #2 ***TFCA Cost-Effectiveness***.
- Adjustment of the gross vehicle weight rating (GVWR) limit specified in Policies #22 and #24 to reclassify vehicles with GVWR between 8,501 lbs. and 14,000 lbs., allowing these vehicles to be funded as ***Alternative Fuel Heavy-Duty Vehicles and Buses***.
- Revision to eligible vehicles under Policy #25 ***On-Road Goods Movement Truck and Bus Replacements***, to clarify that the policy's intention is to support diesel-to-diesel replacement of highly polluting on-road trucks that are not currently able to transition to zero-emissions technology.
- Minor text revisions to provide clarification on existing policies.

Attachment A contains the proposed CPM Policies for FYE 2021. Attachment B shows the proposed updates in redline. Attachment C contains a listing of the written comments received and the responses from Air District staff.

BUDGET CONSIDERATION / FINANCIAL IMPACT

None. The recommended policy updates have no impact on the Air District's budget.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Betty Kwan and Linda Hui
Reviewed by: Karen Schkolnick and Chengfeng Wang

Attachment 5A: Proposed TFCA CPM Fund Policies for FYE 2021 (clean version)
Attachment 5B: Proposed TFCA CPM Fund Policies for FYE 2021 (redlined version of Board approved TFCA CPM Fund Policies for FYE 2020)
Attachment 5C: Comments Received from CPMs on the Draft Proposed Updates to TFCA CPM Fund Policies for FYE 2021 and Air District Staff's Responses

**Agenda #5 – Attachment A:
Proposed TFCA County Program Manager Fund Policies for FYE 2021**

The following Policies apply to the Bay Area Air Quality Management District’s (Air District) Transportation Fund for Clean Air (TFCA) County Program Manager Fund for fiscal year ending (FYE) 2021.

BASIC ELIGIBILITY

- Reduction of Emissions:** Only projects that result in the reduction of motor vehicle emissions within the Air District’s jurisdiction are eligible.

Projects must conform to the provisions of the California Health and Safety Code (HSC) sections 44220 et seq. and these Air District Board of Directors adopted TFCA County Program Manager Fund Policies.

Projects must achieve surplus emission reductions, i.e., reductions that are beyond what is required through regulations, ordinances, contracts, and other legally binding obligations at the time of the execution of a grant agreement between the County Program Manager and the grantee. Projects must also achieve surplus emission reductions at the time of an amendment to a grant agreement if the amendment modifies the project scope or extends the project completion deadline.

- TFCA Cost-Effectiveness:** Projects must not exceed the maximum cost-effectiveness (C-E) limit specified in Table 1. Cost-effectiveness (\$/weighted ton) is the ratio of TFCA funds awarded to the sum of surplus emissions reduced, during a project’s operational period, of reactive organic gases (ROG), nitrogen oxides (NOx), and weighted PM10 (particulate matter 10 microns in diameter and smaller). All TFCA-generated funds (e.g., reprogrammed TFCA funds) that are awarded or applied to a project must be included in the evaluation. For projects that involve more than one independent component (e.g., more than one vehicle purchased, more than one shuttle route), each component must achieve this cost-effectiveness requirement.

County Program Manager administrative costs are excluded from the calculation of a project’s TFCA cost-effectiveness.

Table 1: Maximum Cost-Effectiveness for TFCA County Program Manager Fund Projects

Policy No.	Project Category	Maximum C-E (\$/weighted ton)
22	Alternative Fuel Light-Duty Vehicles	500,000
23	Reserved	Reserved
24	Alternative Fuel Heavy-Duty Vehicles and Buses	500,000
25	On-Road Goods Movement Truck Replacements	90,000
26	Alternative Fuel Infrastructure	250,000 500,000*
27	Ridesharing Projects - Existing	150,000
28.a-h.	Shuttle/Feeder Bus Service – Existing	200,000; 250,000 for services in CARE Areas or PDAs
29.a.	Shuttle/Feeder Bus Service - Pilot	Year 1 - 250,000 Year 2 - see Policy #28.a.-h.
	Shuttle/Feeder Bus Service – Pilot in CARE Areas or PDAs	Years 1 & 2 - 500,000 Year 3 - see Policy #28.a.-h.

**Agenda #5 – Attachment A:
Proposed TFCA County Program Manager Fund Policies for FYE 2021**

29.b.	Pilot Trip Reduction	500,000
30	Bicycle Projects	500,000
	Bikeways	500,000
	Bicycle Parking	250,000
31	Bike Share	500,000
32	Arterial Management	175,000
33	Smart Growth/Traffic Calming	175,000

*This higher C-E limit is for projects that install electric vehicle charging stations at multi-dwelling units, transit stations, and park-and-ride lot facilities.

3. **Eligible Projects and Case-by-Case Approval:** Eligible projects are those that conform to the provisions of the HSC section 44241, Air District Board-adopted policies, and Air District guidance. On a case-by-case basis, County Program Managers must receive approval by the Air District for projects that are authorized by the HSC section 44241 and achieve Board-adopted TFCA cost-effectiveness but do not fully meet other Board-adopted Policies.
4. **Consistent with Existing Plans and Programs:** All projects must comply with the Transportation Control and Mobile Source Control Measures included in the Air District's most recently approved strategies for achieving and maintaining State and national ozone standards, those plans and programs established pursuant to HSC sections 40233, 40717, and 40919; and, when specified, other adopted federal, State, regional, and local plans and programs.
5. **Eligible Recipients:** Grant recipients must be responsible for the implementation of the project, have the authority and capability to complete the project, and be an applicant in good standing with the Air District (Policies #8-10).
 - a. **Public agencies** are eligible to apply for all project categories.
 - b. **Non-public entities** are only eligible to apply for new alternative-fuel (light, medium, and heavy-duty) vehicle and infrastructure projects, and advanced technology demonstrations that are permitted pursuant to HSC section 44241(b)(7).
6. **Readiness:** Projects must commence by the end of calendar year 2021. For purposes of this policy, "commence" means a tangible preparatory action taken in connection with the project's operation or implementation, for which the grantee can provide documentation of the commencement date and action performed. "Commence" includes, but is not limited to, the issuance of a purchase order to secure project vehicles and equipment, commencement of shuttle/feeder bus and ridesharing service, or the delivery of the award letter for a construction contract.
7. **Maximum Two Years Operating Costs for Service-Based Projects:** Unless otherwise specified in policies #22 through #33, TFCA County Program Manager Funds may be used to support up to two years of operating costs for service-based projects (e.g., ridesharing, shuttle and feeder bus service). Grant applicants that seek TFCA funds for additional years must reapply for funding in the subsequent funding cycles.

APPLICANT IN GOOD STANDING

8. **Independent Air District Audit Findings and Determinations:** Grantees who have failed either the financial statement audit or the compliance audit for a prior TFCA-funded project awarded by either County Program Managers or the Air District are excluded from receiving an award of any TFCA funds for three (3) years from the date of the Air District's final audit determination in accordance

with HSC section 44242 or for a duration determined by the Air District Air Pollution Control Officer (APCO). Existing TFCA funds already awarded to the project sponsor will not be released until all audit recommendations and remedies have been satisfactorily implemented. A failed financial statement audit means a final audit report that includes an uncorrected audit finding that confirms an ineligible expenditure of TFCA funds. A failed compliance audit means that the program or project was not implemented in accordance with the applicable Funding Agreement or grant agreement.

A failed financial statement or compliance audit of the County Program Manager or its grantee may subject the County Program Manager to a reduction of future revenue in an amount equal to the amount which was inappropriately expended pursuant to the provisions of HSC section 44242(c)(3).

9. **Authorization for County Program Manager to Proceed:** Only a fully executed Funding Agreement (i.e., signed by both the Air District and the County Program Manager) constitutes the Air District's award of County Program Manager Funds. County Program Managers may incur costs (i.e., contractually obligate itself to allocate County Program Manager Funds) only after the Funding Agreement with the Air District has been executed.
10. **Maintain Appropriate Insurance:** Both the County Program Manager and each grantee must obtain and maintain general liability insurance, workers compensation insurance, and additional insurance as appropriate for specific projects, with required coverage amounts provided in Air District guidance and final amounts specified in the respective grant agreements.

INELIGIBLE PROJECTS

11. **Duplication:** Projects that have previously received TFCA Regional or County Program Manager funds and do not propose to achieve additional emission reductions are not eligible.
12. **Planning Activities:** The costs of preparing or conducting feasibility studies are not eligible. Planning activities are not eligible unless they are directly related to the implementation of a specific project or program.
13. **Reserved.**
14. **Cost of Developing Proposals:** The costs to prepare grant applications are not eligible.

USE OF TFCA FUNDS

15. **Combined Funds:** TFCA County Program Manager Funds may not be combined with TFCA Regional Funds to fund a County Program Manager Fund project. Projects that are funded by the TFCA County Program Manager Fund are not eligible for additional funding from other funding sources that claim emissions reduction credits. However, County Program Manager-funded projects may be combined with funds that do not require emissions reductions for funding eligibility.
16. **Administrative Costs:** The County Program Manager may not expend more than 6.25 percent of its County Program Manager Funds for its administrative costs. The County Program Manager's costs to prepare and execute its Funding Agreement with the Air District are eligible administrative costs. Interest earned on County Program Manager Funds shall not be included in the calculation of the administrative costs. To be eligible for reimbursement, administrative costs must be clearly identified in the expenditure plan application and in the Funding Agreement, and must be reported to the Air District.
17. **Expend Funds within Two Years:** County Program Manager Funds must be expended within two (2) years of receipt of the first transfer of funds from the Air District to the County Program Manager in

the applicable fiscal year, unless a County Program Manager has made the determination based on an application for funding that the eligible project will take longer than two years to implement. Additionally, a County Program Manager may, if it finds that significant progress has been made on a project, approve no more than two one-year schedule extensions for a project. Any subsequent schedule extensions for projects can only be given on a case-by-case basis, if the Air District finds that significant progress has been made on a project, and the Funding Agreement is amended to reflect the revised schedule.

18. **Unallocated Funds:** Pursuant to HSC 44241(f), any County Program Manager Funds that are not allocated to a project within six months of the Air District Board of Directors approval of the County Program Manager's Expenditure Plan may be allocated to eligible projects by the Air District. The Air District shall make reasonable effort to award these funds to eligible projects in the Air District within the same county from which the funds originated.

19. Reserved.

20. Reserved.

21. Reserved.

ELIGIBLE PROJECT CATEGORIES

Clean Air Vehicle Projects

22. Alternative Fuel Light-Duty Vehicles:

These projects are intended to accelerate the deployment of qualifying alternative fuel vehicles that operate within the Air District's jurisdiction. All of the following conditions must be met for a project to be eligible for TFCA funds:

- a. Vehicles must be new (model year 2020 or newer), and have a gross vehicle weight rating (GVWR) of 8,500 lbs. or lower.
- b. Vehicles must be:
 - i. hybrid-electric, electric, or fuel cell vehicles that are approved by the California Air Resources Board (CARB) for on-road use
 - ii. neighborhood electric vehicles (NEV) as defined in the California Vehicle Code.
- c. Vehicles must be maintained and operated within the Air District's jurisdiction.
- d. The amount of TFCA funds awarded may not exceed 90% of the project's cost after all other grants and applicable manufacturer and local/state/federal rebates and discounts are applied.

Vehicles that are solely powered by gasoline, diesel, or natural gas, and retrofit projects are not eligible.

Grantees may request authorization of up to 100% of the TFCA Funds awarded for each vehicle to be used to pay for costs directly related to the purchase and installation of alternative fueling infrastructure and/or equipment used to power the new vehicle.

23. **Reserved.**

24. Alternative Fuel Heavy-Duty Vehicles and Buses:

These projects are intended to accelerate the deployment of qualifying alternative fuel vehicles that operate within the Air District's jurisdiction by encouraging the replacement of older, compliant trucks and buses with the cleanest available technology. If replacing heavy-duty vehicles and buses with light-duty vehicles, light-duty vehicles must meet Policy #22. All of the following conditions must be met for a project to be eligible for TFCA Funds:

- a. Each vehicle must be new and have a GVWR greater than 8,500 lbs.
- b. Eligible vehicles must be approved by the CARB.
- c. Vehicles must be maintained and operated within the Air District's jurisdiction.
- d. The total amount of TFCA funds awarded combined with all other grants and applicable manufacturer and local/state/federal rebates and discounts may not exceed 90% of the project's eligible cost

Vehicles that are solely powered by gasoline, diesel, or natural gas and retrofit projects are not eligible.

Grantees may request authorization of up to 100% of the TFCA Funds awarded for each vehicle to be used to pay for costs directly related to the purchase and installation of alternative fueling infrastructure and/or equipment used to power the new vehicle.

Projects that seek to replace a vehicle in the same weight-class as the proposed new vehicle, may qualify for additional TFCA funding. Costs related to the scrapping and/or dismantling of the existing vehicle are not eligible for reimbursement with TFCA funds.

25. **On-Road Goods Movement Truck Replacements:** The project will replace Class 6, Class 7, and Class 8 diesel-powered trucks that have a gross vehicle weight rating (GVWR) of 19,501 lbs. or greater (per vehicle weight classification definition used by Federal Highway Administration (FHWA) with new or used trucks that have an engine certified to the 2010 CARB emissions standards or cleaner. Eligible vehicles are those that are used for goods movement as defined by CARB. The existing truck(s) to be replaced must be registered with the California Department of Motor Vehicles (DMV) to an address within the Air District's jurisdiction, and must be scrapped after replacement.

26. **Alternative Fuel Infrastructure:**

Eligible refueling infrastructure projects include new dispensing and charging facilities, or additional equipment or upgrades and improvements that expand access to existing alternative fuel fueling/charging sites (i.e., electric vehicle, hydrogen). This includes upgrading or modifying private fueling/charging sites or stations to allow public and/or shared fleet access. TFCA funds may be used to cover the cost of equipment and installation. TFCA funds may also be used to upgrade infrastructure projects previously funded with TFCA funds as long as the equipment was maintained and has exceeded the duration of its useful life after being placed into service.

Equipment and infrastructure must be designed, installed, and maintained as required by the existing recognized codes and standards and as approved by the local/state authority.

TFCA funds may not be used to pay for fuel, electricity, operation, and maintenance costs. Projects that include installation of charging stations at multi-dwelling units, transit stations, and park-and-ride lot facilities qualify for funding at a higher cost-effectiveness limit (see Policy #2).

Trip Reduction Projects

27. **Existing Ridesharing Services:** The project will provide carpool, vanpool, or other rideshare services. Projects that provide a direct or indirect financial transit or rideshare subsidy are also eligible under this category. Projects that provide a direct or indirect financial transit or rideshare subsidy *exclusively* to employees of the grantee are not eligible.

28. **Existing Shuttle/Feeder Bus Service:**

The project will reduce single-occupancy vehicle trips by providing short-distance connections. All of the following conditions must be met for a project to be eligible for TFCA funds.

- a. The service must provide direct connections between a mass transit hub (e.g., a rail or Bus Rapid Transit (BRT) station, ferry or bus terminal, or airport) and a distinct commercial or employment location.
- b. The service's schedule, which is not limited to commute hours, must be coordinated to have a timely connection with corresponding mass transit service.
- c. The service must be available for use by all members of the public.
- d. TFCA funds may be used to fund only shuttle services to locations that are under-served and lack other comparable service. For the purposes of this policy, "comparable service" means that there exists, either currently or within the last three years, a direct, timed, and publicly accessible service that brings passengers to within one-third (1/3) mile of the proposed commercial or employment location from a mass transit hub. A proposed service will not be deemed "comparable" to an existing service if the passengers' proposed travel time will be at least 15 minutes shorter and at least 33% shorter than the existing service's travel time to the proposed destination.
- e. Reserved.
- f. Grantees must be either: (1) a public transit agency or transit district that directly operates the shuttle/feeder bus service; or (2) a city, county, or any other public agency.
- g. Applicants must submit a letter of concurrence from all transit districts or transit agencies that provide service in the area of the proposed route, certifying that the service does not conflict with existing service.
- h. Each route must meet the cost-effectiveness requirement in Policy #2. Projects that would operate in Highly Impacted Communities or Episodic Areas as defined in the Air District Community Air Risk Evaluation (CARE) Program, or in Priority Development Areas (PDAs), may qualify for funding at a higher cost-effectiveness limit (see Policy #2).

29. **Pilot Projects:**

a. **Pilot Shuttle/Feeder Bus Service Projects:**

These projects are new shuttle/feeder bus service routes that are at least 70% unique and where no other service was provided within the past three years. In addition to meeting the conditions listed in Policy #28.a.-h. for shuttle/feeder bus service, project applicants must also comply with the following application criteria and agree to comply with the project implementation requirements:

- i. Demonstrate the project will reduce single-occupancy vehicle trips and result in a reduction in emissions of criteria pollutants.

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Proposed TFCA County Program Manager Fund Policies for FYE 2021**

- ii. Provide data and/or other evidence demonstrating the public's need for the service, including a demand assessment survey and letters of support from potential users.
- iii. Provide a written plan showing how the service will be financed in the future and require minimal, if any, TFCA funds to maintain its operation after the pilot period;
- iv. Provide a letter from the local transit agency denying service to the project's proposed service area, which includes the basis for denial of service to the proposed areas. The applicant must demonstrate that the project applicant has attempted to coordinate service with the local service provider and has provided the results of the demand assessment survey to the local transit agency. The applicant must provide the transit service provider's evaluation of the need for the shuttle service to the proposed area. Pilot projects located in Highly Impacted Communities as defined in the Air District CARE Program and/or a Planned or Potential PDA may receive a maximum of three years of TFCA Funds under the Pilot designation. For these projects, the project applicants understand and must agree that such projects will be evaluated every year, and continued funding will be contingent upon the projects meeting the following requirements:
 - 1. During the first year and by the end of the second year of operation, projects must not exceed a cost-effectiveness of \$500,000/ton, and
 - 2. By the end of the third year of operation, projects must meet all of the requirements, including cost-effectiveness limit, of Policy #28.a.-h. (existing shuttles).
- v. Projects located outside of CARE areas and PDAs may receive a maximum of two years of TFCA Funds under this designation. For these projects, the project applicants understand and must agree that such projects will be evaluated every year, and continued funding will be contingent upon the projects meeting the following requirements:
 - 1. By the end of the first year of operation, projects shall meet a cost-effectiveness of \$250,000/ton, and
 - 2. By the end of the second year of operation, projects shall meet all of the requirements, including cost-effectiveness limit, of Policy #28.a.-h. (existing shuttles).

b. Pilot Trip Reduction:

The project will reduce single-occupancy commute-hour vehicle trips by encouraging mode-shift to other forms of shared transportation. Pilot projects are defined as projects that serve an area where no similar service was available within the past three years, or will result in significantly expanded service to an existing area. Funding is designed to provide the necessary initial capital to a public agency for the start-up of a pilot project so that by the end of the third year of the trip reduction project's operation, the project will be financially self-sustaining or require minimal public funds, such as grants, to maintain its operation. All the following conditions must be met for a project to be eligible for TFCA funds:

- i. Applicants must demonstrate the project will reduce single-occupancy commute-hour vehicle trips and result in a reduction in emissions of criteria pollutants;
- ii. The proposed service must be available for use by all members of the public;
- iii. Applicants must provide a written plan showing how the service will be financed in the future and require minimal, if any, TFCA funds to maintain its operation by the end of the third year;
- iv. If the local transit provider is not a partner, the applicant must demonstrate that they have attempted to have the service provided by the local transit agency. The transit provider must have been given the first right of refusal and determined that the proposed project does not conflict with existing service;
- v. Applicants must provide data and any other evidence demonstrating the public's need for the service, including a demand assessment survey and letters of support from potential users;
- vi. Pilot trip reduction projects that propose to provide ridesharing service projects must comply with all applicable requirements in policy #27.

30. Bicycle Projects:

New bicycle facility projects or upgrades to an existing bicycle facility that are included in an adopted countywide bicycle plan, Congestion Management Program (CMP), countywide transportation plan (CTP), city plan, or the Metropolitan Transportation Commission's (MTC) Regional Bicycle Plan are eligible to receive TFCA funds. Projects that are included in an adopted city general plan or area-specific plan must specify that the purpose of the bicycle facility is to reduce motor vehicle emissions or traffic congestion.

a. Bicycle Parking:

The project will expand the public's access to bicycle parking. The electronic bicycle lockers and bicycle racks must be publicly accessible and available for use by all members of the public.

Eligible projects are limited to the following types of bike parking facilities that result in motor vehicle emission reductions:

- i. Bicycle racks, including bicycle racks on transit buses, trains, shuttle vehicles, and ferry vessels;
- ii. Electronic bicycle lockers;
- iii. Capital costs for attended bicycle storage facilities; and
- iv. Purchase of two-wheeled or three-wheeled vehicles (self-propelled or electric), plus mounted equipment required for the intended service and helmets.

b. Bikeways:

- i. Class I Bikeway (bike path), new or upgrade improvement from Class II or Class III bikeway;
- ii. New Class II Bikeway (bike lane);
- iii. New Class III Bikeway (bike route);

- iv. Class IV Bikeway (separated bikeway), new or upgrade improvement from Class II or Class III bikeway;

All bicycle facility projects must, where applicable, be consistent with design standards published in the California Highway Design Manual, or conform to the provisions of the Protected Bikeway Act of 2014.

31. Bike Share:

Projects that make bicycles available to individuals for shared use for completing first- and last-mile trips in conjunction with regional transit and stand-alone short distance trips are eligible for TFCA funds, subject to all of the following conditions:

- a. Projects must either increase the fleet size of existing service areas or expand existing service areas to include new Bay Area communities.
- b. Projects must have a completed and approved environmental plan and a suitability study demonstrating the viability of bicycle sharing.
- c. Projects must have shared membership and/or be interoperable with the Bay Area Bike Share (BABS) project when they are placed into service, in order to streamline transit for end users by reducing the number of separate operators that would comprise bike trips. Projects that meet one or more of the following conditions are exempt from this requirement:
 - i. Projects that do not require membership or any fees for use, or
 - ii. Projects that were provided funding under MTC's Bike Share Capital Program to start a new or expand an existing bike share program; or
 - iii. Projects that attempted to coordinate with, but were refused by, the current BABS operator to have shared membership or be interoperable with BABS. Applicants must provide documentation showing proof of refusal.

Projects may be awarded FYE 2021 TFCA funds to pay for up to five years of operations.

32. Arterial Management:

Arterial management grant applications must identify a specific arterial segment and define what improvement(s) will be made to affect traffic flow on the identified arterial segment. Projects that provide routine maintenance (e.g., responding to citizen complaints about malfunctioning signal equipment) are not eligible to receive TFCA funds. Incident management projects on arterials are eligible to receive TFCA funds. Transit improvement projects include, but are not limited to, bus rapid transit and transit priority projects. Signal timing projects are eligible to receive TFCA funds. Each arterial segment must meet the cost-effectiveness requirement in Policy #2.

33. Smart Growth/Traffic Calming:

Physical improvements that support development projects and/or calm traffic, resulting in motor vehicle emission reductions, are eligible for TFCA funds, subject to the following conditions:

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- a. The development project and the physical improvements must be identified in an approved area-specific plan, redevelopment plan, general plan, bicycle plan, pedestrian plan, traffic-calming plan, or other similar plan.
- b. The project must implement one or more transportation control measures (TCMs) in the most recently adopted Air District plan for State and national ambient air quality standards. Pedestrian projects are eligible to receive TFCA funds.
- c. The project must have a completed and approved environmental plan. If a project is exempt from preparing an environmental plan as determined by the public agency or lead agency, then that project has met this requirement.

Traffic calming projects are limited to physical improvements that achieve motor vehicle emission reductions by designing and improving safety conditions for pedestrians, bicyclists or transit riders in residential retail, and employment areas.

MOBILE SOURCE COMMITTEE
MEETING OF 10/24/2019

**Agenda #5 – Attachment B:
Proposed TFCA County Program Manager Fund Policies for FYE 2021
(redlined version of Board-approved TFCA CPM Fund Policies for FYE 2020)**

The following Policies apply to the Bay Area Air Quality Management District’s (Air District) Transportation Fund for Clean Air (TFCA) County Program Manager Fund for fiscal year ending (FYE) 2021.

BASIC ELIGIBILITY

- Reduction of Emissions:** Only projects that result in the reduction of motor vehicle emissions within the Air District’s jurisdiction are eligible.

Projects must conform to the provisions of the California Health and Safety Code (HSC) sections 44220 et seq. and these Air District Board of Directors adopted TFCA County Program Manager Fund Policies.

Projects must achieve surplus emission reductions, i.e., reductions that are beyond what is required through regulations, ordinances, contracts, and other legally binding obligations at the time of the execution of a grant agreement between the County Program Manager and the grantee. Projects must also achieve surplus emission reductions at the time of an amendment to a grant agreement if the amendment modifies the project scope or extends the project completion deadline.

- TFCA Cost-Effectiveness:** Projects must not exceed the maximum cost-effectiveness (C-E) limit specified in Table 1. Cost-effectiveness (\$/weighted ton) is the ratio of TFCA funds awarded to the sum of surplus emissions reduced, during a project’s operational period, of reactive organic gases (ROG), nitrogen oxides (NOx), and weighted PM10 (particulate matter 10 microns in diameter and smaller). All TFCA-generated funds (e.g., reprogrammed TFCA funds) that are awarded or applied to a project must be included in the evaluation. For projects that involve more than one independent component (e.g., more than one vehicle purchased, more than one shuttle route), each component must achieve this cost-effectiveness requirement.

County Program Manager administrative costs are excluded from the calculation of a project’s TFCA cost-effectiveness.

Table 1: Maximum Cost-Effectiveness for TFCA County Program Manager Fund Projects

Policy No.	Project Category	Maximum C-E (\$/weighted ton)
22	Alternative Fuel Light-Duty Vehicles	250,000
23	Reserved	Reserved
24	Alternative Fuel Heavy-Duty Vehicles and Buses	250,000
25	On-Road Goods Movement Truck and Bus Replacements	90,000
26	Alternative Fuel Infrastructure	250,000 500,000*
27	Ridesharing Projects - Existing	150,000
28.a.-h.	Shuttle/Feeder Bus Service – Existing	200,000; 250,000 for services in CARE Areas or PDAs
29.a.	Shuttle/Feeder Bus Service - Pilot	Year 1 - 250,000 Year 2 - see Policy #28.a.-h.

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Proposed TFCA County Program Manager Fund Policies for FYE 2021
(redlined version of Board-approved TFCA CPM Fund Policies for FYE 2020)**

	Shuttle/Feeder Bus Service – Pilot in CARE Areas or PDAs	Years 1 & 2 - 500,000 Year 3 - see Policy #28.a.-h.
29.b.	Pilot Trip Reduction	500,000
30	Bicycle Projects <u>Bikeways</u> <u>Bicycle Parking</u>	500,000 <u>250,000</u>
31	Bike Share	500,000
32	Arterial Management	175,000
33	Smart Growth/Traffic Calming	175,000

*This higher C-E limit is for projects that install electric vehicle charging stations at multi-dwelling units, transit stations, and park-and-ride lot facilities.

3. **Eligible Projects and Case-by-Case Approval:** Eligible projects are those that conform to the provisions of the HSC section 44241, Air District Board-adopted policies, and Air District guidance. On a case-by-case basis, County Program Managers must receive approval by the Air District for projects that are authorized by the HSC section 44241 and achieve Board-adopted TFCA cost-effectiveness but do not fully meet other Board-adopted Policies.
4. **Consistent with Existing Plans and Programs:** All projects must comply with the Transportation Control and Mobile Source Control Measures included in the Air District's most recently approved strategies for achieving and maintaining State and national ozone standards, those plans and programs established pursuant to HSC sections 40233, 40717, and 40919; and, when specified, other adopted federal, State, regional, and local plans and programs.
5. **Eligible Recipients:** Grant recipients must be responsible for the implementation of the project, have the authority and capability to complete the project, and be an applicant in good standing with the Air District (Policies #8-10).
 - a. **Public agencies** are eligible to apply for all project categories.
 - b. **Non-public entities** are only eligible to apply for new alternative-fuel (light, medium, and heavy-duty) vehicle and infrastructure projects, and advanced technology demonstrations that are permitted pursuant to HSC section 44241(b)(7).
6. **Readiness:** Projects must commence by the end of calendar year 202~~10~~. For purposes of this policy, "commence" means a tangible preparatory action taken in connection with the project's operation or implementation, for which the grantee can provide documentation of the commencement date and action performed. "Commence" includes, but is not limited to, the issuance of a purchase order to secure project vehicles and equipment, commencement of shuttle/feeder bus and ridesharing service, or the delivery of the award letter for a construction contract.
7. **Maximum Two Years Operating Costs for Service-Based Projects:** Unless otherwise specified in policies #22 through #33, TFCA County Program Manager Funds may be used to support up to two years of operating costs for service-based projects (e.g., ridesharing, shuttle and feeder bus service). Grant applicants that seek TFCA funds for additional years must reapply for funding in the subsequent funding cycles.

APPLICANT IN GOOD STANDING

**Agenda #5 – Attachment B:
Proposed TFCA County Program Manager Fund Policies for FYE 2021
(redlined version of Board-approved TFCA CPM Fund Policies for FYE 2020)**

8. **Independent Air District Audit Findings and Determinations:** Grantees who have failed either the ~~fiscal-financial statement~~ audit or the ~~performance-compliance~~ audit for a prior TFCA-funded project awarded by either County Program Managers or the Air District are excluded from receiving an award of any TFCA funds for three (3) years from the date of the Air District's final audit determination in accordance with HSC section 44242 or for a duration determined by the Air District Air Pollution Control Officer (APCO). Existing TFCA funds already awarded to the project sponsor will not be released until all audit recommendations and remedies have been satisfactorily implemented. A failed ~~fiscal-financial statement~~ audit means a final audit report that includes an uncorrected audit finding that confirms an ineligible expenditure of TFCA funds. A failed ~~performance-compliance~~ audit means that the program or project was not implemented in accordance with the applicable Funding Agreement or grant agreement.

A failed ~~fiscal-financial statement~~ or ~~performance-compliance~~ audit of the County Program Manager or its grantee may subject the County Program Manager to a reduction of future revenue in an amount equal to the amount which was inappropriately expended pursuant to the provisions of HSC section 44242(c)(3).

9. **Authorization for County Program Manager to Proceed:** Only a fully executed Funding Agreement (i.e., signed by both the Air District and the County Program Manager) constitutes the Air District's award of County Program Manager Funds. County Program Managers may incur costs (i.e., contractually obligate itself to allocate County Program Manager Funds) only after the Funding Agreement with the Air District has been executed.
10. **Maintain Appropriate Insurance:** Both the County Program Manager and each grantee must obtain and maintain general liability insurance, worker's compensation insurance, and additional insurance as appropriate for specific projects, with required coverage amounts provided in Air District guidance and final amounts specified in the respective grant agreements.

INELIGIBLE PROJECTS

11. **Duplication:** Projects that have previously received TFCA Regional or County Program Manager funds and do not propose to achieve additional emission reductions are not eligible.
12. **Planning Activities:** The costs of preparing or conducting feasibility studies are not eligible. Planning activities are not eligible unless they are directly related to the implementation of a specific project or program ~~that result in emission reductions~~.
13. **Reserved.**
14. **Cost of Developing Proposals:** The costs to prepare grant applications are not eligible.

USE OF TFCA FUNDS

15. **Combined Funds:** TFCA County Program Manager Funds may not be combined with TFCA Regional Funds to fund a County Program Manager Fund project. Projects that are funded by the TFCA County Program Manager Fund are not eligible for additional funding from other funding sources that claim emissions reduction credits. However, County Program Manager-funded projects may be combined with funds that do not require emissions reductions for funding eligibility.
16. **Administrative Costs:** The County Program Manager may not expend more than 6.25 percent of its County Program Manager Funds for its administrative costs. The County Program Manager's costs to prepare and execute its Funding Agreement with the Air District are eligible administrative costs. Interest earned on County Program Manager Funds shall not be included in the calculation of the

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administrative costs. To be eligible for reimbursement, administrative costs must be clearly identified in the expenditure plan application and in the Funding Agreement, and must be reported to the Air District.

17. **Expend Funds within Two Years:** County Program Manager Funds must be expended within two (2) years of receipt of the first transfer of funds from the Air District to the County Program Manager in the applicable fiscal year, unless a County Program Manager has made the determination based on an application for funding that the eligible project will take longer than two years to implement. Additionally, a County Program Manager may, if it finds that significant progress has been made on a project, approve no more than two one-year schedule extensions for a project. Any subsequent schedule extensions for projects can only be given on a case-by-case basis, if the Air District finds that significant progress has been made on a project, and the Funding Agreement is amended to reflect the revised schedule.
18. **Unallocated Funds:** Pursuant to HSC 44241(f), any County Program Manager Funds that are not allocated to a project within six months of the Air District Board of Directors approval of the County Program Manager's Expenditure Plan may be allocated to eligible projects by the Air District. The Air District shall make reasonable effort to award these funds to eligible projects in the Air District within the same county from which the funds originated.
19. Reserved.
20. Reserved.
21. Reserved.

ELIGIBLE PROJECT CATEGORIES

Clean Air Vehicle Projects

22. Alternative Fuel Light-Duty Vehicles

These projects are intended to accelerate the deployment of qualifying alternative fuel vehicles that operate within the Air District's jurisdiction. All of the following conditions must be met for a project to be eligible for TFCA funds:

- a. Vehicles must be new (model year 2019-2020 or newer), and have a gross vehicle weight rating (GVWR) of 14,000~~8,500~~ lbs. or lighter~~lower~~.
- b. Vehicles must be:
 - i. hybrid-electric, electric, or fuel cell vehicles that are approved by the California Air Resources Board (CARB) for on-road use
 - ii. neighborhood electric vehicles (NEV) as defined in the California Vehicle Code.
- c. Vehicles must be maintained and operated within the Air District's jurisdiction.
- d. The amount of TFCA funds awarded may not exceed 90% of the project's cost after all other grants and applicable manufacturer and local/state/federal rebates and discounts are applied.

Vehicles that are solely powered by gasoline, diesel, or natural gas, and retrofit projects are not eligible.

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Grantees may request authorization of up to 100% of the TFCA Funds awarded for each vehicle to be used to pay for costs directly related to the purchase and installation of alternative fueling infrastructure and/or equipment used to power the new vehicle.

23. **Reserved.**

24. **Alternative Fuel Heavy-Duty Vehicles and Buses:**

These projects are intended to accelerate the deployment of qualifying alternative fuel vehicles that operate within the Air District's jurisdiction by encouraging the replacement of older, compliant trucks and buses with the cleanest available technology. If replacing heavy-duty vehicles and buses with light-duty vehicles, light-duty vehicles must meet Policy #22. All of the following conditions must be met for a project to be eligible for TFCA Funds:

- a. Each vehicles must be new (model year 2019 or newer), and either have a GVWR greater than 14,000/8,500 lbs. or are classified as urban buses.
- b. Eligible vehicles must be hybrid-electric, electric, or hydrogen fuel cell vehicles approved by the CARB.
- b.—
- c. Vehicles must be maintained and operated within the Air District's jurisdiction.
- d. The total amount of TFCA funds awarded combined with may not exceed 90% of the project's cost after all other grants and applicable manufacturer and local/state/federal rebates and discounts are applied may not exceed 90% of the project's eligible cost.

Vehicles that are solely powered by gasoline, diesel, or natural gas and retrofit projects are not eligible.

Grantees may request authorization of up to 100% of the TFCA Funds awarded for each vehicle to be used to pay for costs directly related to the purchase and installation of alternative fueling infrastructure and/or equipment used to power the new vehicle.

Projects that seek to replace a vehicle in the same weight-class as the proposed new vehicle, may qualify for additional TFCA funding. Costs related to the scrapping and/or dismantling of the existing vehicle are not eligible for reimbursement with TFCA funds.

25. **On-Road Goods Movement Truck ~~and Bus~~ Replacements:** The project will replace Class 6, Class 7, and Class 8 diesel-powered trucks ~~and buses~~ that have a gross vehicle weight rating (GVWR) of 19,501 lbs. or greater (per vehicle weight classification definition used by Federal Highway Administration (FHWA) with new or used trucks ~~and buses~~ that have an engine certified to the 2010 CARB emissions standards or cleaner. Eligible vehicles are those that are used for goods movement as defined by CARB. The existing truck(s) ~~or bus(es)~~ to be replaced must be registered with the California Department of Motor Vehicles (DMV) to an address within the Air District's jurisdiction, and must be scrapped after replacement.

26. **Alternative Fuel Infrastructure:**

Eligibility: Eligible refueling infrastructure projects include new dispensing and charging facilities, or additional equipment or upgrades and improvements that expand access to existing alternative fuel fueling/charging sites (i.e., electric vehicle, hydrogen). This includes upgrading or modifying private

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fueling/charging sites or stations to allow public and/or shared fleet access. TFCA funds may be used to cover the cost of equipment and installation. TFCA funds may also be used to upgrade infrastructure projects previously funded with TFCA funds as long as the equipment was maintained and has exceeded the duration of its useful life after being placed into service.

Equipment and infrastructure must be designed, installed, and maintained as required by the existing recognized codes and standards and as approved by the local/state authority.

TFCA funds may not be used to pay for fuel, electricity, operation, and maintenance costs. Projects that include installation of charging stations at multi-dwelling units, transit stations, and park-and-ride lot facilities qualify for funding at a higher cost-effectiveness limit (see Policy #2).

Trip Reduction Projects

27. Existing Ridesharing Services: The project will provide carpool, vanpool, or other rideshare services. Projects that provide a direct or indirect financial transit or rideshare subsidy are also eligible under this category. Projects that provide a direct or indirect financial transit or rideshare subsidy *exclusively* to employees of the grantee are not eligible.

28. Existing Shuttle/Feeder Bus Service:

These projects ~~are intended to will~~ reduce single occupancy vehicle trips by providing short-distance connections. All of the following conditions must be met for a project to be eligible for TFCA funds:

- a. The service must provide direct connections between a mass transit hub (e.g., a rail or Bus Rapid Transit (BRT) station, ferry or bus terminal, or airport) and a distinct commercial or employment location.
- b. The service's schedule, which is not limited to commute hours, must be coordinated to have a timely connection with corresponding mass transit service.
- c. The service must be available for use by all members of the public.
- d. TFCA funds may be used to fund only shuttle services to locations that are under-served and lack other comparable service. For the purposes of this policy, "comparable service" means that there exists, either currently or within the last three years, a direct, timed, and publicly accessible service that brings passengers to within one-third (1/3) mile of the proposed commercial or employment location from a mass transit hub. A proposed service will not be deemed "comparable" to an existing service if the passengers' proposed travel time will be at least 15 minutes shorter and at least 33% shorter than the existing service's travel time to the proposed destination.
- e. Reserved.
- f. Grantees must be either: (1) a public transit agency or transit district that directly operates the shuttle/feeder bus service; or (2) a city, county, or any other public agency.
- g. Applicants must submit a letter of concurrence from all transit districts or transit agencies that provide service in the area of the proposed route, certifying that the service does not conflict with existing service.
- h. Each route must meet the cost-effectiveness requirement in Policy #2. Projects that would operate in Highly Impacted Communities or Episodic Areas as defined in the Air

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District Community Air Risk Evaluation (CARE) Program, or in Priority Development Areas (PDAs), may qualify for funding at a higher cost-effectiveness limit (see Policy #2).

29. Pilot Projects:

a. Pilot Shuttle/Feeder Bus Service Projects:

These projects are new shuttle/feeder bus service routes that are at least 70% unique and where no other service was provided within the past three years. In addition to meeting the conditions listed in Policy #28.a.-h. for shuttle/feeder bus service, project applicants must also comply with the following application criteria and agree to comply with the project implementation requirements:

- i. Demonstrate the project will reduce single-occupancy vehicle trips and result in a reduction in emissions of criteria pollutants.
- ~~ii.~~ Provide data and/or other evidence demonstrating the public's need for the service, including a demand assessment survey and letters of support from potential users. Project applicants must agree to conduct a passenger survey for each year of operation.
- ~~iii.~~ Provide a written plan showing how the service will be financed in the future and require minimal, if any, TFCA funds to maintain its operation after the pilot period; documentation of plans for financing the service in the future;
- ~~iiii.~~ Provide a letter from the local transit agency denying service to the project's proposed service area, which includes the basis for denial of service to the proposed areas. The applicant must demonstrate that the project applicant has attempted to coordinate service with the local service provider and has provided the results of the demand assessment survey to the local transit agency. The applicant must provide the transit service provider's evaluation of the need for the shuttle service to the proposed area.
- iv. Pilot projects located in Highly Impacted Communities as defined in the Air District CARE Program and/or a Planned or Potential PDA may receive a maximum of three years of TFCA Funds under the Pilot designation. For these projects, the project applicants understand and must agree that such projects will be evaluated every year, and continued funding will be contingent upon the projects meeting the following requirements:
 1. During the first year and by the end of the second year of operation, projects must not exceed a cost-effectiveness of \$500,000/ton, and
 2. By the end of the third year of operation, projects must meet all of the requirements, including cost-effectiveness limit, of Policy #28.a.-h. (existing shuttles).
- v. Projects located outside of CARE areas and PDAs may receive a maximum of two years of TFCA Funds under this designation. For these projects, the project applicants understand and must agree that such projects will be evaluated every year, and continued funding will be contingent upon the projects meeting the following requirements:

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1. By the end of the first year of operation, projects shall meet a cost-effectiveness of \$250,000/ton, and
2. By the end of the second year of operation, projects shall meet all of the requirements, including cost-effectiveness limit, of Policy #28.a.-h. (existing shuttles).

b. Pilot Trip Reduction:

The project will reduce single-occupancy commute-hour vehicle trips by encouraging mode-shift to other forms of shared transportation. Pilot projects are defined as projects that serve an area where no similar service was available within the past three years, or will result in significantly expanded service to an existing area. Funding is designed to provide the necessary initial capital to a public agency for the start-up of a pilot project so that by the end of the third year of the trip reduction project's operation, the project will be financially self-sustaining or require minimal public funds, such as grants, to maintain its operation. All the following conditions must be met for a project to be eligible for TFCA funds:

- i. Applicants must demonstrate the project will reduce single-occupancy commute-hour vehicle trips and result in a reduction in emissions of criteria pollutants;
- ii. The proposed service must be available for use by all members of the public;
- iii. Applicants must provide a written plan documenting showing how the service will be financed in the future and require minimal, if any, TFCA steps that would be taken to ensure that the project will be financially self-sustaining or require minimal public funds to maintain its operation by the end of the third year;
- iv. If the local transit provider is not a partner, the applicant must demonstrate that they have attempted to have the service provided by the local transit agency. The transit provider must have been given the first right of refusal and determined that the proposed project does not conflict with existing service;
- v. Applicants must provide data and any other evidence demonstrating the public's need for the service, including a demand assessment survey and letters of support from potential users;
- vi. Pilot trip reduction projects that propose to provide ridesharing service projects must comply with all applicable requirements in policy #27.

30. Bicycle Projects:

New bicycle facility projects or upgrades to an existing bicycle facility that are included in an adopted countywide bicycle plan, Congestion Management Program (CMP), countywide transportation plan (CTP), city plan, or the Metropolitan Transportation Commission's (MTC) Regional Bicycle Plan are eligible to receive TFCA funds. Projects that are included in an adopted city general plan or area-specific plan must specify that the purpose of the bicycle facility is to reduce motor vehicle emissions or traffic congestion.

a. Bicycle Parking:

The project will expand the public's access to bicycle parking. The electronic bicycle lockers and bicycle racks must be publicly accessible and available for use by all members of the public.

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Eligible projects are limited to the following types of ~~bike parking facilities, cycle facilities for public use~~ that result in motor vehicle emission reductions:

- ~~i. Class I Bikeway (bike path), new or upgrade improvement from Class II or Class III bikeway;~~
- ~~ii. New Class II Bikeway (bike lane);~~
- ~~iii. New Class III Bikeway (bike route);~~
- ~~iv. Class IV Bikeway (separated bikeway), new or upgrade improvement from Class II or Class III bikeway;~~
- v.i. Bicycle racks, including bicycle racks on transit buses, trains, shuttle vehicles, and ferry vessels;
- vi-ii. Electronic bicycle lockers;
- vii-iii. Capital costs for attended bicycle storage facilities; and
- iv. Purchase of two-wheeled or three-wheeled vehicles (self-propelled or electric), plus mounted equipment required for the intended service and helmets.

b. Bikeways:

- i. Class I Bikeway (bike path), new or upgrade improvement from Class II or Class III bikeway;
- ii. New Class II Bikeway (bike lane);
- iii. New Class III Bikeway (bike route);
- iv. Class IV Bikeway (separated bikeway), new or upgrade improvement from Class II or Class III bikeway;

All bicycle facility projects must, where applicable, be consistent with design standards published in the California Highway Design Manual, or conform to the provisions of the Protected Bikeway Act of 2014.

31. Bike Share:

Projects that make bicycles available to individuals for shared use for completing first- and last-mile trips in conjunction with regional transit and stand-alone short distance trips are eligible for TFCA funds, subject to all of the following conditions:

- a. Projects must either increase the fleet size of existing service areas or expand existing service areas to include new Bay Area communities.
- b. Projects must have a completed and approved environmental plan and a suitability study demonstrating the viability of bicycle sharing.
- c. Projects must have shared membership and/or be interoperable with the Bay Area Bike Share (BABS) project when they are placed into service, in order to streamline transit for end users by reducing the number of separate operators that would comprise bike trips.

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Projects that meet one or more of the following conditions are exempt from this requirement:

- i. Projects that do not require membership or any fees for use, or
- ii. Projects that were provided funding under MTC's Bike Share Capital Program to start a new or expand an existing bike share program; or.
- iii. Projects that attempted to coordinate with, but were refused by the current BABS operator to have shared membership or be interoperable with BABS. Applicants must provide documentation showing proof of refusal.

Projects may be awarded FYE 2021~~0~~ TFCA funds to pay for up to five years of operations.

32. Arterial Management:

Arterial management grant applications must identify a specific arterial segment and define what improvement(s) will be made to affect traffic flow on the identified arterial segment. Projects that provide routine maintenance (e.g., responding to citizen complaints about malfunctioning signal equipment) are not eligible to receive TFCA funds. Incident management projects on arterials are eligible to receive TFCA funds. Transit improvement projects include, but are not limited to, bus rapid transit and transit priority projects. Signal timing projects are eligible to receive TFCA funds. Each arterial segment must meet the cost-effectiveness requirement in Policy #2.

33. Smart Growth/Traffic Calming:

Physical improvements that support development projects and/or calm traffic, resulting in motor vehicle emission reductions, are eligible for TFCA funds, subject to the following conditions:

- a. The development project and the physical improvements must be identified in an approved area-specific plan, redevelopment plan, general plan, bicycle plan, pedestrian plan, traffic calming plan, or other similar plan.
- b. The project must implement one or more transportation control measures (TCMs) in the most recently adopted Air District plan for State and national ambient air quality standards. Pedestrian projects are eligible to receive TFCA funds.
- c. The project must have a completed and approved environmental plan. If a project is exempt from preparing an environmental plan as determined by the public agency or lead agency, then that project has met this requirement.

Traffic calming projects are limited to physical improvements that ~~achieve reduce motor vehicle speed~~ achieve reduce motor vehicle speed emission reductions by designing and improving safety conditions for pedestrians, bicyclists or transit riders in residential retail, and employment areas.

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Committer and Organization	Comments received from County Program Managers (CPMs) between February 20 – August 28, 2019	Air District Staff's Responses
<p>Jacki Taylor, Alameda County Transportation Commission</p>	<p>Policy 2. TFCA Cost-Effectiveness</p> <p>Staff supports the proposed increases to the Cost-Effectiveness (C-E) Maximums for various project categories.</p> <p>Staff suggests also including an increase to the cost-effectiveness maximum of \$500K/ton for bike parking/storage projects to match the recent increase to \$500K/ton for new bike facilities. Although the current limit of \$250K/ton for bike parking may be sufficient to fund a good portion of the total cost of a basic bike rack project, this is not the case for lockers and other controlled-access bike parking facilities, which are needed at mass transit hubs and stations to support a commute mode shift from SOV to bikes and transit.</p>	<p>Noted. Staff will work with County Program Managers to assess the cost-effectiveness limit for bike parking facilities.</p>
	<p>Policy 8. Independent Air District Audit Findings and Determinations</p> <p>Staff suggests renaming the "Performance Audit" to "Compliance Audit" to more accurately reflect the purpose of the audit.</p>	<p>Staff revised the language to clarify the purpose of the independent Air District audit.</p>
	<p>Policy 8.b. Independent Air District Audit Findings and Determinations</p> <p>Staff suggests removing item "8b." It seems that the Air District should not reduce or withhold a CPM's future TFCA funding if a project that has been implemented is consistent with the approved scope, but does not</p>	<p>Staff removed the proposed language.</p>

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Committer and Organization	Comments received from County Program Managers (CPMs) between February 20 – August 28, 2019	Air District Staff's Responses
	<p>achieve the amount of emissions reductions estimated at the time of the award of TFCA funding. For example, under 8b., if installed EV fueling infrastructure is underutilized during the established performance period, this could result in TFCA needing to be repaid.</p>	
<p>Mike Pickford, San Francisco County Transportation Authority</p>	<p>Policy 1. Reduction of Emissions "surplus emissions" clause. Given the progressive state and city policies on emissions reductions, this restriction greatly reduces eligible projects or parts of projects that can qualify for TFCA funding.</p>	<p>Under California Health and Safety Code (HSC) sections 44220 et seq., TFCA funding shall be used solely to fund projects that reduce air pollution or achieve surplus emission reductions from motor vehicles.</p>
	<p>Policy 2. TFCA Cost-Effectiveness We are supportive of the proposed increase in the cost effectiveness limit (from \$250,000 to \$500,000) for multiple project types, however, we believe that this increase should also apply to Bike Parking. Adequate bike parking is important for encouraging active transportation for non-recreational trips. In San Francisco, costs to site and install bike racks require additional funding well beyond the maximum cost effective TFCA amount per rack.</p>	<p>Staff will work with County Program Managers to assess the cost-effectiveness limit for bike parking facilities.</p>
	<p>Policy 8.b. Independent Air District Audit Findings and Determinations We recommend deleting subsection 8b. There may be circumstances when a project fails to result in surplus emissions reductions, even though the grantee has followed the rules and implemented the project, as</p>	<p>Staff removed the proposed language.</p>

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Committer and Organization	Comments received from County Program Managers (CPMs) between February 20 – August 28, 2019	Air District Staff's Responses
	<p>designed. This subsection implies that a grantee would incur the risk of losing funds due to circumstances outside their control.</p>	
	<p>Policy 12. Planning Activities</p> <p>We recommend striking the second requirement (“directly contributing to emissions reductions”) because planning activities themselves are unlikely to result in, or directly contribute to emissions reductions. The purpose of planning activities is to support and enable project implementation and the direct nexus with the specific project is already required by the first clause.</p> <p>Planning Activities: based on the discussion here (and in many program guidelines) any pre-construction or parts of the project that do not directly relate to incremental improvement are not eligible. In order to effectively use TFCA funds, it would be beneficial to relax these requirements to be able to move forward projects that serve the emissions goals forward as a holistic project.</p>	<p>Staff revised the proposed language. Pursuant to California Health and Safety Code (HSC) section 44241, TFCA funds cannot be used for any planning activities that are not directly related to the implementation of a specific project or program.</p>
	<p>Policy 24. Alternative Fuel Heavy-Duty Vehicles and Buses</p> <p>The strict correlation to CE for these projects reduces the potential to apply for funds in a geographically constrained service area. When combined with the surplus emissions clause in policy number 1, this particularly impacts San Francisco, which has relatively clean fleets already as well as a municipal service area.</p>	<p>Noted. Staff will work with County Program Managers to assess the cost-effectiveness limit for heavy-duty vehicle projects. Pursuant to California Health and Safety Code (HSC) section 44241, the Air District must adopt cost-effectiveness criteria that maximize emissions reductions and public health benefits, thus programs and projects funded by TFCA must comply with the applicable cost-effectiveness limits set forth in the policies to ensure the maximum emissions reductions and public health benefits achievable are met.</p>

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Committer and Organization	Comments received from County Program Managers (CPMs) between February 20 – August 28, 2019	Air District Staff's Responses
	<p>However, the City's efforts to upgrade its fleets to zero emissions would arguably align with the goals of the program, which are to bring the cleanest technologies to bear on the Bay Area.</p>	
	<p>Policy 26. Alternative Fuel Infrastructure</p> <p>Additionally, the relatively poor CE performance of the infrastructure that is required to run these clean fleets provides a funding conundrum wherein the agency has to fund one to be able to apply for the other. While infrastructure does not inherently provide vehicle emissions reductions, it is required for the effective implementation of new technologies.</p> <p>We appreciated the change to the clause formerly requiring public access to charging infrastructure. However, the funding caps on this category are overly restrictive when compared to actual proposed costs of these projects for transit agency non-revenue or transit use. In a recent attempt to apply for TFCA CPM funds for this use, the resulting application would have funded less than 10% of the total project cost. We propose an increase to the funding caps and/or the CE threshold by a significant amount. While this infrastructure does not result in direct reductions of emissions, it is a necessary investment to utilize cleaner vehicles.</p>	<p>Staff will work with the County Program Managers to assess the cost-effectiveness limit of Alternative Fuel Infrastructure projects. Projects seeking greater grant support for alternative fuel infrastructure can currently qualify for funding at a higher cost-effectiveness limit by installing charging stations at multi-unit dwellings, transit stations, and park-and-ride facilities. Also, Policies 22 and 24 allow up to 100% of the TFCA Funds awarded for each vehicle to be used to pay for costs directly related to the purchase and installation of alternative fueling infrastructure and/or equipment used to power the new vehicle.</p>
	<p>Policy 28. Existing Shuttle/Feeder Bus Service and Policy 29. Pilot Projects</p>	<p>Only Pilot Shuttle/Feeder Bus Service Projects (Policy 29.a.) need to meet the conditions listed in Policy 28 in addition to its own requirements. Pilot Trip Reduction projects (Policy 29.b.) do not need to additionally meet the conditions listed in Policy 28, nor do they require a dynamic route or service.</p>

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Committer and Organization	Comments received from County Program Managers (CPMs) between February 20 – August 28, 2019	Air District Staff's Responses
	<p>Requirements in policies 28 and 29 (which requires adherence to policies in 28) make it exceptionally difficult to design an eligible project that also meets the needs of the service area. For example, 28a requires specific end points of a route, while recent Pilot Trip reduction cycles have required a dynamic route and/or schedule.</p>	
	<p>Policy 29.a.iii. Pilot Shuttle/Feeder Bus Service Projects</p> <p>We suggest either eliminating this sub-policy 29iii entirely or revising it to simply require a funding plan for service in the future. The requirement that projects must be financially self-sustaining or require minimal public funds to maintain operations may not be appropriate for all projects (e.g. projects in disadvantaged communities), but that shouldn't prohibit the pilot projects from seeking TFCA grant funding and particularly if there is a commitment from the local jurisdiction to sustain operations using identified, potential resources. Additionally, the term "minimal public funds" is not defined. "Minimal" relative to typical public transit service subsidies could be substantial.</p>	<p>Staff revised the proposed language.</p>
	<p>Policy 29.b.iii. Pilot Trip Reduction</p> <p>Similar to above, the requirements may not be appropriate for all projects and "minimal" is not defined.</p>	<p>Staff revised the proposed language.</p>

Comments Received and Staff's Responses to Draft Proposed Updates to TFCA County Program Manager Fund Policies for FYE 2021

Committer and Organization	Comments received from County Program Managers (CPMs) between February 20 – August 28, 2019	Air District Staff's Responses
<p>Bill Hough, Santa Clara Valley Transportation Authority</p>	<p>Policy 2. TFCA Cost-Effectiveness The action taken by BAAQMD at the May 1 meeting increased the CE limit for 29.b to 500,000. The FYE2021 TFCA County Program Manager should be updated to be consistent with the May 1 action.</p>	<p>Staff carried over the increased cost-effectiveness limit for Pilot Trip Reduction projects (under policy 29.b.)</p>
	<p>Policy 2. TFCA Cost-Effectiveness I would like to propose an increase in arterial management CE from \$175,000/segment to \$250,000/segment. This would keep it in line with all of the other CE revisions in other categories.</p>	<p>Staff will work with the County Program Managers to assess the cost-effectiveness limit for Arterial Management projects.</p>
	<p>Policy 8.b. Independent Air District Audit Findings and Determinations Delete item (b) for reasons stated on the call. Items A, C and D cover misuse of funds.</p>	<p>Staff removed the proposed language.</p>
	<p>Policy 12. Planning Activities Suggest saying planning is ineligible but design (such as coming up with sites for bike racks) is eligible.</p>	<p>Staff revised the proposed language. Pursuant to California Health and Safety Code (HSC) section 44241, TFCA funds cannot be used for any planning activities that are not directly related to the implementation of a specific project or program.</p>
	<p>Policy 17. Expend Funds within Two Years I would like to submit a comment regarding policy #17, which says in part <i>County Program Manager Funds must be expended within two (2) years of receipt of the first transfer of funds from the Air District to the County</i></p>	<p>California Health and Safety Code (HSC) 44242 requires any agency that receives TFCA funds to encumber and expend those funds within two years of receipt. As mentioned in the comment, a longer time period may be authorized for an eligible project at the time of application for funding. Extensions may also be</p>

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Committer and Organization	Comments received from County Program Managers (CPMs) between February 20 – August 28, 2019	Air District Staff's Responses
	<p><i>Program Manager in the applicable fiscal year. Anecdotally, based on 13 years with the TFCA CPM program, it seems as if project sponsors are taking longer to deliver projects.</i></p> <p><i>Although Policy 17 goes on to say unless a County Program Manager has made the determination based on an application for funding that the eligible project will take longer than two years to implement, it seems as if we are processing more time extensions in recent years. You might want to check your database and/or poll the other county PMs to see if this applies across the Bay Area.</i></p> <p><i>If so, you might want to extend the default to County Program Manager Funds must be expended within three (3) years.</i></p>	<p>authorized if the County Program Manager or the Air District determines that significant progress has been made on the funded project at the time of the request for extension.</p>
	<p>Policy 30. Bicycle Projects</p> <p>Per call, suggest \$250,000 for on-street, \$500,000 for off street bikeways.</p>	<p>The maximum cost-effectiveness limit for all bikeways is \$500,000/ton. County Program Managers may choose to adopt additional criteria and lower cost-effectiveness limit to their respective programs.</p>
	<p>Policy 30. Bicycle Projects and Policy 32 Smart Growth/Traffic Calming</p> <p>We also recommend that you review and increase the cost-effectiveness limit (C-E) limit in the Category 30 Bicycle and 32 Smart Growth/Traffic Calming. The limits haven't changed in many years, while it is evident that construction costs have increased substantially in recent</p>	<p>Staff will continue to work with the County Program Managers to assess the cost-effectiveness limit for Bicycle Projects and Smart Growth/Traffic Calming projects.</p>

Comments Received and Staff's Responses to Draft Proposed Updates to TFCA County Program Manager Fund Policies for FYE 2021

Committer and Organization	Comments received from County Program Managers (CPMs) between February 20 – August 28, 2019	Air District Staff's Responses
	<p>years. The TFCA amounts eligible for many bikeway and pedestrian projects have become a smaller percentage of the total project costs, due to the increase in construction costs. An review and increase to the limits will facilitate the completion of many meaningful bicycle and pedestrian projects throughout the Bay Area.</p>	
	<p>Policy 33. Smart Growth/Traffic Calming</p> <p>Policy 33 states, in part, that <i>traffic calming projects are limited to physical improvements that reduce vehicular speed by designing and improving safety conditions for pedestrians, bicyclists or transit riders in residential, retail, and employment areas.</i> This is inconsistent with the purpose of the TFCA program, which is to reduce vehicle emissions. Traffic calming measures, such as speed bumps, bulb-outs or landscaping in the roadway, lead to stop/start driving which <i>increases</i> emissions. Suggest replacing this sentence with <i>traffic calming projects are limited to improvements that reduce vehicular emissions.</i></p>	<p>Staff revised the language to emphasize the reduction of motor vehicle emissions</p>

MOBILE SOURCE COMMITTEE
MEETING OF 10/24/2019

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson David Canepa and Members
of the Mobile Source Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: October 10, 2019

Re: Diesel Free by '33: Update on Zero-Emission Medium- and Heavy-Duty Mobile
Source Technologies

RECOMMENDED ACTION

None; receive and file.

BACKGROUND

Diesel exhaust causes significant public health effects and accelerates climate change. The California Air Resources Board estimates that on-road diesel and off-road mobile engines comprise 54% of the State of California's total black carbon emissions, a short-lived climate pollutant that is contributing significantly to global climate change. Diesel air pollution is highly toxic and can have an immediate impact on the health of residents in communities where emissions are most concentrated.

Reducing emissions from the mobile source sector is an essential component of the Bay Area Air Quality Management District's (Air District) strategy to attain state and federal ambient air quality standards and meet state and local greenhouse gas reduction goals. Nearly 70% of the nitrogen oxides, reactive organic gases, and particulate matter emitted by mobile sources in the region are emitted from medium- and heavy-duty vehicles and equipment, which are primarily fueled by petroleum diesel. This category alone accounts for 36% of all anthropogenic criteria pollutant emissions in the San Francisco Bay Area.¹ Reducing diesel consumption by accelerating the wide-

¹ Air District 2017 Clean Air Plan, Emissions Inventory for year 2015. Mobile Sources include: Passenger Cars, Light-, Medium-, Light-Heavy-, Medium-Heavy-, Heavy-Heavy-Duty Trucks, School/Urban Buses, Motor-Homes, Motorcycles, Lawn & Garden Equipment, Transportation Refrigeration Units, Agricultural Equipment, Construction and Mining Equipment, Industrial Equipment, Light Duty Commercial Equipment, Trains, Off-Road Recreational Vehicles, Ships, Commercial Harbor Craft, Recreational Boats, and Airport Ground Support Equipment.

scale adoption of zero emission technologies in the Bay Area is one of the Air District's key strategies to reduce emissions from medium- and heavy-duty vehicles and equipment in the Bay Area.² While the Air District does not have regulatory authority over this sector, it administers approximately \$100 million annually in incentives that accelerate the early adoption of zero emission technologies of this type.

Launched in September 2018, Diesel Free by '33 is an Air District-led initiative, in a worldwide collaboration with city and county governments and industry and business leaders, to identify and adopt technologies that eliminate diesel combustion and black carbon emissions from all sources that affect our communities. Air District staff identified that a key pathway to achieve the goals of Diesel Free by '33 is to encourage a phased-in replacement of diesel-fueled vehicles and equipment with zero-emission technologies.

The attached report provides an updated summary of the status of these technologies based on a literature review and Air District staff's knowledge.

DISCUSSION

Diesel Free by '33, adopted by the Air District in 2018, established an aspirational goal and framework for how the region may eliminate diesel combustion emissions and black carbon from our communities. Signatories from city and county governments, and industry and business leaders, have joined the Air District and the State of California to showcase collective leadership in identifying and adopting innovative solutions to help eliminate diesel emissions.

A key component in developing pathways towards eliminating diesel emissions is the phased-in replacement of diesel-fueled vehicles and equipment with zero-emission alternatives as these new technologies become commercially available. In early 2018, the Air District completed an assessment of zero-emission technology options for replacing diesel combustion vehicles and equipment ("Diesel Free by '33: Summary of Available Zero-Emission Technologies and Funding Opportunities"). ***The zero-emissions technology landscape is advancing rapidly; based on the initial and updated assessments, zero-emissions options will be commercially available for most equipment and vehicle category types by 2033.***

The purpose of the attached update is to identify what zero-emission technology options are currently available and what may be available within the short, medium, or longer term. Identifying these options will help equipment owners and operators, fleet managers, policy makers, and other interested parties in developing their own pathway towards phasing in zero-emission technologies, thereby achieving Diesel Free by '33. The update includes a 2019 snapshot of

²Medium- and heavy-duty vehicles and equipment includes all on-road sources other than Passenger Cars and Light-Duty Trucks, and all off-road sources other than Lawn & Garden Equipment and Transportation Refrigeration Units.

commercially-available and demonstration-phase zero-emission technologies for mobile source vehicles and equipment and stationary source engines, and a discussion of applicable regulations and incentives that are supporting the accelerated drive to a zero-emissions future.

The attached report is structured by general equipment category, headed by a table with information on the technology readiness level status. For technologies that are commercially available, considerations and challenges of extensive deployment (e.g. limited offerings; operational constraints; cost parity; infrastructure availability) are briefly discussed. Readers can also find a table listing the manufacturers of zero-emission vehicles and equipment in Appendix D. For technologies that are still in the demonstration stage, selected case studies of current pilots and testing activities are described based on publicly available information.

Staff will continue to regularly update the assessment, and are currently working on an update that includes information on zero-emission technologies that replace stationary engines and light-duty vehicles. Staff will bring an updated assessment to the Committee when this work is complete, which is anticipated in early 2020.

BUDGET CONSIDERATION / FINANCIAL IMPACT

None.

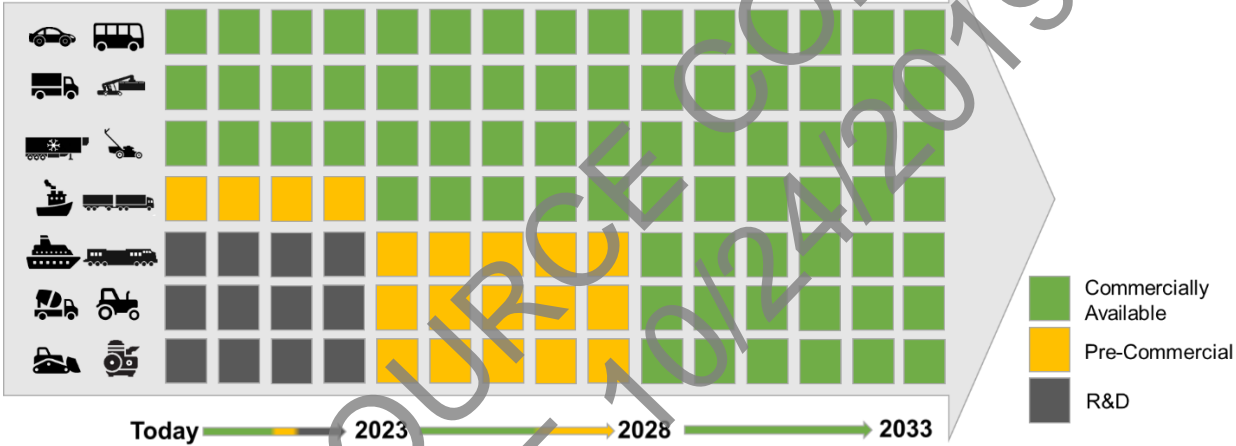
Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Sean Newlin and Amy Dao
Reviewed by: Karen Schkolnick, Chengfeng Wang, and Ken Mak

Attachment 6A: Summary of Available Zero-Emission Technologies 2.0 – Heavy Duty On Road and Off-Road Sectors

Summary of Available Zero-Emission Technologies 2.0



MOBILE SOURCE COMMITTEE
MEETING OF 10/24/2019

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MOBILE SOURCE COMMITTEE
MEETING OF 10/24/2019

I. Introduction

Diesel exhaust causes significant public health effects and accelerates climate change. The California Air Resources Board (CARB) estimates that on-road diesel and off-road mobile engines comprise 54 percent of the state of California's total black carbon emissions, a short-lived climate pollutant that is contributing significantly to global climate change. Petroleum diesel air pollution is also highly toxic and can have an immediate impact on the health of residents in communities where emissions are most concentrated.

The [Diesel Free by '33](#) initiative, adopted by the Bay Area Air Quality Management District (BAAQMD) in 2018 establishes an aspirational goal and framework for how the region may eliminate diesel emissions and black carbon from our communities. Signatories from city and county governments, and industry and business leaders, have joined the BAAQMD and the state of California to showcase collective leadership in identifying and adopting innovative solutions to eliminate diesel emissions.

A key component in developing pathways toward eliminating diesel emissions is the phased-in replacement of diesel-fueled vehicles and equipment with zero-emission alternatives as these new technologies become commercially available. In early 2018, the BAAQMD completed an assessment of zero-emission technology options for replacing diesel combustion vehicles and equipment ("Diesel Free by '33: Summary of Available Zero-Emission Technologies and Funding Opportunities"). ***The zero-emissions technology landscape is advancing rapidly; based on the initial and updated assessments zero-emissions options will be commercially available for most equipment and vehicle category types by 2033.***

The purpose of this 2.0 update is to identify what zero-emission technology options are currently available and what may be available within the short-, medium-, or longer term in order to help equipment owners and operators, fleet managers, policy makers, and other interested parties in developing their own pathway towards phasing-in zero-emission technologies, and therefore achieving Diesel Free by '33. This 2.0 update is a 2019 snapshot of commercially-available and demonstration-phase zero-emission technologies for mobile source vehicles and equipment and stationary source engines and a discussion of applicable regulations and incentives that are supporting the accelerated drive to a zero-emissions future.

The report is structured by general equipment category, headed by a table with information on the technology readiness level status. For technologies that are **commercially available**, considerations and challenges of extensive deployment (e.g. limited offerings; operational constraints; cost parity; infrastructure availability) are briefly discussed. Readers can also find a table listing the manufacturers of zero-emission vehicles and equipment in **Appendix D**. For technologies that are still in the **demonstration stage**, selected case studies of current pilots and testing activities are described based on publicly available information.

The BAAQMD will continue to provide regularly updated assessments and is currently working to expand this assessment to include zero-emission technologies that replace stationary engines and light-duty vehicles. The next phase of this work is anticipated to be completed by early 2020. It is BAAQMD's hope that the Diesel Free by '33 initiative and the information in this report will be used to spur the development and adoption of zero-emission technologies and improve air quality in both the Bay Area and globally.

II. Overview of Regulatory Framework & Incentives

Regulations and incentives are significant drivers of zero-emission technology innovation and adoption. While some regulations mandate certain sectors transition to zero-emission technologies (e.g., the Innovative Clean Transit Rule), others can have more diverse effects, such as creating new markets for innovative technologies (e.g. Low Carbon Fuel Standard) or reducing barriers for adopting new technologies.

Incentive programs reduce financial and other barriers of adoption, spur the development of prototypes and test pilots, help current owners and operators offset the incremental cost of deploying zero-emission technologies, and accelerate broader adoption of new cleaner technologies.

Regulations and incentives applicable to transitioning different equipment and vehicle types to zero-emission are shown in **Table 1** below. For a summary of these rules and regulations, see **Appendix B**. For further information on each incentive program that can fund the development and adoption of zero-emission technologies, see **Appendix C**.

Table 1. Equipment/Vehicle Type and Applicable Regulation and Incentives¹

Category	Type	Applicable Regulation	Incentive Source				
			Infrastructure only	Infrastructure & Equipment/Vehicle	Equipment/Vehicle only		
On-Road	Buses	Innovative Clean Transit Rule			TFCA	HVIP	
	Trucks	Drayage Truck Regulation					
Off-Road	Cargo Handling	Cargo Handling Equipment Regulation	LCFS	PG&E	California Climate Investments	DERA	
	Airport Ground Support	Off-Road Regulation & LSI Fleet Regulation			CEC ARFVTP		
	Construction				Carl Moyer		CORE
	Locomotive	Statewide Rail Yard Agreement			VW Mitigation Trust		
	Commercial Harbor Craft	Commercial Harbor Craft Regulation					
	Ocean Going Vessels	At-Berth Regulation & Annex VI					

¹ See Appendix B and C for further discussion of applicable regulations and incentive sources.

III. Technology Readiness Levels of Zero-Emission Vehicles and Equipment

With recent advances in battery and fuel cell technologies, a greater number of zero-emission vehicle and equipment types are becoming feasible. Table 2 summarizes the status of zero-emission technology readiness (Technology Readiness Level) for selected equipment and vehicle categories. Further information about each equipment category is discussed later in this report. For a definition of each vehicle and equipment category, see Appendix A. Technology Readiness Level stages are classified as: Technology Readiness Level stages are classified as:

- **Commercially Available:** A zero-emission technology for the particular vehicle or equipment category has been proven through successful operations and is available for purchase by relevant industry sectors with defined delivery dates.
- **Demonstration:** Either a prototype has been developed or there exists a fully-developed system that is currently going through a process of testing and demonstration in an actual operation environment.
- **Research:** Initial scientific research of a zero-emission technology has been conducted for the particular vehicle or equipment category. Elements of the technology or system components are being evaluated, and/or the potential of the zero-emission technology has been confirmed and established as feasible.
- **No Information Available:** No public information was found regarding zero-emission technologies for the given equipment or vehicle.

Table 2. Summary Status of Zero-Emissions Technologies in the Heavy-Duty Sector

Technology Readiness Level	Vehicle or Equipment Category
Commercially Available	Airport Ground Support Equipment Buses Cargo Handling Equipment Construction Equipment: <i>Stationary Cranes</i> <i>Light Payloads</i> On-Road Trucks
Demonstration	Cargo Handling Equipment: <i>Reach Stackers</i> <i>Heavy-Duty Forklifts</i> <i>Top Handlers</i> Commercial Harbor Craft Locomotives
Research	Ocean-Going Vessels
No Information Available	Construction Equipment: <i>Crawler Cranes</i> <i>Heavy Payloads</i> <i>Specialized Equipment</i>

Buses

The recent advancement of battery electric technology in the light-duty on-road vehicle sector can broadly be transferred to similar applications in medium- and heavy-duty buses. As of August 2019, there are fifteen bus manufacturers and fifty-four bus models that the state of California funds as eligible zero-emission vehicles through the HVIP program². These zero-emission buses have gained CARB certification/approval, comply with all-electric range requirements, and provide warranty provisions and definitive Manufacturer Suggested Retail Price sheets.

Table 3. Technology Readiness Level of Buses and Considerations for Widespread Adoption

Equipment	Technology Readiness Level	Considerations for Widespread Adoption
School Bus Shuttle Bus Transit Bus	Commercially Available	Cost premiums

Cargo Handling Equipment

Zero-emission alternatives are commercially available for most stationary cargo handling equipment or for equipment that operated on strictly fixed paths (due to the ability to plug-in); and for equipment that is intended to exclusively transport containers horizontally (i.e., terminal tractors and automated guided vehicles) or to vertically move only empty containers (i.e., side handler).

Table 4. Technology Readiness Levels of Cargo Handling Equipment and Considerations/Challenges

Equipment Type	Technology Readiness Level	Considerations / Challenges
Automated Guided Vehicles Ship-to-Shore Gantry Cranes Side Handlers Straddle Carriers Terminal Tractors Yard Cranes	Commercially Available	Limited Offerings Demanding Duty-Cycles High Premium
Heavy-Duty Forklifts Reach Stackers Top Handlers	Demonstration	Battery Capacity Charging Infrastructure Electricity Upgrades

Top Handler Pilot: Port of Los Angeles

CARB and California Climate Investments (CCI) are partially funding a demonstration of the first three battery-electric top handlers and one fuel-cell electric range-extended top loader at the Port of Los Angeles. The three battery-electric top handlers are manufactured by Hyster Yale Group and are expected to be in operation in spring 2020. The overall project at the Port of Long Beach also includes a

² California Air Resources Board Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP). Eligible Vehicle Catalog. www.californiahvip.org

battery-electric yard truck and a hydrogen fuel cell (HFC) yard truck³; the total cost of the project is \$8.3 million. The batteries will be lithium-ion and charge by wireless fast charger. The fuel-cell range extended top loader, which includes two 45-kW fuel cell engines built by Nuvera Fuel Cells, and its associated 250 kW wireless inductive charger built by Wireless Advanced Vehicle Electrification (WAVE) are expected to be operating in spring 2020⁴ and will cost \$8.8 million, with up to \$6.5 million of funding provided by CCI. Project partners for these pilots include the Center for Transportation and the Environment and the City of Long Beach Harbor Department.

Reach Stacker Pilot: *Port of Valencia, Spain*

An electric reach stacker with HFC a range extender is being developed for the Port of Valencia and manufactured by Hyster Yale Group Inc., with funding from the Fuel Cells and Hydrogen Joint Undertaking and European Horizon 2020 program and additional support from the H2Ports project⁵. The reach stacker is scheduled to begin operation in 2021.

Heavy-Duty Forklift Pilot: *Port of Stockton*

CARB and CCI are partially funding a demonstration of two 30,000-pound capacity battery-electric forklifts manufactured by DANNAR⁶. The total project cost for the two forklifts is \$1.2 million, of which \$770,000 is funded by CARB and CCI. The two forklifts will also be testing additional cargo handling attachments, including a scissor lift and dump truck bed. The batteries will be lithium-ion and charged by ChargePoint DC fast chargers. The project is expected to be complete in spring 2020.

Construction Equipment

Construction Equipment is a broad category with many types of equipment serving specialized tasks. Equipment types that are generally stationary and can be easily connected to the grid currently have zero-emission options commercially available. Other types of equipment that are more mobile or that may be deployed in remote locations lacking infrastructure typically rely on conventional (petroleum) fuel, although there are some early demonstrations of zero-emission technologies. With this in mind, urban applications are the most promising.

Stationary applications with the ability to plug electric equipment into the grid are uncommon for construction-type activities, with the exception of tower-cranes, which are typically electric. The most significant restriction with battery-electric equipment is the power-demand during heavy lifting or excavating/earth-moving activities. Hybrid applications have been developed where equipment utilize lithium-ion batteries to move the equipment wheels but use a diesel engine to operate the hoist, lift, bucket, arm, etc.

³ California Air Resources Board. "C-PORT: The Commercialization of Port of Long Beach Off-Road Technology Demonstration Project" https://ww3.arb.ca.gov/msprog/lct/pdfs/longbeachoffroad.pdf?_ga=2.244551500.896765447.1565191950-520522063.1534345374

⁴ California Air Resources Board. "Demonstration of Zero-Emission Technologies for Freight Operations at Ports: Fuel Cell Hybrid Electric Top Loader" https://ww3.arb.ca.gov/msprog/lct/pdfs/fuelcelltoploader.pdf?_ga=2.242920267.896765447.1565191950-520522063.1534345374

⁵ Hyster Yale Group. Inc. Press Release.

<https://www.hyster.com/emea/en%2%80%90gb/press/press%2%80%90releases/hyster-electric-container-handlers-progress/>

⁶ California Air Resources Board. "San Joaquin Valley Zero-Emission Cargo Handling Demonstration Project" https://ww3.arb.ca.gov/msprog/lct/pdfs/sjcarehandling.pdf?_ga=2.138649850.896765447.1565191950-520522063.1534345374

Table 5. Technology Readiness Levels of Construction Equipment and Considerations/ Challenges

Equipment Type	Technology Readiness Level	Considerations / Challenges
Boom Lifts Concrete Mixers Dumpers Loaders Mini Cranes Mini Excavators Tippers Tower Cranes	Commercially Available	Charging Availability in Remote Locations Battery Size Limited Applications
Dozers Excavators Graders	Demonstration	High Power Demands Highly Specialized Equipment Types
Crawler Cranes Crushers Pavers Rollers Scrapers Trenchers	No Information Available	High Power Demands Highly Specialized Equipment Types

Early stage demonstration projects are taking place in North America and Europe. Two of these demonstrations are described below:

Early stage demonstration projects are taking place in North America and Europe. Two of these demonstrations are described below:

Grader Demonstration: Borden Lake Mine, Canada

In spring 2018, as part of a larger effort at GOLDCORP’s Borden Lake Mine in Canada to transition to 100% electric, MacLean Engineering commissioned MEDATECH to manufacture a retrofit to an existing motor grader to convert the equipment to battery-electric⁷.

Excavator Demonstration: Gjellerasen, Norway

Norway’s Pon Equipment retrofitted a 26-ton Caterpillar 323 Hydraulic Excavator to an entirely battery-electric power system^{8,9}. The excavator has a 3.4-ton, 300 kwh battery. Norwegian company Veidekke placed an order for eight retrofitted electric excavators.

Airport Ground Support Equipment (GSE)

The relatively light payloads of GSE, along with the short distances travelled and availability of electrical infrastructure where these equipment types operate mean most equipment in this category are good candidates for electrification. However, airport tarmacs are highly trafficked and charging equipment will need to be wireless and/or located away from areas where they may be inadvertently damaged. GSE can also be highly specialized, which means many different prototypes and demonstrations may be needed to prove to operators that their needs are met for each application.

⁷ MEDATECH. Press Release.

<https://medatech.ca/battery-electric-retrofit-of-diesel-grader-for-goldcorp-borden-lake/>

⁸ <https://insideevs.com/news/342491/pon-equipment-reveals-electric-caterpillar-excavator/>

⁹ <https://electrek.co/2019/01/29/caterpillar-electric-excavator-giant-battery-pack/>

Table 6. Technology Readiness Levels of Airport Ground Support Equipment and Considerations/Challenges

Equipment Type	Technology Readiness Level	Considerations / Challenges
Air Conditioners Baggage Tractors Belt Loaders Hydrant Carts Lavatory Trucks Passenger Stands Pushbacks Water Trucks	Commercially Available	Demanding duty cycles Battery size
Cargo Tractors Catering Trucks Fuel Truck Sweepers	Demonstration	Highly specialized equipment types
Air Starts De-Icers Service Trucks	No Information Available	Highly specialized equipment types

On-Road Trucks

As of 2019, there are three models of zero-emission on-road heavy-duty trucks available. Lion Electric Co. and BYD offer battery-electric tractors and a refuse truck. The tractors have an advertised range of up to 250 miles and 125 miles (full load) and are advertised as appropriate for short-haul or local operations but not for long-haul trucking^{10,11}.

For long-haul operations, four other manufacturers have released prototypes and are testing zero-emission Class 8 trucks. Tesla is accepting orders along with financial deposits for their vehicles. However, no manufacturer has released a specified delivery date. Several companies are already in a testing phase for their zero-emission long-haul trucks in operational environments. Publicly announced information about vehicle availability is summarized in **Table 8**.

For long-haul operations, four other manufacturers have released prototypes and are testing their zero-emission Class 8 trucks. Tesla is accepting orders along with financial deposits for their vehicles. However, neither company has given a specified delivery date. Several companies are already in testing zero-emission long-haul trucks in their operations when these vehicles become available. Publicly announced information about vehicle availability is summarized in **Table 8**.

¹⁰ Lion Electric Co. website. https://thelionelectric.com/documents/en/LION8_specsheet.pdf

¹¹ BYD website. <https://en.byd.com/truck/#models>

Table 7. Technology Readiness Levels of On-Road Trucks and Considerations/ Challenges

Equipment Type	Technology Readiness Level	Considerations / Challenges
Refuse Tractor Trucks	Commercially Available	Limited offerings Range Recharging times
Long-haul Trucks	Demonstration	Range Charging / fueling infrastructure

Table 8. Summary of Class 8 Long-Haul Trucks in Development

Manufacturer Model	Estimated Range	Powertrain	Production Date Target
Tesla Semi ¹²	500 miles	Battery Electric	End of 2020
Daimler eCascadia ¹³	250 miles	Battery Electric	End of 2021
Nikola One and Two ¹⁴	500-750 miles	Fuel Cell Electric	2022
Toyota/Kenworth Project Portal ¹⁵	300 miles	Fuel Cell Electric	No information announced

Commercial Harbor Craft

There are multiple early demonstrations of zero-emission commercial harbor craft currently taking place and commercial availability is expected to occur quickly following successful completion of these demonstrations. Demonstrations include both battery-electric and HFC technologies; battery electric systems are being tested for shorter duration, high-power applications, while HFC are being applied to longer routes.

Table 9. Technology Readiness Levels of Commercial Harbor Craft and Considerations/ Challenges

Equipment Type	Technology Readiness Level	Considerations / Challenges
Commercial Fishing Ferries Tugboats Workboats	Demonstration	Cost Fueling
Excursion Vessels Pilot Boats Research Vessels	Research	Space constraints
Crew and Supply Vessels Charter Fishing	No Information Available	

¹² Tesla Semi website. <https://www.tesla.com/semi>

¹³ Daimler/Freightliner website. <https://www.daimler.com/innovation/case/electric/electric-buses-and-trucks.html>

¹⁴ Nikola Motor website. <https://nikolamotor.com/motor>

¹⁵ Motor Authority. "Toyota and Kenworth Reveal First Fuel Cell Electric Truck Ready to Haul Cargo." https://www.motorauthority.com/news/1122730_toyota-and-kenworth-reveal-first-fuel-cell-electric-truck-ready-to-haul-cargo

There are currently multiple zero-emission ferries and tugboats, an inland barge, and a fishing vessel, under development in California, Alabama, New York, Europe and Japan¹⁶. California and the European Union demonstrations of HFC vessels, utilizing compressed gas and liquid hydrogen, are described below.

There are currently multiple zero-emission ferries and tugboats, an inland barge, and a fishing vessel, under development in California, Alabama, New York, Europe and Japan¹⁷. California and the European Union demonstrations of HFC vessels, utilizing compressed gas and liquid hydrogen, are described below.

HFC Ferry Demonstration- California: Water-Go-Round

CARB and BAAQMD have awarded \$3 million for the development and testing of an HFC ferry that will demonstrate both passenger and freight services in the San Francisco Bay. The 70-foot vessel was designed by Incat Crowther and built by Bay Ship & Yacht; the three 120 kW fuel cells were from Hydrogenics; and the fuel cell electric propulsion system was manufactured by BAE Systems. Golden Gate Zero Emission Marine provided project management, and Sandia National Laboratories will provide data analysis and hydrogen safety training. The Water-Go-Round is expected to have enough hydrogen storage capacity to power up to two days of normal operations. The project began in May 2018 and is expected to begin operations in Fall 2019¹⁸.

HFC Ferry Demonstration- Europe: FLAGSHIPS

The E.U.'s Research and Innovation program awarded 5 million Euros (\$5.6 million) for the development and testing of two liquid-hydrogen-powered vessels. In Norway, the HFC ferry will carry up to 299 passengers and 80 cars in the local public transit network; in France, the HFC push boat will operate under commercial shipping conditions. The vessels will be designed by LMG Marin and manufactured by ABB; fuel cell technology will be provided by Ballard Europe, and energy monitoring and management will be provided by PersEE. The HFC ferry is expected to have enough capacity for over three tons of liquid hydrogen, fueling three weeks of normal operations. The project started on January 1, 2019 with operations expected to start in 2021¹⁹.

¹⁶ California Air Resources Board. "Technology Assessment: Commercial Harbor Craft"
https://ww3.arb.ca.gov/msprog/tech/techreport/draft_chc_technology_assessment.pdf?_ga=2.72114195.1642215430.1563896364-592388194.1562085676
<https://www.electrive.com/2019/05/23/ballard-abb-developing-fc-tugboat/>
<https://alabamane.wscenter.com/2019/02/15/gees-bend-has-the-nations-first-electric-ferry/>
https://www.electricandhybridmarineworldexpo.com/en/industry-news.php?release=de7f47e09c8e05e6021ababdf6bc58e7&utm_source=mailing&utm_medium=email
<https://corvusenergy.com/projects/karoline-2/>
<https://safety4sea.com/japan-toyota-to-build-fishing-boat-powered-with-hydrogen-fuel-cells/>

¹⁷ California Air Resources Board. "Technology Assessment: Commercial Harbor Craft"
https://ww3.arb.ca.gov/msprog/tech/techreport/draft_chc_technology_assessment.pdf?_ga=2.72114195.1642215430.1563896364-592388194.1562085676
<https://www.electrive.com/2019/05/23/ballard-abb-developing-fc-tugboat/>
<https://alabamane.wscenter.com/2019/02/15/gees-bend-has-the-nations-first-electric-ferry/>
https://www.electricandhybridmarineworldexpo.com/en/industry-news.php?release=de7f47e09c8e05e6021ababdf6bc58e7&utm_source=mailing&utm_medium=email
<https://corvusenergy.com/projects/karoline-2/>
<https://safety4sea.com/japan-toyota-to-build-fishing-boat-powered-with-hydrogen-fuel-cells/>

¹⁸ California Air Resources Board. "Zero-Emission Hydrogen Ferry Demonstration Project"
<https://ww3.arb.ca.gov/msprog/lct/pdfs/hydrogenferry.pdf>

¹⁹ <https://www.maritime-executive.com/article/hydrogen-fuel-cell-vessels-destined-for-france-and-norway>

Ocean Going Vessels

The current conversation on zero-emission technologies for ocean going vessels going completely zero-emission is focused on first proving technologies for smaller zero-emission marine vessels. Reducing the use of the auxiliary engines while at berth (shore power) or the electrification of at-berth operations has been in commercial operations for approximately a decade.

Based on research calculations, a large containership has available space for an HFC powerplant, and the necessary power and energy requirements for cross-ocean routes can be met using liquid hydrogen²⁰.

Table 10. Technology Readiness Level of Ocean Going Vessels and Considerations/ Challenges

Equipment Type	Technology Readiness Level	Challenges
Cargo ships Container ships	Research	Infrastructure Transportation and storage of hydrogen fuel

For current demonstrations of HFC powered ferries and tugboats, see section *Commercial Harbor Craft*.

Locomotives

Although varieties of electric passenger trains are currently commercially available, including over-head catenary electric locomotives and self-propelled electric trains, these technologies are not currently functional in freight applications, due to the necessary overhead clearance or, in the case of self-propelled cars, the lack of power necessary for freight locomotive applications. Additionally, the high cost per mile of deploying electric rail and catenary systems inhibits these applications for long haul operations.

Table 11. Technology Readiness Level of Locomotives and Considerations/ Challenges

Equipment Type	Technology Readiness Level	Considerations / Challenges
Locomotive for Long-haul Switcher Locomotive	Demonstration	Limited applications High cost of infrastructure

Though no full zero-emission prototype for long haul freight and passenger service was found, CARB is demonstrating a zero-emission local (switchyard) locomotive, as well as a single battery-electric locomotive paired with diesel locomotives (a consist) for line-haul operations.

Though no full zero-emission prototype for long haul freight and passenger service was found, CARB is demonstrating a zero-emission local (switchyard) locomotive, as well as a single battery-electric locomotive paired with diesel locomotives (a consist) for line-haul operations.

Switchyard: Zero-Emission Track-Miles Locomotive Project

In October 2018, CARB and the South Coast Air Quality Management District (SCAQMD) announced \$2.7 million of funding for a zero-emission switcher locomotive at the San Pedro Ports. Originally slated as a natural gas-powered project, the transition to battery electric will demonstrate a zero-emission locomotive repower²¹. VeRail Technologies will build the 2,100 hp six-axle switcher locomotive, which features a redesigned cooling system, a new battery mounting system and control computer, and 2.89 MWh of battery storage capacity anticipated to be capable of working a full 12-hour shift before needing to charge. Testing is expected to run through 2020²².

Consist Long Haul Freight: San Joaquin Valley Zero and Near-Zero Emission Enabling Freight Project

In March 2019, CARB and the San Joaquin Valley Air Pollution Control District (SJVAPCD) announced funding for a battery-electric locomotive (BEL), which will power a freight train between Stockton and Barstow. The BEL will be paired with diesel locomotives in a “consist”, or a sequence of connected locomotives, and is expected to result in overall fuel savings of 10-15%. The unit is anticipated to maintain full horsepower for 30 minutes per given charge, allowing zero-emission operations in populated areas where air quality impacts are of concern.

GE Transportation will develop and build the BEL, which will include a new cooling system, 2.4 MWh of battery storage, trip-optimizing software with automated cruise control, and AC Traction System Inverters capable of recharging the battery²³. Demonstration is expected to begin in 2020.

²¹ San Pedro Ports Clean Air Action Plan. “2018 ANNUAL REPORT AND 2019 PRIORITIES Technology Advancement Program”

<http://www.cleanairactionplan.org/documents/2018-tap-annual-report.pdf/>

²² California Air Resources Board. “Zero-Emission Track-Miles Locomotive Project”

https://ww3.arb.ca.gov/msprog/lct/pdfs/zelocomotive.pdf?_ga=2.96202332.1103824982.1564087744-1670947689.1557852817

²³ GE Transportation. Press release. <https://www.ge.com/reports/leading-charge-battery-electric-locomotives-pushing-us-freight-trains/>

Appendix

Appendix A: Descriptions of Vehicle or Equipment Type

Below are brief descriptions of each of the vehicle or equipment types discussed in this report.

Airport Ground Support Equipment

Airport Ground Support Equipment (GSE) are portable equipment that operate at airports and service the various needs of aircrafts. Examples of GSE include baggage tractors, belt loaders, cargo lifts, pushback tractors, catering trucks, fuel trucks, lavatory trucks, sweepers, water trucks, de-icers and other service vehicles. Conventional GSE are diesel, gasoline or compressed natural gas (CNG) powered.

Buses

Buses are typically 35 to 45 ft. in length (or longer) and are primarily used to transport passengers. Buses can range in size from small shuttles with seating for 10 to 20 passengers, to school and transit buses that can seat 40 to 80 passengers, to articulated and double-decker buses that can carry over 200 passengers.

Cargo Handling Equipment

Cargo handling equipment (CHE) move containers, materials, and other cargo at ports and intermodal facilities to and from various container storage areas and transport modes. Examples of CHE include terminal tractors (aka yard hostlers/yard goats) that ferry containers around a facility; top handlers, side handlers, reach stackers and heavy-duty forklifts, which are all used to lift, stack, and load empty and full cargo containers; yard cranes (such as rubber-tired and rail-mounted gantry cranes); straddle carriers which transport, stack, and load containers; and ship-to-shore gantry cranes which load and unload containers onto and off of vessels. CHE has historically been powered by diesel combustion engines.

Commercial Harbor Craft

Commercial harbor craft means any private, commercial, government, or military marine vessel, including, but not limited to: passenger ferries, excursion vessels, tugboats, ocean-going tugboats, towboats, push-boats, crew and supply vessels, pilot vessels, fishing vessels, research vessels, U.S. Coast Guard vessels, hovercraft, emergency response harbor craft, and barge vessels that do not otherwise meet the definition of ocean-going or recreational vessels.

Construction Equipment

Construction equipment broadly consists of equipment that is used to erect and demolish buildings; grade and pave roads; dig, excavate, and mine; transport earth and other materials; and many other activities. Construction equipment varies widely in size, payload capacity, power, and application, and includes equipment such as dozers, graders, excavators, scrapers, loaders, trenchers, cranes, rollers, mixers, crushers, lifts, tipplers and dumpers. Construction equipment is largely powered by diesel combustion engines.

Locomotive

A locomotive is a self-propelled vehicle used to push or pull trains. The combination of locomotive(s) pulling freight or passenger railcars forms a train. Coupled self-propelled cars that form a train (i.e., Electric Multiple Units) are not locomotives.

Ocean Going Vessel

An ocean-going vessel is a commercial ship that is equal to or greater than 400 feet in length, is equal to or greater than 10,000 gross tons, is propelled by a marine compression ignition engine with a displacement of greater than or equal to 30 liters per cylinder, or is any combination of the above.

Trucks

Heavy-duty trucks are large motor vehicles that are primarily used to transport goods and equipment and have a GVWR of 26,001 lbs. and above (class 7 and 8).

MOBILE SOURCE COMMITTEE
MEETING OF 10/24/2019

Appendix B: Applicable Regulations

Below are brief summaries of applicable regulations for vehicles and equipment discussed in this report operating in California.

Mobile Cargo Handling Equipment Regulation

California Code of Regulations, title 13, section 2479 (13 CCR 2479)

Adopted by CARB in 2005, the Mobile CHE Regulation was fully implemented at the end of 2017. The Mobile CHE Regulation requires newly purchased yard trucks (aka terminal tractors, yard hostlers, yard goats) and other equipment brought onto a port or intermodal rail yard to have either a Tier 4 Final off-road engine or a Model Year (MY) 2010 or newer on-road engine. CARB is considering changes to the Mobile CHE Regulation that would require a transition to new zero-emission technologies and facility infrastructure as guided by CARB resolution 17-8, which directed CARB staff to develop new regulatory requirements for CHE that will require up to 100% zero-emissions technologies at ports and intermodal railyards by 2030.

In-Use Off-Road Diesel-Fueled Fleets Regulation

California Code of Regulations, title 13, section 2449 (13 CCR 2449)

In 2007, CARB adopted the Regulation for In-Use Off-Road Diesel-Fueled Fleets (Off-Road Diesel Regulation) to reduce diesel-particulate matter (PM) and oxides of nitrogen (NOx) emissions from construction, mining, industrial, and other sectors. The Off-Road Diesel Regulation applies to a) vehicles with off-road engines of 25 bhp or greater and b) 2-engine cranes, drilling rigs, and vehicles with auxiliary engines greater than 50 bhp. The regulation restricts idling and requires all new engines to be Tier 3 or higher for large and medium fleets. Small fleets must add tier 3 or higher starting January 1, 2023.

Off-Road Large Spark-Ignition Engines Regulation

California Code of Regulations, title 13, section 2431 (13 CCR 2431)

CARB adopted rules in 2006 (and amended them in 2010 and 2016) for large spark-ignited-engine powered equipment 25 hp or greater, including but not limited to: forklifts, industrial tow tractors and sweepers/scrubbers, and airport GSE. The Off-Road Large Spark-Ignition Engines Regulation requires operators of in-use fleets to achieve fleet average emission level (FAEL) standards that become more stringent over time. FAEL standards vary and are specific to large, mid-size and non-forklift fleets.

Statewide Rail Yard Agreement to Reduce PM at California Rail Yards

CARB, Union Pacific Railroad Company, Burlington Northern, and Santa Fe Railway Company entered into the Statewide Rail Yard Agreement to Reduce Diesel PM at California Rail Yards (Rail Yard Agreement), effective June 30, 2005. The purpose of the Rail Yard Agreement is to reduce diesel emissions in and around rail yards in California by implementing idle-reduction programs and through the evaluation and development of measures to further reduce impacts on local communities. The regulation also requires that parties maximize locomotive use of ultra-low sulfur diesel, and establish a visible emissions reduction and repair program.

Commercial Harbor Craft Regulation

California Code of Regulations, title 13, section 2299.5 (13 CCR 2299.5)

The Emission Limits and Requirements for Diesel Engines on Commercial Harbor Craft Operated within California Waters and 24 Nautical Miles of the California Baseline Regulation (Commercial Harbor Craft Regulation) was adopted in 2007 to reduce emissions of diesel PM, NOx and reactive organic gases

(ROG) from diesel engines used on commercial harbor craft in California waters (within 24 nautical miles of the California coast). The rule was amended in 2010 and will be fully implemented by the end of 2022. The Regulation requires that all newly-acquired engines for in-use harbor craft meet the Tier 2 or Tier 3 marine or off-road standards; New ferries with capacity of 75 or more passengers are required to install best available control technology (BACT) on the propulsion engines or meet Tier 4 standards. Harbor craft with existing Tier 1 and earlier must meet Tier 2 or Tier 3 standards based on their compliance schedules.

Low Carbon Fuel Standard Regulation

California Code of Regulations, title 17, sections 95480-95503 (17 CCR 95480-95503)

The Low Carbon Fuel Standard (LCFS) was first adopted in 2009 (re-adopted in 2015 and amended in 2018) with the purpose of reducing the full fuel-cycle carbon intensity (CI) of the fuel used for transportation in California by at least 20% by 2030. The LCFS sets well-to-wheels CI benchmarks for fuel production, distribution and consumption. Fuels either generate credits or deficits depending on their CI, relative to the benchmark. LCFS credits can also be earned by increasing zero-emission vehicle (ZEV) infrastructure capacity (hydrogen or ZEV fast charging). Electric vehicles, trucks, electric transit systems, electric forklifts, electric CHE, electric transportation refrigeration units (TRUs), and shore power are all eligible to generate credits. Electric Distribution Utilities (EDU) can also earn “base” credits for all residential charging accomplished using the grid average CI, and the load-serving entity, auto manufacturer, or another entity may generate “incremental” credits for supplying metered, low-CI electricity or smart charging to those residences. The person who owns the hydrogen fueling supply equipment or the hydrogen forklift fleet is eligible to generate credits for hydrogen fueling.

Innovative Clean Transit Rule

California Code of Regulations, title 13, section 2023 (13 CCR 2023)

Adopted by CARB in December 2018, the Innovative Clean Transit Rule (ICT) requires all public transit agencies to transition to 100% zero-emission bus fleets by 2040, with transition requirements varying by transit agency fleet size, utilization, and location. The rule requires zero-emission buses to be 25% of new purchases beginning in 2023 for large transit agencies, and 100% of transit agency new bus purchases beginning in 2029, including standard, articulated, over-the-road, double-decker, and cutaway buses over 14,000 gross vehicle weight rating (GVWR).

Drayage Trucks Regulation

California Code of Regulations, title 13, section 2027 (13 CCR 2027)

The In-Use On-Road Diesel-Fueled Heavy-Duty Drayage Trucks Regulation (Drayage Truck Regulation) was adopted by CARB in December 2017. The existing regulation applies to all drayage trucks in California that transport cargo to and from ports and intermodal rail yards in the state. Drayage trucks are class 7 or 8 vehicles with GVWR greater than 26,000. The existing regulation requires the registration of drayage trucks in the Drayage Truck Registry and requires Class 7 and 8 truck owners to either have trucks with an engine model year 2010 or newer, or meeting 2010 engine emission standards, by 2022, in order to enter ports and rail yards in the state. CARB is currently considering adopting a new regulation or amending the existing regulation to direct a transition to zero-emission operations beginning in 2026-2028.

California At-Berth Regulation

California Code of Regulations, title 17, section 93118.3 (17 CCR 93118.3)

The Airborne Toxic Control Measure for Auxiliary Diesel Engines Operated on Ocean-Going Vessels At-Berth in a California Port (California At-Berth) regulation was approved by CARB in December 2007.

Beginning January 1, 2014, the regulation requires onboard auxiliary diesel engines for fleets visiting the Port of Hueneme, Port of Los Angeles, Port of Long Beach, Port of Oakland, Port of San Diego, or Port of San Francisco to meet increasingly stringent operational time limits and reductions of their vessels' on-board power generation. Fleets can achieve compliance with the regulation by plugging their vessels into shore power, also known as cold-ironing, or otherwise utilizing alternative control technology to achieve equivalent emission reductions.

MOBILE SOURCE COMMITTEE
MEETING OF 10/24/2019

Appendix C: Applicable Incentives

Below are brief summaries of some available incentives, as of August 2019, for zero-emission vehicles and equipment discussed in this report.

Local

Transportation Fund for Clean Air (TFCA): San Francisco Bay Area

Transportation Fund for Clean Air (TFCA) revenues are collected from a \$4 surcharge fee on vehicles registered in the Bay Area, to fund cost-effective projects that reduce on-road motor vehicle emissions. BAAQMD administers the program, providing incentives for clean air vehicle projects and trip reduction programs. For further detail, visit:

<http://www.baaqmd.gov/funding-and-incentives/funding-sources/regional-fund>

PG&E Clean Fleets: Northern California (PG&E Service Areas)

PG&E provides rebates for eligible customers developing on-site charging for heavy duty vehicles and equipment. Rebates vary at up to 50% or \$42,000 for 150kW and above chargers, or up to \$9,000 per vehicle or equipment for infrastructure upgrade (25 vehicle limit per site). For further information, visit:

https://www.pge.com/en_US/large-business/solar-and-vehicles/clean-vehicles/ev-fleet-program/ev-fleet-program.page

State of California

HVIP

The Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP) provides point-of-sale discounts to vehicle purchasers. HVIP works directly with dealers to apply the voucher incentive at the time of purchase. Eligible funding recipients are any commercial vehicle user in California. Commercial vehicles include but are not limited to: municipal fleets, small businesses, school districts and more. Incentive levels for zero-emission vehicles with a GVWR >26,000 lbs range from \$71,000 to \$220,000. For further detail, visit: <https://www.californiahvip.org/>

Carl Moyer Program

Carl Moyer Program

The Carl Moyer Memorial Air Quality Standards Attainment Program (Carl Moyer Program) provides grant funding for cleaner-than-required engines, equipment, and other sources of air pollution. The Carl Moyer Program is implemented as a partnership between CARB and California's 35 local air districts. Eligible equipment includes medium and heavy-duty on-road and off-road vehicles and equipment, marine vessels, and locomotives. For more information, visit: <https://ww2.arb.ca.gov/our-work/programs/carl-moyer-memorial-air-quality-standards-attainment-program>

AB617 Community Air Protection Incentives

The Community Air Protection Program (CAPP) was established after the passage of Assembly Bill 617 and focuses on the reduction of exposure to air pollution in the most vulnerable communities. Strategies to address poor air quality in impacted communities include providing incentives for mobile sources. CAPP incentives are administered by local air districts through the Carl Moyer Program. For further information, visit: <https://ww2.arb.ca.gov/our-work/programs/community-air-protection-program>

Clean Off-Road Equipment (CORE) Voucher Incentive Project

The CORE project is a \$40 million market acceleration program to advance the deployment of zero-emission off-road freight equipment. CORE provides equipment purchasers and lessees with attractive point-of-sale discounts toward the purchase of zero-emission off-road freight equipment, making costs comparable to their traditional fossil-fueled counterparts.

<https://ww2.arb.ca.gov/news/california-air-resources-board-announces-new-incentive-program-clean-road-freight-and-cargo>

California Climate Investments

CCI is a statewide initiative that invests proceeds from cap-and-trade into greenhouse gas emission reductions. SB 862 established continuous appropriations of 60 percent of the available proceeds to certain transportation and sustainable communities programs, including local and regional public transit and low carbon transportation. For further information, visit:

<http://www.caclimateinvestments.ca.gov/sustainable-communities-clean-transportation>.

Alternative and Renewable Fuel and Vehicle Technology Program

The California Energy Commission (CEC) strategically invests to close gaps in the development and deployment of alternative and renewable fuels, and advanced transportation technologies, through the Alternative and Renewable Fuel and Vehicle Technology Program (ARFVTP). Solicitations vary and are posted periodically, rather than on an ongoing basis. For further detail, visit:

<https://ww2.energy.ca.gov/contracts/transportation.html>

US Federal

FTA Low or No Emission Vehicle Program

The Federal Transportation Authority's (FTA) Low or No Emission Competitive program provides funding to state and local governmental authorities for the purchasing or leasing of zero-emission transit buses, as well as acquisition, construction, and leasing of required supporting facilities, such as fueling infrastructure. For further details, visit: <https://www.transit.dot.gov/funding/grants/lowno>

EPA Clean Diesel and DERA Funding

The Environmental Protection Agency's (EPA) Clean Diesel Program provides funding for projects that reduce harmful emissions from diesel engines. This program includes grants and rebates funded under the Diesel Emissions Reduction Act (DERA). The 2020 request for applications is planned to open in December 2019. For further information, visit: <https://www.epa.gov/cleandiesel>

Congestion Mitigation and Air Quality Improvement Program

Administered by the Federal Highway Administration (FHWA), the Congestion Mitigation and Air Quality Improvement Program (CMAQ) program provides funding to areas that face nonattainment for the National Ambient Air Quality Standards (NAAQS). Eligible activities include diesel retrofits, installation of diesel emission control technology on nonroad diesel equipment or on-road diesel equipment that is operated on highways.

Appendix D: Manufacturers of Zero-Emission Vehicles and Equipment

Below are tables listing the manufacturers of zero-emission vehicles and equipment. All information below was obtained from CARB's Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP) eligible vehicle catalogue.²⁴

On-Road

Buses, School Manufacturer and Number of Models by Length			
OEM	<30 feet	30-40 feet	>40 feet
Blue Bird		4	1
Green Power		1	
Lion Electric		4	
Micro Bird	1		
Motiv Power System	1	1	
Thomas Built		1	
Phoenix	1		

Buses - School Manufacturer and Number of Models by Length			
OEM	<30 feet	30-40 feet	>40 feet
Blue Bird		4	1
Green Power		1	-
Lion Electric		4	-
Micro Bird	1	-	-
Motiv Power System	1	1	-
Thomas Built		1	-
Phoenix	1	-	-
TOTAL	3	11	1

Buses- Shuttle, Coach, and Transit Manufacturer and Number of Models by Length			
OEM	<30 feet	30-40 feet	>40 feet
BYD Motors	1	5	3
El Dorado National		2	
Gillig	1	2	
GreenPower Motor Company	1	3	1

²⁴ HVIP Eligible Vehicle Catalogue. <https://www.californiahvip.org/how-to-participate/#Eligible-Vehicle-Catalog>

Lightning Systems	2		
Micro Bird	1		
Motiv Power Systems	1		
New Flyer		3	2
Phoenix	2		
Proterra		5	7
SEA Electric	1		
Zenith Motors	1		
TOTAL:	11	20	13

Tractor and Yard Tractor Manufacturer and Number of Models by Gross Cargo Weight Rating			
OEM	54,600 Lbs.	81,000 Lbs.	>100,000 Lbs.
BYD Motors	-	-	2
Kalmar Ottawa	-	1	
Lion Electric	1	-	-
Orange EV	-	2	-
TOTAL	1	3	2

Trucks and Refuse Trucks Manufacturer and Number of Models by Gross Vehicle Weight			
OEM	<14,000	14,000-26,000	>26,000
BYD Motors		3	2
Lightning Systems		1	
Motiv Power Systems		3	1
Phoenix		2	
SEA Electric		1	
Workhorse Group		1	
Xos		1	
Zenith Motors	2		
TOTAL:	2	12	3

Tractor and Yard Tractor Manufacturer and Number of Models by Gross Cargo Weight Rating (lbs)			
	54,600	81,000	>100,000
BYD Motors			2
Kalmar Ottawa		1	
Lion Electric	1		
Orange EV		2	
TOTAL:	1	3	2

Off-Road

Equipment Type	Technology Readiness Level	Manufacturer or Further Detail
Airport Ground Support		
Air Conditioner	Commercial	TLD ²⁵
Baggage Tractor	Commercial	Charlotte, Harlan, TUG Technologies Corporation, Eagle ²⁶
Belt Loader	Commercial	Charlotte, TLD, Hercules ²⁷
Cargo Loader / Lift	Commercial	TLD, JBT Corporation ²⁸
Cargo Tractor	Demonstration	A 90-day pilot was completed on an electric cargo tractor by Charlotte America in 2011 ²⁹ .
Catering Truck	Demonstration	A demonstration electric catering vehicle by Doll ³⁰
Hydrant Cart	Commercial	Westmor ³¹
Lavatory Truck	Commercial	Charlotte ³²
Passenger Stand	Commercial	TLD ³³

²⁵ Aero Specialties Ground Support Equipment

<https://www.aerospecialties.com/aviation-ground-support-equipment-gse-products/pre-conditioned-air-service/tld-ace-302-emp-24-ton-air-conditioning-unit/>

²⁶ National Renewable Energy Laboratory. "Electric Ground Support Equipment at Airports"

https://afdc.energy.gov/files/u/publication/egse_airports.pdf

²⁷ Ibid.

²⁸ Ibid.

²⁹ TLD.

<https://www.tld-group.com/news/part-green-strategy-klm-awarded-tld-replacement-lower-deck-loader-full-electric-fleet-recognizing-performance-txl-838-regen/>

³⁰ National Renewable Energy Laboratory. "Electric Ground Support Equipment at Airports"

https://afdc.energy.gov/files/u/publication/egse_airports.pdf

³¹ Westmore.

<https://westmor-ind.com/wp-content/uploads/2017/10/Hydrant-Servicers-WMLT2081ENWB-02.pdf>

³² National Renewable Energy Laboratory. "Electric Ground Support Equipment at Airports"

https://afdc.energy.gov/files/u/publication/egse_airports.pdf

³³ TLD.

Equipment Type	Technology Readiness Level	Manufacturer or Further Detail
Pushback	Commercial	Charlotte, TLD, Lektro, Jetporter, TUG Technologies, Eagle ³⁴
Water Truck	Commercial	Charlotte ³⁵
Cargo Handling		
Automated Guided Vehicles	Commercial	Konecrane, Kalmar ^{36,37}
Heavy-Duty Forklift	Demonstration	Kalmar piloting an electric forklift with Cargotec ³⁸
Reach Stacker	Demonstration	Hyster Europe developing an electric reach stacker using hydrogen fuel cells. Kalmar is also demonstrating an electric reach stacker with Cabooter ^{39,40} .
Ship-to-shore gantry crane	Commercial	Electric gantry cranes are the most common ship-to-shore gantry cranes at California ports.
Side Handler	Commercial	Kalmar ⁴¹
Straddle Carriers	Commercial	Kalmar ⁴²
Top Handler	Demonstration	Battery powered electric container handler at Port of LA with a wireless fast charger.
Yard Cranes	Commercial	Both RMG and RTG's have commercially available grid-electric technologies developed.
Yard Hostler (i.e., Yard Goat)	Commercial	Electric Orange EV, Kalmar Ottawa, BYD ⁴³

<https://www.tld-group.com/products/passenger-steps/bbs-580-e/>

³⁴ National Renewable Energy Laboratory. "Electric Ground Support Equipment at Airports"
<https://afdc.energy.gov/files/u/publication/egse-airports.pdf>

³⁵ Ibid.

³⁶ Konecrane.

<https://www.konecranes.com/equipment/container-handling-equipment/automated-guided-vehicles>

³⁷ Kalmar.

<https://www.kalmarglobal.com/equipment/automated-guided-vehicles/>

³⁸ Kalmar.

https://www.kalmarglobal.com/pressroom/press_releases/2019/kalmar-forges-ahead-on-its-electrification-journey-with-industrys-first-fully-electric-reachstacker-for-cabooter/

³⁹ Hyster.

<https://www.hyster.com/emea/en%E2%80%9090gb/press/press%E2%80%9090releases/hyster-electric-container-handlers-progress/>

⁴⁰ Kalmar.

https://www.kalmarglobal.com/pressroom/press_releases/2019/kalmar-forges-ahead-on-its-electrification-journey-with-industrys-first-fully-electric-reachstacker-for-cabooter/

⁴¹ Kalmar.

<https://www.kalmarglobal.com/equipment/masted-container-handlers/electric-empty-handler-ecg70-35e3e4/>

⁴² Kalmar.

<https://www.kalmarglobal.com/equipment/straddle-carriers/fastcharge-straddle/>

⁴³ California HVIP.

<https://www.californiahvip.org/how-to-participate/#Eligible-Vehicle-Catalog>

Construction Equipment		
Boom lift	Commercial	JLG ⁴⁴
Concrete Mixers	Commercial	Small portable electric concrete mixers are common.
Dumpers	Commercial	Wacker Neuson ⁴⁵
Excavators	Demonstration	Caterpillar piloted an all-electric 25-ton excavator with a 300 kWh battery pack ⁴⁶ . Smaller "mini" electric excavators are commercially available by Volvo, NASTA, Kobelco, and Wacker Neuson ⁴⁷ .
Loaders	Commercial	Wacker Neuson, Kramer ^{48,49}
Small Cranes	Commercial	UNIC Spydercrane, MAEDA, ZEE Crane ^{50,51,52}
Tipplers	Commercial	Epiroc ⁵³
Tower Cranes	Commercial	Electric tower cranes are commonly available.
Commercial Harbor Craft		
Ferries	Demonstration	Norwegian shipyard Fjellstrand and Siemens, AG are demonstrating a BE car ferry. Golden Gate Zero Emission Marine and CA Climate Investments are demonstrating a FCE passenger ferry in the San Francisco Bay Area. Alabama's Gee's Bend Ferry was retrofitted to be all electric. SWITCH maritime is designing an all-electric ferry in NYC.
Locomotive		
Locomotive switch (yard)	Demonstration	CARB / SCAQMD pilot with Port of LA and VeRail Technologies through 2020
Locomotive line haul	Demonstration	CARB / SJVAPCD to demonstrate a battery electric locomotive late 2019 through fall 2021
Ocean Going Vessel		
Ocean-Going Vessel	Research	Smaller vessels (commercial harbor craft ferries, tugboat/towboat) are being built and piloted with ZE HFCs in the Bay Area, France and Norway. European pilots expect operational date of 2021.

⁴⁴ JLG.

<https://www.jlg.com/en/equipment/electric-hybrid-boom-lifts/articulating/e450-m450-series/e450aj?Cookie=language>

⁴⁵ Wacker Neuson.

<https://www.wackerneuson.eu/en/products/dumpers/track-dumpers/model/dt10e/>

⁴⁶ Electrek. "Caterpillar unveils an all-electric 26-ton excavator with a giant 300 kWh battery pack"

<https://electrek.co/2019/01/29/caterpillar-electric-excavator-giant-battery-pack/>

⁴⁷ Bellona Europa. "Zero Emission Construction Sites: The Possibilities and Barriers of Electric Construction Machinery"

<http://network.bellona.org/content/uploads/sites/3/2018/06/ZEC-Report-1.pdf>

⁴⁸ Wacker Neuson

<https://www.wackerneuson.eu/en/products/wheel-loaders/articulated-wheel-loaders/model/wl20e/>

⁴⁹ Kramer

<http://www.kramer-online.com/en/discover-kramer/zero-emission/the-kramer-5055e/>

⁵⁰ Spydercrane.

<https://spydercrane.com/compare-spydercrane>

⁵¹ ZEE Crane.

<https://www.zeecrane.com/>

⁵² MAEDA Mini Cranes.

<https://www.maeda-minicranes.com/>

⁵³ Epiroc.

<https://www.epiroc.com/en-us/applications/mining/zero-emission>

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Katie Rice and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 13, 2019

Re: Report of the Advisory Council Meeting of October 28, 2019

RECOMMENDED ACTION

The Advisory Council (Council) received only informational items and have no recommendations of approval by the Board of Directors (Board).

BACKGROUND

The Council met on Monday, October 28, 2019, and received the following report:

A) Particulate Matter (PM) Symposium.

Board Liaison Rod Sinks (Chairperson Stan Hayes) will provide an oral report of the Council meeting.

BUDGET CONSIDERATION/FINANCIAL IMPACT

A) None.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Aloha de Guzman
Reviewed by: Vanessa Johnson

Attachment 19A: 10/28/2019 – Advisory Council Meeting Agenda #4

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Stan Hayes and Members
of the Advisory Council

From: Jack P. Broadbent
Executive Officer/APCO

Date: October 22, 2019

Re: Particulate Matter (PM) Symposium

RECOMMENDED ACTION

None; receive and file.

DISCUSSION

Increasing evidence shows health impacts from particulate matter (PM) can occur well below the current national ambient air quality standards. Therefore, it is important that we reassess the health effects of PM in our communities.

This year, the Air District's Advisory Council will be convening a four-part conference series on PM. This series will facilitate discussion among nationally recognized scientists, stakeholders, and the Air District, identifying the most effective measures to further protect public health. The symposia will shine a spotlight on this public health challenge and share information and tools to inform future policy decisions.

The first symposium will take place on October 28, 2019, from 9:00 a.m. to 4:30 pm., at the Bay Area Metro Center, 375 Beale Street, San Francisco, California 94105.

Topics during the first symposium will include:

- PM Health Effects:
 - Observed health effects from PM exposure
 - Affected biological systems
 - Knowledge about the mechanisms
 - Population groups most at risk
 - Most relevant sensitivities and uncertainties
- PM Exposure and Risk:
 - PM emissions and sources
 - PM levels in the air
 - Community exposure
 - Current understanding of PM health risks
 - Economic and other costs

BUDGET CONSIDERATION/FINANCIAL IMPACT

None.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Jeff McKay

Attachment 4A: October 28, 2019 Particulate Matter Symposium Guest Speaker Biographies

ADVISORY COUNCIL MEETING
OF 10/28/2019



Particulate Matter: Spotlight on Health Protection



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

Guest Speaker *Biographies*

Jason D. Sacks, M.P.H.



Jason Sacks is a Senior Epidemiologist in the Center for Public Health & Environmental Assessment within U.S. EPA's Office of Research and Development. He is the assessment lead for the Particulate Matter Integrated Science Assessment and plays key leadership roles in synthesizing the health effects evidence of air pollution for various National Ambient Air Quality Standards reviews. He has expertise in examining the relationship between short-term exposures to air pollution and mortality, respiratory-related hospital admissions and emergency department visits, and long-term exposure and cancer, with a focus on identifying those populations at greatest risk. Additionally, Sacks collaborates with the Office of Air Quality

Planning and Standards within U.S. EPA's Office of Air and Radiation in conducting both national and international training on U.S. EPA's Environmental Benefits Mapping and Analysis Program – Community Edition and in communicating the health risks of exposure to PM and wildfire smoke. He received a B.A. from Rutgers University in 1999 and an M.P.H. from Johns Hopkins University in 2003.

Michael T. Kleinman, Ph.D.



Michael T. Kleinman is UC Irvine Professor of Environmental Toxicology and Co-Director of the Air Pollution Health Effects Laboratory in the Department of Community and Environmental Medicine, Adjunct Professor in College of Medicine. He received a Ph.D. in Environmental Health Sciences from New York University. Dr. Kleinman brings expertise on the health effects of air pollution on animals and humans, as well as the development of analytical techniques for assessing biological and physiological responses to exposure to environmental contaminants and for determining concentrations of important chemical species in air. His current studies involve the inhalation exposures to manufactured and combustion-generated nanomaterials fine and coarse particles using state-of-the-art field exposure systems and real-time physiological monitoring methods. Biological mechanisms related to oxidative stress have been identified after particulate matter exposure, and Dr. Kleinman's team is also pursuing how these mechanisms affect pathological and physiological changes in the heart and lungs. He currently serves on the Air District Advisory Council.



Particulate Matter: Spotlight on Health Protection



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

Dr. John Balmes



Dr. Balmes is Professor of Medicine at UC San Francisco where he is on the faculty of the Divisions of Occupational and Environmental Medicine and Pulmonary Critical Care Medicine. He is also Professor of Environmental Health Sciences in the School of Public Health at UC Berkeley. Dr. Balmes is the Director of the Northern California Center for Occupational and Environmental Health. He leads an active research program and is author of over 300 papers on occupational and environmental health-related topics with many of these dealing with the potential health effects of ambient air pollution. Dr. Balmes expertise in the health effects of ambient air pollutants has been recognized by multiple awards. He was appointed the Physician

Member of the California Air Resources Board in 2008.

H. Christopher Frey, Ph.D., F. A&WMA, F. SRA



Dr. H. Christopher Frey is the Glenn E. Futrell Distinguished University Professor of Environmental Engineering in the Department of Civil, Construction, and Environmental Engineering at North Carolina State University. Dr. Frey's research includes quantification of uncertainty in engineering process technologies and emission factors, probabilistic methods for exposure assessment, measurement and modeling of human exposure to air pollution, and measurement and modeling of vehicle emissions. Dr. Frey also is an adjunct professor in the Division of the Environment and Sustainability at the Hong Kong University of Science and Technology, where he is part of a large team developing an exposure model for Hong Kong.

Dr. Frey is a Fellow of the Air & Waste Management Association and of the Society for Risk Analysis. He has a B.S. in mechanical engineering from the University of Virginia, a Master of Engineering in mechanical engineering from Carnegie Mellon University, and Ph.D. in engineering and public policy from Carnegie Mellon.



Particulate Matter: Spotlight on Health Protection



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

Lauren Zeise, Ph.D.



Lauren Zeise, Ph.D., was appointed by Gov. Brown as Director of the California Office of Environmental Health Hazard Assessment in December 2016 and has been with OEHHA since its inception in 1991. Prior to OEHHA's creation, she was chief of the cancer unit at the California Department of Health Services and spent several years at the California Public Health Foundation and the U.S. EPA. She played a leading role in OEHHA's development of CalEnviroScreen, the nation's first comprehensive statewide environmental health screening tool, which is used to identify the California communities most burdened by pollution from multiple sources and most vulnerable to its effects. She also co-led the team that developed the hazard trait regulation for California's Safer Consumer Products program, and she has conducted hundreds of health risk assessments. Dr. Zeise earned her doctorate from Harvard University. She is a member, fellow, former editor, and former councilor of the Society for Risk Analysis and was the 2008 recipient of the Society's Outstanding Risk Practitioner Award.

Julian Marshall, Ph.D.



Julian Marshall is the Kiely Endowed Professor of Environmental Engineering at University of Washington with a focus on air quality management. Dr. Marshall founded and runs the Grand Challenges Impact Lab, a UW study abroad program in Bangalore, India. He is also Associate Editor for Environmental Health Perspectives and Development Engineering. Dr. Marshall studies exposure to air pollution, including air pollution health impacts of transportation and electricity, disparities in exposure, and air pollution measurements in low-income countries. He earned a B.S.E. with High Honors in Chemical Engineering from Princeton, an M.S. and Ph.D. in Energy and Resources from UC Berkeley, and has published over 100 peer-reviewed journal articles.



Particulate Matter: Spotlight on Health Protection



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

Scott Jenkins, Ph.D.



Dr. Scott Jenkins is a senior environmental health scientist in EPA's Office of Air Quality Planning and Standards (OAQPS). He is currently leading EPA's review of the National Ambient Air Quality Standards (NAAQS) for Particulate Matter (PM). Over the past 15 years, he has also worked on reviews of the NAAQS for other criteria pollutants, including ozone and nitrogen dioxide, and on standards for air toxics. Dr. Jenkins came to OAQPS from the EPA's Office of Research and Development. Prior to EPA, Dr. Jenkins was a Howard Hughes Postdoctoral Research Fellow in the Department of Cell Biology at Duke University. His PhD is in Behavioral Neuroscience from the University of Alabama at Birmingham and his bachelor's degree is in Psychology from Furman University.

Phil Martien, Ph.D.



Phil Martien is the Director of the Assessment, Inventory, & Modeling Division at the Bay Area Air Quality Management District. He and his team are focused on compiling and evaluating emissions of air pollutants and greenhouse gases, conducting modeling-based studies to estimate air pollution exposures and impacts, and supporting the Air District's development of prioritized mitigation measures. He led the Air District's Community Air Risk Evaluation Program, which informed California's AB 617 in beginning to unite community organizations, agencies, and businesses to address areas of concentrated air pollution and related health effects in disadvantaged communities. He received his M.S. and Ph.D. degrees from UC

Berkeley.



Keynote Speaker *Biography*

Gina McCarthy



One of the nation's most respected voices on the environment and public health, former EPA Administrator Gina McCarthy is now a Harvard professor leading strategies and actions at the Harvard T.H. Chan School of Public Health, the Harvard Kennedy School of Government and in the corporate and non-profit sectors. At Harvard TH Chan, she is Professor of the Practice of Public Health in the Department of Environmental Health and the Director of the Center for Health and the Global Environment (C-CHANGE). In this capacity, McCarthy leads the development of the school's strategy to turn climate and health science into actions that promote a more sustainable and just world. At the Kennedy School, she engages climate science leaders across the university and beyond. McCarthy also serves as a Member of the Board of Directors of the Energy Foundation and Ceres. McCarthy is a former operating advisor at Pegasus Capital.

ADVISORY COUNCIL MEETING
OF 10/28/2019

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Katie Rice and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 13, 2019

Re: Report of the Community and Public Health Committee Meeting of October 30, 2019

RECOMMENDED ACTION

The Community and Public Health Committee (Committee) received only informational items and have no recommendations of approval by the Board of Directors (Board).

BACKGROUND

The Committee met on Wednesday, October 30, 2019, and received the following reports:

- A) Youth for the Environment and Sustainability (YES) Conference Update;
- B) Assembly Bill (AB) 617 Implementation into 2020; and
- C) Report on the NuStar Terminal Incident on October 5, 2019.

Chairperson Shirlee Zane will provide an oral report of the Committee meeting.

BUDGET CONSIDERATION/FINANCIAL IMPACT

- A) Funding for the 2020 YES Conference is included in the Fiscal Year Ending (FYE) 2020 budget;
- B) Costs for the current fiscal year are included in the current budget. Costs for next fiscal year be evaluated when preparing the budget for that year. The level of effort will depend on continued state funding and the amount of that funding; and
- C) None.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Aloha de Guzman
Reviewed by: Vanessa Johnson

Attachment 20A: 10/30/2019 – Community and Public Health Committee Meeting Agenda #4
Attachment 20B: 10/30/2019 – Community and Public Health Committee Meeting Agenda #5
Attachment 20C: 10/30/2019 – Community and Public Health Committee Meeting Agenda #6

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Shirlee Zane and Members
of the Community and Public Health Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: October 21, 2019

Re: Youth for the Environment and Sustainability (YES) Conference Update

RECOMMENDED ACTION

None; receive and file.

BACKGROUND

The Youth for the Environment and Sustainability (YES) Conference is an annual event jointly sponsored by the Air District and the Metropolitan Transportation Commission (MTC). The conference provides middle and high school students the opportunity to present on and discuss active transit, clean air, and climate change issues with their peers from around the Bay Area. The program includes youth keynote speakers, interactive presentations, and various breakout sessions.

DISCUSSION

The 2020 YES Conference will take place on Saturday, March 28, 2020, at El Camino High School in South San Francisco, from 9:00 a.m. to 3:00 p.m. Staff from MTC, the Air District, and organizations from the Spare the Air Youth Technical Advisory Committee are targeting 1,000 middle and high school students from throughout the nine counties of the San Francisco Bay Area. As in previous years, to accommodate transit ridership to the conference, the Air District is arranging for shuttles to the event from counties without easy access to BART, or a nearby BART station.

Staff is working with Fruition Consulting on the logistics of the conference and will send out a call for proposals, conference information, and registration links to school environmental science teachers, youth-serving groups, youth commissions, and past attendees. Staff will provide a status update on the planning, outreach, and development of the conference agenda. After the 2020 YES Conference, staff will formally recognize the youth who helped to plan the conference by inviting them to attend a future Community and Public Health Committee meeting in late spring/early summer 2020.

BUDGET CONSIDERATION / FINANCIAL IMPACT

Funding for the 2020 YES Conference is included in the Fiscal Year Ending (FYE) 2020 budget.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Kristina Chu
Reviewed by: Elizabeth Yura

COMMUNITY AND PUBLIC HEALTH
COMMITTEE MEETING OF 10/30/2019

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Shirlee Zane and Members
of the Community and Public Health Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: October 21, 2019

Re: Assembly Bill (AB) 617 Implementation into 2020

RECOMMENDED ACTION

None; receive and file.

BACKGROUND

Assembly Bill (AB) 617 was passed in 2017, to improve local air quality and health in disproportionately impacted communities. The law requires the California Air Resources Board (CARB) to work with community groups, air districts, and others to select locations from around the state where communities will work with local air districts to measure and reduce air pollution.

DISCUSSION

Since the passage of AB 617, Air District staff have been dedicated to its implementation. By the end of this second implementation year, we will have completed the development of a community-led emission reduction plan in West Oakland and will have initial monitoring underway in Richmond/San Pablo, as well as a working draft monitoring plan. We distributed \$350,000 in capacity-building grants in all high priority communities, including East Oakland/San Leandro, eastern San Francisco, eastern Contra Costa County, San Jose, the Tri-Valley, and Vallejo. To date, we have allocated over \$59 million in AB 617 incentives for cleaner cars, trucks, buses, and other mobile sources in all Bay Area AB 617 communities.

In 2020, we will be focusing our efforts on building community, and our own, capacity, to do the next wave of emission reduction plans and/or air monitoring. Over the next year, Air District staff will be undertaking both regional and community-level capacity-building work. At the regional level, Air District staff will work with community members and organizations in East Oakland/San Leandro, eastern San Francisco, eastern Contra Costa County, San Jose, the Tri-Valley, and Vallejo to build a Regional AB 617 Working Group. We will be working on rulemaking, including permit reform and new or updated rules for storage tanks, refinery wastewater, restaurants, backup generators, and construction. The Criteria and Toxics Reporting rule will be reviewed to update reporting requirements. We will also be coordinating with our regional agency and local government partners on Senate Bill 1000 implementation, the development of Plan Bay Area, and on a more collaborative approach to incentives and freight planning.

In individual high priority communities, Air District staff will be working on the implementation of the West Oakland Action Plan, including collaboration with the Port of Oakland. We will also be fine tuning our modeling and emissions data for West Oakland. Richmond/San Pablo will see the continued development of the monitoring plan, more community monitoring, data collection, and analysis. We will also begin moving toward an emission reduction plan in Richmond/San Pablo.

In each high priority community, i.e. East Oakland/San Leandro, eastern San Francisco, eastern Contra Costa County, San Jose, and Vallejo, Air District staff will be embarking on technical and community engagement work. We will be estimating the driving forces behind community exposure to particulate matter (PM)_{2.5}, as well as compiling previous studies, including historical and current land use data. Additionally, we will be working with community leaders and organizations to implement their Air District capacity-building grants, building relationships with additional community leaders, and finding opportunities for partnerships and collaboration around local air pollution or other related concerns.

BUDGET CONSIDERATION / FINANCIAL IMPACT

Costs for the current fiscal year are included in the current budget. Costs for next fiscal year will be evaluated when preparing the budget for that year. The level of effort will depend on continued state funding and the amount of that funding.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Christianne Riviere
Reviewed by: Elizabeth Yara

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Shirlee Zane and Members
of the Community and Public Health Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: October 21, 2019

Re: Report on the NuStar Terminal Incident on October 15, 2019

RECOMMENDED ACTION

None; receive and file.

BACKGROUND

Shore Terminals, LLC operates the Selby Terminal (Terminal), also referred to as NuStar Terminal, located at 90 San Pablo Avenue, Crockett, California. The Terminal includes an onshore truck loading rack and railcar loading rack, a marine terminal facility with four transfer pipelines on the Carquinez Strait, two intra-facility transfer pipelines, and a single pipeline between the terminal and rail loading dock.

On October 15, 2019, just before 2:00 p.m., a fire erupted at NuStar Energy, LP. At least two tanks containing ethanol were destroyed in a fire and resulting explosion. A brush fire resulted from the initial explosion but was extinguished shortly after fire personnel arrived. Large plumes of black smoke were observed throughout the Bay Area. Winds at the time were light and variable. A shelter-in-place was ordered by Contra Costa County Sherriff's office shortly after 2:00 p.m. for Rodeo and Crockett. Both directions of Highway 80 were closed at approximately 3:00 p.m., reopening at approximately 10:00 p.m.

DISCUSSION

Staff will provide the Committee with an update on the incident, including the Air District's role in responding and investigating this incident.

BUDGET CONSIDERATION / FINANCIAL IMPACT

None.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Wayne Kino

COMMUNITY AND PUBLIC HEALTH
COMMITTEE MEETING OF 10/30/2019

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Katie Rice and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 13, 2019

Re: Report of the Executive Committee Meeting of November 6, 2019

RECOMMENDED ACTION

The Executive Committee (Committee) recommends Board of Directors approval of the following item:

- A) Hearing Board Quarterly Report: July – September 2019
 - 1) None; receive and file.
- B) Bay Area Regional Collaborative (BARC) Update
 - 1) None; receive and file.
- C) Report on the Advisory Council Meeting from October 28, 2019
 - 1) None; receive and file.
- D) Assembly Bill (AB) 617 Implementation into 2020
 - 1) None; receive and file.
- E) Report on Recent Incident Response Events
 - 1) None; receive and file.
- F) Request to Amend the Fiscal Year Ending (FYE) 2020 Budget to Increase Staffing
 - 1) Recommend the Board of Directors (Board) amend the Fiscal Year Ending (FYE) 2020 budget to authorize the criteria of ten (10) additional full-time regular positions.

BACKGROUND

The Committee met on Wednesday, November 6, 2019, and received the following report:

- A) Hearing Board Quarterly Report: July – September 2019;

- B) Bay Area Regional Collaborative (BARC) Update;
- C) Report on the Advisory Council Meeting from October 28, 2019;
- D) Assembly Bill (AB) 617 Implementation into 2020;
- E) Report on Recent Incident Response Events; and
- F) Request to Amend the Fiscal Year Ending (FYE) 2020 Budget to Increase Staffing.

Chairperson Katie Rice will provide an oral report of the Committee meeting.

BUDGET CONSIDERATION/FINANCIAL IMPACT

- A) None;
- B) None;
- C) None;
- D) Costs for the current fiscal year are included in the current budget. Costs for next fiscal year will be evaluated when preparing the budget for that year. The level of effort will depend on continued state funding and the amount of that funding;
- E) None; and
- F) The addition of the ten positions will add approximately \$1,830,000 in Personnel Expenditures to the FYE 2020 Budget.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Aloha de Guzman
Reviewed by: Vanessa Johnson

- Attachment 21A: 11/6/2019 – Executive Committee Meeting Agenda #4
- Attachment 21B: 11/6/2019 – Executive Committee Meeting Agenda #5
- Attachment 21C: 11/6/2019 – Executive Committee Meeting Agenda #6
- Attachment 21D: 11/6/2019 – Executive Committee Meeting Agenda #7
- Attachment 21E: 11/6/2019 – Executive Committee Meeting Agenda #8
- Attachment 21F: 11/6/2019 – Executive Committee Meeting Agenda #9

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Katie Rice and Members
of the Executive Committee

From: Chairperson Valerie J. Armento, Esq., and
Members of the Hearing Board

Date: October 22, 2019

Re: Hearing Board Quarterly Report: July – September 2019

RECOMMENDED ACTION

None; receive and file.

DISCUSSION

This report covers the third calendar quarter (July – September) of 2019.

- Held one hearing;
- Processed a total of zero orders; and
- Collected a total of \$0.00 in filing fees.

Below is a detail of Hearing Board activity during the same period:

Location: Alameda County; City of Fremont

Docket: 3714 – Tesla Motors, Inc. – *Request for Interim and Regular Variances*

Regulation(s): Regulation 2, Rule 1, Section 307 (Permits, General Requirements, Failure to Meet Permit Conditions); and Regulation 2, Rule 6, Section 307 (Permits, Major Facility Review, Non-Compliance).

Synopsis: Applicant produces electric passenger vehicles at its Fremont facility, including the manufacturing and assembly of component parts and coating of parts and vehicles. A thermal oxidizer at the facility was required to maintain a minimum temperature of 1400 degrees Fahrenheit, per Air District Permit Condition #9158 Part 2, but had been operating at 1275 degrees Fahrenheit; Applicant claimed operating at the higher temperature damaged the thermal oxidizer. Applicant submitted permit application 29741 to authorize the use of a different thermal oxidizer, and sought relief from Permit Condition #9158 Part 2, requiring operation at 1400 degrees Fahrenheit. (Applicant was not seeking relief from emission limits, only the temperature requirement.) Applicant believed that new thermal oxidizer would comply with emission limits at

the lower temperature. Applicant planned to comply with the new permit conditions associated with the new control device, once installed.

Status: Application filed on April 2, 2019; interim variance hearing scheduled for April 16, 2019, and regular variance hearing scheduled for May 21, 2019; interim variance was granted by the Hearing Board at the interim variance hearing on April 16, 2019; Order Granting Interim Variance filed on April 17, 2019; both parties requested to continue regular hearing from May 21, 2019 to July 23, 2019; Applicant requested to withdraw application on July 23, 2019, at regular variance hearing; matter withdrawn on July 23, 2019.

Requested Period of Variance: March 28, 2019 to December 31, 2019

Estimated Excess Emissions: None.

Fees collected this quarter: \$0.00.

Respectfully submitted,

Valerie J. Armento, Esq.
Chair, Hearing Board

Prepared by: Marcy Hiratzka
Reviewed by: Vanessa Johnson

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Katie Rice and Members
of the Executive Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: October 23, 2019

Re: Bay Area Regional Collaborative (BARC) Update

RECOMMENDED ACTION

None; receive and file.

BACKGROUND

The Bay Area Regional Collaborative (BARC) consists of Board/Commission representatives of the four regional agencies and provides a forum for discussing issues of regional importance.

DISCUSSION

At the upcoming Executive Committee meeting, the BARC Director, Allison Brooks, will provide an update on the activities of the BARC.

BUDGET CONSIDERATIONS/FINANCIAL IMPACT

None.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Aloha de Guzman

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Katie Rice and Members
of the Executive Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: October 25, 2019

Re: Report on the Advisory Council Meeting from October 28, 2019

RECOMMENDED ACTION

None; receive and file.

BACKGROUND

On October 28, 2019, the Advisory Council met to convene the first of a series of Symposia on Particulate Matter (PM).

DISCUSSION

The Committee will receive an update of the Advisory Council's convening of the Symposium on Particulate Matter. The Symposium included a distinguished list of Panelists, and featured Gina McCarthy, former US Environmental Protection Agency (EPA) Administrator, as the lunch-time keynote speaker (attachment).

BUDGET CONSIDERATION/FINANCIAL IMPACT

None.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Jeff McKay

Attachment 6A: Particulate Matter Symposium Agenda & Speaker Information



Particulate Matter:

Spotlight on Health Protection



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

Date: Oct. 28, 2019

Time: 9:00 am - 4:45pm

Facilitator: Mr. Stan Hayes

Agenda Items

8:30 AM	Registration/Coffee and light breakfast	Atrium
9:00 AM	Welcome	Board Room
9:25 AM	PM Health Effects Panel	Board Room
11:05 AM	Break	Atrium
11:15 AM	Joint Discussion: Health Effects Panel	Board Room
12:00 PM	Lunch with Keynote Speaker – Former EPA Administrator Gina McCarthy	Yerba Buena
1:15 PM	PM Exposure & Risk Panel	Board Room
2:55 PM	Break	Atrium
3:10 PM	Joint Discussion: Exposure & Risk Panel	Board Room
4:00 PM	Advisory Council Deliberation	Board Room

Additional information

Public comment will take place during welcome remarks.

For ADA related assistance, please contact Areana Flores at aflores@baaqmd.gov.



Schedule Breakdown

Time	Agenda Item	Minutes
8:30-9:00	Registration/Light Breakfast	30
9:00	Pledge of Allegiance Public Comment Approval of minutes	15
9:15-9:25	Intro - Jack Broadbent/Stan Hayes/ Jeff McKay	10
	PM Health Effects Panel	
9:25 - 9:50	Jason Sacks	25
9:50 - 10:15	Mike Kleinman	25
10:15 - 10:40	John Balmes	25
10:40 – 11:05	Chris Frey	25
11:05 - 11:15	Break	10
11:15 - 12:00	Joint Discussion	45
12:00 - 1:10	Lunch (12:30-1:00 speaker) Gina McCarthy Keynote	70
	PM Exposure & Risk Panel	
1:15 - 1:40	Lauren Zeise	25
1:40 - 2:05	Julian Marshall	25
2:05 - 2:30	Scott Jenkins	25
2:30 - 2:55	Phil Martien	25
2:55 - 3:10	Break	15
3:10 - 4:00	Joint Discussion	50
4:00 - 4:45	Advisory Council Deliberation	45
	*15-min presentation, 10-min Q&A	



Guest Speaker *Biographies*

Jason D. Sacks, M.P.H.



Jason Sacks is a Senior Epidemiologist in the Center for Public Health & Environmental Assessment within U.S. EPA's Office of Research and Development. He is the assessment lead for the Particulate Matter Integrated Science Assessment and plays key leadership roles in synthesizing the health effects evidence of air pollution for various National Ambient Air Quality Standards reviews. He has expertise in examining the relationship between short-term exposures to air pollution and mortality, respiratory-related hospital admissions and emergency department visits, and long-term exposure and cancer, with a focus on identifying those populations at greatest risk. Additionally, Sacks collaborates with the Office of Air Quality Planning and Standards within U.S. EPA's Office of Air and Radiation in conducting both national and international training on U.S. EPA's Environmental Benefits Mapping and Analysis Program – Community Edition and in communicating the health risks of exposure to PM and wildfire smoke. He received a B.A. from Rutgers University in 1999 and an M.P.H. from Johns Hopkins University in 2003.

Michael T. Kleinman, Ph.D.



Michael T. Kleinman is UC Irvine Professor of Environmental Toxicology and Co-Director of the Air Pollution Health Effects Laboratory in the Department of Community and Environmental Medicine, Adjunct Professor in College of Medicine. He received a Ph.D. in Environmental Health Sciences from New York University. Dr. Kleinman brings expertise on the health effects of air pollution on animals and humans, as well as the development of analytical techniques for assessing biological and physiological responses to exposure to environmental contaminants and for determining concentrations of important chemical species in air. His current studies involve the inhalation exposures to manufactured and combustion-generated nanomaterials fine and coarse particles using state-of-the-art field exposure systems and real-time physiological monitoring methods. Biological mechanisms related to oxidative stress have been identified after particulate matter exposure, and Dr. Kleinman's team is also pursuing how these mechanisms affect pathological and physiological changes in the heart and lungs. He currently serves on the Air District Advisory Council.



Particulate Matter: Spotlight on Health Protection



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

Dr. John Balmes



Dr. Balmes is Professor of Medicine at UC San Francisco where he is on the faculty of the Divisions of Occupational and Environmental Medicine and Pulmonary Critical Care Medicine. He is also Professor of Environmental Health Sciences in the School of Public Health at UC Berkeley. Dr. Balmes is the Director of the Northern California Center for Occupational and Environmental Health. He leads an active research program and is author of over 300 papers on occupational and environmental health-related topics with many of these dealing with the potential health effects of ambient air pollution. Dr. Balmes expertise in the health effects of ambient air pollutants has been recognized by multiple awards. He was appointed the Physician

Member of the California Air Resources Board in 2008.

H. Christopher Frey, Ph.D., F. A&WMA, F. SRA



Dr. H. Christopher Frey is the Glenn E. Futrell Distinguished University Professor of Environmental Engineering in the Department of Civil, Construction, and Environmental Engineering at North Carolina State University. Dr. Frey's research includes quantification of uncertainty in engineering process technologies and emission factors, probabilistic methods for exposure assessment, measurement and modeling of human exposure to air pollution, and measurement and modeling of vehicle emissions. Dr. Frey also is an adjunct professor in the Division of the Environment and Sustainability at the Hong Kong University of Science and Technology, where he is part of a large team developing an exposure model for Hong Kong.

Dr. Frey is a Fellow of the Air & Waste Management Association and of the Society for Risk Analysis. He has a B.S. in mechanical engineering from the University of Virginia, a Master of Engineering in mechanical engineering from Carnegie Mellon University, and Ph.D. in engineering and public policy from Carnegie Mellon.



Particulate Matter: Spotlight on Health Protection



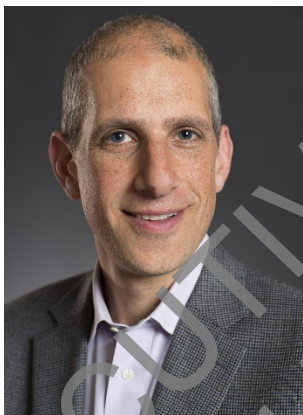
BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

Lauren Zeise, Ph.D.



Lauren Zeise, Ph.D., was appointed by Gov. Brown as Director of the California Office of Environmental Health Hazard Assessment in December 2016 and has been with OEHHA since its inception in 1991. Prior to OEHHA's creation, she was chief of the cancer unit at the California Department of Health Services and spent several years at the California Public Health Foundation and the U.S. EPA. She played a leading role in OEHHA's development of CalEnviroScreen, the nation's first comprehensive statewide environmental health screening tool, which is used to identify the California communities most burdened by pollution from multiple sources and most vulnerable to its effects. She also co-led the team that developed the hazard trait regulation for California's Safer Consumer Products program, and she has conducted hundreds of health risk assessments. Dr. Zeise earned her doctorate from Harvard University. She is a member, fellow, former editor, and former councilor of the Society for Risk Analysis and was the 2008 recipient of the Society's Outstanding Risk Practitioner Award.

Julian Marshall, Ph.D.



Julian Marshall is the Kiely Endowed Professor of Environmental Engineering at University of Washington with a focus on air quality management. Dr. Marshall founded and runs the Grand Challenges Impact Lab, a UW study abroad program in Bangalore, India. He is also Associate Editor for Environmental Health Perspectives and Development Engineering. Dr. Marshall studies exposure to air pollution, including air pollution health impacts of transportation and electricity, disparities in exposure, and air pollution measurements in low-income countries. He earned a B.S.E. with High Honors in Chemical Engineering from Princeton, an M.S. and Ph.D. in Energy and Resources from UC Berkeley, and has published over 100 peer-reviewed journal articles.



Particulate Matter: Spotlight on Health Protection



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

Scott Jenkins, Ph.D.



Dr. Scott Jenkins is a senior environmental health scientist in EPA's Office of Air Quality Planning and Standards (OAQPS). He is currently leading EPA's review of the National Ambient Air Quality Standards (NAAQS) for Particulate Matter (PM). Over the past 15 years, he has also worked on reviews of the NAAQS for other criteria pollutants, including ozone and nitrogen dioxide, and on standards for air toxics. Dr. Jenkins came to OAQPS from the EPA's Office of Research and Development. Prior to EPA, Dr. Jenkins was a Howard Hughes Postdoctoral Research Fellow in the Department of Cell Biology at Duke University. His PhD is in Behavioral Neuroscience from the University of Alabama at Birmingham and his bachelor's degree is in Psychology from Furman University.

Phil Martien, Ph.D.



Phil Martien is the Director of the Assessment, Inventory, & Modeling Division at the Bay Area Air Quality Management District. He and his team are focused on compiling and evaluating emissions of air pollutants and greenhouse gases, conducting modeling-based studies to estimate air pollution exposures and impacts, and supporting the Air District's development of prioritized mitigation measures. He led the Air District's Community Air Risk Evaluation Program, which informed California's AB 617 in beginning to unite community organizations, agencies, and businesses to address areas of concentrated air pollution and related health effects in disadvantaged communities. He received his M.S. and Ph.D. degrees from UC

Berkeley.



Keynote Speaker *Biography*

Gina McCarthy



One of the nation's most respected voices on the environment and public health, former EPA Administrator Gina McCarthy is now a Harvard professor leading strategies and actions at the Harvard T.H. Chan School of Public Health, the Harvard Kennedy School of Government and in the corporate and non-profit sectors. At Harvard TH Chan, she is Professor of the Practice of Public Health in the Department of Environmental Health and the Director of the Center for Health and the Global Environment (C-CHANGE). In this capacity, McCarthy leads the development of the school's strategy to turn climate and health science into actions that promote a more sustainable and just world. At the Kennedy School, she engages climate science leaders across the university and beyond. McCarthy also serves as a Member of the Board of Directors of the Energy Foundation and Ceres. McCarthy is a former operating advisor at Pegasus Capital.

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Katie Rice and Members
of the Executive Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: October 23, 2019

Re: Assembly Bill (AB) 617 Implementation into 2020

RECOMMENDED ACTION

None; receive and file.

BACKGROUND

Assembly Bill (AB) 617 was passed in 2017, to improve local air quality and health in disproportionately impacted communities. The law requires the California Air Resources Board (CARB) to work with community groups, air districts, and others to select locations from around the state where communities will work with local air districts to measure and reduce air pollution.

DISCUSSION

Since the passage of AB 617, Air District staff have been dedicated to its implementation. By the end of this second implementation year, we will have completed the development of a community-led emission reduction plan in West Oakland and will have initial monitoring underway in Richmond/San Pablo, as well as a working draft monitoring plan. We distributed \$350,000 in capacity-building grants in all high priority communities, including East Oakland/San Leandro, eastern San Francisco, eastern Contra Costa County, San Jose, the Tri-Valley, and Vallejo. To date, we have allocated over \$59 million in AB 617 incentives for cleaner cars, trucks, buses, and other mobile sources in all Bay Area AB 617 communities.

In 2020, we will be focusing our efforts on building community, and our own, capacity, to do the next wave of emission reduction plans and/or air monitoring. Over the next year, Air District staff will be undertaking both regional and community-level capacity-building work. At the regional level, Air District staff will work with community members and organizations in East Oakland/San Leandro, eastern San Francisco, eastern Contra Costa County, San Jose, the Tri-Valley, and Vallejo to build a Regional AB 617 Working Group. We will be working on rulemaking, including permit reform and new or updated rules for storage tanks, refinery wastewater, restaurants, backup generators, and construction. The Criteria and Toxics Reporting rule will be reviewed to update reporting requirements. We will also be coordinating with our regional agency and local government partners on Senate Bill 1000 implementation, the development of Plan Bay Area, and on a more collaborative approach to incentives and freight planning.

In individual high priority communities, Air District staff will be working on the implementation of the West Oakland Action Plan, including collaboration with the Port of Oakland. We will also be fine tuning our modeling and emissions data for West Oakland. Richmond/San Pablo will see the continued development of the monitoring plan, more community monitoring, data collection, and analysis. We will also begin moving toward an emission reduction plan in Richmond/San Pablo.

In each high priority community, i.e. East Oakland/San Leandro, eastern San Francisco, eastern Contra Costa County, San Jose, and Vallejo, Air District staff will be embarking on technical and community engagement work. We will be estimating the driving forces behind community exposure to particulate matter (PM)_{2.5}, as well as compiling previous studies, including historical and current land use data. Additionally, we will be working with community leaders and organizations to implement their Air District capacity-building grants, building relationships with additional community leaders, and finding opportunities for partnerships and collaboration around local air pollution or other related concerns.

BUDGET CONSIDERATION / FINANCIAL IMPACT

Costs for the current fiscal year are included in the current budget. Costs for next fiscal year will be evaluated when preparing the budget for that year. The level of effort will depend on continued state funding and the amount of that funding.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Christianne Riviere
Reviewed by: Elizabeth Yura

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Katie Rice and Members
of the Executive Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: October 24, 2019

Re: Report on Recent Incident Response Events

RECOMMENDED ACTION

None; receive and file.

BACKGROUND

The Air District’s primary role in an incident is to provide support for emergency first responders. These incidents, which may result in major releases of air contaminants, require that Air District resources be utilized to aid first responders and to help minimize the impact of the incident on the public. The Air District becomes involved in an incident based on direct observations, referrals from other agencies, direct notifications from companies, news media reporting, and/or air pollution complaints from the public.

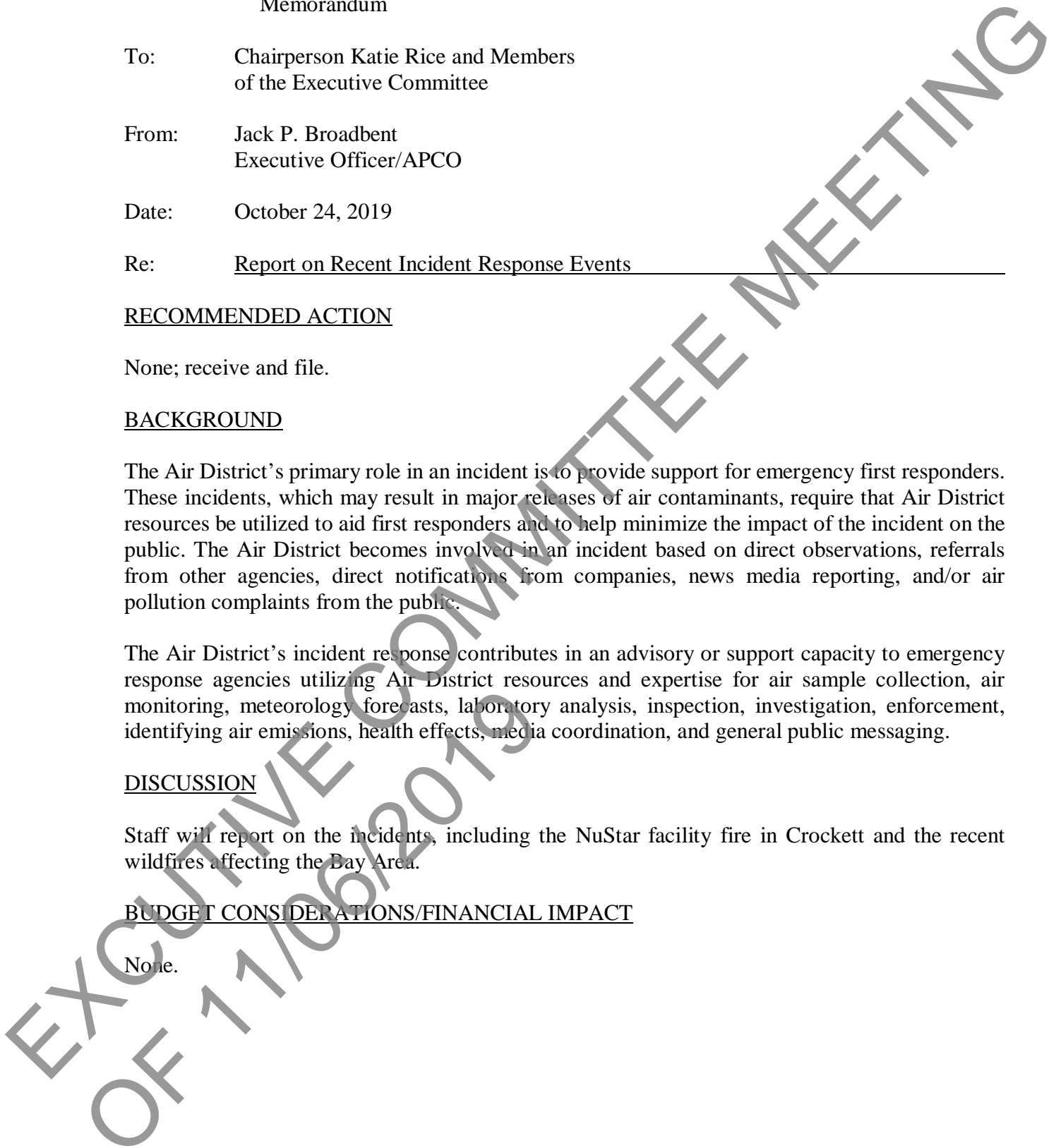
The Air District’s incident response contributes in an advisory or support capacity to emergency response agencies utilizing Air District resources and expertise for air sample collection, air monitoring, meteorology forecasts, laboratory analysis, inspection, investigation, enforcement, identifying air emissions, health effects, media coordination, and general public messaging.

DISCUSSION

Staff will report on the incidents, including the NuStar facility fire in Crockett and the recent wildfires affecting the Bay Area.

BUDGET CONSIDERATIONS/FINANCIAL IMPACT

None.



Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Wayne Kino

EXECUTIVE COMMITTEE MEETING
OF 11/06/2019

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Katie Rice and Members
of the Executive Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: October 22, 2019

Re: Request to Amend the Fiscal Year Ending (FYE) 2020 Budget to Increase Staffing

RECOMMENDED ACTION

Recommend the Board of Directors (Board) amend the Fiscal Year Ending (FYE) 2020 budget to authorize the creation of ten (10) additional full-time regular positions.

BACKGROUND

The Air District is currently authorized for staffing at 405 regular full-time positions in the FYE 2020 Budget. During budget discussions, staff advised the Board that there would be a mid-year staffing augmentation request once resources and funding related to Assembly Bill (AB) 617 were assessed.

DISCUSSION

As a result of resources required to support AB 617, staff is proposing to augment its staffing numbers to increase by ten (10) full-time regular positions. These positions include support for AB 617 and backfilling staffing resources previously diverted to support AB 617 from the Air District's Engineering and Enforcement Divisions. As part of this agenda item, staff will discuss the proposed new positions and current and future staffing needs.

BUDGET CONSIDERATION / FINANCIAL IMPACT

The addition of the ten positions will add approximately \$1,830,000 in Personnel Expenditures to the FYE 2020 Budget.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Rex Sanders

EXECUTIVE COMMITTEE MEETING
OF 11/06/2019

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Katie Rice and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 13, 2019

Re: Report of the Nominating Committee Meeting of November 20, 2019

RECOMMENDED ACTION

The Nominating Committee (Committee) may recommend Board of Directors' (Board) approval of Board Officers for:

- Chairperson;
- Vice Chairperson; and
- Secretary.

BACKGROUND

The Committee will meet on Wednesday, November 20, 2019, to consider the slate of Board Officers for the 2020 Term of Office.

Chairperson Katie Rice will give an oral report of the meeting.

BUDGET CONSIDERATION/FINANCIAL IMPACT

None.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Aloha de Guzman
Reviewed by: Vanessa Johnson

Attachment: 22A: 11/20/19 – Nominating Committee Meeting Agenda #4

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Katie Rice and Members
of the Nominating Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 12, 2019

Re: Consideration and Nomination of Board Officers for the Term of Office
Commencing 2020

RECOMMENDED ACTION

Consider recommending Board of Directors' approval of Board Officers for:

- Chairperson;
- Vice Chairperson; and
- Secretary.

DISCUSSION

Air District Counsel, Brian Bunker, has provided a memorandum addressed to Chairperson Katie Rice that is attached for discussion. The memorandum includes pertinent provisions from the Air District's Administrative Code and the Board of Directors' Operating Policies and Procedures. The memorandum also discusses the role of the Nominating Committee.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Marjorie Villanueva
Reviewed by: Vanessa Johnson

Attachment 1: Criteria for Recommendation of Officers of the Board of Directors
Attachment 2: Administrative Code – Selected Provisions Section 2 Board of Directors,
Officers - Duties

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

OFFICE OF DISTRICT COUNSEL

MEMORANDUM

DATE: November 12, 2019

TO: Katie Rice, Chairperson
and Members of the Nominating Committee of the Board of Directors

FROM: Brian C. Bunger
District Counsel

SUBJECT: Criteria for Recommendation of Officers of the Board of Directors

The function of the Nominating Committee is “to recommend to the Board the officers for each calendar year.” Bay Area Air Quality Management District Administrative Code (“Admin. Code”), Division I, Section 6.8. In order to assist with this function, this memorandum discusses the criteria to be applied by the Nominating Committee in making its recommendations for officers to the Board.

The Administrative Code contains certain criteria that the Nominating Committee must follow in making its recommendation for officers of the Board.

First, “the Committee shall not be bound by a recommendation of a previous Nominating Committee.” Admin. Code, Div. I, § 6.8.

Second, “[t]he Committee need not follow a strict rule of rotation between supervisor and city members but may take into account their proportionate membership on the Board of Directors.” Admin. Code, Div. I, § 6.8.

Third, Section 6.8 further requires that “the Committee shall take into account the provisions of Section I-2.7.” Admin. Code, Div. I, § 6.8.

Section 2.7 of Division I of the Administrative Code sets forth a policy of the Board to rotate the positions of the Chairperson, Vice Chairperson, and Board Secretary among the members of the Board “in a manner to assure participation in the affairs of the District from a wide representation of the membership.” Admin. Code, Div. I § 2.7. In this regard, Section 2.7 provides that “[I]n making its recommendations, the Nominating Committee shall take into account such factors as representation by those members appointed by Boards of Supervisors, those members appointed by City selection committees, those members from large counties, and those from small counties.” Admin. Code, Div. I § 2.7.

Thus, the Board has expressed a policy of rotating officer positions in order to ensure broad participation by all Board members in the affairs of the Air District. However, the Nominating Committee is not required to follow a strict rule of rotation between supervisor and city members. Nor is the Committee to be bound by the actions of any prior Nominating Committee. Finally, the Nominating Committee must take into account such factors as representation of supervisor and city members on the Board and the representation of members from large and small counties.

For your convenience, attached are copies of the pertinent sections of the Air District's Administrative Code.

NOMINATING COMMITTEE
MEETING OF 11/20/2019

ADMINISTRATIVE CODE – SELECTED PROVISIONS

SECTION 2 BOARD OF DIRECTORS, OFFICERS - DUTIES

2.1 OFFICERS OF THE BOARD. (Revised 1/21/04)

The presiding officer of the Board is the Chairperson of the Board of Directors. The Chairperson, Vice Chairperson and Secretary shall, no later than the first meeting in December of each year, be elected by the Board of Directors and assume office January 1, (effective January 1, 2005). The Chairperson shall preserve order and decorum at regular and special meetings of the Board. The Chairperson shall state each question, shall announce the decision, shall decide all questions of order subject to an appeal to the Board. The Chairperson shall vote on all questions, last in order of the roll, and shall sign all ordinances and resolutions adopted by the District Board while the Chairperson presides. (see Section II-4.3)

In the event that the Chairperson is unable, for whatever reason, to fulfill his or her one-year term of office, the Vice-Chairperson shall succeed the Chairperson and the Secretary shall succeed the Vice-Chairperson. Section 2.3 below shall determine the filling of the Secretary vacancy. In any event, no Board Officer shall serve more than three (3) years in any one Board office (Chairperson, Vice-Chairperson, or Secretary).

2.2 CHAIRPERSON. (Revised 1/14/09)

The Chairperson shall take the chair at the hour appointed for the meeting and call the District Board to order. In the absence of the Chairperson, the Vice-Chairperson shall call the Board to order and serve as temporary Chairperson. Upon arrival of the Chairperson, the Vice-Chairperson shall relinquish the chair upon the conclusion of the business then pending before the Board. In the absence, or self-determined inability to act, of the Chairperson, or the Vice-Chairperson when the Chairperson is absent, the Board Secretary shall call the Board to order and serve as temporary Chairperson. Upon arrival of the Chairperson or Vice-Chairperson, the Secretary shall relinquish the Chair upon the conclusion of the business then pending before the Board. In the absence, or self-determined inability to act, of the Chairperson, Vice Chairperson or Secretary, members of the Board of Directors shall, by an order on the Minutes, select one of their members to act as temporary Chairperson. Upon the arrival or resumption of ability to act, the Chairperson or Vice-Chairperson shall resume the Chair, upon the conclusion of the business then pending before the Board. It shall be the duty of the Chairperson to attend all meetings of the Bay Area Air Quality Management District Advisory Council.

2.3 VICE CHAIRPERSON.

If, for any reason, the Chairperson ceases to be a member of the Board, the Vice-Chairperson shall automatically assume the office of Chairperson and the Board Secretary shall automatically assume the office of Vice-Chairperson. If, for any reason, the Vice-Chairperson ceases to be a member of the Board, the Board Secretary shall automatically assume the office of Vice-Chairperson. In either eventuality, the Board Nominating Committee shall, upon the request of the Chairperson, make a recommendation at the Board meeting following such request to fill the office of Board Secretary. An election will then immediately be held for that purpose.

2.4 BOARD SECRETARY.

The Board Secretary shall be official custodian of the Seal of the District and of the official records of the District and shall perform such secretarial duties as may require execution by the Board of Directors. The Board Secretary may delegate any of these duties to the APCO, or to the Clerk of the Boards.

2.5 MEETING ROLL CALL.

Before proceeding with the business of the Board, the Clerk of the Boards shall call the roll of the members, and the names of those present shall be entered in the Minutes. The names of members who arrive after the initial roll call shall be noted in the Minutes at that stage of the Minutes.

2.6 QUORUM.

A majority of the members of the Board constitutes a quorum for the transaction of business, and may act for the Board.

2.7 OFFICER ROTATION.

It is intended that the positions of Chairperson, Vice Chairperson, and Board Secretary be rotated among the members in a manner to assure participation in the affairs of the District from a wide representation of the membership. In making its recommendations, the Nominating Committee shall take into account such factors as representation by those members appointed by Boards of Supervisors, those members appointed by City selection committees, those members from large counties, and those from small counties.

SECTION 6 BOARD OF DIRECTORS, COMMITTEES

6.8 NOMINATING COMMITTEE. (Revised 10/4/95)

The Nominating Committee will consist of the Chairperson of the Board, the past Chairperson of the Board and three (3) appointees of the Chairperson of the Board, or in the event the past Chairperson of the Board is no longer serving on the Board, four (4) appointees of the Chairperson of the Board. The Nominating Committee shall be appointed no later than the second Board Meeting in November of each year and shall serve until the appointment of a new Committee. It is the function of the Nominating Committee to recommend to the Board the officers for each calendar year. In making its recommendation, the Committee shall not be bound by a recommendation of a previous Nominating Committee. The Committee need not follow a strict rule of rotation between supervisor and city members but may take into account their proportionate membership on the Board of Directors. Additionally, the Committee shall take into account the provisions of Section I-2.7.

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Katie Rice and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 13, 2019

Re: Public Hearing to Consider Adoption of Proposed Amendments to Regulation 5:
Open Burning and Regulation 6: Particulate Matter and Visible Emissions, Rule 3:
Wood Burning Devices; and Approval of Filing a Notice of
Exemption/Determination Pursuant to the California Environmental Quality Act
(CEQA)

RECOMMENDED ACTION

Staff recommends that the Board of Directors take the following actions:

- Adopt proposed amendments to Regulation 5: Open Burning;
- Adopt proposed amendments to Regulation 6: Particulate Matter and Visible Emissions, Rule 3: Wood Burning Devices; and
- Approve filing a Notice of Exemption/Determination pursuant to CEQA.

BACKGROUND

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. The proposed amendments are part of the Air District's *Wildfire Air Quality Response Program* intended to prepare for, prevent, and respond to future wildfires and ensure health-protective measures and strategies are in place.

DISCUSSION

The proposed amendments to Regulation 5 complement statewide efforts to prevent catastrophic wildfires through prescribed burning. The proposed amendments would exempt public agencies from incurring Open Burning Fees when conducting prescribed burns for the purpose of wildfire prevention.

The proposed amendments to Rule 6-3 aim to further protect public health when wildfire smoke affects air quality in the Bay Area. The proposed amendments would allow the Air District to announce a Spare the Air Alert on any day throughout the year to notify the public when particulate matter is forecast to exceed the national ambient air quality standard (35 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$)) and prohibit wood burning during this time.

Air District staff determined that these amendments to Regulation 5 and Rule 6-3 are exempt from provisions of the CEQA (Public Resources Code Section 21000 et seq.) pursuant to CEQA sections 21080(b)(4) and 21080(b)(8), and State CEQA Guidelines, sections 15061(b)(3), 15307 and 15308. The amendments to Regulation 5 are necessary to prevent or mitigate wildfire-related public health and natural resource emergencies and constitute the modification of a public agency operating fee. The amendments to both rules help assure the protection of the environment and there is no possibility that the Air District's action will have a significant effect on the environment. In the alternative, and in an abundance of caution, staff has also determined that any potential environmental impacts from the proposed amendments to Rule 6-3 have already been evaluated in an Environmental Impact Report (EIR) that the Board certified in 2008. This EIR evaluated, among other things, potential environmental impacts from prohibiting wood burning during particulate matter exceedances and concluded that prohibiting wood burning would not cause significant adverse environmental impacts. The Board may continue to rely on this EIR because there has been no significant change in facts or circumstances that would impact the analysis therein. The Air District intends to file a Notice of Exemption/Determination pursuant to CEQA section 21152.

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

RULE DEVELOPMENT PROCESS

In preparing the proposed amendments, Air District staff 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 general public.

On June 25, 2019, the Air District issued a notice for a public workshop to discuss initial drafts of amendments to Regulation 5 and Rule 6-3 with interested parties. 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, 2019 - August 12, 2019. 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.

The Air District published a public hearing notice, the proposed rules, staff report, socioeconomic analysis, and CEQA analysis on September 23, 2019, and those documents were made available for public comment from September 23 - October 23, 2019. On October 18, 2019, the Air District published an updated public hearing notice to notify interested stakeholders and members of the public that the hearing date was moved to November 20, 2019. The public comment period

remained unchanged. Air District staff provided responses to all comments received which are included in the Staff Report as Attachment 23E.

BUDGET CONSIDERATION/FINANCIAL IMPACT

The proposed amendments are anticipated to have minimal impacts to Air District Meteorology and Measurements and Compliance and Enforcement Divisions. No increases in personnel or costs are anticipated, as staff will be able to implement new rule amendments into existing program workloads. Further evaluation is needed to determine associated costs to implement changes in Spare the Air messaging by the Air District’s Communications Division and Web Team.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Patrick E. Wenzinger and Tracy Lee
Reviewed by: Wayne Kino

- Attachment 23A: Board Resolution (Draft)
- Attachment 23B: Proposed Amendments to Regulation 5: Open Burning
- Attachment 23C: Proposed Amendments to Regulation 6: Particulate Matter and Visible Emissions, Rule 3: Wood Burning Devices
- Attachment 23D: Final Staff Report – Proposed Amendments to Regulation 5: Open Burning and Regulation 6: Particulate Matter and Visible Emissions, Rule 3: Wood Burning Devices
- Attachment 23E: Appendix A: Comments and Responses
- Attachment 23F: Appendix B: Socio-Economic Analysis of Proposed Amendments to Regulation 5: Open Burning
- Attachment 23G: Appendix B: Socio-Economic Analysis of Proposed Amendments to Regulation 6: Particulate Matter and Visible Emissions, Rule 3: Wood Burning Devices
- Attachment 23H: Appendix C: CEQA Analysis - Notice of Exemption
- Attachment 23I: Appendix C: CEQA Analysis - Notice of Determination
- Attachment 23J: Appendix C: CEQA Analysis - Final Environmental Impact Report for the Bay Area Air Quality Management District’s Regulation 6: Particulate Matter and Visible Emissions, Rule 3: Wood Burning Devices pursuant to the California Environmental Quality Act (CEQA) certified July 9, 2008

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

RESOLUTION NO. 2019-

**A Resolution of the Board of Directors of the
Bay Area Air Quality Management District
Amending District Regulation 5: Open Burning and Regulation 6, Rule 3: Wood
Burning Devices**

WHEREAS, public hearings have been properly noticed in accordance with the provisions of the California Health & Safety Code § 40725;

WHEREAS, the Board of Directors of the Bay Area Air Quality Management District (“Air District”) has determined that a need exists to amend Air District rules and regulations by amending Regulation 5: Open Burning and Regulation 6, Rule 3: Wood Burning Devices; as set forth in Attachment A hereto (“Proposed Amendments”);

WHEREAS, the need to amend the Air District’s Regulation 5 and Regulation 6, Rule 3 exists because California has recently experienced some of the deadliest and most destructive wildfires in its history and new wildfire prevention and protection initiatives and actions are urgently needed, and for other reasons as addressed in the Staff Report for the Proposed Amendments and discussed at the public hearing held to consider the Proposed Amendments;

WHEREAS, the Board of Directors of the Air District obtains its authority to adopt, amend or repeal rules and regulations from Sections 40000, 40001, 40702, and 40725 through 40728.5, of the California Health & Safety Code;

WHEREAS, the Board of Directors of the Air District has determined that the Proposed Amendments are written and displayed so that their meaning can be easily understood by the persons directly affected by the rule;

WHEREAS, the Board of Directors of the Air District has determined that the Proposed Amendments are in harmony with and not in conflict with or contradictory to existing statutes, court decisions, and state and federal regulations;

WHEREAS, the Board of Directors of the Air District has determined that the Proposed Amendments do not impose the same requirements as any existing state or federal regulation, and are necessary and proper to execute the power and duties granted to, and imposed upon, the Air District;

WHEREAS, the Board of Directors of the Air District, by adopting the Proposed Amendments, is implementing, interpreting or making specific the provisions of Health & Safety Code § 40001 (rules to achieve ambient air quality standards), and § 40702 (rulemaking actions that are necessary and proper to execute the powers and duties granted to it);

AGENDA 23A - ATTACHMENT

WHEREAS, the Air District prepared initial draft amendments, published them for comment, and held a public workshop in San Francisco on July 24, 2019, to discuss the draft amendments with interested parties and the public;

WHEREAS, subsequent to the public workshop, Air District staff revised the draft amendments based on comments provided by the public and on September 23, 2019 published the Proposed Amendments for comment in advance of the public hearing to consider adoption by the Board of Directors;

WHEREAS, on September 23, 2019 the Air District published in newspapers and distributed and published on the Air District's website a notice of a public hearing on the Proposed Amendments (to be held on November 6, 2019). On October 16, 2019, the Air District published a revised notice in newspapers and distributed and published on the Air District's website a revised notice of public hearing on the Proposed Amendments (to be held on November 20, 2019), and the notices included a request for public comments and input on the Proposed Amendments;

WHEREAS, the Board of Directors of the Air District held a public hearing on November 20, 2019 to consider the Proposed Amendments in accordance with all provisions of law ("Public Hearing");

WHEREAS, at the Public Hearing, the subject matter of the Proposed Amendments was discussed with interested persons in accordance with all provisions of law;

WHEREAS, Air District staff has prepared and presented to the Board of Directors a detailed Staff Report regarding the Proposed Amendments, which Staff Report has been considered by this Board and is incorporated herein by reference;

WHEREAS, the Board of Directors finds and determines that the Proposed Amendments are considered a "project" pursuant to the California Environmental Quality Act ("CEQA") (Public Resources Code § 21000 *et seq.*);

WHEREAS, the Air District is the CEQA lead agency for this project pursuant to the CEQA Guidelines (Title 14 of the California Code of Regulations, sections 15000 *et seq.*) ("CEQA Guidelines"), section 15050;

WHEREAS, District staff has evaluated the proposed amendments to Regulation 5 and has determined that the proposed rulemaking project is statutorily exempt from the requirements of CEQA pursuant to Public Resources Code section 21080, subparagraph (b)(8) (the establishment, modification, structuring, restructuring, or approval of rates, tolls, fares or other charges by public agencies); Public Resources Code section 21080, subparagraph (b)(4) (necessary to prevent or mitigate an emergency); CEQA Guidelines section 15307 (action to assure the maintenance, restoration, or enhancement of a natural resource); CEQA Guidelines section 15308 (action to assure the maintenance, restoration, enhancement or protection of the environment); and CEQA Guidelines section 15061, subdivision (b)(3) (no possibility that the activity in question may have a significant adverse effect on the environment);

WHEREAS, District staff has evaluated the proposed amendments to Regulation 6, Rule 3 and has also determined that the proposed rulemaking project is statutorily exempt from the requirements of CEQA pursuant to Public Resources Code section 21080, subparagraph (b)(4) (necessary to prevent or mitigate an emergency); CEQA Guidelines section 15307 (action to assure the maintenance, restoration, or enhancement of a natural resource); CEQA Guidelines section 15308 (action to assure the maintenance, restoration, enhancement or protection of the environment); and CEQA Guidelines section 15061, subdivision (b)(3) (no possibility that the activity in question may have a significant adverse effect on the environment);

WHEREAS, in the alternative, and in an abundance of caution, District staff has determined that, if the amendments to Regulation 6, Rule 3 are not exempt from CEQA, there is no substantial evidence, in light of the whole record before the Air District, that the adoption and implementation of the amendments to Regulation 6, Rule 3 could have a significant effect on the environment;

WHEREAS, the Air District incorporates the Final Environmental Impact Report (“Final EIR”) for Regulation 6, Rule 3, certified by this Board of Directors on July 9, 2008, into the record and continues to rely on the Final EIR pursuant to section 21166 of CEQA because no substantial changes to the project, circumstances or new information available would change the analysis of the Final EIR which determined that there is no substantial evidence that the adoption and implementation of the proposed amendments to Regulation 6, Rule 3, which include the prohibition of wood burning on days of projected particulate matter exceedance of the national ambient air quality standard, could have a significant effect on the environment.

WHEREAS, the members of the Board of Directors voting on this Resolution have reviewed and considered the Final EIR;

WHEREAS, the Board of Directors finds and determines that in light of the whole record before it (which specifically includes the Final EIR), that the amendments to Regulation 6, Rule 3 will not have any significant effect on the environment, and the Final EIR reflects the Air District’s independent judgment and analysis;

WHEREAS, the Board of Directors, pursuant to the requirements of Health & Safety Code § 40728.5, has actively considered the socioeconomic impacts of the Proposed Amendments and has reviewed and considered the reports entitled “Socio-Economic Impact Study of Proposed Amendments to Regulation 5: Open Burning” and the “Socio-Economic Impact Study of Proposed Amendments to Regulation 6: Particulate Matter and Visible Emissions, Rule 3: Wood Burning Devices,” prepared for the Air District by BAE Urban Economics of Berkeley, California, which conclude that the Proposed Amendments will have no significant impacts on small businesses selling firewood and no other significant economic impact;

WHEREAS, the Board of Directors has determined that the Proposed Amendments represent a good faith effort to minimize adverse socioeconomic impacts as defined in

Health & Safety Code § 40728.5 while achieving an appropriate level of emissions reductions;

WHEREAS, District staff has determined that an incremental cost-effectiveness analysis of the Proposed Amendments pursuant to Health & Safety Code section 40920.6 is not required because the amendments do not impose best available retrofit control requirements;

WHEREAS, the Air District has prepared, pursuant to the requirements of Health & Safety Code § 40727.2, a written analysis of federal, state, and Air District requirements applicable to this source category and has found that the Proposed Amendments would not be conflict with any federal, state, or other Air District rules, and the Board of Directors has agreed with these findings;

WHEREAS, the documents and other materials that constitute the record of proceedings on which this rulemaking project is based are located at the Bay Area Air Quality Management District, 375 Beale Street, San Francisco, 94105, and the custodian for these documents is Marcy Hiratzka, Clerk of the Boards;

WHEREAS, Air District staff recommends adoption of the Proposed Amendments, and the filing of a Notice of Exemption for Regulation 5 and Regulation 6, Rule 3, and, in the alternative and in an abundance of caution, a Notice of Determination for Regulation 6, Rule 3;

WHEREAS, the Board of Directors concurs with Air District staff's recommendations and desires to adopt the Proposed Amendments and to file a Notice of Exemption and Notice of Determination for the Proposed Amendments to comply with CEQA;

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the Bay Area Air Quality Management District does hereby adopt the Proposed Amendments, pursuant to the authority granted by law, as set forth in Attachment A hereto, and discussed in the Staff Report (including Appendices) with instructions to Air District staff to correct any typographical or formatting errors before final publication of the Proposed Amendments.

BE IT FURTHER RESOLVED, that the Board of Directors of the Bay Area Air Quality Management District does hereby approve the filing of a Notice of Exemption pursuant to CEQA for the Proposed Amendments, and, in an abundance of caution, the filing of a Notice of Determination pursuant to CEQA for the proposed amendments to Regulation 6, Rule 3.

AGENDA 23A - ATTACHMENT

The foregoing Resolution was duly and regularly introduced, passed and adopted at a regular meeting of the Board of Directors of the Bay Area Air Quality Management District on the Motion of Director _____, seconded by Director _____, on the 20th day of November, 2019 by the following vote of the Board:

AYES:

NOES:

ABSENT:

Katie Rice
Chairperson of the Board of Directors

ATTEST:

Cindy Chavez
Secretary of the Board of Directors

DRAFT

ATTACHMENT A

[PROPOSED AMENDMENTS]

**Amended Regulation 5: Open Burning
Amended Regulation 6, Rule 3: Wood Burning Devices**

DRAFT

REGULATION 5 OPEN BURNING

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REGULATION 5 OPEN BURNING

5-100 GENERAL

5-101 Description: This Regulation forbids open burning within the District with certain exceptions.

(Amended November 2, 1994)

5-110 Exemptions: The following fires are exempt from this Regulation:

- 110.1 Fires set only for cooking of food for human beings.
- 110.2 Fires burning as safety flares or for the combustion of waste gases.
- 110.3 The use of flame cultivation when the burning is performed with LPG or natural gas-fired burners designed and used to kill seedling grass and weeds and the growth is such that the combustion will not continue without the burner.
- 110.4 Fires set for the purposes of fire training using one gallon or less of flammable liquid per fire.

(Amended 12/19/90; 11/2/94; 3/6/02; 7/9/08)

5-111 ~~Conditional Exemptions~~ Special Conditions for Allowable Fires: The following special conditions must be met for fires allowed by subsections 5-401.1 through 401.17 unless specifically exempted, altered, or further restricted in that subsection, or unless otherwise waived in writing by the APCO prior to burning, and these conditions shall be complied with during any burning permitted under those subsections. In addition, a condition, requirement, or parameter stated in or imposed by a smoke management plan approved by the APCO may supersede any one of these conditions.

- 111.1 No burning shall take place before 10:00 a.m. local time on any day.
- 111.2 No additional materials or fuel shall be ignited, nor shall any material or fuels be added to any fire after two hours before sunset on any day.
- 111.3 No material or fuel shall be ignited, nor shall any material or fuel be added to any fire when the wind velocity is less than five (5) miles per hour except for crossfiring, or when the wind direction at the site shall be such that the direction of smoke drift is toward a populated area in order to minimize local nuisances caused by smoke and particulate fallouts.
- 111.4 Prior to ignition, all piled material shall have dried for a minimum of 60 days, and be managed to ensure that burning the material does not produce smoke after sunset on any day.
- 111.5 All material to be burned shall be reasonably free of dirt or soil.
- 111.6 Piled material shall be limited to a base area not to exceed 25 square yards and the height shall be at least 2/3 of the average width of the pile.
- 111.7 Ignition material shall be limited to those listed by the State Director of Forestry, as follows: orchard torches; drip torches; pressurized diesel torches; propane or LPG torches; commercial petroleum gel materials, pressurized or solid (napalm or blivets); commercial safety fuses; commercial type ignition grenades, e.g. Fenner, etc.; fuses; commercial fuse lighters and matches. All fires shall be ignited so as to burn as rapidly as possible within conditions of safety and minimum pollution.
- 111.8 Ignition shall be initiated at or near the top of the piled material. No additional material, except ignition material, shall be added to the fire.
- 111.9 Tonnage, volume or acreage of material burned on any given day and/or at any specified site is subject to limitations set by the APCO, but may not exceed any limits set by the ARB.

(Amended 12/19/90; 11/2/94; 3/6/02)

5-112 Limited Exemption, Recreational Fires: A fire set for recreational purposes is exempt from the requirements of Section 301.

(Adopted July 9, 2008)

5-113 Limited Exemption, Public Agency Wildfire Prevention: Any public agency conducting a prescribed burn for the purpose of wildfire prevention, pursuant to a smoke management plan approved by the APCO, is exempt from the operation fees

[requirement of Section 5-411. A public agency seeking to rely on this exemption shall request that it be applicable upon submittal of the smoke management plan required by Section 5-401.15.](#)

5-200 DEFINITIONS

5-201 Agricultural Fire: A fire used for the purpose of initiating, continuing or maintaining agriculture as a gainful occupation. Fuels are limited to materials grown on the site and shall not include feed or fertilizer containers, finished or treated wood, plastic or rubber products, plumage, hides, fur, offal or fecal material or refuse from plant or animal processing other than from initial crop harvesting, pruning or attrition of fruit and nut trees, vines and cane crops.

(Amended 11/2/94; 3/6/02)

5-202 Fire: Any combustion of combustible materials of any type outdoors.

(Amended July 9, 2008)

5-203 Flue: Any duct or passages for air, gases, or the like, such as a stack or chimney.

5-204 Gainful Occupation: Any occupation from which there is proof of gross profit or loss as evidenced by tax receipts, sales slips or other such documents.

5-205 Deleted December 19, 1990

5-206 Permissive Burn Day: Any day that is so declared by the APCO when, in his opinion, air pollution caused by open burning will not adversely affect ambient air quality or downwind population. In declaring such permissive burn days, the meteorological criteria established by the ARB for the San Francisco Bay Area Air Basin shall be used as a guideline.

(Amended November 2, 1994)

5-207 Treated Brush: Material which has been felled, crushed or uprooted with mechanical equipment, or has been desiccated with herbicide.

5-208 Hazardous Material: ~~For purposes of this Regulation, a~~ Any combustible or flammable material which may pose a fire or explosion hazard including but not limited to, natural vegetation or other native growth cleared away to create or maintain a firebreak around any building or structure on a property as required to comply with Section 4291 of the State Public Resources Code to reduce the risk of a wildfire.

(Adopted 3/17/82; Amended 12/19/90; 11/2/94; 3/6/02)

5-209 Public Fire Official: An officer of a public agency charged with the responsibilities of setting or allowing fires. Public fire official includes but is not limited to, local, state, and federal officers.

(Adopted December 19, 1990)

5-210 Contraband: Any illegal or prohibited good that has been confiscated by a public law enforcement agency, including but not limited to explosives, pyrotechnics and illegal drugs.

(Adopted 12/19/90; Amended 11/2/94)

5-211 Deleted March 6, 2002

5-212 Stubble: The remaining stalk, stem, or trunk of a herbaceous plant or cereal grass (primarily oats, wheat and hay) after harvest of a field crop.

(Adopted November 2, 1994)

5-213 Prescribed Burning: The planned, controlled application of fire to vegetation to achieve a specific natural resource management objective(s) on land areas selected in advance of that application. The fire is conducted within the limits of a plan and prescription that describes both the acceptable range of weather, moisture, fuel, and fire behavior parameters to achieve the desired effects. For the purposes of this regulation, prescribed burning also means any Forest Management fire, Range Management fire, Hazardous Material fire not related to Public Resources Code Section 4291, or any Crop Replacement fire for the purpose of establishing an agricultural crop on previously uncultivated land, that is expected to exceed 10 acres in size or burn piled vegetation cleared or generated from more than 10 acres of land. These specific fire types shall be regulated as Wildland Vegetation Management fires and subjected to all of the requirements applicable to subsection 5-401.15. In addition, prescribed burning includes any naturally-ignited wildland fire managed for resource benefits that is subject to the applicable requirements in Section 5-408.

(Adopted 11/2/94; Amended 3/6/02)

- 5-214 Backfiring:** A field crop burn ignition technique where the fire is ignited at the downwind side of the burn area, so that the fire must burn into the wind towards the fuel source.
(Adopted November 2, 1994)
- 5-215 Stripfiring:** A field crop burn ignition technique where the fire is ignited in parallel strips by walking straight through the burn area into the wind.
(Adopted November 2, 1994)
- 5-216 'X' or Crossfiring:** A field crop burn ignition technique where the fire is ignited in two semi-circle arch patterns that almost intersect in the middle of the burn area. The first fire is lit by walking into the wind from the downwind side. The second fire is lit by walking with the wind from the headwind side of the field. This technique is used during light (less than five miles per hour) and variable winds only.
(Adopted November 2, 1994)
- 5-217 Property:** A single parcel of real property, as determined by the County Assessor. The term also includes contiguous parcels under the same ownership.
(Adopted November 2, 1994)
- 5-218 APCO:** The Air Pollution Control Officer of the Bay Area Air Quality Management District or the designee thereof.
(Adopted November 2, 1994)
- 5-219 ARB:** The Air Resources Board of the State of California.
(Adopted November 2, 1994)
- 5-220 District:** The Bay Area Air Quality Management District.
(Adopted November 2, 1994)
- 5-221 Forest:** A vegetation type or plant community covering a tract of land, which is named and described as a series, habitat or unique stand according to the California Native Plant Society (CNPS) classification system set forth in the most current edition of *A Manual of California Vegetation* published by CNPS, and dominated by trees growing more or less closely together. For the purposes of this regulation, the dominant vegetation form must be described as a broadleaf deciduous, broadleaf evergreen, conifer, or mixed broadleaf-conifer forest. Forest does not include chaparral, scrub and grassland communities, or the eucalyptus series, as these vegetation types are described in the CNPS classification system.
(Adopted March 6, 2002)
- 5-222 Marshland:** A type of wetland ecosystem periodically or permanently inundated to a depth of up to 2 meters (6.6 feet) that supports a cover of low or tall emergent vegetation. Habitats within these water-land areas include diked, seasonally managed wetlands, unmanaged tidal wetlands, open bays, sloughs, and associated upland grasslands.
(Adopted March 6, 2002)
- 5-223 ~~Curtailment Period~~ Mandatory Burn Ban:** Any period so declared to the public by the APCO when negative impact upon public health is anticipated from burning, as defined in Regulation 6, [Rule 3: Wood-Burning Devices, Section 6-3-203211](#).
(Adopted July 9, 2008)
- 5-224 Recreational Fires:** A fire used for social, cultural or other activities including, but not limited to, campfires, bonfires, ceremonial fires, handwarming fires, raku or pit pottery curing fires, or fires conducted as part of an unusual event such as fire walking provided only clean dry wood and fire starter is used, and the activity is not part of a business for gainful occupation.
(Adopted July 9, 2008)
- 5-225 Public Agency:** Any agency, political subdivision, or unit of local, state or federal government.
- 5-300 STANDARDS**
- 5-301 Prohibition of Fires:** Except as provided in this regulation:
- 301.1 A person shall not ignite, cause to be ignited, permit to be ignited, or suffer, allow, or maintain any fires within the District.
- 301.2 No burning shall take place within the District on other than a permissive burn day, or in excess of any acreage burning allocation or limitation.

- 301.3 A person shall not violate any condition, requirement, or parameter stated in or imposed by a smoke management plan approved by the APCO, or any special condition or administrative requirement in this regulation.
(Amended 11/94; 3/6/02)

5-302 ~~Mandatory Curtailment~~ **Mandatory Burn Ban for Recreational Fires:** No person shall ignite, cause to be ignited, permit to be ignited, or suffer, allow, or maintain any recreational fires during ~~curtailment~~ **mandatory burn ban** periods.
(Adopted July 9, 2008)

5-400 ADMINISTRATIVE REQUIREMENTS

- 5-401 Allowable Fires:** The following fires may be allowed on permissive burn days:
- 401.1 Disease and Pest: Agricultural fires set for the purpose of disease and pest prevention. The fire must be set or allowed by the Agricultural Commissioner of the County in the performance of official duty. Prior reporting pursuant to Section 5-406 must be made to the APCO, by the person setting the fire.
(Amended 12/19/90; 11/2/94; 3/6/02)
- 401.2 Crop Replacement: Agricultural fires set for the purpose of establishing an agricultural crop in a location that formerly contained another type of agricultural crop or on previously uncultivated land. The fire must be set or allowed by the public fire official having jurisdiction, in the performance of official duty, and must be necessary for the crop replacement to proceed.
- 2.1 Fires 10 acres or smaller: Small Crop Replacement Fires are limited to a period beginning October 1 and ending April 30; however, upon the determination of the APCO that heavy winter rainfall has prevented such burning, the burn period may be extended to no later than June 30. Prior reporting pursuant to Section 5-406 must be made to the APCO by the person setting the fire.
- 2.2 Fires larger than 10 acres: Any Crop Replacement fire set for the purpose of establishing an agricultural crop on previously uncultivated land that is expected to exceed 10 acres in size or burn piled vegetation cleared or generated from more than 10 acres of land, is considered prescribed burning and is regulated as a Wildland Vegetation Management (Prescribed Burning) fire and subject to the requirements in subsection 5-401.15. Prescribed burns are permissible year-round, and must be conducted in accordance with a District-approved smoke management plan.
(Amended 12/19/90; 11/2/94; 3/6/02)
- 401.3 Orchard Pruning and Attrition: Agricultural fires set for the purpose of disposal of periodic prunings and attrition losses from fruit trees, nut trees, vineyards and cane fruits. Fires must be set or allowed by the public fire official having jurisdiction, in the performance of official duty, and must be necessary to maintain and continue the growing of the fruit trees, vineyards and cane fruits as a gainful occupation. Fires are limited to a period beginning November 1 and ending April 30; however, upon the determination of the APCO that heavy winter rainfall has prevented such burning, the burn period may be extended to no later than June 30. When pruning is performed between February 15 and April 30 for integrated pest management purposes, the following minimum drying time periods shall apply: trees and branches over six inches in diameter: 30 days; for grape vines and branches less than or equal to six inches in diameter: 15 days. Prior reporting pursuant to Section 5-406 must be made to the APCO by the person setting the fire.
(Amended 3/15/81; 12/19/90; 11/2/94; 3/6/02)
- 401.4 Double Cropping Stubble: Agricultural fires set for the purpose of disposal of grain stubble from agricultural land from which both grain and vegetable crops are harvested during the same calendar year. Fires must be set or allowed by a public fire official having jurisdiction, in the performance of official duty, and must be necessary to remove the grain stubble and straw before a field vegetable crop can be planted. All material to be burned shall

be free of visible surface moisture. No fires shall take place before 10:00 a.m. local time on any day. Fires are limited to a period beginning June 1 and ending August 31. Prior reporting pursuant to Section 5-406 must be made to the APCO by the person setting the fire.

(Amended 12/19/90; 11/2/94; 3/6/02)

- 401.5 Stubble: Agricultural fires set for the purpose of disposal of stubble and straw. Fires must be set or allowed by a public fire official having jurisdiction, in the performance of official duty, and must be necessary to maintain and continue the growing of field crops as a gainful occupation. Fire ignition techniques shall be limited to backfiring, stripfiring, and 'X' or crossfiring unless an alternate technique is approved by the APCO in writing where a specific field condition is determined not to lend itself to these techniques in a given year. All material to be burned shall be free of visible surface moisture. After 0.15 inches or more rainfall, the material must pass the "crackle" test pursuant to Section 5-601 prior to burning. No fires shall take place before 10:00 a.m. local time on any day. Fires are limited to a period beginning September 1 and ending December 31. Outside of Sonoma County, no more than 100 acres of any property shall be burned in a single day. Within Sonoma County, no person shall conduct a burn without receiving an acreage burning allocation from the APCO and no more than 500 acres total of all properties shall be burned in a single day. In addition, no more than 100 acres of any property shall be burned in a single day. If by 12:00 p.m. local time the daily 500-acre burn acreage limitation has not been allocated, up to 200 acres of any property may be burned in a single day provided:
- ~~a~~-5.1 the additional acreage burning allocation has been approved verbally by the APCO; and
 - ~~b~~-5.2 no more than two fields exceeding 100 acres total are burned simultaneously on the same property.

(Amended 12/19/90; 11/2/94; 3/6/02)

- 401.6 Hazardous Material: Any fires set for the purpose of the prevention or reduction of a fire hazard, including the disposal of dangerous materials. The fire must be set or allowed by any public fire official having jurisdiction, in the performance of official duty. The fire must, in the opinion of such officer, be necessary, and the fire hazard not able to be abated by any other means.
- 6.1 Fires 10 acres or smaller: Small Hazardous Material fires are not subject to the requirements of subsection 5-111.1. No fires involving piled material shall be ignited or take place before 9:30 a.m. local time on any day. Prior reporting pursuant to Section 5-406 must be made to the APCO by the person setting the fire.
 - 6.2 Fires larger than 10 acres: Any Hazardous Material fire not related to Public Resources Code Section 4291 that is expected to exceed 10 acres in size or burn piled vegetation cleared or generated from more than 10 acres of land, is considered prescribed burning and is regulated as a Wildland Vegetation Management (Prescribed Burning) fire and subject to the requirements in subsection 5-401.15. Prescribed burns are permissible year-round, and must be conducted in accordance with a District-approved smoke management plan.
 - 6.3 Public Resources Code Section 4291 fires: ~~However, these fires~~ Hazardous Material fires ~~may also be~~ conducted to dispose of materials generated to comply with an order or notice issued by ~~a~~n fire official pursuant to Section 4291 of the State Public Resources Code ~~are permitted.~~ Public Resources Code Section 4291 fires are not subject to the requirements of subsection 5-111.1. No fires involving piled material shall be ignited or take place before 9:30 a.m. local time on any day. Prior reporting pursuant to Section 5-406 must be made to the APCO by the person setting the fire. ~~provided a~~All of the following conditions ~~are~~ must also be satisfied:
 - ~~a~~-3.1 only natural vegetation or other native growth may be burned;
 - ~~b~~-3.2 the amount of material to be burned shall be greater than 5 cubic yards cleared annually from a single property;

- ~~e.3.3~~ the material is burned where it was grown without being moved to a different location unless approved by the APCO;
- ~~d.3.4~~ the material is inaccessible for removal by vehicle and available alternatives to burning such as shredding, chipping, composting, disking, plowing, and harrowing are not feasible; and
- ~~e.3.5~~ the material, if ignited accidentally, would result in a fire of such magnitude as to immediately threaten life or adjacent improved property or resources and require an excessive fire suppression effort.

~~No fires involving piled material shall be ignited or take place before 9:30 a.m. local time on any day. Prior reporting pursuant to Section 5-406 must be made to the APCO by the person setting the fire.~~

(Amended 12/19/90; 11/2/94; 3/6/02)

401.7 Fire Training: Fires set for the exclusive purpose of instruction of either public or industrial employees in fire fighting methods. The fire must be set or allowed by the public fire official having jurisdiction, in the performance of official duty, and must be, in his opinion, necessary. Notwithstanding contrary provisions of Section 5-111, a fire fighting agency may set one fire per quarter calendar year for the purpose of training volunteer or seasonal fire fighters. This may be done on other than a permissive burn day if the APCO is notified in writing or facsimile at least two weeks in advance. Fires may be conducted outside of the burn hour limits in subsections 5-111.1 and 111.2 if the APCO is notified in writing or facsimile at least seven calendar days in advance. Prior reporting pursuant to Section 5-406 must also be made to the APCO for other fire training by the person setting the fire.

(Amended 12/19/90; 11/2/94; 3/6/02)

401.8 Flood Debris: Agricultural fires set for the purpose of removing wood and vegetation debris deposited by floodwaters. The fire must be set or allowed by the public fire official having jurisdiction, in the performance of official duty, and must be necessary for the continuing or maintaining of agriculture as a gainful occupation. Fires are limited to a period beginning October 1 and ending May 31. Prior reporting pursuant to Section 5-406 must be made to the APCO by the person setting the fire.

(Amended 12/19/90; 11/2/94; 3/6/02)

401.9 Irrigation Ditches: Agricultural fires set for the purpose of controlling growth of vegetation in irrigation ditches and canals. The fire must be set or allowed by a public fire official having jurisdiction, in the performance of official duty, and must, in the opinion of such officer, be necessary to avoid interference with water flow or drainage into irrigated land. Prior reporting pursuant to Section 5-406 must be made to the APCO by the person setting the fire.

(Amended 12/19/90; 11/2/94; 3/6/02)

401.10 Flood Control: Fires set for the purpose of disposal of material which is lying or growing within natural channels or flood control channels. The fire must be set or allowed by a public official in charge of flood control activities. The fire must, in the opinion of such official, be a necessary incident to the clearing and maintenance of water courses and flood control channels for preventing or eliminating a flood hazard. Prior reporting pursuant to Section 5-406 must be made to the APCO by the person setting the fire.

(Amended 12/19/90; 11/2/94)

401.11 Range Management: Fires set for the purpose of range management and grazing. The fire must be set or allowed by the State Director of Forestry, or public fire official having jurisdiction, in the performance of official duty, and must be necessary to maintain and continue the grazing of animals as a gainful occupation. Brush to be burned shall be treated at least six months prior to burn if determined to be technically feasible by the State Director of Forestry or public fire official. Unwanted trees over 6 inches in diameter shall be felled prior to burn and dried for a minimum of six months. Feasibility shall be subject to the approval of the APCO.

11.1 Fires 10 acres or smaller: Small Range Management fires are limited to a period beginning July 1 and ending April 30. Subsections 5-111.1 and 5-111.6 may be waived by the State Director of Forestry or fire official when determined necessary in the public interest. ~~Fires are limited to a period beginning July 1 and ending April 30.~~ Prior reporting pursuant to Section 5-406 must be made to the APCO by the person setting the fire.

11.2 Range Management fires larger than 10 acres: Any Range Management fire that is expected to exceed 10 acres in size or burn piled vegetation cleared or generated from more than 10 acres of land is considered prescribed burning and is regulated as a Wildland Vegetation Management (Prescribed Burning) fire subject to the requirements in subsection 5-401.15. Prescribed burns are permissible year-round, and must be conducted in accordance with a District-approved smoke management plan.

(Amended 12/19/90; 11/2/94; 3/6/02)

401.12 Forest Management: Fires set for the purpose of removing forest debris and for forest management. The fire must be set or allowed by a public fire official having jurisdiction, in the performance of official duty, and must, in his opinion, be necessary.

12.1 Fires 10 acres or smaller: Small Forest Management fires are limited to a period beginning November 1 and ending April 30. Subsections 5-111.1 and 5-111.6 may be waived by the fire official when deemed necessary in the public interest. All materials shall be piled or windrowed unless deemed poor practice by the fire official. ~~Fires are limited to a period beginning November 1 and ending April 30.~~ Prior reporting pursuant to Section 5-406 must be made to the APCO by the person setting the fire.

12.2 Fires larger than 10 acres: Any Forest Management fire that is expected to exceed 10 acres in size or burn piled vegetation cleared or generated from more than 10 acres of land is considered prescribed burning and is regulated as a Wildland Vegetation Management (Prescribed Burning) fire subject to the requirements in subsection 5-401.15. Prescribed burns are permissible year-round, and must be conducted in accordance with a District-approved smoke management plan.

(Amended 12/19/90; 11/2/94; 3/6/02)

401.13 Marsh Management: Fires set for the purpose of improvement of marshland for wildlife habitat. The fire must be declared necessary by the California Department of Fish and ~~Game~~Wildlife. No such fire may be allowed on a given piece of land more than once in any 2-year period. The California Department of Fish and ~~Game~~Wildlife shall provide the APCO such information as may be deemed necessary by the APCO to verify the necessity of each burn and land area burning frequencies. Any person seeking to set fires under this provision shall also comply with the requirements of Section 5-410 and receive written APCO approval of the smoke management plan prior to any burn. No fires shall take place before 10:00 a.m. or after 3:00 p.m. local time, nor shall any existing burning be allowed to continue after 3:00 p.m. local time on any day. Fires are limited to a Spring burning period beginning ~~February 4~~March 1 and ending ~~March 31~~April 15, and a Fall burning period beginning September 1 and ending October 15; ~~however, upon the determination of the APCO in consultation with the California Department of Fish and Game and the Solano County Mosquito Abatement District, that heavy winter rainfall has prevented such burning, the burn period beginning February 1 and ending March 31 may be extended to no later than June 30.~~ Outside of the Suisun Resource Conservation District (SRCD), no person shall conduct a burn without receiving an acreage burning allocation from the APCO and no more than 100 acres of any property shall be burned in a single day. For fires conducted within the boundaries of the SRCD:

- ~~a.~~13.1 no person shall conduct a burn without receiving an acreage burning allocation from the APCO; and
- ~~b.~~13.2 total daily acreage to be burned shall be determined by the APCO, but in no case shall the total acreage burning allocation exceed 300 acres/day during the Fall burning period and 600 acres/day during the Spring burning period. In addition, no more than 100 acres of any property and no more than 100 acres of all properties designated by the same SRCD hundred-series ownerships shall be burned in a single day during the Fall or Spring burning period.

(Amended 3/15/81; 5/20/81; 8/3/83; 11/2/94; 3/6/02)

401.14 **Contraband:** Fires set for the purpose of disposing of contraband. The fire must be set or allowed by any peace officer or public fire official, in the performance of official duty. The fire must, in the opinion of such officer, be necessary and the material not be able to be disposed of by any other means. Prior reporting must be made to the APCO by the person setting the fire pursuant to Section 5-406.

(Adopted 12/19/90; Amended 11/2/94)

401.15 **Wildland Vegetation Management (Prescribed Burning):** Prescribed burning by a ~~state or federal public~~ public agency, or through a cooperative agreement or contract involving ~~the a state or federal public~~ agency, ~~conducted on land predominately covered with chaparral, trees, grass, coastal scrub, or standing brush.~~

Any ~~person seeking to set fires under this provision~~ prescribed burning shall comply with the requirements of Section 5-408 and receive written approval of the smoke management plan by the APCO prior to any burn and comply with the smoke management plan during the burn. Prescribed burns are permissible year-round. ~~Until June 1, 2002, this fire may be conducted on other than a permissive burn day, as defined in Section 5-206, if approved by the APCO pursuant to subsection 5-408.2. Effective June 1, 2002, f~~ Fires may only not be conducted on ~~other than~~ a permissive burn day.

(Adopted November 2, 1994)

401.16 **Filmmaking:** Fires set as part of commercial film or video production activities for motion pictures and television. The fire shall be set or allowed by the public fire official having jurisdiction, in the performance of official duty. Any person seeking to set fires under this provision shall comply with the requirements of Section 5-409 and receive APCO approval in writing at least 10 working days prior to the burn. This fire may be done on other than a permissive burn day, as defined in Section 5-206, if approved by the APCO pursuant to subsection 5-409.2.

(Adopted November 2, 1994)

401.17 **Public Exhibition:** Fires set as part of a planned civic event designed to educate or otherwise benefit the public. The fire shall be set or allowed by the public fire official having jurisdiction, in the performance of official duty. Any person seeking to set fires under this provision shall comply with the requirements of Section 5-409 and receive APCO approval in writing at least 10-working days prior to the burn. This fire may be conducted on other than a permissive burn day, as defined in Section 5-206, if approved by the APCO pursuant to subsection 5-409.2.

(Adopted 11/2/94; Amended 3/6/02)

5-402 Deleted November 2, 1994

5-403 Agricultural Land Use: Debris from land clearing shall not qualify under subsections 5-401.1, 5-401.2, 5-401.3, 5-401.4 or 5-401.5 unless applicant certifies, under penalty of perjury, that said land is to remain in agricultural use for a gainful occupation for a period of one year subsequent to the burning, and that applicant has not caused or contributed to the need for the burning of the material for any reason other than the promotion of agricultural use of the land for a gainful occupation. However, the County Agricultural Commissioner may waive this Section by certifying that burning of the material under subsection 5-401.1 is, in his opinion, the only safe method of

disposal. Failure to comply with the conditions of this Section shall be considered a violation of this Regulation. Each pile burned in violation shall be cited as a separate offense.

(Amended 11/2/94; 3/6/02)

5-404 Emergency Waivers: A public officer authorized under subsections 5-401.1, 5-401.6 and 5-401.10 to grant permission for open burning may grant waivers from subsections 5-111.1 through 5-111.9 when, in his judgment, such emergency or summary action is necessary for the public safety. When such action is taken, the authorizing authority shall certify the following in a written report submitted to the APCO within 10 calendar days following the completion of burning: a description and quantity of the material burned and an explanation of the reasons for granting the permission.

(Amended 11/2/94; 3/6/02)

5-405 Deleted March 6, 2002

5-406 Prior District Notification; Disease and Pest, Crop Replacement, Orchard Pruning and Attrition, Double Cropping Stubble, Forest Management, Flood Debris, Fire Training, Flood Control, Irrigation Ditches, Range Management, Hazardous Material, and Contraband: The person setting the fire shall provide electronic, typewritten, legibly handwritten, or computer printed notification to the District prior to the burn on a District-approved form or facsimile thereof. If notification is submitted by mail, the document must be postmarked at least 5 calendar days prior to the burn. The notification form must be completely filled out with accurate information to satisfy this requirement. For structural fire training, written notification shall also be made to the APCO at least 10 working days prior to the burn pursuant to the requirements of Regulation 11-2-401.3 (Asbestos Demolition, Renovation and Manufacturing).

(Adopted 12/19/90; Amended 11/2/94; 3/6/02)

5-407 Deleted November 2, 1994

5-408 Wildland Vegetation Management (Prescribed Burning) Burn Requirements: Any person who seeks to conduct or conducts prescribed burning ~~pursuant~~-subject to subsection 5-401.15 shall comply with the following requirements:

408.1 Submit a smoke management plan to the APCO for review at least 30 calendar days prior to the proposed burning that is consistent with the most current USEPA guidance on wildland and prescribed fires (*Interim Air Quality Policy on Wildland and Prescribed Fires*, USEPA 1998, or any subsequent document that supersedes this document), and provides the following information:

- a. location and specific objectives of each proposed burn;
- b. acreage, tonnage, type, and arrangement of vegetation to be burned;
- c. directions and distances to nearby sensitive receptor areas;
- d. fuel condition, combustion and meteorological prescription elements for the project;
- e. projected burn schedule and expected duration of project ignition, combustion, and burn down (hours or days);
- f. specifications for monitoring and of verifying critical parameters including meteorological conditions and smoke behavior before and during the burn;
- g. specifications for disseminating project information to public;
- h. contingency actions that will be taken during the burn to reduce exposure if smoke intrusions impact any sensitive receptor area;
- i. certification by a qualified professional resource ecologist, biologist, or forester that the proposed burning is necessary to achieve the specific management objective(s) of the plan;
- j. a copy of the environmental impact analysis prepared for the plan that includes an evaluation of alternatives to burning, if such an analysis was required by state or federal law or statute;
- k. project fuel loading estimate (tons vegetation/acre) by vegetation type(s) and a description of the calculation method; and
- l. particulate matter emissions estimate including referenced emission factor(s) and a description of the calculation method used.

- 408.2 ~~Until June 1, 2002, permission to burn on other than a permissive burn day shall be governed by the 48-hour forecast issued by the APCO. Effective June 1, 2002, p~~Permission to burn shall be governed by the acreage burning allocation issued by the APCO.
- 408.3 ~~Until June 1, 2002, prior to ignition, notify the APCO on the day of each burn. Effective June 1, 2002, r~~Receive an acreage burning allocation from the APCO prior to ignition.
- 408.4 For each day on which burning occurs, report the total acreage and tonnage of vegetation actually burned to the APCO ~~by telephone~~ no later than 12:00 p.m. local time the following day.
- 408.5 Within 30 calendar days following completion of the burn project, provide a written post-burn evaluation to the APCO that addresses whether the project objectives were met and describes actual smoke behavior.
- ~~Effective June 1, 2002, a~~Any fire official seeking to conduct prescribed burning in a geographical area considered for a potential naturally-ignited wildland fire managed for resource benefits that is expected to exceed 10 acres in size shall annually register each burn project in writing with the APCO by December 31 each year, with updates as they occur. Once a decision is made to manage the fire for resource benefits, the fire official shall provide a smoke management plan for the burn project to the APCO, upon request.

(Adopted 11/2/94; Amended 3/6/02)

5-409 Filmmaking and Public Exhibition Burn Petitions: Any person seeking to conduct a fire pursuant to subsection 5-401.16 or 401.17 shall comply with the following requirements:

- 409.1 Submit an open burning petition to the APCO that provides the following information, as applicable:
- a. date(s) and specific location(s) of each proposed burn;
 - b. type and quantity (tonnage, acreage, or volume) of each material to be burned;
 - c. the projected fuel use rate in BTU per hour, if known, calculated using the higher heating value of each fuel; and
 - d. the burn duration.
- 409.2 Permission to burn on other than a permissive burn day shall be subject to written approval of the open burning petition by the APCO.
- 409.3 Prior to ignition, notify the APCO on the day of each burn.
- 409.4 If the APCO grants written approval, such approval shall be available at the burn location for inspection by the APCO, upon request.

(Adopted 11/2/94; Amended 3/6/02)

5-410 Marsh Management Burn Requirements: ~~Effective June 1, 2002, a~~Any person who seeks to conduct or conducts a fire pursuant to Subsection 5-401.13 shall:

- 410.1 In order to receive an acreage burning allocation, at least 30 calendar days prior to the proposed burning, submit a smoke management plan to the APCO for review using a District-approved form;
- 410.2 In securing the written necessity statement required by California Health and Safety Code Section 41861, submit to the California Department of Fish and ~~Game~~ Wildlife (DFGW) and the APCO information that (1) identifies the non-burning alternatives considered by the property owner(s) given the recommendations or needed improvements described in existing Individual Ownership Management Plans, updated Individual Ownership Adaptive Management Habitat Plans, Wildlife Management Plans or other resource management plans as applicable; and (2) explains why water management practices and non-burn vegetation management practices cannot currently achieve the management objective(s) of the proposed fire and the property. Where DFGW is conducting a burn on state lands, this information shall be submitted by DFGW to the APCO prior to the proposed burning;
- 410.3 Prior to the proposed burning, submit the written statement required by Health and Safety Code Section 41861 to the APCO;
- 410.4 For each day on which burning occurs, report the total acreage of vegetation actually burned to the APCO by telephone no later than 12:00 p.m. local time the following day.

(Adopted March 6, 2002)

- 5-411 **Open Burning Operation Fees:** ~~Notification, smoke management plans, acreage burning allocations, and petitions as required by the provisions in this regulation are subject to t~~The Open Burning Operation #Fees contained in Regulation 3, Schedule V shall be paid prior to burning by any person subject to the requirements of (1) Section 5-406 Prior District Notification; (2) Section 5-401.13 Marsh Management; (3) Section 5-401.15 Wildland Vegetation Management (Prescribed Burning); (4) Section 5-401.16 Filmmaking or Section 5-401.17 Public Exhibition; or (5) the acreage burning allocation pursuant to Section 5-401.5 Stubble.

(Adopted June 19, 2013)

5-500 MONITORING AND RECORDS

- 5-501 **Open Burning Records:** ~~Effective June 1, 2002, a~~Any person subject to Section 5-408 or 5-410 shall comply with the following requirements:
- 501.1 The person who conducts the fire shall maintain records on a daily basis that document and verify the actual acreage burned. Such documentation shall include the following information:
- ~~a~~.1.1 date and location of burn
 - ~~b~~.1.2 a description of the method(s) or technique(s) used to verify the actual acreage burned
 - ~~c~~.1.3 data collected that supports the burn acreage determination, and
 - ~~d~~.1.4 type of vegetation and acreage actually burned.
- 501.2 Such records shall be retained for twelve months and made available to the APCO, upon request.

(Adopted 12/19/90; Amended 11/2/94; 3/6/02)

5-600 MANUAL OF PROCEDURES

- 5-601 **Appraisal of Field Crop Fuel Moisture; The "Crackle" Test:** Any person who wants to conduct an evaluation of fuel moisture in field crop stubble or straw remaining after harvest pursuant to subsection 5-401.5 shall satisfy the following criteria prior to burning:
- 601.1 Sampling: To ensure representative sampling, sample in accordance with the following requirements:
- ~~a~~.1.1 obtain samples from several different areas of the field
 - ~~b~~.1.2 select some samples from underneath the straw mat including the bottom layer
 - ~~c~~.1.3 a handful of sample material is considered a sufficient size to test.
- 601.2 Evaluation: The field is considered dry enough to burn, or passes the "crackle" test when:
- ~~a~~.2.1 each sample is tested just prior to burning
 - ~~b~~.2.2 each sample tested makes an audible "crackle" when it is bent sharply.
 - ~~c~~.2.3 If the sample does not pass the test, then the area from which the sample was selected cannot be burned until such material is considered dry enough to burn.

(Adopted November 2, 1994)

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PARTICULATE MATTER AND VISIBLE EMISSIONS
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**REGULATION 6
PARTICULATE MATTER AND VISIBLE EMISSIONS
RULE 3
WOOD-BURNING DEVICES**

(Adopted July 9, 2008)

6-3-100 GENERAL

6-3-101 Description: The purpose of this rule is to limit emissions of particulate matter and visible emissions from wood-burning devices used for primary heat, supplemental heat or ambiance.
(Amended 10/21/15)

6-3-110 Limited Exemption, Sole Source of Heat: Until October 31, 2016, the requirements of Section 6-3-301 shall not apply to any person whose sole source of heat is a wood-burning device.

110.1 Effective November 1, 2016, the requirements of Section 6-3-301 shall not apply to any person whose sole source of heat is an EPA certified wood-burning device that is registered with the District per the requirements of Sections 6-3-404 and 405 and who does not have available to them a permanently-installed natural gas, propane or electric heating device. Qualification for exemption is subject to verification.

110.2 Effective November 1, 2018, rental properties subject to Section 6-3-305 located in areas with natural gas service no longer qualify for exemption in Section 6-3-110.1.

(Amended 10/21/15)

6-3-111 Limited Exemption, Non-functional, Permanently Installed Heater: Effective November 1, 2015, the requirement of Section 6-3-301 shall not apply to any person whose only non-wood-burning, permanently-installed source of heat is non-functional and requires repair to resume operation. A dwelling may qualify for a 30-day exemption if there is no alternate form of heat and the non-functional heater is repaired to resume function within 30 days. Qualification for this exemption is subject to verification and must be supported by documentation of repair, which must be submitted to the District within 10 days of a receipt of a request for such records.

(Adopted 10/21/15)

6-3-112 Limited Exemption, Loss of Natural Gas and/or Electric Power: The requirement of Section 6-3-301 shall not apply to a person whose dwelling is in an area that has a temporary loss of gas and/or electric utility service and there is no alternate form of heat available. Qualification for exemption is subject to verification.

(Amended 10/21/15)

6-3-200 DEFINITIONS

6-3-201 Alternate Form of Heat: A form of heat that does not burn wood or any other solid fuels. Alternate forms of heat include, but are not limited to gas-fueled (e.g. propane or natural gas) or electric heat.

(Adopted 10/21/15)

6-3-202 APCO: The Air Pollution Control Officer of the Bay Area Air Quality Management District (District) or the designee thereof.

6-3-203 Builder: Any individual or company that constructs or sells any residential or commercial property.

(Amended 10/21/15)

- 6-3-204 Electric Heating Device:** Any device that produces heat through use of an element utilizing resistance from alternating current or other means of electrical space heating, including, but not limited to, electric fireplaces, heat pumps, or wall heaters.
(Amended 10/21/15)
- 6-3-205 EPA:** United States Environmental Protection Agency.
(Adopted 10/21/15)
- 6-3-206 EPA Certified:** Any wood-burning heater that meets the standards set forth in Title 40 Code of Federal Regulations (CFR), Part 60, Subpart AAA in effect at the time of installation and is certified and labeled pursuant to those regulations. An EPA certified wood heater may be freestanding, built-in, or an insert within a fireplace.
(Adopted 10/21/15)
- 6-3-207 Fireplace:** Any installed masonry or factory-built wood-burning device designed to operate with an air-to-fuel ratio greater than or equal to 35-to-1.
- 6-3-208 Garbage:** Any solid, semisolid, or liquid waste generated from residential, commercial, and industrial sources, including trash, refuse, rubbish, industrial wastes, asphaltic products, manure, vegetable or animal solid or semisolid wastes, and other discarded solid or semisolid wastes.
- 6-3-209 Gas-fueled Heating Device:** Any device that utilizes natural gas or propane as a fuel source exclusively including, but not limited to, gas-fueled fireplaces, gas-fueled room heaters, or gas-fueled inserts.
(Amended 10/21/15)
- 6-3-210 Insert:** A wood or gas-fueled heater designed to be installed in an existing masonry or factory-built fireplace.
(Adopted 10/21/15)
- 6-3-211 Mandatory Burn Ban:** Any period during which the air quality is forecast by the District to be unhealthy due to ambient levels of particulate [matter exceeding 35 µg/m³](#) and burning wood or any solid fuels is illegal in the Bay Area. A Mandatory Burn Ban is announced through a ~~Winter~~ Spare the Air Alert.
(Adopted 10/21/15)
- 6-3-212 Manufacturer:** Any person who constructs or imports a wood-burning fireplace or wood-burning heater.
(Adopted 10/21/15)
- 6-3-213 New Building Construction:** Any single or multi-family housing unit, for which construction began on or after November 1, 2016. Construction is deemed to occur when the foundation for the structure is installed.
(Adopted 10/21/15)
- 6-3-214 Pellet-fueled Wood Heater:** A wood-burning device which is operated on pellet-fuel and is either EPA certified or exempted under U.S. EPA requirements set forth in Title 40 Code of Federal Regulation (CFR), Part 60, Subpart AAA. Pellet fuel may be composed of compressed wood, corn or other biomass.
(Amended 10/21/15)
- 6-3-215 Permanently Installed:** A device that is fixed to the structure of a dwelling or unit and is not readily movable.
(Adopted 10/21/15)

- 6-3-216 Particulate Matter (PM):** Any material that is emitted as liquid or solid particles, or as gaseous material that becomes liquid or solid particles at the testing temperatures specified in the source test method, excluding combined water.
(Adopted 10/21/15)
- 6-3-217 PM_{2.5}:** PM_{2.5} has an aerodynamic diameter equal to or less than 2.5 microns.
(Adopted 10/21/15)
- 6-3-218 Real Property:** The land and anything affixed to the land, such as a building or structures.
(Adopted 10/21/15)
- 6-3-219 Remodel:** A change to the appearance and/or functional utility of a fireplace or chimney that requires a building permit.
(Adopted 10/21/15)
- 6-3-220 Retailer:** Any person engaged in the sale of wood-burning fireplaces, wood-burning heaters, or outdoor wood-burning devices.
(Adopted 10/21/15)
- 6-3-221 Ringelmann Chart:** A numerical ranking system whereby graduated shades of gray varying by five equal steps between white and black are visually compared to the density of smoke. The chart, as distributed by the United States Bureau of Mines, provides the graduated shades 1, 2, 3, 4 and 5, which are known as Ringelmann No. 1, 2, 3, 4 and 5, respectively. The system is used in determining whether emissions of smoke are within limits or standards of opacity.
- 6-3-222 Seasoned Wood:** Firewood that has a moisture content of 20 percent or less by weight using the testing method specified in Section 6-3-602.
- 6-3-223 Solid Fuel:** Any wood, wood-based product, non-gaseous or non-liquid fuel, including but not limited to: manufactured logs, pressed logs, wood or other pellet products.
- 6-3-224 7 ~~Winter Spare the Air Alert (WSTA):~~** An alert by the APCO that notifies the public when a ~~negative impact upon public health is anticipated resulting from PM_{2.5} levels forecast to exceed 35 µg/m³ and that results in a~~ Mandatory Burn Ban ~~is in effect~~. Members of the public can verify status of a burn ban through the following methods:
- Listen to local TV or Radio News;
 - Call 1-877-4NO-BURN; ~~or~~
 - Check www.sparetheair.org; ~~or~~
 - [Follow District social media.](#)
- 6-3-225 4 Treated Wood:** Wood of any species that has been chemically impregnated, painted, or similarly modified to improve resistance to insects or weathering.
- 6-3-226 5 Uncertified Wood Heater:** A wood heater that is not certified by the U.S. EPA to meet requirements in Title 40 Code of Federal Regulations, Part 60, Subpart AAA.
(Adopted 10/21/15)
- 6-3-227 6 Visible Emissions:** Emissions which are visually perceived by an observer. Restrictions on visible emissions in District regulations are expressed as numbers on the Ringelmann Chart, as published by the United States Bureau of Mines.

~~6-3-227 **Winter Spare the Air Alert (WSTA):** An alert by the APCO that notifies the public when a negative impact upon public health is anticipated resulting from PM_{2.5} levels forecast to exceed 35 µg/m³ and that results in a Mandatory Burn Ban. Members of the public can verify status of a burn ban through the following methods:~~

- ~~• Listen to local TV or Radio News;~~

- ~~Call 1-877-4NO-BURN; or~~
- ~~Check www.sparetheair.org; or~~
- ~~Follow District social media.~~

(Adopted 10/21/15)

~~6-3-228 **Winter Spare the Air Season:** The months of November, December, January and February.~~

(Adopted 10/21/15)

6-3-228 9 Wood Heater: An enclosed wood-burning device capable of and intended for space heating such as a. wood stove, pellet-fueled wood heater, or wood-burning fireplace insert.

(Adopted 10/21/15)

6-3-229 30 Wood-burning Device: Any wood heater, fireplace, or any indoor permanently installed device used to burn any solid fuel for space-heating or aesthetic purposes.

6-3-300 STANDARDS

6-3-301 Burning Prohibited During Mandatory Burn Ban: ~~During the months of November through February, n~~No person shall operate or combust wood or solid-fuel products in any wood-burning device during a Mandatory Burn Ban.

(Amended 10/21/15)

6-3-302 Requirements for Wood Heater Manufacturers and Retailers: No manufacturer or retailer shall advertise, sell, offer for sale or resale, supply, install or transfer a new or used wood-burning device intended for use within District boundaries unless the device meets or exceeds the requirements of Title 40 Code of Federal Regulations, Part 60, Subpart AAA, which are as follows:

302.1 Effective May 15, 2015, any wood heater that is manufactured must be certified to meet the 4.5 g/hr emissions rating specified in 40 C.F.R. § 60.532(a).

302.2 Effective December 31, 2015, any wood heater that is sold at retail must be certified to meet the emissions rating of 4.5 g/hr as specified in 40 C.F.R. § 60.532(a).

302.3 Effective May 15, 2020, any wood heater that is manufactured or sold at retail must meet an emissions rating of 2.5 g/hr if crib tested, or 2.0 g/hr if cordwood tested, as specified in 40 C.F.R. § 60.532(b) and (c).

(Adopted 10/21/15)

6-3-303 Sale, Resale, Transfer or Installation of Wood-Burning Devices: Effective December 1, 2015, no person shall advertise, sell, offer for sale or resale, supply, install or transfer a new or used wood-burning device intended for use within District boundaries unless the device meets or exceeds the requirements of Title 40 Code of Federal Regulations, Part 60, Subpart AAA. This requirement does not apply if a wood-burning device is an installed fixture included in the sale or transfer of any real property.

(Amended 10/21/15)

6-3-304 Disclosure Requirements for Real Property: Effective June 1, 2016, any person selling, renting or leasing real property shall provide sale or rental disclosure documents that describe the health hazards of PM_{2.5} from burning wood or any solid fuel as a source of heat. Disclosure documents must disclose PM_{2.5} health hazards in accordance with guidance made available on the District's website.

(Adopted 10/21/15)

6-3-305 Requirements for Rental Properties: Effective November 1, 2018, all real property offered for lease or rent in areas with natural gas service shall have a permanently-installed form of heat that does not burn solid fuel.

(Adopted 10/21/15)

6-3-306 Requirements for New Building Construction: Effective November 1, 2016, no person or builder shall install a wood-burning device in a new building construction. *(Amended 10/21/15)*

6-3-307 Requirements for Remodeling a Fireplace or Chimney: Effective November 1, 2016, no person shall remodel a fireplace or chimney unless a gas-fueled, electric, or EPA certified device is installed that meets requirements in Title 40 Code of Federal Regulations, Part 60, Subpart AAA. This requirement is triggered by a fireplace or chimney remodel where a total cost exceeds \$15,000 and requires a local building permit. The total cost excludes the cost of a building permit. *(Adopted 10/21/15)*

6-3-308 Visible Emissions Limitation: Effective November 1, 2015, no person shall cause or allow a visible emission from any wood-burning device in any building or structure that exceeds No. 1 on the Ringelmann Chart or 20 percent opacity for a period or periods aggregating more than 3 minutes in any hour. Visible emissions from the startup of a new fire for a period not to exceed twenty consecutive minutes in any consecutive four-hour period are not subject to this provision. *(Amended 10/21/15)*

6-3-309 Prohibition Against Burning Garbage, Non-Seasoned Wood or Certain Materials: No person shall cause or allow any of the following materials to be burned in a wood-burning device: garbage, treated wood, non-seasoned wood, used or contaminated wood pallets, plastic products, rubber products, waste petroleum products, paints and paint solvents, coal, animal carcasses, glossy or colored paper, salt water driftwood, particle board, and any material not intended by a manufacturer for use as a fuel in a wood-burning device.

6-3-310 Requirements for Sale of Wood: No person shall sell, offer for sale, or supply any wood (not to include manufactured logs) intended for use in a wood-burning device that does not meet one of the following requirements:

310.1 Have a moisture content of 20 percent or less by weight, or

310.2 For moisture content of greater than 20 percent by weight, be identified as unseasoned wood and include instructions on how to dry out the wood, as required in Section 6-3-403.3, before combustion.

6-3-400 ADMINISTRATIVE REQUIREMENTS

6-3-401 Device Sale or Installation, Public Awareness Information: Any person offering for sale, selling or installing a new or used wood-burning device subject to Sections 6-3-302 and 6-3-303 shall provide public awareness information to each purchaser of a wood-burning device in the form of pamphlets, brochures, or fact sheets addressing proper installation, operation, and maintenance of the wood-burning device and the health effects of wood smoke. The information on health effects of wood smoke shall include the following statement:

“Wood smoke contains harmful particulate matter (PM) which is associated with numerous negative health effects.”

6-3-402 Device Manufacturer’s Certification or Proof of Equivalency: The manufacturer and retailer of any wood-burning device shall provide documentation to any purchaser that the device is U.S. EPA certified or that the device meets the equivalent Title 40 Code of Federal Regulations (CFR), Part 60, Subpart AAA.

6-3-403 Labeling for Solid Fuel or Wood Sale: Any person offering for sale, selling or providing solid fuel or wood intended for use in a wood-burning device within District boundaries shall:

403.1 Attach a label to each package of solid fuel or wood sold that states the following:

“Use of this and other solid fuels may be restricted at times by law. Please check 1-877-4-NO-BURN or <http://www.8774noburn.org/> before burning.”

- 403.2 If wood is seasoned (not to include manufactured logs), then the label must also state the following:

“This wood meets air quality regulations for moisture content to be less than 20 % (percent) by weight for cleaner burning.”

- 403.3 If wood is not seasoned (not to include manufactured logs), then the label must state the following:

“This wood does **NOT** meet air quality regulations for moisture content and must be properly dried before burning.”

In addition to the disclosure listed above, any person offering for sale or selling wood that is not seasoned for use in a wood-burning device shall also provide written instructions on how to properly dry the wood to achieve a 20% (percent) by weight moisture content.

- 6-3-404 Registration of EPA Certified Wood Heaters:** Effective November 1, 2016, any person seeking to claim the exemption provided in Section 6-3-110 must have previously registered their EPA certified wood heater in the District’s registration program and must maintain documentation that the device is operated according to manufacturer’s specifications. The following wood heaters are eligible to be registered:

404.1 Wood heaters that are EPA Certified to meet performance and emission standard of 7.5 g/hr or less.

404.2 A pellet-fueled wood heater exempt from EPA certification requirements pursuant to the requirements in Title 40 Code of Federal Regulations (CFR), Part 60, Subpart AAA at time of purchase or installation.

(Adopted 10/21/15)

- 6-3-405 Registration Renewal:** Registration pursuant to Section 6-3-404 shall be for a term of 5 years. Application for renewal of registration must be received by the District prior to expiration of the 5-year term.

(Adopted 10/21/15)

6-3-500 MONITORING AND RECORDS

- 6-3-501 Burden of Proof:** The burden of proof of eligibility for exemption pursuant to Section 6-3-110, 111, and 112 is on the claimant. Any person claiming exemption shall maintain adequate documentation or records demonstrating that the registered device is the sole source of heat. Such records must be provided to the APCO upon request. Qualification for the exemption provided in Section 6-3-110 is subject to inspection and verification.

(Amended 10/21/15)

- 6-3-502 Proof of Certification or Equivalency:** Upon request of the APCO, a manufacturer shall demonstrate that each wood-burning device subject to the requirements of Section 6-3-302 meets the standards set forth in this regulation.

6-3-600 MANUAL OF PROCEDURES

- 6-3-601 Determination of Visible Emissions:** Ringelmann standard shall be determined by Manual of Procedures-Volume 1 – Enforcement Procedures, Evaluation of Visible Emissions or any other EPA method that has been approved by APCO.

(Amended 10/21/15)

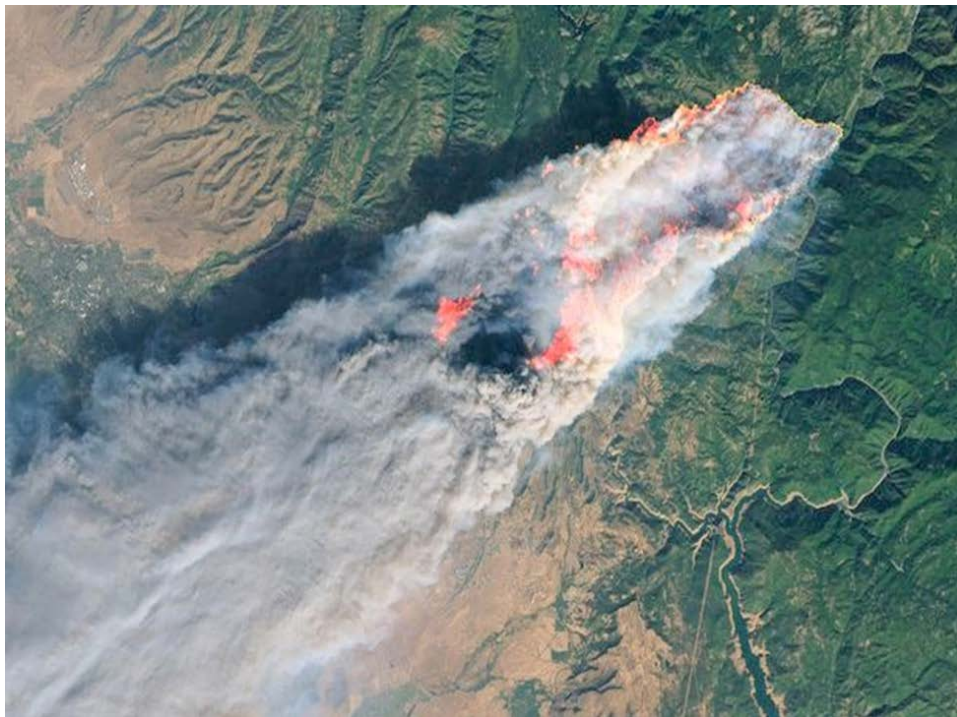
- 6-3-602 Determination of Moisture Content:** Moisture content of wood shall be determined by ASTM Test Method D 4442-92 or a hand-held moisture meter operated in accordance with ASTM Test Method D 4444-92, Standard Test Methods for Use and Calibration of Hand-Held Moisture Meters.
- 6-3-603 Determination of EPA Certification or Equivalency:** EPA certification or demonstration of equivalence for wood burning-devices shall be performed in accordance with EPA Guidance Document for Residential Wood Combustion, Method 28, 5G, 5H, or other EPA approved methodology.



BAY AREA
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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.

Air District staff recommends the Board of Directors adopt the proposed amendments to Regulation 5 and Rule 6-3 and approve filing a Notice of Exemption/Determination pursuant to CEQA at the Public Hearing scheduled for November 20, 2019.

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 PAINT (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).

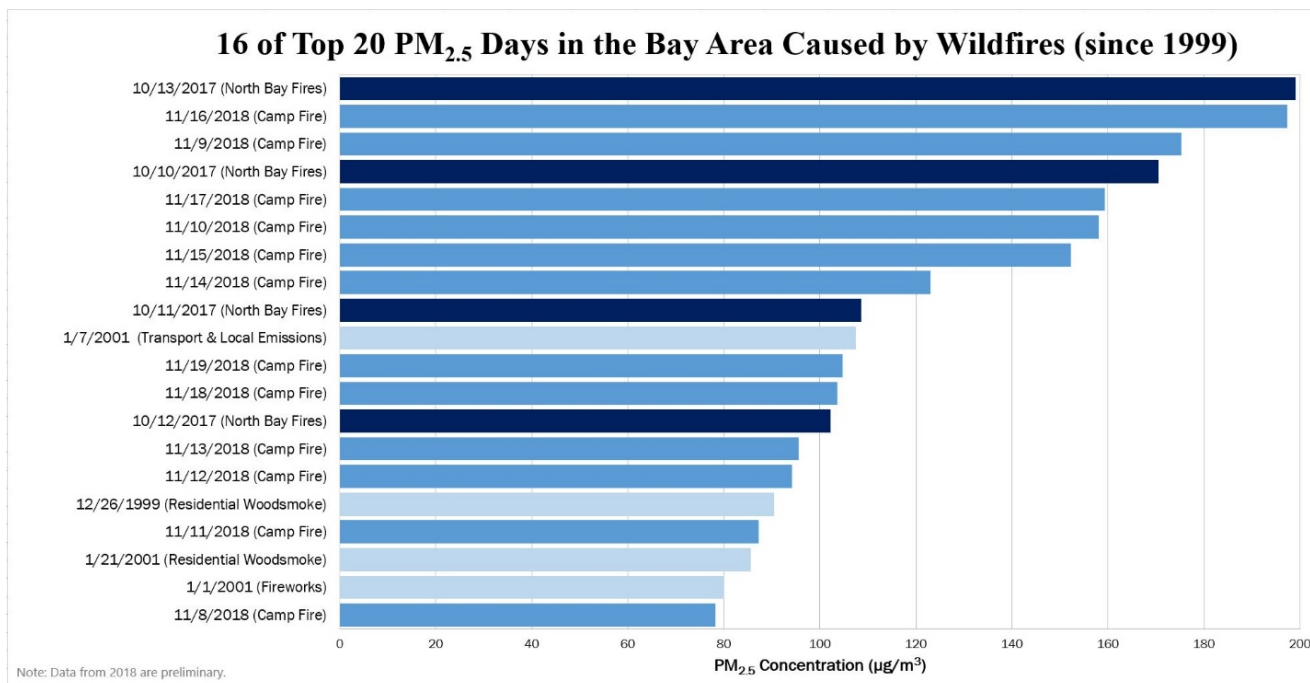


Figure 2. Top 20 24-hour average PM_{2.5} concentrations in the Bay Area.

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.

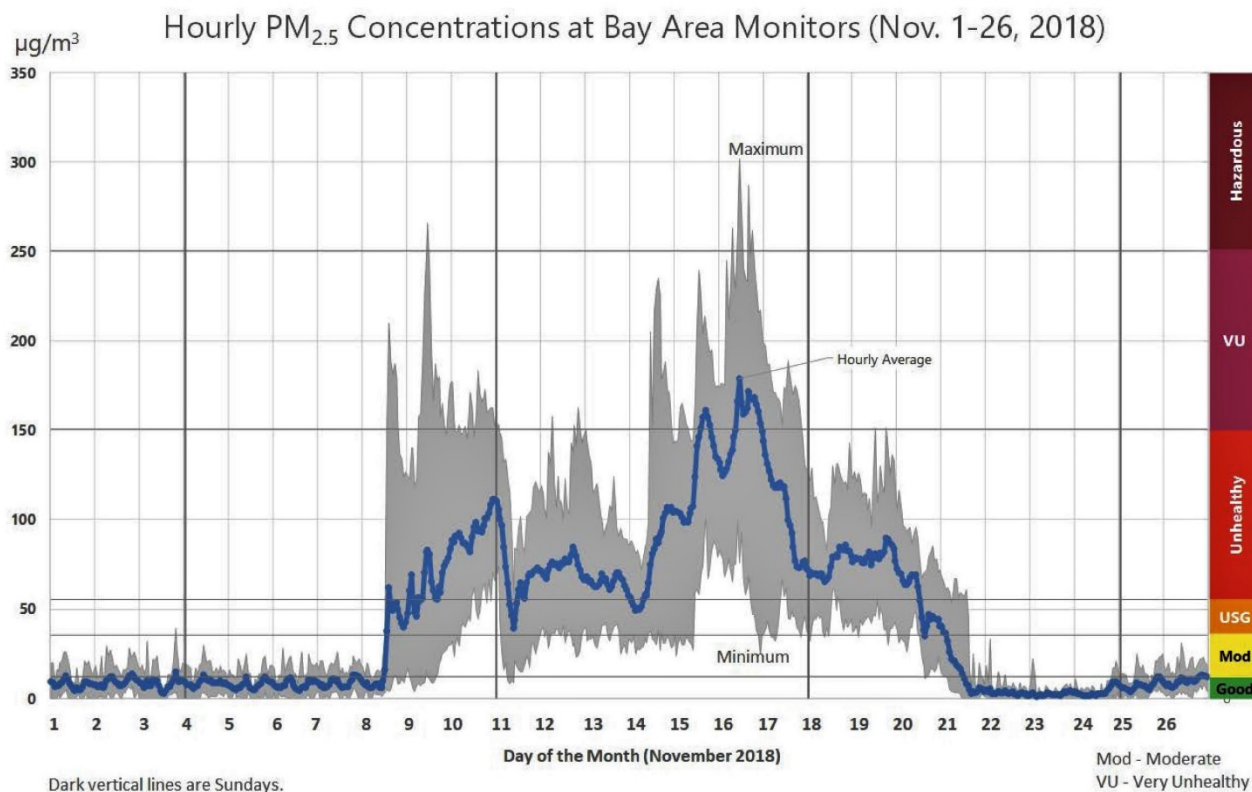


Figure 3. Hourly PM_{2.5} concentrations at Bay Area monitors from November 1 - 26, 2018.

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/emsmv/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.

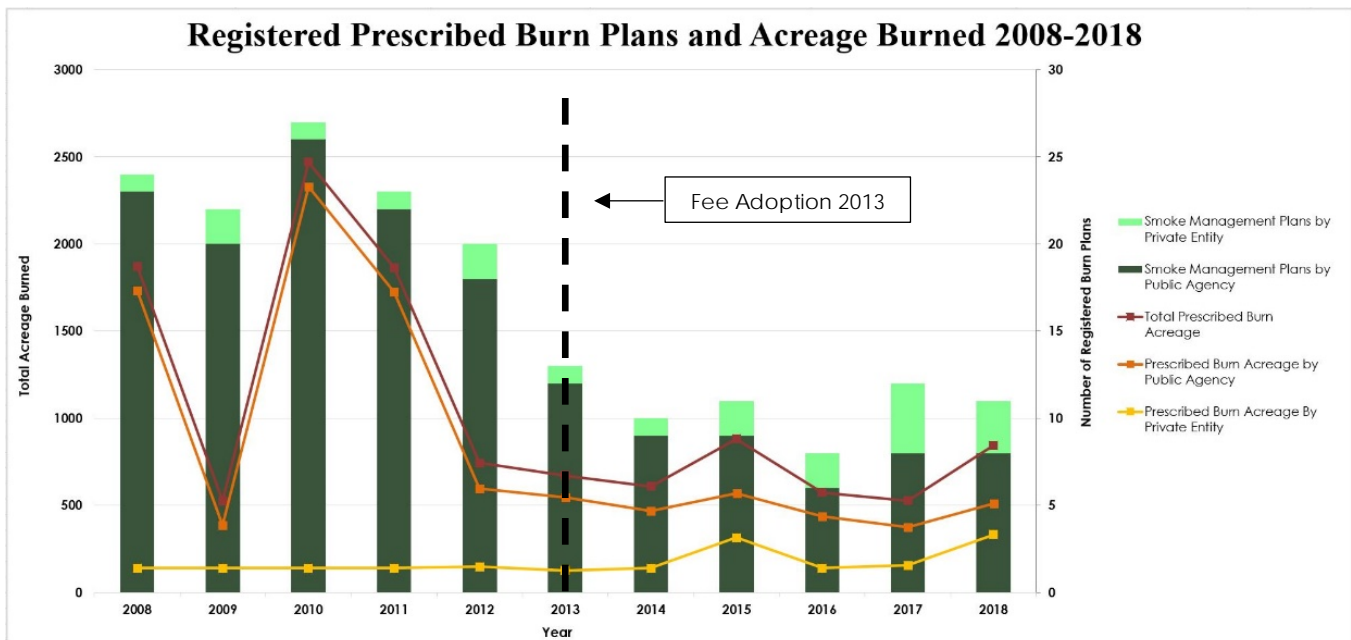


Figure 4. Registered Prescribed Burn Plans and Acreage Burned in the Bay Area (2008 – 2018).

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 µg/m³ 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, 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 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 - 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 published a Hearing Package on the Air District website on September 23, 2019, and those documents were available for a 30-day public comment period from September 23 - October 23, 2019. The proposed amendments are scheduled to be presented to the Air District Board of Directors for consideration on November 20, 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

Bay Area Air Quality Management District. 2019. *Regulation 3: Fees (Effective July 1, 2019)*. http://www.baaqmd.gov/~media/dotgov/files/rules/archive-2019-regulation-3/documents/20190605_fr_0300_2019-pdf.pdf?la=en.

Bay Area Air Quality Management District. 2013. *Regulation 5: Open Burning*. <http://www.baaqmd.gov/~media/dotgov/files/rules/reg-5-open-burning/documents/rg0500.pdf?la=en>.

Bay Area Air Quality Management District. 2008. *Proposed New Regulation 6: Particulate Matter, Rule 3: Wood-burning Devices, Amendments to Regulation 1: General Provisions and Definitions, and Regulation 5: Open Burning Staff Report*. http://www.baaqmd.gov/~media/files/planning-and-research/public-hearings/2008/reg-6-rule-3/0603_stfrpt_060408.pdf.

Bay Area Air Quality Management District. 2019. Compliance and Enforcement Division's *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

Bay Area Air Quality Management District. 2012. *Understanding Particulate Matter: Protecting Public Health in the San Francisco Bay Area*. http://www.baaqmd.gov/~media/files/planning-and-research/plans/pm-planning/understandingpm_draft_aug-23.pdf.

Berger, C., S. Fitzgerald, D. Leavell, and J. Peterson. 2018. *Fire FAQs: Air quality impacts from prescribed fire and wildfire: How do they compare?* Oregon State University Extension Service. <https://catalog.extension.oregonstate.edu/em9203/html>.

Bølling, Anette Kocback, Joakim Pagels, Karl Espen Yttri, Lars Barregard, Gerd Sallsten, Per E Schwarze and Christoffer Boman. 2009. *Health effects of residential wood smoke particles: the importance of combustion conditions and physicochemical particle properties*. *Particle and Fibre Toxicology* 6: 29.

California Air Resources Board. Draft January 2019. *California 2030 Natural and Working Lands Climate Change Implementation Plan*. <https://ww3.arb.ca.gov/cc/natandworkinglands/draft-nwl-ip-1.3.19.pdf>.

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

California Department of Forestry and Fire Protection. 2019. *Camp Fire Incident Report*.

California Department of Forestry and Fire Protection. 2019. *Community Wildfire Prevention and Mitigation Report*. <https://www.fire.ca.gov/media/5584/45-day-report-final.pdf>.

California, Executive Department [Edmund Brown Jr.]. Executive Order B-52-18. 10 May 2018. <https://fmtf.fire.ca.gov/media/1859/51018-forest-eo.pdf>.

California, Executive Department [Gavin Newsom]. Executive Order N-05-19. 8 January 2019. <https://www.gov.ca.gov/wp-content/uploads/2019/01/1.8.19-EO-N-05-19.pdf>.

California, Executive Department [Gavin Newsom]. Proclamation of a State of Emergency. 22 March 2019. <https://www.gov.ca.gov/wp-content/uploads/2019/03/03.22.19-State-of-Emergency-Attested.pdf>.

Fernandes, Paulo M. and Herminio S. Botelho. 2003. *A review of prescribed burning effectiveness in fire hazard reduction*. *Journal of Wildland Fire* 12: 117-128.

Flannigan, M.D., B.J. Stocks, and B.M. Wonton. 2000. *Climate change and forest fires*. *Science of the Total Environment* 262 (December): 221-229.

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>.

United States Environmental Protection Agency. 2016. *Wildfire Smoke: A Guide for Public Health Officials*. https://www3.epa.gov/airnow/wildfire_may2016.pdf.

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

Westerling, Anthony Leroy. 2016. *Increasing western US forest wildfire activity: sensitivity to changes in the timing of spring*. Philosophical Transactions of the Royal Society B 371: 20150178.

Williams, A. P., Abatzoglou, J. T., Gershunov, A., Guzman-Morales, J., Bishop, D. A., Balch, J. K., & Lettenmaier, D. P. 2019. *Observed impacts of anthropogenic climate change on wildfire in California*. Earth's Future, 7, 892–910. <https://doi.org/10.1029/2019EF001210>.

XII. APPENDICES

A. Comments and Responses

B. Socioeconomic Analysis

C. CEQA Analysis

Appendix A: Public Comments and Air District Responses

Regulation 5: Open Burning

Comment 1: *Given that the BAAQMD is considering amendments to Regulation 5 that intends to complement statewide efforts to reduce catastrophic wildfire risk, it seems out of sync with PRC 4475 if BAAQMD continues to charge non-public agencies open burning fees, while waiving them for public agencies.*

Prometheus Fire Consulting Services

Response 1: Public Resource Code (PRC) 4475 pertains to agreements made with CAL FIRE for prescribed burning. The fee exemption would 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.

Comment 2: Letter of Support for exempting public agencies from paying open burning fees.

County of Santa Clara Department of Parks and Recreation

Response 2: The Air District notes and appreciates the County of Santa Clara Department of Parks and Recreation's support of the proposed amendments.

Comment 3: *Prescribed burning and training exercises, such as CA-219, to train prescribed burn and fire personnel the skills required for prescribed burning should be exempted from fees. The fuels build up in CA presents a great threat to life and property and air quality. The objectives of prescribed burns and training exercises are to reduce fuels are a net savings to CA air quality. Yet CA does not have enough funding to conduct enough prescribed burning and training needed to reduce all fuel loadings. The waiving or reduction in permit fees will assist in these endeavors.*

Emergency Management Consultants, LLC

Response 3: The Air District notes and appreciates the commenter's support of the proposed amendments generally. If training exercises are conducted as part of prescribed burns, they would be exempt from fees under the current proposed amendments. The Air District will consider expanding the exemption to cover additional training exercises in future amendments to the Regulation, but such a change is outside of the scope of the current proposed amendments.

Comment 4: Letter of Support for the proposed amendments.

San Mateo County Parks Department

Response 4: The Air District notes and appreciates the San Mateo County Parks Department's support of the proposed amendments.

Comment 5: *The Coalition for Clean Air is concerned with any Open Burning, because of its associated harmful air pollutants, especially PM_{2.5}. To address our concern with BAAQMD's*

proposed amendments to Regulation 5: Open Burning, we request that the District look for reasonable solutions, including incentives to reuse materials planned for Open Burning. Specifically, we recommend that options which would reuse instead of burning designated contents of targeted acreage be developed. With proper planning, such options could include reuse of collected compost, wood, etc., if proven to be reasonable and cost effective. As we heard at the July 24, 2019 workshop from other comments, even though the clearing of such targeted acreage in lieu of burning could cost several thousands of dollars per acre, such costs may be able to be reasonably subsidized by an existing air pollution funding mechanism or other programs.

Coalition for Clean Air

Response 5: The Air District's proposed amendments support statewide efforts to prevent larger, more destructive wildfires through increased prescribed burning. The Air District currently offers alternatives to open burning through its Agricultural Waste Chipping Program to help reduce emissions from agricultural operations. The Agricultural Waste Chipping Program offers incentives to chip agricultural waste that would otherwise be burned. The chipped material is then available for reuse.

Comment 6: *Letter of Support for the proposed amendments.*

Midpeninsula Regional Open Space District

Response 6: The Air District notes and appreciates the Midpeninsula Regional Open Space District's support of the proposed amendments.

Rule 6-3: Wood-Burning Devices

Comment 7: *Support of year-round protection from unhealthy air.*

Resident

Response 7: The Air District notes and appreciates the commenter's support of the proposed amendments.

Comment 8: *The Coalition for Clean Air supports BAAQMD's latest amendments to extend the banning of designated wood burning during Spare the Air Alerts year-round. However, BAAQMD still allows common uncontrolled wood burning during most days in a year.*

We continue to recommend that BAAQMD adopt its original March 2015 proposal regarding Sale or Transfer of Real Property requiring the decommissioning of an uncertified wood burning device or replacement with appropriate equipment to lower Fine Particulates (PM_{2.5}) emissions. This measure is needed because of the frequent and harmful exposure of wood burning toxic pollutants to Bay Area residents on any allowed wood burning day.

Coalition for Clean Air

Response 8: The Air District notes and appreciates the Coalition for Clean Air's support of the current proposed amendments specifically aimed to address the unprecedented increase in devastating wildfires over the last few years. The Air District also appreciates the Coalition's

support of the 2015 proposal, "Sale or Transfer of Real Property," to require the replacement of uncertified wood-burning devices at the time of property sale, resale, or transfer. The Air District recognizes the need to continue to transition the Bay Area to cleaner heating devices to further reduce regional and local fine particulate emissions and may consider the "Sale or Transfer of Real Property" proposal in future rulemaking efforts.

bae urban economics

**Socio-Economic Impact Study of Proposed Amendments
to Regulation 5: Open Burning**

Submitted to: Bay Area Air Quality Management District
September 9, 2019

bae urban economics

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EXECUTIVE SUMMARY

Description of Proposed Rule

Wildfire smoke presents immediate impacts to local air quality and public health, and atmospheric conditions can quickly transport smoke great distances, with even distant fires affecting the air quality throughout the Bay Area. The fires in Napa and Sonoma County in 2017 and in Butte County in 2018 generated unprecedented levels of particulate matter, which reached hazardous levels never before experienced in the Bay Area.

The Bay Area Air Quality Management District (“Air District” or “BAAQMD”) proposes to amend Regulation 5 to help reduce potential cost barriers associated with open burning fees to align with statewide efforts to prevent larger, more destructive wildfires through increased prescribed burning. The draft Regulation 5 amendments would:

- Exempt public agencies from paying Open Burning Operation Fees when conducting prescribed burns for the purpose of wildfire prevention (Regulation 5, Section 113).
- Clarify the administrative requirement for Open Burning Operation Fees (Regulation 5, Section 411).

Prescribed burning is a way to reduce the potential for larger, more destructive wildfires, prevent harmful wildfire smoke impacts, and maintain healthy forest ecosystems. The Air District proposes to amend Regulation 5 to eliminate fees to public agencies that conduct prescribed burning for wildfire prevention for the benefit of the public and environment. Currently, the Wildland Vegetation Management fire type is defined in Regulation 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 draft limited exemption for public agencies (Regulation 5, Section 113). Other changes in Regulation 5 are limited to administrative clarifications (e.g., fee must be paid before the proposed burn activity) and replacement text (e.g., “Curtailed Period” replaced by “Mandatory Burn Ban”) and thus are not material changes that could potentially lead to socioeconomic impacts. 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.

Affected Industries

The direct impacts of the proposed amendments to Regulation 5 will fall on public agencies, and take the form of reduced fees, resulting in minor cost savings for those agencies and minor decreases in revenues for the Air District. The total cost of the 45 permits issued from 2013 through 2018 was only \$20,772, or approximately \$460 per permit, a negligible amount. Furthermore, the fees to be eliminated represent a minor benefit for the applicant agencies, rather than a cost. The amendment also has no impact on the private sector. As a result there are no expected socioeconomic impacts associated with the proposed rule change in either the private or public industry sectors.

Socio-Economic Impacts

As noted above, aside from administrative changes, the amendment primarily entails reduced fees for public agencies applying for permits for prescribed burns. There are no costs to these agencies associated with the rule change, and the decrease in revenues to the Air District is negligible. Thus there are no expected socioeconomic impacts associated with the amendments to Regulation 5.

Small Business Impacts

According to California Government Code 14835, a small business is any business that meets the following requirements:

- Must be independently owned and operated;
- Cannot be dominant in its field of operation;
- Must have its principal office located in California;
- Must have its owners (or officers in the case of a corporation) domiciled in California; and
- Together with its affiliates, be either:
 - A business with 100 or fewer employees, and an average annual gross receipts of \$10 million or less over the previous three tax years, or
 - A manufacturer with 100 or fewer employees.

None of the impacts are related to private businesses, thus there is no expected potential for significant impacts for any small business.

DESCRIPTION OF PROPOSED RULE AMENDMENT

Over the last several years, California has experienced some of the deadliest and most destructive wildfires in its history, with wildfire events becoming the “new normal.”¹ As a result, new wildfire prevention initiatives and actions are needed. Climate change is causing higher temperatures and longer dry periods, as well as lengthening the fire season and increasing the risk of wildfires. In addition to destroying entire communities and burning everything in their path, wildfires generate a mixture of fine particulate matter and hazardous chemicals and compounds in the air.

Wildfire smoke presents immediate impacts to local air quality and public health, and atmospheric conditions can quickly transport smoke great distances, with even distant fires affecting the air quality throughout the Bay Area. The fires in Napa and Sonoma County in 2017 and in Butte County in 2018 generated unprecedented levels of particulate matter, which reached hazardous levels never before experienced in the Bay Area.

As a result, the Bay Area Air Quality Management District (“Air District” or “BAAQMD”) proposes to amend Regulation 5 to help reduce potential cost barriers associated with open burning fees to align with statewide efforts to prevent larger, more destructive wildfires through increased prescribed burning. The draft Regulation 5 amendments would:

- Exempt public agencies from paying Open Burning Operation Fees when conducting prescribed burns for the purpose of wildfire prevention (Regulation 5, Section 113).
- Clarify the administrative requirement for Open Burning Operation Fees (Regulation 5, Section 411).

Currently, Air District Regulation 5 prohibits open burning with the exception of 17 types of fires that are conditionally allowed on designated permissive burn days when meteorological conditions are favorable for dispersion. 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 ensure fire safety. Prescribed burns are designed to burn less intensely than wildfires and are lit amid controlled conditions to minimize potential smoke impacts.

¹ This rule description borrows much of its text from the “Reg 5 and Rule 6-3 Workshop Report” from July 2019.

Wildfire events are more likely to result in harmful air quality and public health impacts than prescribed 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. 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 a way to reduce the potential for larger, more destructive wildfires, prevent harmful wildfire smoke impacts, and maintain healthy forest ecosystems.

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 Regulation 5 to eliminate fees to public agencies that conduct prescribed burning for wildfire prevention for the benefit of the public and environment. Currently, the Wildland Vegetation Management fire type is defined in Regulation 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 draft limited exemption for public agencies (Regulation 5, Section 113). Other changes in Regulation 5 are limited to administrative clarifications (e.g., fee must be paid before the proposed burn activity) and replacement text (e.g., “Curtailed Period” replaced by “Mandatory Burn Ban”) and thus are not material changes that could potentially lead to socioeconomic impacts.

The draft amendments to Regulation 5 would remove potential cost barriers for public agencies conducting a prescribed burn for wildfire prevention purposes. The draft amendment is intended to complement statewide efforts by removing potential barriers to prescribed burning conducted for wildfire prevention purposes. The draft amendment would exempt a public agency from having to pay an Open Burning Operation Fee,² as currently required by Regulation 5, Section 411

² 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: Total Fees & Submitted Plans for Prescribed Burns by Public Agencies, 2013-2018

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>Total</u>
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

Note: Fee was introduced in 2013.

Source: BAAQMD, 2019.

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.

REGIONAL TRENDS

This section provides background information on the demographic and economic trends for the nine-county San Francisco Bay Area, which represents the Air District’s jurisdiction.³ Regional trends are compared to statewide demographic and economic patterns since 2000, in order to show the region’s unique characteristics relative to the State and to provide context for the impact analysis.

Regional Demographic Trends

Table 2 shows the population and household trends for the nine-county Bay Area and California between 2000 and 2019. During this time, the Bay Area’s population increased by 14.7 percent, compared to 17.9 percent for California as a whole. Similarly, the number of Bay Area households grew by 10.4 percent, compared to 13.8 percent growth statewide, as average household size increased in both geographies.

Table 2: Population and Household Trends, 2000-2019

Bay Area (a)	2000	2019	Total Change 2000-2019	% Change 2000-2019
Population	6,784,348	7,783,460	999,112	14.7%
Households	2,466,020	2,723,550	257,530	10.4%
Average Household Size	2.69	2.80		
California				
Population	33,873,086	39,927,315	6,054,229	17.9%
Households	11,502,871	13,085,036	1,582,165	13.8%
Average Household Size	2.87	2.99		

Notes:

(a) Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma Counties.

Sources: California State Department of Finance, 2019; US Census, 2000; BAE 2019.

The Bay Area’s slower growth is tied to its relatively built-out environment, compared to the state overall. While Central Valley locations, such as the Sacramento region, experienced large increases in the number of housing units, the Bay Area experienced more moderate

³ The Air District’s jurisdiction consists of nine counties, including all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties, as well as the western portion of Solano County and the southern portion of Sonoma County. See <http://www.arb.ca.gov/app/dislookup/dislookup.php>

increases in housing units. Nevertheless, the region has still gained almost one million residents since 2000.

Regional Economic Trends

Table 3 shows jobs by sector in 2013 and 2018 for the Bay Area and California. In the five-year period between 2013 and 2018, the Bay Area's employment base grew by 16.2 percent, increasing from 3.44 million jobs to almost 4.00 million jobs, as the economy has shown strong growth. Statewide employment only increased by 13.1 percent from 15.56 million jobs in 2013 to 17.60 million jobs in 2018. The rate of job growth for both the Bay Area and the State over the five-year period was far higher than the rate of population growth, another indicator of the strong recovery from recession.

The largest major economic sectors in the Bay Area economy are Professional & Business Services, Educational & Health Services, Government, and Leisure & Hospitality. Each of these sectors accounted for over 10 percent of all wage and salary employment in the region. Overall, the Bay Area's economic base largely resembles the state's base, sharing a similar distribution of employment across sectors. One noteworthy variation is the higher Bay Area employment in the Professional, Scientific, & Technical Services sector, which makes up 19.3 percent of employment in the Bay Area compared to only 15.1 percent statewide.

All major industry sectors showed an increase in employment in the Bay Area between 2013 and 2018, with increases of greater than 20 percent in Information; Mining, Logging, and Construction; and Transportation, Warehousing, and Utilities. The growth of over 50 percent in Information is especially noteworthy, indicating the continuing importance of the technology economy in the region. Statewide, the same three major sectors showed employment growth of more than 20 percent, but the growth in Information jobs was only 21 percent.

Table 3: Jobs by Sector, 2013-2018 (a)

Industry Sector	Bay Area					California				
	2013 (b)		2018 (c)		% Change 2013-2018	2013 (b)		2018 (c)		% Change 2013-2018
	Jobs	% Total	Jobs	% Total		Jobs	% Total	Jobs	% Total	
Agriculture	19,900	0.6%	20,100	0.5%	1.0%	412,400	2.6%	424,200	2.4%	2.9%
Mining, Logging, and Construction	152,400	4.4%	205,400	5.1%	34.8%	666,000	4.3%	882,400	5.0%	32.5%
Manufacturing	313,800	9.1%	362,700	9.1%	15.6%	1,262,500	8.1%	1,325,400	7.5%	5.0%
Wholesale Trade	119,600	3.5%	122,900	3.1%	2.8%	671,300	4.3%	698,900	4.0%	4.1%
Retail Trade	328,100	9.5%	346,000	8.7%	5.5%	1,593,900	10.2%	1,688,600	9.6%	5.9%
Transportation, Warehousing, and Utilities	90,000	2.6%	116,700	2.9%	29.7%	503,800	3.2%	664,000	3.8%	31.8%
Information	138,400	4.0%	211,500	5.3%	52.8%	449,800	2.9%	543,700	3.1%	20.9%
Financial Activities	177,200	5.2%	194,500	4.9%	9.8%	781,200	5.0%	836,300	4.8%	7.1%
Professional & Business Services	645,500	18.8%	771,500	19.3%	19.5%	2,349,200	15.1%	2,663,700	15.1%	13.4%
Educational & Health Services	516,700	15.0%	599,500	15.0%	16.0%	2,309,000	14.8%	2,726,500	15.5%	18.1%
Leisure & Hospitality	371,500	10.8%	432,100	10.8%	16.3%	1,674,800	10.8%	1,986,100	11.3%	18.6%
Other Services, except Public Administration	117,400	3.4%	129,900	3.3%	10.6%	515,500	3.3%	572,100	3.3%	11.0%
Government (d)	449,500	13.1%	483,000	12.1%	7.5%	2,374,300	15.3%	2,587,400	14.7%	9.0%
Total, All Employment (e)	3,440,000	100.0%	3,995,800	100.0%	16.2%	15,563,700	100.0%	17,599,400	100.0%	13.1%
Population	7,417,430		7,751,650		4.5%	38,321,459		39,740,508		3.7%

Notes:

(a) Includes all wage and salary employment.

(b) Represents annual average employment for calendar year 2013.

(c) Represents annual average employment for calendar year 2018.

(d) Government employment includes workers in all local, state and Federal workers, not just those in public administration. For example, all public school staff is in the Government category.

(e) Totals may not sum from parts due to independent rounding.

Sources: California Employment Development Department, 2019; CA Department of Finance, 2019; BAE, 2019.

AFFECTED INDUSTRIES

The direct impacts of the proposed amendments to Regulation 5 will fall on public agencies, and take the form of reduced fees, resulting in minor cost savings for those agencies and minor decreases in revenues for the Air District. The total cost of 45 permits issued from 2013 through 2018 was only \$20,772, or approximately \$460 per permit, a negligible amount. Furthermore, the fees to be eliminated represent a minor benefit for the applicant agencies, rather than a cost. The amendment also has no impact on the private sector. As a result there are no expected socioeconomic impacts associated with the proposed rule change in either the private or public industry sectors.

SOCIO-ECONOMIC IMPACTS

As noted above, aside from administrative changes, the amendment primarily entails reduced fees for public agencies applying for permits for prescribed burns. There are no costs to these agencies associated with the rule change, and the decrease in revenues to the Air District is negligible. Thus there are no expected socioeconomic impacts associated with the amendments to Regulation 5.

Small Business Impacts

According to California Government Code 14835, a small business is any business that meets the following requirements:

- Must be independently owned and operated;
- Cannot be dominant in its field of operation;
- Must have its principal office located in California;
- Must have its owners (or officers in the case of a corporation) domiciled in California; and
- Together with its affiliates, be either:
 - A business with 100 or fewer employees, and an average annual gross receipts of \$10 million or less over the previous three tax years, or
 - A manufacturer with 100 or fewer employees.

None of the impacts are related to private businesses, thus there is no expected potential for significant impacts for any small business.

bae urban economics

**Socio-Economic Impact Study of Proposed Amendments
to Regulation 6: Particulate Matter and Visible Emissions, Rule 3: Wood-Burning Devices**

Submitted to: Bay Area Air Quality Management District
September 5, 2019

bae urban economics

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EXECUTIVE SUMMARY

Description of Proposed Rule

Wildfire smoke presents immediate impacts to local air quality and public health, and atmospheric conditions can quickly transport smoke great distances, with even distant fires affecting the air quality throughout the Bay Area. The fires in Napa and Sonoma County in 2017 and in Butte County in 2018 generated unprecedented levels of particulate matter, including hazardous levels never before experienced in the Bay Area.

The Bay Area Air Quality Management District (“Air District” or “BAAQMD”) proposes to amend Regulation 6, Rule 3 (Rule 6-3) to further protect public health when wildfire smoke affects air quality in the Bay Area, since the current rule limits the Air District’s ability to ban wood burning only during the wintertime November through February period. The proposed 6-3 amendments would extend the Air District’s authority to announce a Spare the Air Alert and ban wood burning or combustion in wood-burning devices year-round whenever particulate matter is forecasted to exceed 35 micrograms per cubic meter (35µg/m³). The draft amendment will allow the Air District to ban wood burning any time unhealthy levels of particulate matter are forecasted, further protecting public health when wildfire smoke affects air quality in the Bay Area.

Socio-Economic Impacts

Affected Industries

The direct impacts of the proposed amendments to Rule 6-3 will fall on households and others burning wood either as a heat source or for ambiance, rather than on particular industries. Since the direct impacts would result in reduced purchased of firewood, households would see an increase in dollars available for other expenditures rather than negative impacts. One small subsector that might be affected is Direct Selling Firewood Dealers (a subset of NAICS 454310, Fuel Dealers) who could see sales decline as consumption drops due to an increase in days with a Mandatory Burn Ban.

There are no direct compliance costs to consumers associated with the ban; it merely prohibits the burning of wood in stoves and fireplaces on certain days of the year. As a result the analysis here assumes no socio-economic impacts on households or other users affected by the ban, and no further analysis of impacts on households and others using firewood is

undertaken. The following analysis focuses solely on any potential loss of sales at firewood dealers.

Impacts on Firewood Dealers

As noted previously, firewood dealers may see direct impacts on sales due to possible limitations on the use of firewood on certain additional days of the year. The current rule already bans wood burning on certain days from November through February; impacts of the current ban are not considered here. However, as a result of possible restrictions on certain additional days, firewood dealers may face lower sales and reduced revenues.

Economic Profile of Affected Industry

Firewood dealers are part of the category defined in the North American Industry Classification System (NAICS) as “Fuel Dealers,” an industry comprising “establishments primarily engaged in retailing heating oil, liquefied petroleum (LP) gas, and other fuels via direct selling,” in NAICS category 454310. More specifically, the Economic Census provides some data specifically for “Other Fuel Dealers,” which are “establishments primarily engaged in retailing fuels, such as coal, wood, or other fuels (except liquefied petroleum gas and heating oil) via direct selling.”

There are a very small number of Bay Area establishments in the Other Fuel Dealers category. According to the 2012 Economic Census (most recent data available), there were only 22 establishments in this category in all of California, and only eight in the San Jose-San Francisco-Oakland Combined Statistical Area (CSA), which encompasses the Air District’s region. Based on the data available, the dealers in the state employed only 79 workers, and the CSA’s dealers employed a total of between 20 and 79 employees.

BAE also queried Dun & Bradstreet data and conducted online searches, and obtained a list of firewood dealers in the Bay Area. This research shows 14 dealers, with 60 employees and annual revenues estimated at approximately \$6.2 million. While this information varies somewhat from the Economic Census for a variety of reasons related to the source,¹ it confirms that there are a limited number of firewood dealers in the Bay Area, and that they have limited employment.

¹ For example, the Duns data may include businesses with no paid wage and salary employees (e.g., sole proprietorships), even though DUNS reports employees at each site. Also, the Economic Census data are from a different time frame, and the DUNS data cannot be confirmed via administrative records that the Census Bureau may have access to.

While firewood and other fuel dealers are not the only source for firewood, it is unlikely that decreased sales of firewood products at other retail outlets (e.g., supermarkets or hardware stores) would be substantial enough to impact business adversely. The 2012 Economic Census data indicate that firewood sales do not account for a significant portion of sales for other types of retailers. For example, firewood sales make up less than one percent of sales at gasoline stations that carry the product; for fuel dealers selling firewood, 22 percent of revenues come from sales of firewood.

Estimated Rate of Return

Firewood dealers are part of the larger category of nonstore retailers (NAICS 454), which is the most specific category available in the IRS data on net corporate income. For this analysis, 10-year averages were used as a benchmark such that the impacts of any particular year's performance due to economic fluctuations are lessened. For nonstore retail corporations as a group, the 10-year average net income as a percent of total receipts for nonstore retailers is 4.3 percent.

Compliance Costs

Firewood dealers do not have costs related to compliance with the amended Rule. The potentially significant losses are related to decreased business, not compliance costs. The decreased business would result from decreased wood burning on Mandatory Burn Ban days.

As indicated by data from recent years, the number of such burn ban days may vary considerably by year due to short-term weather changes, and may change long-term due to climate change. Additionally, some of the exceedance days occur within the existing ban period, and thus the proposed rule change would not result in any changes in impacts for those days. Over the 2015 through 2018 period, there were an average of 4.75 exceedance days per year due to wildfires outside the current ban period, but the variation has been considerable over the four years, ranging from zero days in 2016 to 14 days in 2017. So far in 2019, there have been no exceedance days.

Assuming that households and others consume firewood at an even rate throughout the year, and that in an average year they would be restricted from burning on 4.75 additional days, in an average year their firewood consumption would be reduced by only approximately 1.3 percent. Using the "worst case" year (14 additional days of banned wood-burning) as the benchmark, firewood consumption would decline by 3.8 percent over the year.

However, these "back of the envelope" estimates of lost sales do not take into account seasonal variations in demand. The expanded burn ban period would cover warmer seasons

where the need to burn wood for heating would be less than during the current November to February period. In fact, the summer fire season is often associated with unusually hot weather on days where wood-burning for heat would be unlikely. Many of the exceedance days from 2015 through 2018 were days of extreme heat in the Bay Area; on one of those days (September 1, 2017) San Francisco recorded its hottest temperature ever.

Further analysis indicates that for San Francisco, only one of the 19 additional exceedance days between 2015 and 2018 had temperatures below the annual average; for Livermore, only four additional exceedance days had temperatures below the annual average. This indicates that overall, firewood consumption for heating on the additional exceedance days would be below annual per day averages. Nevertheless, to be conservative, the estimate of sales loss here is assumed to range from 1.3 to 3.8 percent of annual revenues. It is assumed that the losses will be sustained by these types of businesses; households and businesses heating with wood as their primary fuel are unlikely to be purchasing the kinds of small packages typically available at gasoline stations and other retailers such as supermarkets.

Impacts on Affected Industry

In order to determine the impacts of these measures on firewood dealers affected by the proposed Rule amendments, the analysis that follows considers lost revenues relative to estimated net income for these dealers, estimating losses in an average year (4.75 days of additional Mandatory Burn Bans) and a “peak” year (14 days of Mandatory Burn Ban). Based on the estimates of revenue for firewood dealers as shown in Table 4 in the body of this report below, this would amount to an annual decline in sales of between approximately \$78,000 and \$230,000 distributed among the total estimated \$6.21 million in annual sales for all the dealers. Assuming that firewood dealer expenses are directly proportional to revenues, net income and profits would decline by the same percentage. While some costs (obtaining the firewood at wholesale or otherwise, and staffing levels to some degree) would decrease with lower sales, other costs, such as rent or property taxes, are fixed such that operating expenses would actually not decline proportionally, and net income would decrease more than gross revenues on a proportional basis. However, the estimate of impacts is likely overstated, and it is thus unlikely that the decline in net income would be greater than the ARB 10 percent threshold used by the Air District as a benchmark for significant economic impacts. This indicates that the proposed loss in sales related to the proposed rule change does not have the potential for significant adverse economic impacts.

Impacts on Small Businesses

According to California Government Code 14835, a small business is any business that meets the following requirements:

- Must be independently owned and operated;
- Cannot be dominant in its field of operation;
- Must have its principal office located in California;
- Must have its owners (or officers in the case of a corporation) domiciled in California;
and
- Together with its affiliates, be either:
 - A business with 100 or fewer employees, and an average annual gross receipts of \$10 million or less over the previous three tax years, or
 - A manufacturer with 100 or fewer employees.

Assuming these retail firewood sales establishments are independently owned, they would all meet the criteria of California Government Code 14835 for categorization as small businesses, based on having 100 or fewer employees and annual revenues of less than \$10 million, because even as a group they have fewer employees and less revenue than these thresholds. As discussed above, based on impacts on profits, there is no expected potential for significant impacts for any of these businesses meeting the definition of a small business. It should also be noted that this is a very limited number of businesses with few employees and limited revenues.

DESCRIPTION OF PROPOSED RULE AMENDMENT

Over the last several years, California has experienced some of the deadliest and most destructive wildfires in its history, with wildfire events becoming the “new normal.” As a result, new wildfire prevention initiatives and actions are needed. Climate change is causing higher temperatures and longer dry periods, as well as lengthening the fire season and increasing the risk of wildfires. In addition to destroying entire communities and burning everything in their path, wildfires generate a mixture of fine particulate matter and hazardous chemicals and compounds in the air.

Wildfire smoke presents immediate impacts to local air quality and public health, and atmospheric conditions can quickly transport smoke great distances, with even distant fires affecting the air quality throughout the Bay Area. The fires in Napa and Sonoma County in 2017 and in Butte County in 2018 generated unprecedented levels of particulate matter, which reached hazardous levels never before experienced in the Bay Area.

As a result, the Bay Area Air Quality Management District (“Air District” or “BAAQMD”) proposes to amend Regulation 6, Rule 3 (Rule 6-3) to further protect public health when wildfire smoke affects air quality in the Bay Area, since the current rule limits the Air District’s ability to ban wood burning only during the wintertime November through February period. The proposed 6-3 amendments would extend the Air District’s authority to announce a Spare the Air Alert and ban wood burning or combustion in wood-burning devices year-round whenever particulate matter is forecasted to exceed 35 micrograms per cubic meter (35µg/m³). The draft amendment will allow the Air District to ban wood burning any time unhealthy levels of particulate matter are forecasted, and further protect public health when wildfire smoke affects air quality in the Bay Area.

REGIONAL TRENDS

This section provides background information on the demographic and economic trends for the nine-county San Francisco Bay Area, which represents the Air District’s jurisdiction.² Regional trends are compared to statewide demographic and economic patterns since 2000, in order to show the region’s unique characteristics relative to the State and to provide context for the impact analysis.

Regional Demographic Trends

Table 1 shows the population and household trends for the nine-county Bay Area and California between 2000 and 2019. During this time, the Bay Area’s population increased by 14.7 percent, compared to 17.9 percent for California as a whole. Similarly, the number of Bay Area households grew by 10.4 percent, compared to 13.8 percent growth statewide, as average household size increased in both geographies.

Table 1: Population and Household Trends, 2000-2019

Bay Area (a)	2000	2019	Total Change 2000-2019	% Change 2000-2019
Population	6,784,348	7,783,460	999,112	14.7%
Households	2,466,020	2,723,550	257,530	10.4%
Average Household Size	2.69	2.80		
California				
Population	33,873,086	39,927,315	6,054,229	17.9%
Households	11,502,871	13,085,036	1,582,165	13.8%
Average Household Size	2.87	2.99		

Notes:

(a) Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma Counties.

Sources: California State Department of Finance, 2019; US Census, 2000; BAE 2019.

The Bay Area’s slower growth is tied to its relatively built-out environment, compared to the state overall. While Central Valley locations, such as the Sacramento region, experienced large increases in the number of housing units, the Bay Area experienced more moderate

² The Air District’s jurisdiction consists of nine counties, including all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties, as well as the western portion of Solano County and the southern portion of Sonoma County. See <http://www.arb.ca.gov/app/dislookup/dislookup.php>

increases in housing units. Nevertheless, the region has still gained almost one million residents since 2000.

Regional Economic Trends

Table 2 shows jobs by sector in 2013 and 2018 for the Bay Area and California. In the five-year period between 2013 and 2018, the Bay Area's employment base grew by 16.2 percent, increasing from 3.44 million jobs to almost 4.00 million jobs, as the economy has shown strong growth. Statewide employment only increased by 13.1 percent from 15.56 million jobs in 2013 to 17.60 million jobs in 2018. The rate of job growth for both the Bay Area and the State over the five-year period was far higher than the rate of population growth, another indicator of the strong recovery from recession.

The largest major economic sectors in the Bay Area economy are Professional & Business Services, Educational & Health Services, Government, and Leisure & Hospitality. Each of these sectors accounted for over 10 percent of all wage and salary employment in the region. Overall, the Bay Area's economic base largely resembles the state's base, sharing a similar distribution of employment across sectors. One noteworthy variation is the higher Bay Area employment in the Professional, Scientific, & Technical Services sector, which makes up 19.3 percent of employment in the Bay Area compared to only 15.1 percent statewide.

All major industry sectors showed an increase in employment in the Bay Area between 2013 and 2018, with increases of greater than 20 percent in Information; Mining, Logging, and Construction; and Transportation, Warehousing, and Utilities. The growth of over 50 percent in Information is especially noteworthy, indicating the continuing importance of the technology economy in the region. Statewide, the same three major sectors showed employment growth of more than 20 percent, but the growth in Information jobs was only 21 percent.

Table 2: Jobs by Sector, 2013-2018 (a)

Industry Sector	Bay Area					California				
	2013 (b)		2018 (c)		% Change 2013-2018	2013 (b)		2018 (c)		% Change 2013-2018
	Jobs	% Total	Jobs	% Total		Jobs	% Total	Jobs	% Total	
Agriculture	19,900	0.6%	20,100	0.5%	1.0%	412,400	2.6%	424,200	2.4%	2.9%
Mining, Logging, and Construction	152,400	4.4%	205,400	5.1%	34.8%	666,000	4.3%	882,400	5.0%	32.5%
Manufacturing	313,800	9.1%	362,700	9.1%	15.6%	1,262,500	8.1%	1,325,400	7.5%	5.0%
Wholesale Trade	119,600	3.5%	122,900	3.1%	2.8%	671,300	4.3%	698,900	4.0%	4.1%
Retail Trade	328,100	9.5%	346,000	8.7%	5.5%	1,593,900	10.2%	1,688,600	9.6%	5.9%
Transportation, Warehousing, and Utilities	90,000	2.6%	116,700	2.9%	29.7%	503,800	3.2%	664,000	3.8%	31.8%
Information	138,400	4.0%	211,500	5.3%	52.8%	449,800	2.9%	543,700	3.1%	20.9%
Financial Activities	177,200	5.2%	194,500	4.9%	9.8%	781,200	5.0%	836,300	4.8%	7.1%
Professional & Business Services	645,500	18.8%	771,500	19.3%	19.5%	2,349,200	15.1%	2,663,700	15.1%	13.4%
Educational & Health Services	516,700	15.0%	599,500	15.0%	16.0%	2,309,000	14.8%	2,726,500	15.5%	18.1%
Leisure & Hospitality	371,500	10.8%	432,100	10.8%	16.3%	1,674,800	10.8%	1,986,100	11.3%	18.6%
Other Services, except Public Administration	117,400	3.4%	129,900	3.3%	10.6%	515,500	3.3%	572,100	3.3%	11.0%
Government (d)	449,500	13.1%	483,000	12.1%	7.5%	2,374,300	15.3%	2,587,400	14.7%	9.0%
Total, All Employment (e)	3,440,000	100.0%	3,995,800	100.0%	16.2%	15,563,700	100.0%	17,599,400	100.0%	13.1%
Population	7,417,430		7,751,650		4.5%	38,321,459		39,740,508		3.7%

Notes:

(a) Includes all wage and salary employment.

(b) Represents annual average employment for calendar year 2013.

(c) Represents annual average employment for calendar year 2018.

(d) Government employment includes workers in all local, state and Federal workers, not just those in public administration. For example, all public school staff is in the Government category.

(e) Totals may not sum from parts due to independent rounding.

Sources: California Employment Development Department, 2019; CA Department of Finance, 2019; BAE, 2019.

AFFECTED INDUSTRIES

The direct impacts of the proposed amendments to Rule 6-3 will fall on households and others burning wood either as a heat source or for ambiance, rather than on particular industries. Since the direct impacts would result in reduced purchased of firewood, households would see an increase in dollars available for other expenditures rather than negative impacts. One small subsector that might be affected is Direct Selling Firewood Dealers (a subset of NAICS 454310, Fuel Dealers) who could see sales decline due to more limited sales as consumption drops due to an increase in days with a Mandatory Burn Ban.

SOCIO-ECONOMIC IMPACTS

This section describes the potential direct impacts on users of wood-burning stoves (typically households) and firewood dealers related to the expansion of the Mandatory Burn Ban to being year-round.

There are no direct compliance costs to consumers associated with the ban; it merely prohibits the burning of wood in stoves and fireplaces on certain days of the year. As a result the analysis here assumes no socio-economic impacts on households or other users affected by the ban, and no further analysis of impacts on households and other firewood users is undertaken. The following analysis focuses solely on any potential loss of sales at firewood dealers.

Impacts on Firewood Dealers

As noted previously, firewood dealers may see direct impacts on sales due to possible limitations on the use of firewood on certain additional days of the year. The current rule already bans wood burning on certain days from November through February; impacts of the current ban are thus not considered here. However, as a result of possible restrictions on certain additional days, firewood dealers may face lower sales and reduced revenues.

Economic Profile of Affected Industry

Firewood dealers are part of the category defined in the North American Industry Classification System (NAICS) as “Fuel Dealers,” an industry comprising “establishments primarily engaged in retailing heating oil, liquefied petroleum (LP) gas, and other fuels via direct selling,” in NAICS category 454310. More specifically, the Economic Census provides some data specifically for “Other Fuel Dealers,” which are “establishments primarily engaged in retailing fuels, such as coal, wood, or other fuels (except liquefied petroleum gas and heating oil) via direct selling.”

There are a very small number of Bay Area establishments in the Other Fuel Dealers category. According to the 2012 Economic Census (most recent data available), there were only 22 establishments in this category in all of California, and only eight in the San Jose-San Francisco-

Oakland Combined Statistical Area (CSA), which encompasses the Air District’s region.³ Based on the data available, the dealers in the state employed only 79 workers, and the CSA’s dealers employed a total of between 20 and 79 employees.

Table 3: Profile of Other Fuel Dealers Industry

<u>Area</u>	<u>Number of Establishments</u>	<u>2012 Revenues</u>	<u>Number of Employees</u>	<u>Annual Payroll</u>
San Jose-San Francisco-Oakland, CA CSA (a)	8	(b)	(c)	(b)
California	22	\$8,030,000	79	\$1,516,000
United States	156	\$108,702,000	495	\$12,711,000

Note: “Other Fuel Dealers” includes establishments primarily engaged in retailing fuels, such as coal, wood, or other fuels (except liquefied petroleum gas and heating oil) via direct selling. Includes only establishments with payroll.

(a) This Combined Statistical Area (CSA) is the smallest area for which data were available that covered the entire BAAQMD region. CSA includes the nine-county ABAG region plus San Joaquin, Santa Cruz, and San Benito Counties.

(b) Data withheld to avoid disclosing data for individual companies.

(c) 20-99 employees; more detailed data withheld to avoid disclosing data for individual companies.

Source: 2012 Economic Census.

BAE also queried Dun & Bradstreet data and conducted online searches, and obtained the following list of firewood dealers in the Bay Area (see Table 4). This research shows 14 dealers, with 60 employees and annual revenues estimated at approximately \$6.2 million. While this information varies somewhat from the Economic Census for a variety of reasons related to the source,⁴ it confirms that there are a limited number of firewood dealers in the Bay Area, and that they have limited employment.

³ See footnote in table defining the Combined Statistical Area. This was the smallest area for which data were available.

⁴ For example, the Duns data may include businesses with no paid wage and salary employees (e.g., sole proprietorships), even though DUNS reports employees at each site. Also, the Economic Census data are from a different time frame, and the DUNS data cannot be confirmed via administrative records that the Census Bureau may have access to.

Table 4: Firewood Dealers in the Bay Area

<u>Business Name</u>	<u>City</u>	<u>Number of Employees</u>	<u>Sales Volume</u>
All Seasons Firewood Llc	Santa Rosa	6	\$510,000
Bahara's Firewood	Sunnyvale	5	\$719,000
Bear Bottom Farms	Richmond	4	\$871,000
Evergreen Firewood	San Jose	2	\$45,000
Firewood Farms	Half Moon Bay	1	\$50,000
Huertaz Firewood Sale	San Jose	3	\$300,000
Hurst Firewood	Vallejo	3	\$980,000
Kosich Firewood	Danville	3	\$142,000
Nero's Designer Firewood	Novato	15	\$1,000,000
Northwinds Firewood Tree Service	Not found	2	\$150,000
Oconnell Ranches-Apple & Firewood Prdct	Sebastopol	4	\$223,000
Summit Tree & Firewood Company	Petaluma	2	\$90,000
Valley Firewood	Novato	3	\$190,000
Xinar Com	Santa Rosa	7	\$940,000
Total		60	\$6,210,000

Sources: Dun & Bradstreet; Online Searches; BAE, 2019.

While firewood and other fuel dealers are not the only source for firewood, it is unlikely that decreased sales of firewood products at other retail outlets (e.g., supermarkets or hardware stores) would be substantial enough to impact business adversely. Economic Census data from 2012 indicate that firewood sales do not account for a substantial portion of sales for other types of retailers. For example, as shown in the table below, firewood sales make up less than one percent of sales at gasoline stations that carry the product; for fuel dealers selling firewood, 22 percent of revenues come from sales of firewood.

Table 5: Major Sellers of Wood for Fuel, United States

<u>Type of Retailer (a)</u>	<u>Number of Establishments</u>	<u>Revenues from All Sales (b)</u>	<u>Revenues from Sales of Firewood</u>	<u>As Percent of Total Sales</u>
Gasoline Stations (c)	1,470	\$7,123,480,000	\$12,189,000	0.2%
Fuel Dealers (d)	131	\$210,157,000	\$42,689,000	20.3%

(a) Includes retailers where wood sales are listed as a separate product line. Does not include all retailers selling wood for fuel.

(b) Total sales of establishments reporting sales of wood for fuel.

(c) Includes gasoline stations with convenience stores.

(d) Includes all retail fuel dealers, not just Other Fuel Dealers. Data not available for Other Fuel Dealers only.

Source: 2012 Economic Census, Product Line Sales.

Estimated Rate of Return

Firewood dealers are part of the larger category of nonstore retailers (NAICS 454), which is the most specific category available in the IRS data on net income. For this analysis, 10-year averages were used as a benchmark such that the impacts of any particular year's performance due to economic

fluctuations are lessened. As shown in Table 6, the 10-year average net income as a percent of total receipts for nonstore retailers is 4.3 percent.

Table 6: Returns on Total Receipts for Nonstore Retailers, 2005-2014, for Active Corporations

Nonstore Retailers (NAICS 454)	Total Receipts 2005-2014 (in \$000)	Net Income 2005-2014 (in \$000)	Net Income as % of Total Receipts
2005	\$136,893,042	\$5,992,177	4.4%
2006	\$147,442,841	\$8,188,569	5.6%
2007	\$168,372,805	\$7,920,365	4.7%
2008	\$175,536,983	\$6,834,111	3.9%
2009	\$169,826,919	\$7,896,418	4.6%
2010	\$197,730,286	\$7,614,474	3.9%
2011	\$197,347,659	\$7,621,441	3.9%
2012	\$209,855,271	\$9,938,409	4.7%
2013	\$265,206,835	\$8,713,098	3.3%
2014	\$277,516,066	\$10,580,191	3.8%
Average annual net income as % of total receipts (a)			4.3%

(a) Computed based on average net income percentage each year; sums of receipts and net income not used, in order to control for inflation over the time period.

Source: Internal Revenue Service, Returns of Active Corporations, Table 1; BAE, 2019.

Compliance Costs

Firewood dealers do not have costs related to compliance with the amended Rule. The potentially significant losses are related to decreased business, not compliance costs. The decreased business would result from decreased wood burning on Mandatory Burn Ban days.

As shown below in Table 7, the number of such days may vary considerably by year due to short-term weather changes, and long-term due to climate change. Additionally, some of the exceedance days occur within the existing ban period, and thus the proposed rule change would not result in any changes in impacts for those days. Over the 2015 through 2018 period, there were an average of 4.75 exceedance days per year due to wildfires outside the current ban period, but the variation has been considerable over the four years, ranging from zero days in 2016 to 14 days in 2017. So far in 2019, there have been no exceedance days.

Table 7: Bay Area PM2.5 Exceedances 2015-2019

Year	Exceedance Days Due to Wildfires (a)	
	Total	Days Outside Current Ban Period
2015	3	3
2016	0	0
2017	14	14
2018	16	2
Average Days Outside Current Ban Period		4.75

(a) Exceedance level is $>35 \text{ mg/m}^3$ (PM_{2.5}).

Source: BAAQMD


Assuming that households and others consume firewood at an even rate throughout the year, and that in an average year they would be restricted from burning on 4.75 additional days, in an average year their firewood consumption would be reduced by approximately 1.3 percent. Using the “worst case” year (14 additional days of banned wood-burning) as the benchmark, firewood consumption would decline by 3.8 percent over the year.

However, these “back of the envelope” estimates of lost sales do not take into account seasonal variations in demand. The expanded burn ban period would cover warmer seasons where the need to burn wood for heating would be less than during the current November to February period. Furthermore, the summer fire season is often associated with unusually hot weather. Many of the exceedance days from 2015 through 2018 were days of extreme heat in the Bay Area, as shown in Table 8; on one of those days (September 1, 2017) San Francisco recorded its hottest temperature ever.

Further analysis indicates that for San Francisco, only one of the 19 additional exceedance days between 2015 and 2018 had temperatures below the annual average; for Livermore, only four exceedance days had temperatures below the annual average. This indicates that overall, firewood consumption for heating on those days would be below annual per day averages. Nevertheless, to be conservative, the estimate of sales loss here is assumed to range from 1.3 to 3.8 percent of annual revenues. It is assumed that the losses will be sustained by these types of businesses; households and businesses heating with wood as their primary fuel are unlikely to be purchasing the kinds of small packages typically available at gasoline stations and other retailers such as supermarkets.

Table 8: High and Low Temperatures for San Francisco and Livermore (°F)

Date	San Francisco			Livermore		
	High	Low	Average	High	Low	Average
6/30/2015	75	56	65.5	108	64	86.0
8/15/2015	86	62	74.0	101	59	80.0
8/16/2015	90	60	75.0	106	65	85.5
9/1/2017	106	59	87.5	109	66	87.5
9/2/2017	102	75	88.5	108	69	88.5
9/3/2017	84	65	74.5	106	76	91.0
9/4/2017	79	64	71.5	88	69	78.5
10/9/2017	79	62	70.5	82	54	68.0
10/10/2017	72	52	62.0	85	49	67.0
10/11/2017	66	52	59.0	74	46	60.0
10/12/2017	66	52	59.0	75	41	58.0
10/13/2017	71	52	61.5	78	42	60.0
10/14/2017	77	55	66.0	74	46	60.0
10/15/2017	80	56	68.0	80	43	61.5
10/16/2017	82	60	71.0	85	47	66.0
10/17/2017	75	50	62.5	85	50	67.5
10/18/2017	60	49	54.5	82	44	63.0
8/23/2018	66	59	62.5	76	56	67.0
8/24/2018	66	56	61.0	79	56	67.5
Annual Average	64	51	57.3	73	48	60.3

 = days below annual average

Sources: National Weather Service; <https://www.usclimatedata.com>; BAE, 2019.

Economic Impacts Analysis for Affected Industry

In order to determine the impacts of these measures on firewood dealers affected by the proposed Rule amendments, the analysis that follows considers lost revenues relative to estimated net income for these dealers, estimating losses in an average year (4.75 days of additional Mandatory Burn Bans) and a “peak” year (14 days of Mandatory Burn Ban). Based on the estimates of revenue for firewood dealers as shown in Table 4 above, this would amount to an annual decline in sales of between approximately \$78,000 and \$230,000 distributed among the total estimated \$6.21 million in annual sales for all the dealers. Assuming that firewood dealer expenses are directly proportional to revenues, net income and profits would decline by the same percentage. While some costs (obtaining the firewood at wholesale or otherwise, and staffing levels to some degree) would decrease with lower sales, other costs, such as rent or property taxes, are fixed such that operating expenses would actually not decline proportionally, and net income would decrease more than gross revenues on a proportional basis. However, the estimate of impacts is likely overstated, and it is thus unlikely that the decline in net income would be greater than the ARB 10 percent threshold used by the Air District as a benchmark for significant economic impacts. This indicates that the proposed loss in sales related to the proposed rule change does not have the potential for significant adverse economic impacts.

Small Business Impacts

According to California Government Code 14835, a small business is any business that meets the following requirements:

- Must be independently owned and operated;
- Cannot be dominant in its field of operation;
- Must have its principal office located in California;
- Must have its owners (or officers in the case of a corporation) domiciled in California; and
- Together with its affiliates, be either:
 - A business with 100 or fewer employees, and an average annual gross receipts of \$10 million or less over the previous three tax years, or
 - A manufacturer with 100 or fewer employees.

Assuming these firewood-selling establishments are independently owned, they would all meet the criteria of California Government Code 14835 for categorization as small businesses, based on having 100 or fewer employees and annual revenues of less than \$10 million; even as a group they have fewer employees and less revenue than these thresholds. As discussed above, based on impacts on profits, there is no expected potential for significant impacts for any of these businesses meeting the definition of a small business.



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

AGENDA 23H - ATTACHMENT

Reasons for Exemption: The Air District determined that the amendments to Reg 5 are exempt from CEQA because the Air District's approval was necessary to prevent or mitigate wildfire-related public health and natural resources emergencies by reducing potential cost barriers associated with prescribed burning, which can prevent emergency wildfires. Additionally, the amendments to Reg 5 would exempt public agencies from incurring Open Burning Fees, which would exist without the rule amendments, when conducting prescribed burns for the purpose of wildfire prevention. Therefore, the Air District's action is a modification of public agency operating expense fees, which is also exempt from CEQA. Likewise, the amendments to Rule 6-3 are necessary to prevent or mitigate a public health emergency during wildfire (or other air quality) events by prohibiting wood burning when air quality is already unhealthy from wildfires, and also exempt from CEQA. The amendments to both rules help assure the protection of the environment and natural resources by removing potential barriers to prescribed burning which is used to prevent larger, more damaging wildfire events, and by prohibiting burning when air quality is unhealthy. There is no possibility that the Air District's action will have a significant effect on the environment.

Date Received for Filing

Jeffrey Gove
Director of Compliance and Enforcement
Bay Area Air Quality Management District

Date



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

California Environmental Quality Act (CEQA)

NOTICE OF DETERMINATION

TO: COUNTY CLERK

FROM: Bay Area Air Quality
Management District
375 Beale Street, Suite 600
San Francisco, CA 94105
Contact: Patrick Wenzinger
(415) 749-4934

SUBJECT: FILING OF NOTICE OF DETERMINATION PURSUANT TO CEQA § 21152 AND
CEQA GUIDELINES § 15094

Project Title: AMENDMENTS TO AIR DISTRICT REGULATION 6, RULE 3: WOOD-BURNING
DEVICES

Project Applicant and Entity Carrying Out Project:

Bay Area Air Quality Management District
375 Beale Street, Suite 600
San Francisco, California 94105
(415) 749-4934

Public Agency Approving Project (Lead Agency): Bay Area Air Quality Management District (Air
District)

Project Location: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara,
southwestern Solano, and southern Sonoma counties

Project Description: This rule development project amends Air District Regulation 6, Rule 3:
Wood-Burning Devices (Rule 6-3) by extending the Air District's authority to ban wood burning
or combustion in wood-burning devices from only during the wintertime to any day year-round
when particulate matter is forecast to exceed 35 micrograms per cubic meter (Reg 6, Rule 3,
Sections 211, 224 and 301); and to clarify other existing requirements in the Rule.

Date of Project Approval: On Wednesday, November 20, 2019, the Board of Directors of the
Air District approved the project described above.

CEQA Applicability: The Air District believes this project is exempt from CEQA pursuant to CEQA
§ 21080(b)(4) and CEQA Guidelines sections 15307, 15308 and 15061(b)(3). The Air District is thus
concurrently filing a Notice of Exemption for the Project. This Notice of Determination is filed in
the alternative, in an abundance of caution.

No Significant Impacts: In 2008, the Air District analyzed the potential environmental impacts of
Rule 6-3 – including banning wood burning during forecasted particulate matter exceedances –
and concluded in a Final Environmental Impact Report ("Final EIR"), certified on July 9, 2008, that
there would be no significant environmental impacts. The most recent amendments to Rule 6-3
only expand the number of days upon which the Air District has the authority to ban wood burning
– from solely during the wintertime under the 2008 version of Rule 6-3 to year-round under the
current 2019 amendments so as to allow the banning of wood burning during emergency wildfire
events no matter when they occur during the year – and this change does not present substantial
changes to the project or circumstances or new information that would require a new analysis.
The analysis in the Final EIR concluded that there would be no significant environmental impacts

from the banning of wood-burning on any day, and the analysis continues to be applicable to the Air District's current action.

The most recent amendments to Rule 6-3 do not present substantial changes to the project or circumstances or new information that would require a new analysis. Thus, the Air District continues to rely on the Certified EIR pursuant to CEQA § 21166.

Mitigation Measures: Mitigation measures were not made a condition of this project. Thus, a mitigation reporting or monitoring plan was not adopted for this project.

Findings: The Air District finds that there will be no significant adverse effect on the environment from the adoption of the amendments to Rule 6-3. Because the Final EIR does not identify any significant environmental effects of the Project, no findings were required to be made pursuant to CEQA Guidelines § 15091.

Overriding Considerations: A statement of Overriding Considerations was not adopted for this project.

This is to certify that the Final EIR, certified by the Board of Directors of the Bay Area Air Quality Management District on Wednesday, July 9, 2008, with comments and responses and record of project approval is available to public on the Air District's website at www.baaqmd.gov/ruledev and at the Air District office at 375 Beale Street, Suite 600, San Francisco, CA 94105.

Date Received for Filing

Jeffrey Gove
Director of Compliance and Enforcement
Bay Area Air Quality Management District

Date

**Final Environmental Impact Report for the
Bay Area Air Quality Management District's
Regulation 6, Rule 3: Wood-Burning Devices**

Certified by the Board of Directors on July 9, 2008

**Draft Environmental Impact Report for the
Bay Area Air Quality Management District's
Proposed Regulation 6, Rule 3 Wood-Burning Devices**

May 5, 2008

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BAY AREA AIR QUALITY MANAGEMENT DISTRICT

DRAFT ENVIRONMENT IMPACT REPORT

PROPOSED REGULATION 6, RULE 3: WOOD-BURNING DEVICES

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CHAPTER 1

INTRODUCTION

Introduction

- California Environmental Quality Act
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- Type of EIR
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Executive Summary of Draft EIR

- Executive Summary – Chapter 2: Project Description
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1.1 INTRODUCTION

The Bay Area Air Quality Management District (BAAQMD or District) was established in 1955 by the California Legislature to control air pollution in the counties around the San Francisco Bay and to attain federal air quality standards by the dates specified in federal law. There have been significant improvements in air quality in the Bay Area over the last several decades. The BAAQMD is also required to meet state standards by the earliest date achievable.

For the last several years the District has been refining the emission inventory for emissions from wood-burning devices, which are a significant source of particulate emissions, and attempting to reduce fine particulates from these devices. Considerable further reductions in emissions from wood-burning devices are available through the implementation of Regulation 6, Rule 3 (Reg 6-3): Particulate Matter and Visible Emissions from Woodburning Devices. The District is proposing to adopt this new rule to ensure these reductions are realized, and to encourage residences and businesses to operate wood-burning devices appropriately to ensure reductions in emissions.

This Environmental Impact Report (EIR) addresses the impacts due to implementation of the Bay Area Air Quality Management District Regulation 6, Rule 3, Woodburning Devices. The District is also proposing to amend District Regulation 1: General Provisions and Definitions, to remove the existing exclusion of residential fires from regulation; and Regulation 5: Open Burning, to require a provision for outdoor recreational fires similar to that proposed in Reg 6-3.

1.1.1 CALIFORNIA ENVIRONMENTAL QUALITY ACT

The California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq., requires that the potential environmental impacts of proposed projects be evaluated and that feasible methods to reduce or avoid identified significant adverse environmental impacts of these projects be identified.

To fulfill the purpose and intent of CEQA, the BAAQMD has prepared this EIR under the requirements of CEQA Guidelines §15187 to address the potential environmental impacts associated with the proposed Regulation 6, Rule 3. Amendments to several other District rules are also proposed in order to allow regulation of this type of source and to maintain consistency with Regulation 6, Rule 3 for similar types of sources. Prior to making a decision on the adoption of the new wood-burning device rule, the BAAQMD Governing Board must review and certify the EIR as providing adequate information on the potential adverse environmental impacts of implementing the proposed Rule.

1.1.2 NOTICE OF PREPARATION AND INITIAL STUDY

A Notice of Preparation and Initial Study (NOP/IS) for the adoption of District Regulation 6, Rule 3 (included as Appendix A of this EIR) was distributed to responsible

agencies and interested parties for a 30-day review on March 10, 2008. A notice of the availability of this document was distributed to other agencies and organizations and was placed on the BAAQMD’s web site, and was also published in newspapers throughout the area of the BAAQMD’s jurisdiction.

The NOP/IS identified the following environmental resources as being potentially significant, requiring further analysis in the EIR: air quality. The following environmental resources were considered to be less than significant in the NOP/IS: aesthetics, agricultural resources, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation and traffic, and utilities service systems (see Appendix A).

1.1.3 TYPE OF EIR

In accordance with §15121(a) of the State CEQA Guidelines (California Administrative Code, Title 14, Division 6, Chapter 3), the purpose of an EIR is to serve as an informational document that: “will inform public agency decision-makers and the public generally of the significant environmental effect of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project.”

The EIR is an informational document for use by decision-makers, public agencies and the general public. The proposed project requires discretionary approval and, therefore, it is subject to the requirements of CEQA (Public Resources Code, §21000 et seq.).

The focus of this EIR is to address the environmental impacts of the proposed project as identified in the NOP and Initial Study (included as Appendix A of this EIR). The degree of specificity required in an EIR corresponds to the degree of specificity involved in the underlying activity described in the EIR (CEQA Guidelines §15146). Because the level of information regarding potential impacts from the adoption of Regulation 6, Rule 3, is relatively general at this time, the environmental impact forecasts are also general or qualitative in nature.

1.1.4 INTENDED USES OF THIS DOCUMENT

In general, a CEQA document is an informational document that informs a public agency’s decision-makers, and the public generally, of potentially significant adverse environmental effects of a project, identifies possible ways to avoid or minimize the significant effects, and describes reasonable alternatives to the project (CEQA Guidelines §15121). A public agency’s decision-makers must consider the information in a CEQA document prior to making a decision on the project. Accordingly, this EIR is intended to: (a) provide the BAAQMD Governing Board and the public with information on the environmental effects of the proposed project; and, (b) be used as a tool by the BAAQMD Governing Board to facilitate decision making on the proposed project.

Additionally, CEQA Guidelines §15124(d)(1) require a public agency to identify the following specific types of intended uses of a CEQA document:

1. A list of the agencies that are expected to use the EIR in their decision-making;
2. A list of permits and other approvals required to implement the project; and
3. A list of related environmental review and consultation requirements required by federal, state, or local laws, regulations, or policies.

Other local public agencies, such as cities, county planning commissions, etc., may use the EIR for the purpose of developing projects consistent with Regulation 6, Rule 3 if local building permits are required. No other permits will be required by single purpose public agencies.

1.1.5 AREAS OF CONTROVERSY

In accordance to CEQA Guidelines §15123(b)(2), the areas of controversy known to the lead agency including issues raised by agencies and the public shall be identified in the EIR. Several areas of controversy have been expressed during public workshops or in the letter received on the NOP.

Concerns that the rule could create extra fuel load for wildland fires were raised during public meetings. No increase in hazards related to wildfires is anticipated from the proposed rule which would apply to existing structures utilizing compliant wood-burning devices. The proposed rule will not create new residential or commercial land use projects. Any new development that might occur in the District would occur for reasons other than the proposed rule. New land use projects would require a CEQA analysis that would evaluate wildfire risks. Mitigation measures would be required to reduce impacts to the maximum extent feasible if the analysis determined such risks to be significant. Proposed Rule 6-3 is not expected to reduce the amount of brush cleared in wildfire hazard areas as the brush clearing is generally required for compliance with fire codes. The burning of brush in wood burning devices under proposed Rule 6-3 could still be accomplished, as long as the brush is seasoned and not burned on curtailment days. The proposed rule does not prevent the California Department of Forestry and Fire Protection (CAL FIRE) or fire districts from conducting controlled burns on non-curtailment days. CAL FIRE is subject to the limitations in Regulation 5: Open Burning. The only change to Regulation 5 would limit recreational fires on curtailment days. Curtailment days only occur about 20 days a year so burning would be allowed on most days (about 345) of the year. In addition, wood can be disposed of in other manners other than burning, such as mulching or chipping. Most wood brush from private property that would be burned is seasoned before burning to produce a desirable (hot) fire. As Rule 6-3 would only provide minor and sporadic delays in burning, no significant impacts are expected.

There is some uncertainty in the appropriate analysis of greenhouse gas emissions from the burning of wood and the comparison to the combustion of natural gas. To respond to this uncertainty, emission estimates for greenhouse gases are evaluated using several different methodologies.

1.1.6 PROJECT OBJECTIVES

CEQA Guidelines §15124(b) requires an EIR to include a statement of objectives, which describes the underlying purpose of the proposed project. The purpose of the statement of objectives is to aid the lead agency in identifying alternatives and the decision-makers in preparing a statement of findings and a statement of overriding considerations, if necessary. The objectives of the proposed Regulation 6, Rule 3 are summarized in the following bullet points.

- reduce particulate matter and visible emissions from wood-burning devices in order to reduce ambient levels of particulate matter in the Bay Area;
- reduce wintertime peak concentrations to attain the federal particulate matter less than 2.5 microns in diameter (PM2.5) standard; and
- further reduce emissions of particulate matter to comply with the State particulate matter less than 10 microns in diameter (PM10) and PM2.5 standards.

1.1.7 DOCUMENT FORMAT

State CEQA Guidelines outline the information required in an EIR, but allow the format of the document to vary [CEQA Guidelines §15120(a)]. The information in the EIR complies with CEQA Guidelines §15122 through §15131 and consists of the following:

Chapter 1: Introduction

Chapter 2: Project Description

Chapter 3: Environmental Setting, Impacts and Mitigation Measures

Chapter 4: Alternatives

Chapter 5: Other CEQA Topics

Chapter 6: References

Chapter 7: Acronyms

Appendix A: Notice of Preparation/Initial Study

1.2 EXECUTIVE SUMMARY OF DRAFT EIR

1.2.1 EXECUTIVE SUMMARY – CHAPTER 2: PROJECT DESCRIPTION

Regulation 6, Particulate Matter and Visible Emissions, Rule 3, Wood-Burning Devices is a proposed new rule initiated by the District’s Particulate Matter Implementation Schedule. It is intended to reduce emissions from wood-burning devices in residences and businesses by curtailing burning during specific periods and regulating fuels and materials to be used in wood-burning devices.

A wood-burning device is any indoor wood-burning stove or insert, pellet-fueled device, conventional fireplace and/or any indoor permanently-installed device burning solid-fuel for aesthetic or space-heating purposes in structures for residential or commercial use. Proposed Rule 6-3 for control of wood-burning devices would:

- Curtail operation of any wood-burning device during periods forecast to negatively impact public health due to PM2.5 levels.
- Establish limitations on visible emissions from wood burning.
- Establish criteria for the sale, transfer or installation of wood-burning devices.
- Establish criteria for the installation of wood-burning devices in new building construction.
- Prohibit the burning of garbage and certain types of materials.
- Establish requirements for the sale of wood products for use in wood burning devices.
- The proposal to amend Regulation 5, Open Burning, would create only a limited exemption for outdoor fires set for recreational purposes which would require curtailment during periods forecast to negatively impact public health due to PM2.5 levels.
- The proposal to amend Regulation 1, General Provisions and Definitions, would remove the language “residential heating” to allow for the regulation of indoor wood-burning devices.

1.2.2 EXECUTIVE SUMMARY – CHAPTER 3: ENVIRONMENTAL SETTINGS, IMPACTS AND MITIGATION MEASURES

1.2.2.1 Air Quality

Environmental Setting

It is the responsibility of the BAAQMD to ensure that state and federal ambient air quality standards are achieved and maintained in its geographical jurisdiction. Health-based air quality standards have been established by California and the federal

government for the following criteria air pollutants: ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), particulate matter less than 10 microns in diameter (PM₁₀), particulate matter less than 2.5 microns in diameter (PM_{2.5}), sulfur dioxide (SO₂) and lead. These standards were established to protect sensitive receptors with a margin of safety from adverse health impacts due to exposure to air pollution.

Air quality conditions in the San Francisco Bay Area have improved since the Air District was created in 1955. Ambient concentrations of air pollutants and the number of days on which the region exceeds air quality standards have fallen dramatically. The Air District is in attainment of the State and federal ambient air quality standards for CO, nitrogen oxides (NO_x), and sulfur dioxides (SO₂). The Air District is not considered to be in attainment with the State PM₁₀ and PM_{2.5} standards. The Bay Area is designated as a marginal non-attainment area for the federal 8-hour ozone standard and as a serious non-attainment area for the California 1-hour ozone standard. The District has been designated as non-attainment for the new State 8-hour standard.

Wood-burning devices generate particulate matter. Combustion of wood also creates carbon dioxide, water vapor, carbon monoxide and volatile organic compounds, including toxic compounds. Partial or incomplete combustion, or burning wood that is not seasoned and dry, or burning garbage or other materials, generates more particulate matter, carbon monoxide, and increases toxic compounds. Residential wood combustion is an important contributor to ambient fine particle levels in the United States.

To estimate the amount of particulate matter coming from wood-burning devices, including fireplaces, District staff used data from survey sample results from Bay Area residents. These results were then correlated with projected demographic trends from the Association of Bay Area Governments (ABAG), which were based on U.S. Census data, and used to arrive at the estimated number of devices. The total annual emissions from both wood stoves (1,657 tons per year (tpy)) and fireplaces (5,037 tpy) is estimated to be 6,694 tpy of PM₁₀. The total annual emissions from both wood stoves (1,591 tpy) and fireplaces (4,836 tpy) is estimated to be 6,427 tpy of PM_{2.5}.

Environmental Impacts

Proposed Rule 6-3 would not generate any new construction. Rule 6-3 proposes that new or used wood stoves sold or installed in the Bay Area would be required to meet EPA Phase II standards for wood burning devices. In addition, new commercial and residential buildings would not be allowed to be constructed with wood burning devices that are not Phase II, pellet or equivalent devices. Natural gas-burning fireplaces or conventional fireplaces with natural gas inserts would be allowed. Therefore, Rule 6-3 is not expected to require or generate additional construction activities or additional construction emissions.

Operational Emission Impacts: The overall objective of the proposed project is to reduce PM₁₀ and PM_{2.5} emissions from wood burning devices. The operational PM₁₀ and PM_{2.5} emission reductions were estimated according to the methodology developed

in the Staff Report (BAAQMD, 2007). The overall emission reductions are expected to be in the range of 263 to 917 tpy of PM₁₀ and 254 to 887 tpy of PM_{2.5}, providing an overall beneficial impact on air quality.

Since Rule 6-3 compliant wood burning devices are more efficient, requiring the sale, transfer and installation of only EPA Phase II certified, pellet or equivalent devices would reduce the amount of air toxics emitted. Natural gas is a cleaner burning fuel than wood; therefore, the installation or replacement of pre-EPA approved devices with natural gas appliances would reduce toxic emissions. Therefore, Rule 6-3 is expected to provide beneficial impacts on toxic air contaminants and related beneficial health impacts.

Cumulative Impacts

Criteria and Toxic Air Contaminants: Cumulative air quality impacts on criteria and toxic air contaminants due to implementation of proposed Rule 6-3 and all air pollution control rules currently being developed, considered together, are not expected to be significant because implementation of all control measures is expected to result in net emission reductions and overall air quality improvement. Implementation of Rule 6-3 will result in reductions in emissions of PM₁₀, PM_{2.5}, and toxic air contaminants, providing a cumulative air quality and public health benefit. Therefore, no significant adverse cumulative air quality impacts related to criteria and toxic air contaminants are expected.

Greenhouse Gases: Global climate change refers to changes in average climatic conditions on the earth as a whole, including temperature, wind patterns, precipitation and storms. Global warming, a related concept, is the observed increase in average temperature of the earth's surface and atmosphere. One identified cause of global warming is an increase of Greenhouse Gases (GHG) in the atmosphere.

Events and activities, such as the industrial revolution and the increased combustion of fossil fuels (e.g., gasoline, diesel, coal, etc.), have heavily contributed to the increase in atmospheric levels of GHG. As reported by the CEC, California contributes 1.4 percent of the global and 6.2 percent of the national GHG emissions. Approximately 80 percent of GHG in California are from fossil fuel combustion and over 70 percent of GHG emissions are carbon dioxide emissions.

Depending on the assumptions used and whether or not direct emissions or life cycle emissions are estimated, there is a wide variability in terms of the potential GHG emissions resulting from implementing Rule 6-3. Based on the best available studies and available information about firewood used in the Bay Area, the imposition of a curtailment requirement on some days during the winter season is not expected to result in an increase in GHG emissions.

1.2.3 EXECUTIVE SUMMARY – CHAPTER 4: ALTERNATIVES

An EIR is required to describe a reasonable range of feasible alternatives to the proposed project that could feasibly attain most of the basic project objectives and would avoid or substantially lessen any of the significant environmental impacts of the proposed project (CEQA Guidelines §15126.6(a)). As discussed in Chapter 3 of this EIR and the Initial Study (see Appendix A), the proposed new rule is not expected to result in significant impacts to any environmental resources including aesthetics, agricultural resources, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation and traffic, and utilities service systems. Because no significant impacts have been identified for the proposed project, alternatives are not required to be analyzed in this EIR. The requirement to develop alternatives under CEQA Guidelines §15126.6 has been satisfied because no significant adverse impacts were identified for the proposed project. No further discussion of alternatives is required for this EIR.

1.2.4 EXECUTIVE SUMMARY – CHAPTER 5: OTHER CEQA TOPICS

1.2.4.1 Relationship Between Short-term Uses and Long-Term Productivity

Implementing Rule 6-3 is not expected to achieve short-term goals at the expense of long-term environmental productivity or goal achievement. Of the potential environmental impacts discussed in Chapter 3, no significant adverse impacts were identified. The purpose of the proposed rule is to reduce emissions of particulate matter and visible emissions (as well as toxic air contaminants and other criteria pollutants), particularly on winter nights when particulate matter concentrations could exceed the national health-based air quality standard for PM10 and PM2.5. By reducing particulate matter and visible emissions, human exposure to air pollutants would also be reduced, providing long-term health benefits. Therefore, no short-term benefits at the expense of long-term impacts have been identified due to implementation of the proposed rule.

Because no short-term environmental benefits are expected at the expense of long-term environmental goals being achieved, there is no justification for delaying the proposed action. The proposed project should be implemented now as the District is required to make progress toward attaining state and federal particulate matter standards, and has identified it as a control measure in accordance with requirements of Senate Bill 656 (SB 656, Sher).

1.2.4.2 Significant Irreversible Environmental Changes

Implementation of the proposed rule is not expected to result in significant irreversible adverse environmental changes. Of the potential environmental impacts discussed in Chapter 3, no significant impacts to any environmental resource are expected. Cumulative air quality impacts are expected to be less than significant as implementation of the proposed rule will result in overall emission reductions of PM10 and PM2.5, as

well as TACs, other criteria pollutants, and GHG. Proposed Rule 6-3 is expected to result in long-term benefits associated with improved air quality even though the use of natural gas in the Bay Area may increase. The project would result in reduced emissions, thereby improving air quality and related public health.

1.2.4.3 Growth-Inducing Impacts

Growth-inducing impacts can generally be characterized in three ways: (1) a project includes sufficient urban infrastructure to result in development pressure being placed on less developed adjacent areas; (2) a large project affects the surrounding community by producing a “multiplier effect,” which results in additional community growth; and (3) a new type of development is allowed in an area, which subsequently establishes a precedent for additional development of a similar character. None of the above scenarios characterize the project evaluated in the EIR since it will control emissions from wood-burning devices.

1.2.5 EXECUTIVE SUMMARY – CHAPTERS 6 AND 7: REFERENCES AND ACRONYMS

Information on references cited (including organizations and persons consulted) and the acronyms are presented in Chapters 6 and 7, respectively.

CHAPTER 2

PROJECT DESCRIPTION

Introduction
Project Location
Background
Project Objective
Proposed Project

2.0 PROJECT DESCRIPTION

2.1 INTRODUCTION

Regulation 6, Particulate Matter and Visible Emissions, Rule 3, Wood-Burning Devices is a proposed new rule initiated by the Bay Area Air Quality Management District (BAAQMD) and is included as part of the District's Particulate Matter Implementation Schedule. The purpose of the rule is to limit emissions of particulate matter and visible emissions from wood-burning devices as part of an overall wood smoke reduction program within the jurisdiction of the BAAQMD. Minor changes in current Regulation 1 and Regulation 5 are required as they are necessary to accomplish the associated reductions.

Particulate matter consists of very small liquid and solid particles suspended in the air, and includes particulate matter less than 10 microns equivalent aerodynamic diameter (PM10) as well as finer particulate matter less than 2.5 microns equivalent aerodynamic diameter (PM2.5). Particulate matter is of concern because it can cause serious health effects. People with respiratory illnesses, children, and the elderly are more sensitive to the effects of particulate matter, but it can affect everyone.

The Bay Area experiences its highest particulate matter concentrations in the winter, especially during the evening and night time hours. Wood-burning is the single greatest source contributing to the particulate matter concentrations, based on chemical composition analysis of deposited airborne particulate matter. Emissions calculations indicate wood smoke contributes only about 10 percent of total particulate matter emissions on an annual basis, but approximately 30 percent of total wintertime PM2.5.

During recent winters, the Bay Area Air District exceeded the 24-hour PM2.5 National Ambient Air Quality Standard (NAAQS) 20 to 30 days. The BAAQMD staff anticipates a non-attainment designation for this newly revised standard. The emission limitations in this proposed rule are intended to address this expected non-attainment status and reduce the health impacts of particulate matter in the Bay Area. Reductions in wood smoke emissions will be necessary to achieve clean air on a district-wide basis.

The proposed rule would reduce wintertime PM2.5 levels by curtailing wintertime wood-burning emissions from wood-burning devices, including fireplaces, and achieve additional reductions by requiring cleaner burning technologies in new construction. In addition, non-wintertime burning will be improved by requiring appropriate fuel with low-moisture content be used throughout the year in wood-burning devices. Currently, there is no Air District rule which directly limits emissions from wood-burning devices. Air District Regulation 1 has historically excluded regulation of any fires associated with residential heating and will be amended to remove this exclusion. An amendment to existing Regulation 5, Open Burning, will remove an exemption for outdoor fires set for recreational purposes and create a similar requirement to curtail wintertime wood burning outdoors as well as indoors when air quality conditions dictate.

A wood-burning device is any indoor wood-burning stove or insert, pellet-fueled device, conventional fireplace and/or any indoor permanently-installed device burning solid-fuel for aesthetic or space-heating purposes in structures for residential or commercial use. The proposal for wood-burning devices would:

- Curtail operation of any wood-burning device during periods forecast to negatively impact public health due to PM2.5 levels;
- Establish limitations on visible emissions from wood burning;
- Establish criteria for the sale, transfer or installation of wood-burning devices;
- Establish criteria for the installation of wood-burning devices in new building construction;
- Prohibit the burning of garbage and certain types of materials;
- Establish requirements for the sale of wood products for use in wood burning devices.
- The proposal to amend Regulation 5, Open Burning, would create only a limited exemption for outdoor fires set for recreational purposes which would require curtailment during periods forecast to negatively impact public health due to PM2.5 levels in ambient air.
- The proposal to amend Regulation 1, General Provisions and Definitions, would remove the language “residential heating” to allow for the regulation of indoor wood-burning devices.

2.2 PROJECT LOCATION

The BAAQMD has jurisdiction of an area encompassing 5,600 square miles. The Air District includes all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties, and portions of southwestern Solano and southern Sonoma counties. The San Francisco Bay Area is characterized by a large, shallow basin surrounded by coastal mountain ranges tapering into sheltered inland valleys. The combined climatic and topographic factors result in increased potential for the accumulation of air pollutants in the inland valleys and reduced potential for buildup of air pollutants along the coast. The Basin is bounded by the Pacific Ocean to the west and includes complex terrain consisting of coastal mountain ranges, inland valleys and bays (see Figure 2-1).

2.3 BACKGROUND

The Bay Area Air Quality Management District (BAAQMD) is proposing adoption of Regulation 6, Particulate Matter and Visible Emissions, Rule 3 Wood-Burning Devices (Rule 6-3). This proposed rule would control air pollution from wood-burning stoves, fireplaces and heaters, including wood pellet stoves. The BAAQMD proposes adoption of Rule 6-3 to reduce emissions of particulate matter and visible emissions, particularly on winter nights when particulate matter concentrations could exceed the national health-based air quality standard for fine particulate matter, or particulate matter of 2.5 microns diameter or less (PM_{2.5}). The national 24-hour standard for fine particulate matter in ambient air was lowered from 65 micrograms/cubic meter ($\mu\text{g}/\text{m}^3$), to 35 $\mu\text{g}/\text{m}^3$, in December 2006.

Currently, fireplaces and wood stoves used to heat residences are exempt from District rules by Regulation 1, Section 110.4. However, from time to time the District receives complaints about residential wood-burning devices, such as excessive smoke and odor. The District's regulations of general applicability, such as Regulation 6 - Particulate Matter and Visible Emissions, and Regulation 7 - Odorous Substances, and the public nuisance standard in Regulation 1 do not apply. District inspectors respond to such complaints with informational literature advising residents of the dangers of particulate matter and how to burn with a minimum of smoke.

The District also has a voluntary program to minimize particulate matter emissions from wood-burning devices, called Spare the Air Tonight (STAT). The STAT program asks residents, via e-mail, the District website and press releases to radio and TV, not to burn during predicted excesses of the 35 $\mu\text{g}/\text{m}^3$ standard for PM_{2.5} in ambient air. The STAT season runs from mid-November through mid-February, and has been active since 1991. Typically, there are between 20 and 30 STAT nights, however, during the 2007-2008 season, there were only six. The District has averaged 17 STAT nights in the past five years. During the STAT season, the District follows up with surveys to determine the amount of success of the voluntary program and public attitudes and behaviors associated with wood burning.

In addition, the District has promoted a model ordinance to cities and counties that contains various elements that can reduce particulate matter from wood smoke. The ordinance serves as a template or guidance document for cities and counties that wish to regulate sources of particulate matter in their communities. The model ordinance does not ban wood burning in fireplaces but seeks to take advantage of new, cleaner technologies that have been developed to effectively reduce wood smoke pollution. The model ordinance includes options for mandatory burning curtailments on STAT nights, a requirement that new or re-modeled homes contain only EPA Phase II certified devices, a prohibition on gas to wood heating conversion and limitations on fuel that can be burned.

When a city or a county adopts all or only parts of the model wood smoke ordinance, enforcement typically takes place through the permit process at local building departments. The ordinance requires residents to provide documentation that the device to be installed is allowed by the ordinance. To date, 41 Bay Area cities and eight counties have adopted aspects of this model ordinance, including a mix of voluntary and mandatory standards.

Finally, the District co-sponsored and managed a financial incentive, or “wood stove change-out”, program in Santa Clara County as part of an air quality mitigation program required by the California Energy Commission. Rebates were offered to residents to upgrade to cleaner burning wood-burning devices. The District’s Cleaner Burning Technology Incentives Program offered a similar District-wide incentive program in 2008.

Wood stoves are wood-burning devices that are enclosed to control combustion. EPA-certified stoves employ either a catalytic or non-catalytic system to increase combustion of the exhaust stream. These units are either stand alone or installed into a building’s walls. A wood-burning insert can be placed in either a new or an existing fireplace.

Some EPA-certified stoves utilize a catalyst to reduce the ignition temperature of volatile gases resulting from wood combustion. A catalyst in a stove is a ceramic honey-combed combustor that is coated with a noble metal, such as platinum or palladium. These types of stoves require maintenance and eventually catalyst replacement during the lifetime of the stove in order to operate properly. The EPA Phase II certification emission limit for catalytic stoves is 4.1 grams per hour (g/hr).

Non-catalytic stoves, on the other hand, achieve low-emission, cleaner burning by decreasing the firebox size, increasing turbulence (mixing) within the firebox, and adding baffles as well as secondary burn tubes to combust emission gases. These stoves still require maintenance to operate effectively, but do not have a catalyst to replace. The EPA certification emission limit for non-catalytic stoves is 7.5 g/hr.

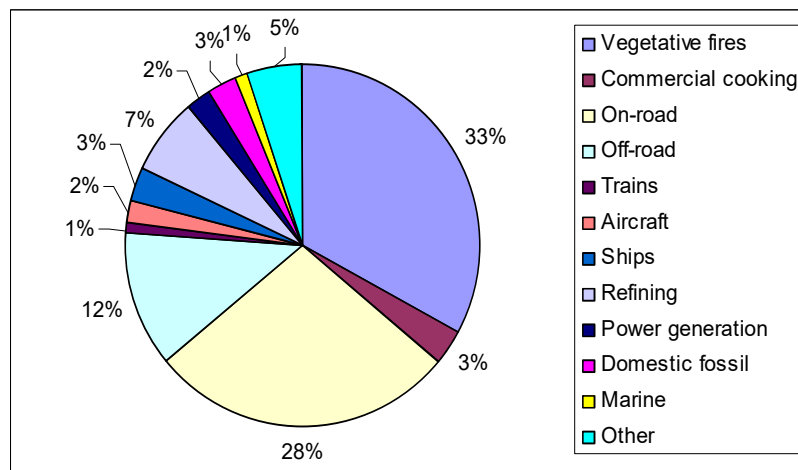
Pellet stoves were developed during the 1970’s to develop alternatives to fossil fuel. These devices burn pellets very cleanly and do not require EPA certification, although many manufacturers have the devices certified by the EPA. Pellet stoves burn wood that has been compressed into pellet form for combustion and easy storage. Some pellet stoves burn products other than wood, such as wheat or corn. In addition to the need to be vented to the outside of the structure, pellet stoves require electricity to operate in order to utilize active air and fuel management systems to control combustion efficiency. Some pellet stoves cannot meet the EPA certification requirements due to excessive air-to-fuel ratios. These stoves, however, are efficient and clean burning.

A masonry heater is a site-built, or site-assembled, solid-fueled heating device consisting of a firebox, a large masonry mass, and a maze of heat exchange channels. While a masonry heater may look like a fireplace, it operates differently. It stores heat from a rapidly burning fire within its masonry structure, and slowly releases the heat over time.

These devices currently do not require EPA-certification.

Wood-burning devices generate particulate matter. Combustion of wood also creates carbon dioxide, water vapor, carbon monoxide and volatile organic compounds, including toxic compounds. Partial or incomplete combustion, or burning wood that is not seasoned and dry, or burning garbage or other materials generates more particulate matter, carbon monoxide, and increases toxic compounds.

Residential wood combustion is an important contributor to ambient fine particle levels in the United States. District staff has identified wood smoke as the single greatest contributor on wintertime peak days (33 percent) to PM2.5 in the Bay Area, as shown in Figure 2-2.



Note: Smoke from residential wood burning constitutes nearly all of the vegetative fires category during peak periods. The other major contributors, agricultural and wildland management burns, are prohibited under District Regulation 5 during “no-burn” days, when peak concentrations occur.

FIGURE 2-2: PM2.5 Concentration on Peak Days by Constituent in the Bay Area.

Other studies find results and trends that support emission inventory estimates derived from the District data. The California Air Resources Board (CARB) found (Magliano, 1999) that residential wood combustion makes up 20 percent to 35 percent of wintertime particulate matter.

To estimate the amount of particulate matter coming from wood-burning devices, including fireplaces, District staff used data from survey sample results from Bay Area residents. These results were then correlated with projected demographic trends from the Association of Bay Area Governments (ABAG), which were based on U.S. Census data, and used to arrive at the estimated number of devices. These data, along with an annual through-put (fuel load), also derived from survey results, and an emission factor were then used to generate a particulate matter 10 microns and below in diameter (PM10) estimate for each county in the Bay Area. Wood stoves and fireplaces are expected to generate 1,657 tons per year (tpy) and 5,037 tpy of PM10 emissions, respectively. Wood stoves and fireplaces are expected to generate 1,591 tpy and 4,836 tpy of PM2.5 emissions, respectively (see Chapter 3 for further details). Because the category of

PM10 also includes PM2.5, a large portion of PM10 particles are also PM2.5 particles. Therefore, the majority of particulate matter from wood smoke are fine particles. It is these fine particles that are of greatest concern to public health.

2.4 PROJECT OBJECTIVES

The objective of Rule 6-3 is to reduce particulate matter and visible emissions from wood-burning devices in order to reduce ambient levels of particulate matter in the Bay Area, and to reduce wintertime peak concentrations to attain the federal PM2.5 standard. The Bay Area is also not in attainment with the State particulate matter standards, so further reductions in emissions of particulate matter are needed.

The Bay Area attains the federal annual PM10 standard, but is not in attainment of the California annual PM10 or PM2.5 or the California 24-hour PM10 standard. The Bay Area is unclassified for the federal 24-hour PM10 and new 24-hour PM2.5 standard.

2.5 PROPOSED PROJECT

This section presents the proposed Regulation 6, Rule 3 components to reduce particulate matter and visible emissions from wood-burning devices in order to reduce ambient levels of particulate matter in the Bay Area, and to reduce wintertime peak concentrations to attain the federal PM2.5 standard.

Visible Emissions: Rule 6-3 proposes to limit visible emissions from wood-burning devices, except six minutes during any one-hour period, to 20 percent visible emissions (equivalent to 1 on a Ringelmann Scale). This opacity limit would not apply during a 20-minute start-up period for any wood fire. This opacity standard is similar to that required of other District operations from stationary sources, including dust from construction sites and any other regulated sources (20 percent visible emissions except for three minutes in any one-hour period). Failure to meet a visible emissions standard is indicative of poor ventilation to a fire, or poorly seasoned or wet wood. Based on District inspection staff observations, this standard is not difficult to meet for properly maintained and operated wood burning devices.

Prohibit Burning of Garbage: Rule 6-3 proposes to prohibit the burning of garbage, treated wood, non-seasoned wood, used or contaminated wood pallets, plastic products, rubber products, waste petroleum products, paints and paint solvents, coal, animal carcasses, glossy and/or colored paper, salt water driftwood, particle board, and any material not intended by a manufacturer for use as a fuel in a wood-burning device at any time. These materials produce volatile organic compounds (VOCs), particulate matter and toxic compounds.

Labeling: Rule 6-3 proposes to require a label be placed on firewood for sale, including manufactured wood products such as artificial logs and wood pellets. The label would warn consumers about the health impacts from burning wood and where to find out if burning is prohibited. Unseasoned wood (moisture content of greater than 20 percent)

would be required to be labeled as such and contain a notification that burning unseasoned wood is not allowed and provide instructions for seasoning.

Seasoned wood: Rule 6-3 proposes to require that seasoned firewood must have a moisture content of 20 percent or less. Only seasoned wood can be burned in a wood-burning device. Unseasoned firewood may be sold, but must include a warning that it is not legal to burn before seasoning and instructions must be provided for seasoning.

Sale, transfer or installation: Federal law already requires newly manufactured wood stoves to meet EPA Phase II certification standards. Rule 6-3 proposes to require that wood stoves sold, transferred or installed in the District to meet these standards. Stoves sold as part of a house or other real estate transaction would not be affected by this prohibition.

New Construction: Rule 6-3 proposes to allow only EPA certified wood-burning devices or pellet stoves or equivalent devices in new construction. This would prohibit conventional wood-burning fireplaces in new housing developments.

Burning Curtailment: Rule 6-3 proposes to limit the ability to burn on STAT nights, defined as a night when the particulate matter is forecast to exceed the 24-hour National Ambient Air Quality Standard of 35 $\mu\text{g}/\text{m}^3$. An exemption would be provided if wood burning was the sole source of heat for a home.

CHAPTER 3

ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

Introduction
Air Quality

3.0 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

3.1 INTRODUCTION

A NOP/IS was prepared for Regulation 6: Particulate Matter and Visible Emissions, Rule 3: Wood-Burning Devices and Amendment of Regulation 5: Open Burning and Regulation 1: General Provisions and Definitions on March 10, 2008 (see Appendix A). The NOP/IS identified air quality as the environmental resource to be potentially significant, requiring further analysis in the EIR. The following environmental resources were considered to be less than significant and will not be further evaluated: aesthetics, agricultural resources, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation and traffic, and utilities service systems.

The environmental resource section is organized into the following subsections: (1) Environmental Setting; (2) Thresholds of Significance; (3) Environmental Impacts; and (4) Mitigation Measures. A description of each subsection follows.

3.1.1 Environmental Setting

CEQA Guidelines §15125 requires that an EIR include a description of the physical environmental conditions in the vicinity of the proposed project as they exist at the time the NOP/IS is published, or if no NOP/IS is published, at the time the environmental analysis is commenced, from both a local and regional perspective. This Chapter describes the existing environment in the Bay Area as they exist at the time the NOP/IS was prepared (March 2008). The environmental topics identified in this Chapter include both a regional and local setting. The analysis included in this chapter focus on those aspects of the environmental resource areas that could be adversely affected by the implementation of the proposed project (implementation of Regulation 6, Rule 3 and amendment of Regulations 5 and 1) as determined in the NOP/IS (see Appendix A), and not those environmental resource areas determined to have no potential adverse impact from the proposed project.

3.1.2 Thresholds of Significance

This section identifies the criteria used to determine when physical changes to the environment created as a result of the project approval would be considered significant. The levels of significance for each environmental resource were established by identifying significance criteria. These criteria are based upon those presented in the California Environmental Quality Act (CEQA) environmental checklist and the BAAQMD's CEQA Guidelines (BAAQMD, 1999).

The significance determination under each impact analysis is made by comparing the proposed project impacts with the conditions in the environmental setting and comparing the difference to the significance criteria.

3.1.3 Environmental Impacts

The potential impacts associated with each discipline are either quantitatively analyzed where possible or qualitatively analyzed where data were insufficient to quantify impacts. The impacts are compared to the significance criteria to determine the level of significance.

The impact sections of this chapter focus on those impacts that are considered potentially significant per the requirements of the California Environmental Quality Act. An impact is considered significant if it leads to a "substantial, or potentially substantial, adverse change in the environment." Impacts from the project fall within one of the following categories:

Beneficial – Impacts will have a positive effect on the resource.

No Impact: There would be no impact to the identified resource as a result of the project.

Less Than Significant: Some impacts may result from the project; however, they are judged to be less than significant. Impacts are frequently considered less than significant when the changes are minor relative to the size of the available resource base or would not change an existing resource. A “less than significant impact” applies where the environmental impact does not exceed the significance threshold.

Potentially Significant But Mitigation Measures Can Reduce Impacts to Less Than Significant: Significant adverse impacts may occur; however, with proper mitigation, the impacts can be reduced to less than significant.

Potentially Significant or Significant Impacts: Adverse impacts may occur that would be significant even after mitigation measures have been applied to minimize their severity. A “potentially significant or significant impacts” applies where the environmental impact exceeds the significance threshold, or information was lacking to make a finding of insignificance.

3.1.4 Mitigation Measures

This section describes feasible mitigation measures that could minimize potentially significant or significant impacts that may result from project approval. CEQA Guidelines (§15370) defines mitigation to include:

- Avoiding the impact altogether by not taking a certain action or parts of an action.

- Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
- Rectifying the impact by repairing, rehabilitating or restoring the impacted environment.
- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- Compensating for the impact by replacing or providing substitute resources or environments.

In accordance with CEQA statutes (§21081.6), a mitigation and monitoring program would be required to be adopted to demonstrate and monitor compliance with any mitigation measures identified in this EIR. The program would identify specific mitigation measures to be undertaken, when the measure would be implemented, and the agency responsible for oversight, implementation and enforcement.

3.2 AIR QUALITY

3.2.1 ENVIRONMENTAL SETTING

The NOP/IS (see Appendix A) determined the air quality impacts of proposed Rule 6-3 as having the potential for significant adverse impacts. Project-specific and cumulative adverse air quality impacts associated with increased emissions of air contaminants (criteria air pollutants; toxic air contaminants, TACs; and greenhouse gas emissions, GHG) have been evaluated in this EIR.

3.2.1.1 Criteria Air Pollutants

Ambient Air Quality Standards

It is the responsibility of the BAAQMD to ensure that state and federal ambient air quality standards are achieved and maintained in its geographical jurisdiction. Health-based air quality standards have been established by California and the federal government for the following criteria air pollutants: ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), particulate matter less than 10 microns in diameter (PM₁₀), particulate matter less than 2.5 microns in diameter (PM_{2.5}), sulfur dioxide (SO₂) and lead. These standards were established to protect sensitive receptors with a margin of safety from adverse health impacts due to exposure to air pollution. The California standards are more stringent than the federal standards, and in the cases of PM₁₀ and SO₂, far more stringent. California has also established standards for sulfate, visibility, hydrogen sulfide, and vinyl chloride.

The state and National Ambient Air Quality Standards (NAAQS) for each of these pollutants and their effects on health are summarized in Table 3-1. CO, NO₂, PM₁₀, PM_{2.5} and SO₂ are directly emitted from stationary and mobile sources. Ozone is not

emitted directly from pollution sources. Instead ozone is formed in the atmosphere through complex chemical reactions between hydrocarbons or reactive organic hydrocarbons (ROG, also commonly referred to as volatile organic compounds or VOCs).

U.S. EPA requires CARB and BAAQMD to measure the ambient levels of air pollution to determine compliance with the NAAQS. To comply with this mandate, the BAAQMD monitors levels of various criteria pollutants at 26 monitoring stations. The 2006 air quality data from the BAAQMD monitoring stations are presented in Table 3-2.

Air quality conditions in the San Francisco Bay Area have improved since the Air District was created in 1955. Ambient concentrations of air pollutants and the number of days on which the region exceeds air quality standards have fallen dramatically (see Table 3-3). The Air District is in attainment of the State and federal ambient air quality standards for CO, nitrogen oxides (NO_x), and sulfur dioxides (SO₂). The Air District is not considered to be in attainment with the State PM₁₀ and PM_{2.5} standards.

The 2006 air quality data from the BAAQMD monitoring stations are presented in Table 3-2. All monitoring stations were below the state standard and federal ambient air quality standards for CO, NO₂, and SO₂. The federal 8-hour ozone standard was exceeded 12 days in the District in 2006, while the state 1-hour standard was exceeded on 22 days. The Bay Area is designated as a marginal non-attainment area for the federal 8-hour ozone standard and as a serious non-attainment area for the California 1-hour ozone standard. The State 1-hour ozone standard was exceeded on 18 days in 2006 in the District, most frequently in the Eastern District (Livermore) (see Table 3-2). The District has been designated as non-attainment for the new State 8-hour standard.

TABLE 3-1: Federal and State Ambient Air Quality Standards

	STATE STANDARD	FEDERAL PRIMARY STANDARD	MOST RELEVANT EFFECTS
AIR POLLUTANT	CONCENTRATION/ AVERAGING TIME	CONCENTRATION/ AVERAGING TIME	
Ozone	0.09 ppm, 1-hr. avg. > 0.070 ppm, 8-hr	0.08 ppm, 8-hr avg. >	(a) Short-term exposures: (1) Pulmonary function decrements and localized lung edema in humans and animals (2) Risk to public health implied by alterations in pulmonary morphology and host defense in animals; (b) Long-term exposures: Risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (c) Vegetation damage; (d) Property damage
Carbon Monoxide	9.0 ppm, 8-hr avg. > 20 ppm, 1-hr avg. >	9 ppm, 8-hr avg.> 35 ppm, 1-hr avg.>	(a) Aggravation of angina pectoris and other aspects of coronary heart disease; (b) Decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (c) Impairment of central nervous system functions; (d) Possible increased risk to fetuses
Nitrogen Dioxide	0.25 ppm, 1-hr avg. >	0.053 ppm, ann. avg.>	(a) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (b) Risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; (c) Contribution to atmospheric discoloration
Sulfur Dioxide	0.04 ppm, 24-hr avg.> 0.25 ppm, 1-hr. avg. >	0.03 ppm, ann. avg.> 0.14 ppm, 24-hr avg.>	(a) Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma
Suspended Particulate Matter (PM10)	20 µg/m ³ , annual arithmetic mean > 50 µg/m ³ , 24-hr average>	50 µg/m ³ , annual arithmetic mean > 150 µg/m ³ , 24-hr avg.>	(a) Excess deaths from short-term exposures and exacerbation of symptoms in sensitive patients with respiratory disease; (b) Excess seasonal declines in pulmonary function, especially in children
Suspended Particulate Matter (PM2.5)	12 µg/m ³ , annual arithmetic mean>	15 µg/m ³ , annual arithmetic mean> 35 µg/m ³ , 24-hour average>	Decreased lung function from exposures and exacerbation of symptoms in sensitive patients with respiratory disease; elderly; children.
Sulfates	25 µg/m ³ , 24-hr avg. >=		(a) Decrease in ventilatory function; (b) Aggravation of asthmatic symptoms; (c) Aggravation of cardio-pulmonary disease; (d) Vegetation damage; (e) Degradation of visibility; (f) Property damage
Lead	1.5 µg/m ³ , 30-day avg. >=	1.5 µg/m ³ , calendar quarter>	(a) Increased body burden; (b) Impairment of blood formation and nerve conduction
Visibility-Reducing Particles	In sufficient amount to give an extinction coefficient >0.23 inverse kilometers (visual range to less than 10 miles) with relative humidity less than 70%, 8-hour average (10am – 6pm PST)		Nephelometry and AISI Tape Sampler; instrumental measurement on days when relative humidity is less than 70 percent

All monitoring stations were in compliance with the federal PM10 standards. The California PM10 standards were exceeded on 15 days in 2006, most frequently in San Jose. The Air District exceeded the federal PM2.5 standard on ten days, most frequently in San Jose, in 2006 (see Table 3-2).

3.2.1.2 Non-Criteria Pollutants

Although the primary mandate of the BAAQMD is attaining and maintaining the national and state Ambient Air Quality Standards for criteria pollutants within the BAAQMD jurisdiction, the BAAQMD also has a general responsibility to control, and where possible, reduce public exposure to airborne toxic compounds. The state and federal governments have set health-based ambient air quality standards for criteria pollutants. The air toxics program was established as a separate and complementary program designed to evaluate and reduce adverse health effects resulting from exposure to TACs.

The major elements of the District's air toxics program are outlined below.

- Preconstruction review of new and modified sources for potential health impacts, and the requirement for new/modified sources with non-trivial TAC emissions to use the Best Available Control Technology.
- The Air Toxics Hot Spots Program, designed to identify industrial and commercial facilities that may result in locally elevated ambient concentrations of TACs, to report significant emissions to the affected public, and to reduce unacceptable health risks.
- Control measures designed to reduce emissions from source categories of TACs, including rules originating from the state Toxic Air Contaminant Act and the federal Clean Air Act.
- The TAC emissions inventory, a database that contains information concerning routine and predictable emissions of TACs from permitted stationary sources.
- Ambient monitoring of TAC concentrations at a number of sites throughout the Bay Area.
- The Community Air Risk Evaluation (CARE) Program evaluates and reduces emissions of TACs in high risk communities.

Historically, the BAAQMD has regulated criteria air pollutants using either a technology-based or an emissions-limit approach. The technology-based approach defines specific control technologies that may be installed to reduce pollutant emissions. The emission limit approach establishes an emission limit, and allows industry to use any emission control equipment, as long as the emission requirements are met. The regulation of TACs requires a different regulatory approach as explained in the following subsections.

Air Toxics New Source Review

New and modified source permit applications have been reviewed for air toxics concerns since 1987, in accordance with the Risk Management Policy (RMP) established at the

request of the District's Board of Directors. A large increase in risk screening analyses has occurred in recent years due primarily to the removal of permit exemptions in District regulations for standby engines. Prior to 2000, the District completed screening risk analyses for an average of about 175 permit applications per year. This number increased to 255 in 2000, to 440 in 2001, reached a peak of 602 in 2002, and declined to 430 in 2003. The District has replaced the RMP with Regulation 2, Rule 5: New Source Review of Toxic Air Contaminants, which was adopted by the District Board of Directors on June 15, 2005.

Regulation 2, Rule 5 changed the Air Toxics NSR Program by:

- (1) adding a project risk limit for acute health risks (HI = 1.0);
- (2) requiring TBACT for chronic non-cancer health risks (at HI > 0.20);
- (3) using updated toxicity values and exposure assessment procedures (primarily from OEHHA Air Toxic Hot Spots Program Guidance Manual for Preparation of Health Risk Assessment);
- (4) removing “special” project cancer risk limits for perchloroethylene dry cleaners; and
- (5) eliminating discretionary risk authority for the Air Pollution Control Officer; all sources are limited to cancer risk of 10 in a million and non-cancer Hazard Index of 1.0.

Air Toxics Hot Spots Program

The Air Toxics Hot Spots (ATHS) Program involves the evaluation of health risks due to routine and predictable TAC emissions from industrial and commercial facilities. The District has established specific public notification measures for various levels of risk identified under the program (Levels 1, 2, and 3). In 1991, the first year of the risk assessment phase of the program, 30 facilities were identified with Level 1 health risks (cancer risk of 10 in a million or greater) that triggered public notification requirements. The number of facilities requiring public notification had steadily decreased over the first decade of the program as industries reduced toxic emissions and refined estimates of risk. There are currently no major facilities in the Bay Area that require public notification under the ATHS Program. In addition to public notification requirements, the ATHS Program requires facilities to reduce their health risks below levels determined by the air district to be significant within a certain timeframe. The District requires mandatory risk reduction measures for those facilities with health risks of Level 2 or greater (cancer risks of 100 in one million or greater). There are currently no facilities in the Bay Area that have risks identified as Level 2 or greater.

Control Measures for Categories of Sources

The California Air Resources Board (CARB) has adopted seventeen Airborne Toxic Control Measures (ATCMs) for stationary sources which the District implements in the

Bay Area. More recent ATCMs include residential waste burning (2003), stationary diesel engines (2004), portable diesel engines (2004), thermal metal spraying (2005), and formaldehyde from composite wood products (2007). CARB revised existing ATCMs for chrome plating and chromic acid anodizing operations and perchloroethylene dry cleaners (included a phase-out of perchloroethylene by 2023).

National Emission Standards for Hazardous Air Pollutants (NESHAPs) developed by U.S. EPA in accordance with Title III of the 1990 federal Clean Air Act Amendments have also become an important source of air toxics control measures in California. These rules generally focus on larger “major source” facilities, and require that emissions be reduced using the Maximum Achievable Control Technology (MACT). Under State law, the District must implement and enforce all MACT Standards, or rules that are at least as stringent. U.S. EPA has already adopted a significant number of new MACT Standards. The focus of future NESHAP development under Title III has shifted to rules that apply to smaller “area source” facilities, e.g., EPA revised the Perchloroethylene Dry Cleaning MACT in July 2006.

Air Toxics Emission Inventory

The BAAQMD maintains a database that contains information concerning emissions of TACs from permitted stationary sources in the Bay Area. This inventory, and a similar inventory for mobile and area sources compiled by CARB, is used to plan strategies to reduce public exposure to TACs. The detailed emissions inventory is reported in the BAAQMD, Toxic Air Contaminant Control Program, 2003 Annual Report (BAAQMD, 2007). The 2003 emissions inventory continues to show decreasing emissions of many TACs in the Bay Area. The most dramatic emission reductions in recent years have been for certain chlorinated compounds that are used as solvents including 1,1,1-trichloroethane, perchloroethylene, and trichloroethylene. Additionally, in 2003, there were reductions in other organic TACs such as: toluene, xylene, butyl cellosolve, glycol ethers, and methyl ethyl ketone.

Targeted Control of TACs Under the Community Air Risk Evaluation Program:

In 2004, BAAQMD established the Community Air Risk Evaluation (CARE) program to identify locations with high emissions of toxic air contaminants (TAC) and high exposures of sensitive populations to TAC and to use this information to help establish policies to guide mitigation strategies that obtain the greatest health benefit from TAC emission reductions. For example, BAAQMD will use information derived from the CARE program to develop and implement targeted risk reduction programs, including grant and incentive programs, community outreach efforts, collaboration with other governmental agencies, model ordinances, new regulations for stationary sources and indirect sources, and advocacy for additional legislation.

Ambient Monitoring Network

Table 3-3 (BAAQMD, 2007) contains a summary of average ambient concentrations of TACs measured at monitoring stations in the Bay Area by the District in 2003. Table 3-3 show the calculated cancer risks associated with lifetime exposure to average ambient concentrations of these measured TACs. Of the pollutants for which monitoring data are available, 1,3-butadiene and benzene (which are emitted primarily from motor vehicles) account for slightly over one half of the average calculated cancer risk.

Ambient benzene levels declined dramatically in 1996 with the advent of Phase 2 reformulated gasoline, with significant reductions in ambient 1,3-butadiene levels also occurring. Due largely to these observed reductions in ambient benzene and 1,3-butadiene levels, the calculated network average cancer risk has been significantly reduced in recent years. Based on 2003 ambient monitoring data, the calculated inhalation cancer risk is 143 in one million, which is 53 percent less than the 303 in one million risk that was observed in 1995. These figures do not include the risk resulting from exposure to diesel particulate matter or other compounds not monitored. Although not specifically monitored, recent studies indicate that exposure to diesel particulate matter may contribute significantly to a cancer risk (approximately 500-700 in a million) that is greater than all of the other measured TACs combined. CARB began monitoring for acrylonitrile mid-2003; ambient concentration data will be included for 2004 and in later reports.

TABLE 3-3: Summary of 2003 BAAQMD Ambient Air Toxics Monitoring Data

Compound	LOD (ppb) ⁽¹⁾	% of Samples < LOD ⁽²⁾	Max. Conc. (ppb) ⁽³⁾	Min. Conc. (ppb) ⁽⁴⁾	Mean Conc. (ppb) ⁽⁵⁾
Acetone	0.30	0	121.4	0.6	6.80
Benzene	0.10	1.78	2.4	0.5	0.401
1,3-butadiene	0.15	75.7	0.89	0.075	0.12
Carbon tetrachloride	0.01	0	0.16	0.09	0.108
Chloroform	0.02	62.5	1.47	0.01	0.024
Ethylbenzene	0.10	44.2	0.90	0.05	0.135
Ethylene dibromide	0.02	100	0.01	0.01	0.01
Ethylene dichloride	0.10	100	0.05	0.05	0.05
Methylene chloride	0.50	82.9	3.40	0.25	0.356
Methyl ethyl ketone	0.20	7.7	5.80	0.1	0.496
Metyl tert-butyl ether	0.30	32.9	4.80	0.15	0.532
Perchloroethylene	0.01	42.4	0.28	0.005	0.026
Toluene	0.10	0.2	6.0	0.05	1.062
1,1,1-Trichloroethane	0.05	72.3	2.47	0.025	0.084
Trichloroethylene	0.05	93.8	0.33	0.025	0.029
Trichlorofluoromethane	0.01	0	.046	0.18	0.266
1,1,2-trichlorotrifluoroethane	0.01	0	1.16	0.06	0.077
Vinyl chloride	0.30	100	0.15	0.15	0.15
m/p-xylene	0.10	2.8	3.40	0.05	0.535
o-xylene	0.10	27.9	1.30	0.05	0.186

NOTES: Table 4 summarizes the results of the BAAQMD gaseous toxic air contaminant monitoring network for the year 2003. These data represent monitoring results at 19 of the 20 separate sites at which samples were collected. Data from the Fort Cronkhite "clean-air" background site was not included. Data from the Oakland-Davie Stadium site was available from January through March.

- (1) "LOD" is the limit of detection of the analytical method used.
- (2) "% of samples < LOD" is the percent of the total number of air samples collected in 2003 that had pollutant concentrations less than the LOD.
- (3) "Maximum Conc." is the highest daily concentration measured at any of the 19 monitoring sites.
- (4) "Minimum Conc." is the lowest daily concentration measured at any of the 19 monitoring sites.
- (5) "Mean Conc." is the arithmetic average of the air samples collected in 2003 at the 19 monitoring sites. In calculating the mean, samples with concentrations less than the LOD were assumed to be equal to one half the LOD concentration.
- (6) Acrylonitrile data not available for full year and not reported.

3.2.1.3 Greenhouse Gases

Global climate change refers to changes in average climatic conditions on the earth as a whole, including temperature, wind patterns, precipitation and storms. Global warming, a related concept, is the observed increase in average temperature of the earth's surface and atmosphere. Global warming occurs when the amount of heat trapped in the earth's

atmosphere is greater than the amount radiated. Global warming is a natural phenomenon, whereby the sun's heat trapped in the atmosphere maintains a habitable temperature and supports life. The heat is trapped and maintained by the presence of "greenhouse gases" or GHG. The GHG absorb longwave radiant energy reflected by the earth, warming the atmosphere. GHG also radiate longwave radiation both upward to space and back down toward the surface of the earth. The downward part of this longwave radiation absorbed by the atmosphere is known as the "greenhouse effect." Events and activities, such as the industrial revolution and the increased combustion of fossil fuels (e.g., gasoline, diesel, coal, etc.), have heavily contributed to the increase in atmospheric levels of GHG. Consequently, concern over the impacts of global warming relate not to the ability of the atmosphere to hold heat, but to the increase in emissions of GHG as the basis for irreversible change in the climate worldwide. Some studies indicate that the potential effects of global climate change may include rising surface temperatures, loss in snow pack, sea level rise, and more extreme heat days per year. One identified cause of global warming is an increase of GHG in the atmosphere. The six major GHG identified by the Kyoto Protocol are CO₂, methane (CH₄), nitrous oxide (N₂O), sulfur hexafluoride (SF₆), haloalkanes (HFCs), and perfluorocarbons (PFCs). In addition, black carbon particles entrained in the atmosphere are implicated in global warming.

Each greenhouse gas differs in its ability to absorb heat in the atmosphere. High global warming potential gases such as HFCs, PFCs, and SF₆ are the most heat-absorbent. Methane (CH₄) traps over 21 times more heat per molecule than carbon dioxide, and nitrous oxide absorbs 310 times more heat per molecule than carbon dioxide. Often, estimates of greenhouse gas emissions are presented in carbon dioxide equivalents (CO₂-eq), which weight each gas relative to the global warming potential of carbon dioxide, which has arbitrarily been assigned a value of 1 for comparison purposes. Table 3-4 shows the global warming potentials for different greenhouse gases for 100 year time horizon.

Table 3-4: Global Warming Potentials (GWPs) for Greenhouse Gases

Carbon dioxide, CO ₂	1
Methane, CH ₄	21
Nitrous oxide, N ₂ O	310
Hydrofluoro- and Perfluoro-carbons, HFC/CFC	6,500
Sulfur hexafluoride, SF ₆	23,900

As reported by the CEC, California contributes 1.4 percent of the global and 6.2 percent of the national GHG emissions (CEC, 2004) in spite of 10 percent of the country's population. The GHG inventory for California is presented in Table 3-8 (CARB, 2007). Approximately 80 percent of GHG in California are from fossil fuel combustion and over 70 percent of GHG emissions are carbon dioxide emissions (see Table 3-5).

In response to growing scientific and political concern regarding global climate change, California has recently adopted a series of laws to reduce both the level of GHG in the atmosphere and to reduce emissions of GHG from commercial and private activities within the state. In September 2002, Governor Gray Davis signed Assembly Bill (AB) 1493, requiring the development and adoption of regulations to achieve “the maximum feasible reduction of greenhouse gases” emitted by noncommercial passenger vehicles, light-duty trucks, and other vehicles used primarily for personal transportation in the State. Setting emission standards on automobiles is normally the responsibility of the U.S. EPA. The Federal Clean Air Act, however, allows California to set a state-specific emission standard on automobiles if it first obtains a waiver from the U.S. EPA. On December 19, 2007 the U.S. EPA denied California’s request for a waiver. In response, California sued the U.S. EPA claiming that the denial was not based on the scientific data.

In June 2005, Governor Schwarzenegger signed Executive Order S-3-05, which established GHG emissions reduction targets for the state, as well as a process to ensure that the targets are met. As a result of this executive order, the California Climate Action Team (CAT), led by the Secretary of the California State Environmental Protection Agency (CalEPA), was formed. The CAT published its report in March 2006, in which it laid out several recommendations and strategies for reducing GHG emissions and reaching the targets established in the executive order. The greenhouse gas targets are:

- By 2010, reduce to 2000 emission levels;
- By 2020, reduce to 1990 emission levels; and,
- By 2050, reduce to 80 percent below 1990 levels.

TABLE 3-5: California GHG Emissions and Sinks Summary
(Million metric tons, CO₂-equivalent)

Categories Included in the Inventory	1990	2004
ENERGY	386.41	420.91
Fuel Combustion Activities	381.16	416.29
Energy Industries	157.33	166.43
Manufacturing Industries & Construction	24.24	19.45
Transport	150.02	181.95
Other Sectors	48.19	46.29
Non-Specified	1.38	2.16
Fugitive Emissions from Fuels	5.25	4.62
Oil and Natural Gas	2.94	2.54
Other Emissions from Energy Production	2.31	2.07
INDUSTRIAL PROCESSES & PRODUCT USE	18.34	30.78
Mineral Industry	4.85	5.90
Chemical Industry	2.34	1.32
Non-Energy Products from Fuels & Solvent Use	2.29	1.37
Electronics Industry	0.59	0.88
Product Uses as Substitutes for Ozone Depleting Substances	0.04	13.97
Other Product Manufacture & Use Other	3.18	1.60
Other	5.05	5.74
AGRICULTURE, FORESTRY, & OTHER LAND USE	19.11	23.28
Livestock	11.67	13.92
Land	0.19	0.19
Aggregate Sources & Non-CO ₂ Emissions Sources on Land	7.26	9.17
WASTE	9.42	9.44
Solid Waste Disposal	6.26	5.62
Wastewater Treatment & Discharge	3.17	3.82
EMISSION SUMMARY		
Gross California Emissions	433.29	484.4
Sinks and Sequestrations	-6.69	-4.66
Net California Emissions	426.60	479.74

Source: CARB, 2007.

In September 2006, Governor Schwarzenegger signed California's Global Warming Solutions Act of 2006 (AB32). AB32 will require CARB to:

- Establish a statewide GHG emissions cap for 2020, based on 1990 emissions, by January 1, 2008;
- Adopt mandatory reporting rules for significant sources of GHG emissions by January 1, 2008;

- Adopt an emissions reduction plan by January 1, 2009, indicating how emissions reductions will be achieved via regulations, market mechanisms, and other actions; and,
- Adopt regulations to achieve the maximum technologically feasible and cost-effective reductions of GHG by January 1, 2011.

California Senate Bill 97 (SB97), passed in August 2007, is designed to work in conjunction with CEQA and AB32. SB97 requires the California Office of Planning and Research (OPR) to prepare and develop guidelines for the mitigation of GHG emissions or the effects thereof, including but not limited to, effects associated with transportation and energy consumption. These guidelines must be transmitted to the Resources Agency by July 1, 2009, to be certified and adopted by January 1, 2010. The OPR and the Resources Agency shall periodically update these guidelines to incorporate new information or criteria established by CARB pursuant to AB32. SB97 will apply to any EIR, negative declaration, mitigated negative declaration, or other document required by CEQA, prepared for a limited number of types of projects, which has not been finalized. SB 97 will be automatically repealed January 1, 2010.

The BAAQMD has also initiated a Climate Protection Program. On June 1, 2005 the Air District Board of Directors adopted a resolution establishing a Climate Protection Program and acknowledging the link between climate protection and programs to reduce air pollution in the Bay Area. A central element of the District's climate protection program is the integration of climate protection activities into existing District programs. The District is seeking ways to integrate climate protection into current District functions, including grant programs, CEQA commenting, regulations, inventory development, and outreach. In addition, the District's climate protection program emphasizes collaboration with ongoing climate protection efforts at the local and State level, public education and outreach and technical assistance to cities and counties.

The District has contracted two reports on potential mitigation of greenhouse gas emissions from Bay Area stationary sources. The reports were titled "Opportunities for Further Greenhouse Gas Emission Reductions for the BAAQMD Stationary Sources" and "Greenhouse Gas Mitigation: Landfill Gas and Industrial, Institutional and Commercial Boilers, Steam Generators and Process Heaters." The first gave an overview of the potential areas for regulatory activity to reduce greenhouse gas emissions at Bay Area sources, and the second focused on two of the most promising categories, landfills and boilers.

The Climate Protection Grant Program is another aspect of the District's efforts to reduce greenhouse gas emissions. In 2007, the District awarded \$3 million to fund 53 local projects to reduce the Bay Area's carbon footprint. This \$3 million represents the largest single source of funding available for climate protection projects in the Bay Area. Grants were made to Bay Area local governments and non-profit organizations for implementation of innovative projects to reduce greenhouse gas emissions.

The District has developed a Source Inventory of Bay Area Greenhouse Gas Emissions, published in November, 2006. In it, GHG emissions from various sources are calculated for each applicable GHG, and CO₂-eq emissions are determined. The emissions focuses on direct GHG emissions due to human activities including commercial, transportation, domestic, forestry and agriculture activities in the San Francisco Bay region. This Source Inventory does not include indirect emissions, for example, electricity used by an industrial source or residence is not included, although emissions from Bay Area power plants are. Point sources, or sources of emissions that require BAAQMD permits are calculated directly from data submitted to BAAQMD by each facility, but area sources, which are groups of numerous small emission sources that do not require permits but collectively emit significant amounts of air pollutants, have been calculated based on estimated activities and emission factors for various categories. In addition, the emissions from mobile sources, such as cars, trucks, buses, boats, ships trains and aircraft have been calculated based on CARB's EMFAC2002 model or based on estimated fuel used and emissions factors.

The greenhouse gas with the greatest emissions is carbon dioxide (CO₂). Carbon dioxide emissions from various activities in the Bay Area represented 89.9 percent of total greenhouse gas emissions in 2002. Carbon dioxide emissions are mainly associated with combustion of carbon-bearing fossil fuels such as gasoline, diesel, and natural gas used in mobile sources and energy-generation-related activities. Other activities that produce CO₂ emissions include cement manufacturing, waste combustion, and waste and forest management. Methane (CH₄) emissions from various sources represent 4.5 percent of Bay Area's total CO₂-eq GHG emissions. Landfills, natural gas distribution systems, agricultural activities, fireplaces and wood stoves, stationary and mobile fuel combustion, and gas and oil production fields categories are the major sources of these emissions. Nitrous oxide (N₂O) emissions represent approximately 5 percent of the overall GHG inventory. Municipal wastewater treatment facilities, fuel combustion, and agricultural soil and manure management are the major contributors of nitrous oxide emissions in the Bay Area. Emissions from high global warming potential gases such as HFCs, PFCs and SF₆ make up approximately one half percent of the total CO₂-eq emissions. Industrial processes such as semiconductor manufacturing and electric power transmission and distribution systems are the major sources of HFCs, PFCs and SF₆ emissions in the Bay Area.

Direct GHG emissions by major source categories are shown in Table 3-6. Fossil fuel consumption in the transportation sector was the single largest source of Bay Area's GHG emissions in 2002. The transportation sector alone contributed 50.6 percent of GHG emissions in the Bay Area. Categories included in this sector are on-road motor vehicles, off-highway mobile sources, and aircraft.

Industrial and commercial sources (excluding petroleum refining and power plants, which are reported separately) were the second largest contributors of GHG emissions with 25.7 percent of total emissions. Industrial, commercial, and other sources include emissions from industrial processes such as waste management, cement manufacturing, fuel distribution, agriculture and forest management, and some other small sources.

Domestic sources, the third largest category, includes emissions from domestic combustion, but does not, as stated above, include impacts from electricity use. Domestic combustion includes emissions from residential furnaces, water heaters and cooking. Table 3-6 shows the relative and total contribution of major categories of emissions of GHG in the Bay Area. Based on population and emissions trends, the total amount of GHG emissions in the Bay Area has been estimated to be 95.8 million tons for 2008. Of this total, domestic combustion has been estimated to be 9.9 million tons, a slightly smaller percent of the total, at 10.3%.

Table 3-6: 2002 Greenhouse Gas Emissions by Major Category, BAAQMD

Major Category	Percent Contribution	CO2-eq (Million Tons/year)
Transportation	50.6%	43.2
Industrial/Commercial	25.7%	22.0
Power Plants	7.2%	6.1
Oil Refining	5.6%	4.8
Domestic	10.9%	9.3
Total	100%	85.4

3.2.1.4 Health Effects

Criteria Pollutants

Particulate Matter (PM10 & PM2.5): Of great concern to public health are the particles small enough to be inhaled into the deepest parts of the lung. Respirable particles (particulate matter less than about 10 micrometers in diameter) can accumulate in the respiratory system and aggravate health problems. Exposure to particulate pollution is linked to increased frequency and severity of asthma attacks and even premature death in people with pre-existing cardiac or respiratory disease. Those most sensitive to particulate pollution include infants and children, the elderly, and persons with impaired heart and lung function and immunology systems. Children, the elderly, exercising adults, and those suffering from asthma are especially vulnerable to adverse health effects of PM10 and PM2.5.

A consistent correlation between elevated ambient fine particulate matter (PM10 and PM2.5) levels and an increase in mortality rates, respiratory infections, number and severity of asthma attacks and the number of hospital admissions has been observed in different parts of the United States and various areas around the world. Studies have reported an association between long-term exposure to air pollution dominated by fine particles (PM2.5) and increased mortality, reduction in life-span, and an increased mortality from lung cancer.

Ambient PM is made up of particles that are emitted directly, such as soot and fugitive dust, as well as secondary particles that are formed in the atmosphere from reactions involving precursor pollutants such as oxides of nitrogen, sulfur oxides, volatile organic

compounds, and ammonia. Secondary PM and combustion soot tend to be fine particles (PM 2.5), whereas fugitive dust is mostly coarse particles. Directly-emitted particles come from a variety of sources such as cars, trucks, buses, industrial facilities, power plants, construction sites, tilled fields, unpaved roads, stone crushing, and burning of wood. Other particles are formed indirectly when gases from burning fuels react with sunlight and water vapor. These particles are an indirect product from fuel combustion in motor vehicles, at power plants, and in other industrial processes. Many combustion sources, such as motor vehicles and power plants, both emit PM directly and emit pollutants that form secondary PM.

In addition, particulate matter is responsible for a variety of other detrimental environmental effects, including visibility impairment, atmospheric deposition, aesthetic damages and public nuisances.

Ozone: Ozone (O₃), a colorless gas with a sharp odor, is a highly reactive form of oxygen. High ozone concentrations exist naturally in the stratosphere. Some mixing of stratospheric ozone downward through the troposphere to the earth's surface does occur; however, the extent of ozone transport is limited. At the earth's surface in sites remote from urban areas ozone concentrations are normally very low (0.03-0.05 ppm).

While ozone is beneficial in the stratosphere because it filters out skin cancer-causing ultraviolet radiation, it is a highly reactive oxidant. It is this reactivity which accounts for its damaging effects on materials, plants, and human health at the earth's surface.

The propensity of ozone for reacting with organic materials causes it to be damaging to living cells, and ambient ozone concentrations in the Bay Area are occasionally sufficient to cause health effects. Ozone enters the human body primarily through the respiratory tract and causes respiratory irritation and discomfort, makes breathing more difficult during exercise, and reduces the respiratory system's ability to remove inhaled particles and fight infection. People with respiratory diseases, children, the elderly, and people who exercise heavily are more susceptible to the effects of ozone.

Plants are also sensitive to ozone, at concentrations well below the health-based standards and ozone is responsible for significant crop damage. Ozone is also responsible for damage to forests and other ecosystems.

Volatile Organic Compounds (VOCs): It should be noted that there are no state or national ambient air quality standards for VOCs because they are not classified as criteria pollutants. VOCs are regulated, however, because VOC emissions contribute to the formation of ozone. They are also transformed into organic aerosols in the atmosphere, contributing to higher PM₁₀ and lower visibility levels.

Although health-based standards have not been established for VOCs, health effects can occur from exposures to high concentrations of VOCs because of interference with oxygen uptake. In general, ambient VOC concentrations in the atmosphere are suspected to cause coughing, sneezing, headaches, weakness, laryngitis, and bronchitis, even at low

concentrations. Some hydrocarbon components classified as VOC emissions are thought or known to be hazardous. Benzene, for example, one hydrocarbon component of VOC emissions, is known to be a human carcinogen.

Carbon Monoxide (CO): CO is a colorless, odorless, relatively inert gas. It is a trace constituent in the unpolluted troposphere, and is produced by both natural processes and human activities. In remote areas far from human habitation, carbon monoxide occurs in the atmosphere at an average background concentration of 0.04 ppm, primarily as a result of natural processes such as forest fires and the oxidation of methane. Global atmospheric mixing of CO from urban and industrial sources creates higher background concentrations (up to 0.20 ppm) near urban areas. The major source of CO in urban areas is incomplete combustion of carbon-containing fuels, mainly gasoline. Consequently, CO concentrations are generally highest in the vicinity of major concentrations of vehicular traffic.

CO is a primary pollutant, meaning that it is directly emitted into the air, not formed in the atmosphere by chemical reaction of precursors, as is the case with ozone and other secondary pollutants. Ambient concentrations of CO in the Basin exhibit large spatial and temporal variations, due to variations in the rate at which CO is emitted, and in the meteorological conditions that govern transport and dilution. Unlike ozone, CO tends to reach high concentrations in the fall and winter months. The highest concentrations frequently occur on weekdays at times consistent with rush hour traffic and late night during the coolest, most stable atmospheric portion of the day.

When CO is inhaled in sufficient concentration, it can displace oxygen and bind with the hemoglobin in the blood, reducing the capacity of the blood to carry oxygen. Individuals most at risk from the effects of CO include heart patients, fetuses (unborn babies), smokers, and people who exercise heavily. Normal healthy individuals are affected at higher concentrations, which may cause impairment of manual dexterity, vision, learning ability, and performance of work. The results of studies concerning the combined effects of CO and other pollutants in animals have shown a synergistic effect after exposure to CO and ozone.

Nitrogen Dioxide (NO₂): NO₂ is a reddish-brown gas with a bleach-like odor. Nitric oxide (NO) is a colorless gas, formed from the nitrogen (N₂) and oxygen (O₂) in air under conditions of high temperature and pressure which are generally present during combustion of fuels; NO reacts rapidly with the oxygen in air to form NO₂. NO₂ is responsible for the brownish tinge of polluted air. The two gases, NO and NO₂, are referred to collectively as NO_x. In the presence of sunlight, NO₂ reacts to form nitric oxide and an oxygen atom. The oxygen atom can react further to form ozone, via a complex series of chemical reactions involving hydrocarbons. Nitrogen dioxide may also react to form nitric acid (HNO₃) which reacts further to form nitrates, which are a component of PM₁₀.

NO₂ is a respiratory irritant and reduces resistance to respiratory infection. Children and people with respiratory disease are most susceptible to its effects.

Sulfur Dioxide (SO₂): SO₂ is a colorless gas with a sharp odor. It reacts in the air to form sulfuric acid (H₂SO₄), which contributes to acid precipitation, and sulfates, which are a component of PM₁₀ and PM_{2.5}. Most of the SO₂ emitted into the atmosphere is produced by the burning of sulfur-containing fuels.

At sufficiently high concentrations, SO₂ affects breathing and the lungs' defenses, and can aggravate respiratory and cardiovascular diseases. Asthmatics and people with chronic lung disease or cardiovascular disease are most sensitive to its effects. SO₂ also causes plant damage, damage to materials, and acidification of lakes and streams.

Non-Criteria Pollutants

Toxic Air Contaminants: Chemicals are considered toxic if exposure to the compound causes adverse effects in a living organism. In order for the chemical to illicit an adverse effect, it must gain entry into the body through either inhalation (respiratory tract), ingestion (gastrointestinal tract), and dermal contact (skin). Most toxic substances do not cause harmful effects at the point of entry. Instead, entry into the body starts the physiological processes of the body to either absorb, distribute, store, transform, and eliminate the chemical. To produce a toxic effect, the chemical or its biotransformation product must reach a sensitive body organ at sufficient high concentration for an extended period of time.

The rates at which toxic compounds are absorbed, metabolized, and eliminated are very critical. If the body eliminates a toxic compound rapidly, it may tolerate an otherwise toxic dose when partitioned into fractional doses. If the body eliminates a toxic compound slowly, a low dose over a long period could result in accumulation of the toxic compound to a critical concentration. Exposure times may range from one day to a person's lifetime. In humans, the following criteria may be used to characterize exposure:

- Acute: 1 day
- Sub-acute: 10 days
- Sub-chronic: 2 weeks to 7 years
- Chronic: 7 years to lifetime

Once the toxic compound reaches the body organ, the toxic compound joins, or binds with a molecule or a group of molecules from a cell of a target organ, called an enzyme. The binding of the toxic compound interferes with the normal beneficial biochemical reactions of the human body or initiate abnormal metabolic reactions, resulting in adverse effect. The effects may be short term effects such as headaches or nausea. They can also be fatal.

The common way of classifying toxic effects from chemical exposure is through two broad categories: carcinogenic effects and non-carcinogenic effects. Carcinogenic compounds induce cancer while non-carcinogenic effects comprise all other effects. Carcinogenic compound can be further divided into genotoxic and non-genotoxic

compounds. Genotoxic carcinogens initiate and progress mutations necessary for the development of human cancer while non-genotoxic carcinogens speed up development of malignancy through immunosuppression. For non-carcinogenic compounds, human may exhibit developmental and reproduction effects from exposure to the compound such that actual impact is unknown until the latter stages of life.

Toxicity studies with laboratory animal or epidemiological studies of human populations provide the data used to develop toxicity criteria which determines the relationship between the exposure of the chemical compound to the nature and magnitude of the adverse health effects. For carcinogenic effects, numerical estimates of cancer potency, defined as cancer slope factor, determine the cancer risk due to constant lifetime exposure. Carcinogenic slope factors assume no threshold for effects such that exposure to any level of concentration is likely to produce a carcinogenic effect.

For non-carcinogens, reference dose is used as a health threshold. The reference dose is an estimate of a daily exposure to the human population including sensitive subgroups that is likely to be without an appreciable risk of deleterious effects during a lifetime of exposure.

Greenhouse Gases

Greenhouse gases do not have human health impacts like criteria or toxic pollutants. Rather, it is the increased accumulation of GHG in the atmosphere that may result in global climate change. Due to the complexity of conditions and interactions affecting global climate change, it is not possible to predict the implications on human health. The effects of global warming due to an increase in GHG in the atmosphere may lead to higher maximum temperatures, more hot days and heat waves, resulting in an increase in deaths and serious illness among older age groups and urban poor, increased risk of disease epidemics, increased stress in livestock and wildlife and increased risk of crop damage; more intense precipitation events resulting in increased soil erosion, flooding, landslide, mudslide and avalanche danger; and increased summertime drying resulting in decreased water quality and quantity, increased risk of foundation damage due to ground shrinkage and increased forest fires among other potential direct and indirect impacts to human health.

3.2.1.5 Current Emission Sources

The two broad categories of emission sources include stationary and mobile sources.

Stationary Sources

Stationary sources can be further divided between point and area sources.

Point Sources: Point sources are those that are identified on an individual facility or source basis, such as refineries and manufacturing plants. BAAQMD maintains a computer data bank with detailed information on operations and emissions characteristics

for nearly 4,000 facilities, with roughly 20,000 different sources, throughout the Bay Area. Parameters that affect the quantities of emissions are updated regularly.

Area Sources: Area sources are stationary sources that are individually very small, but that collectively make a large contribution to the inventory. Many area sources do not require permits from the BAAQMD, such as residential heating, and the wide range of consumer products such as paints, solvents, and cleaners. Some facilities considered to be area sources do require permits from the BAAQMD, such as gas stations and dry cleaners. Emissions estimates for area sources may be based on the BAAQMD data bank, calculated by CARB using statewide data, or calculated based on surrogate variables. Wood stoves are considered area sources.

Mobile Sources

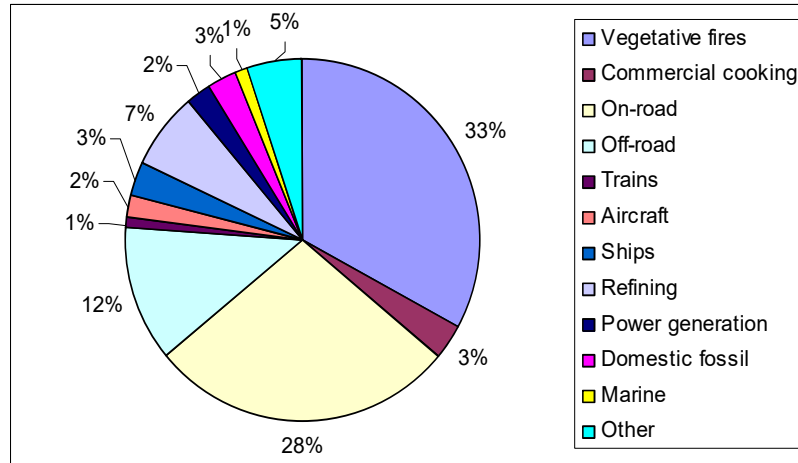
Mobile sources include on-road motor vehicles such as automobiles, trucks, and buses, as well as off-road sources such as construction equipment, boats, trains, and aircraft. Estimates of on-road motor vehicle emissions include consideration of the fleet mix (vehicle type, model year, and accumulated mileage), miles traveled, ambient temperatures, vehicle speeds, and vehicle emission factors, as developed from comprehensive CARB testing programs. The BAAQMD also receives vehicle registration data from the Department of Motor Vehicles. Some of these variables change from year to year, and the projections are based upon expected changes. Emissions from off-road mobile sources are calculated using various emission factors and methodologies provided by CARB and U.S. EPA.

3.2.1.6 Emissions From Wood Burning Devices

Wood-burning devices generate particulate matter. Combustion of wood also creates carbon dioxide, water vapor, carbon monoxide and volatile organic compounds, including toxic compounds. Partial or incomplete combustion, or burning wood that is not seasoned and dry, or burning garbage or other materials generates more particulate matter, carbon monoxide, and increases toxic compounds.

Residential wood combustion is an important contributor to ambient fine particle levels in the United States. District staff has identified wood smoke as the single greatest contributor on wintertime peak days (33 percent) to PM_{2.5} in the Bay Area, as shown in Figure 3.1.

FIGURE 3-1: PM_{2.5} Concentration on Peak Days by Constituent in the Bay Area.



Note: Smoke from residential wood burning constitutes nearly all of the vegetative fires category during peak periods. The other major contributors, agricultural and wildland management burns, are prohibited under District Regulation 5 during “no-burn” days, when peak concentrations occur.

Other studies find results and trends that support emission inventory estimates derived from the BAAQMD data. The California Air Resources Board (CARB) found (Magliano, 1999) that residential wood combustion makes up 20 percent to 35 percent of wintertime particulate matter.

To estimate the amount of particulate matter coming from wood-burning devices, including fireplaces, District staff used data from survey sample results from Bay Area residents. These results were then correlated with projected demographic trends from the Association of Bay Area Governments (ABAG), which were based on U.S. Census data, and used to arrive at the estimated number of devices. These data, along with an annual through-put (fuel load), also derived from survey results, and an emission factor were then used to generate a particulate matter 10 microns and below in diameter (PM₁₀) estimate for each county in the Bay Area. These data are summarized in Table 3-7 in tons per day (tpd) and tons per year (tpy), for both PM₁₀ and PM_{2.5}.

TABLE 3-7: Summary of PM Emissions from Wood-Burning Devices by County

County	Wood Stove PM ₁₀ (tpd)	Fireplace PM ₁₀ (tpd)	Wood Stove PM _{2.5} (tpd)	Fireplace PM _{2.5} (tpd)
Alameda	0.03	2.28	0.03	2.19
Contra Costa	0.76	4.32	0.73	4.15
Marin	1.03	0.37	0.99	0.36
Napa	0.33	0.41	0.32	0.39
San Francisco	0.03	0.28	0.03	0.27
San Mateo	0.38	0.70	0.36	0.67
Santa Clara	0.65	3.11	0.62	2.99
Solano	0.05	0.89	0.05	0.85
Sonoma	1.27	1.43	1.22	1.37
Total Emissions (tons per day)	4.54	13.80	4.36	13.25
Total Emissions (tons per year)	1657	5037	1591	4836

Because the category of PM10 also includes PM2.5, a large portion of PM10 particles are also PM2.5 particles. Therefore, the majority of particulate matter from wood smoke are fine particles which are of the greatest concern to public health.

Wood smoke emissions also has been found to contain numerous non-criteria pollutants, including toxic and carcinogenic air contaminants. These include formaldehyde and other aldehydes, chlorinated dioxins, and polyaromatic hydrocarbons (PAH). Among the PAH compounds present are pyrene, benzo(a)pyrene, benzo(e)pyrene, anthracene, fluoranthene, benzo(a)anthracene, benzofluoranthenes, and crysene.

Wood stoves emit greenhouse gases, including carbon dioxide and methane.

3.2.2 SIGNIFICANCE CRITERIA

3.2.2.1 Criteria Air Pollutants

The BAAQMD complies with the provisions of CEQA when they approve an individual project as lead agency or when they approve a regional project such as adoption of a rule or an air quality planning document. BAAQMD has established significance criteria, as discussed below. To determine whether or not air quality impacts from the proposed project are significant, impacts will be evaluated and compared to the significance criteria in Table 3-8. If impacts equal or exceed any of the following criteria, they will be considered significant.

Criteria air pollutants have a regional impact, meaning that the emissions have the potential to degrade the air quality in the Bay Area as a whole. The thresholds for ROG and NOx are equivalent to the BAAQMD offset requirement threshold (15 tons per year)

for stationary sources (Regulation 2-2-302). The threshold for PM10 is based on the BAAQMD's definition of a major modification to a major facility (Regulation 2-2-221). The carbon monoxide threshold is based on the potential of a project to exceed the state ambient air quality standard for CO, 9.0 ppm averaged over eight hours, or 20 ppm averaged over one hour.

TABLE 3-8: Air Quality Significance Thresholds for Project Operations

Significance Thresholds for Regional Impacts	
Pollutant	Significance Threshold
ROG	15 tons/yr; 80 lbs/day; 36 kg/day
NO _x	15 tons/yr; 80 lbs/day; 36 kg/day
PM10	15 tons/yr; 80 lbs/day; 36 kg/day
CO	550 lbs/day

3.2.2.2 Non-Criteria Pollutants

Significance criteria for toxic air contaminants (TACs) are evaluated on a localized basis. The impacts of an increase in toxic air contaminants, unlike regional pollutants, may not be significant on a regional basis, but may be significant in their effect on populations located nearby the source. For this reason, significance criteria are based on the District's Risk Management Policy. Table 3.9 shows the significance thresholds for toxic air contaminants.

Table 3-9: Toxic Significance Thresholds for Project Operations

Significance Thresholds for Localized Impacts	
Pollutant	Significance Threshold
Toxic Air Contaminants (TACs)	Maximum Exposed Individual (MEI) Cancer Risk \geq 10 in 1 million Hazard Index \geq 1.0 at the MEI

3.2.2.3 Greenhouse Gases

The analysis of GHG is a much different analysis than the analysis of criteria pollutants. For criteria pollutants, significance thresholds are based on daily emissions because attainment or non-attainment is based on daily exceedances of applicable ambient air quality standards. Further, several ambient air quality standards are based on relatively short-term exposure effects on human health, e.g., one-hour and eight-hour. For non-criteria pollutants like toxic air contaminants, significance thresholds are based on risk to nearby receptors. The effects of GHG, however, are much longer term, affecting global climate over a relatively long time frame. In addition, GHG do not have health effects like criteria pollutants or toxic air contaminants. It is the increased accumulation of GHG in the atmosphere that may result in global climate change. Due to the complexity of conditions and interactions affecting global climate change, it is not possible to predict the specific impact, if any, attributable to GHG emissions associated with a single project.

While direct GHG emissions can, in some cases, be calculated, the emissions cannot be precisely correlated with specific impacts based on currently available science. Climate change is a global phenomenon, making it difficult to develop the scientific tools and policy needed to select a CEQA significance threshold for climate change or GHG emissions on a regional or local level. As there are currently no emission significance thresholds to assess GHG emission effects on climate change, neither the BAAQMD nor any other California lead agency currently has a “significance threshold” to determine whether a new rule or project will have a significant impact on global warming or climate change. In the absence of regulatory guidance, and before the resolution of various legal challenges related to global climate change analysis and the selection of significance thresholds, a significance determination will be made on a case-by-case basis.

3.2.3 ENVIRONMENTAL IMPACTS

3.2.3.1 Criteria Air Pollutants

The overall objective of the proposed project is to reduce PM10 and PM2.5 emissions from wood burning devices. Rule 6-3 would reduce emissions of criteria pollutants by prohibiting wood-burning devices in new construction unless they were EPA Phase II certified equipment or pellet stoves, restricting the sale or transfer of new or used wood burning devices to EPA Phase II certified equipment or pellet stoves, prohibiting the use of wood-burning devices during curtailment periods, and restricting materials burned in wood burning appliances.

To estimate the amount of PM coming from wood-burning devices, including fireplaces, Air District staff used data from survey sample results from Bay Area residents. These results were then correlated with projected demographic trends from the Association of Bay Area Governments (ABAG), which were based on U.S. Census data, and used to arrive at the estimated number of devices. These data, along with an annual through-put (fuel load), also derived from survey results, and an emission factor for each device were then used to generate an estimate for PM10 and PM2.5 in the Bay Area.

The remaining operational criteria pollutants, VOC, NOx, SOx and CO were estimated to demonstrate that, in addition to particulate matter, Rule 6-3 would reduce VOC, NOx, SOx and CO emissions. Table 3-10 illustrates the results.

Table 3-10: Emission Reductions due to Curtailment, tons per year

	PM2.5	VOC	NOx	SOx	CO
Wood Smoke Emissions	810	1300	200	19	6200
Emissions from Natural gas usage	1	1	10	0.1	4
Net Emission Reductions	810	1300	190	19	6200

3.2.3.2 Non-Criteria Pollutants

The project, proposed Rule 6-3, will reduce the emissions of toxic air contaminants. The proposed rule allows sale, transfer or installation of only EPA Phase II certified devices, these combust the unburned products of wood smoke, which include many TACs, in a more efficient manner than non-certified devices. Wood stoves or wood-burning fireplaces would be banned in newly constructed housing. Natural gas is a cleaner burning fuel than wood; therefore the installation or replacement of pre-EPA approved devices with natural gas appliances would reduce toxic emissions and prevent an increase in wood smoke emissions from new developments. Finally, the rule would prohibit wood burning on nights when the amount of particulate matter in ambient air would exceed 35 micrograms per cubic meter. This would reduce exposure of individuals to TACs associated with wood smoke. Rule 6-3 is expected to provide beneficial impacts on toxic air contaminants and related beneficial health impacts.

3.2.3.3 Greenhouse Gases

In general, GHG do not have human health effects like criteria pollutants. Rather, it is the increased accumulation of GHG in the earth's atmosphere that may result in global climate change. Due to the complexity of conditions and interactions affecting global climate change, it is not possible to predict the specific impact, if any, attributable to GHG emissions associated with a single project. Proposed Regulation 6, Rule 3 includes a provision that would prohibit burning on a night when the concentration of particulate matter in ambient air was predicted to exceed 35 $\mu\text{g}/\text{meter}^3$. To the extent that wood burning is used for heating, this could require the use of heat from other sources such as natural gas heaters on these curtailment nights. The NOP/IS suggested that the burning of fossil fuels such as natural gas rather than wood may increase greenhouse gas emissions. As explained below, there is some uncertainty about the GHG impacts of prohibiting wood burning on curtailment nights, but the most sophisticated life-cycle analyses of GHG emissions suggest that burning natural gas in relatively efficient furnaces produces lower GHG emissions than burning wood that has not been sustainably harvested.

Any analysis of GHG impacts must address a number of uncertainties and must rely on a variety of assumptions. For example, analysis of the use of wood as a fuel occasionally relies upon an assumption that wood burning is "carbon neutral," meaning that as trees are harvested for fuel, replacement trees sequester an equivalent amount of carbon dioxide so that, when measured over a period of time, there is no net increase in atmospheric carbon dioxide. However, more recent analyses of biofuels such as ethanol have suggested that the GHG emissions associated with their production and use may exceed GHG emissions from production and use of conventional fossil fuels when all

sources of GHG emissions – from land practices, to harvest, to transportation, to combustion – are included in the accounting.¹

The primary determining factor in the GHG analysis for Rule 6-3 is whether burning wood is “carbon neutral,” and, if not, whether burning wood in fireplaces and woodstoves produces lower GHG emissions than burning natural gas in furnaces. As a reference point, the District calculated a worst case scenario of the annual CO₂ increase from switching from wood to natural gas if wood burning is assumed to be completely carbon neutral. Assuming 100% compliance with the rule, and assuming that everyone who switches to natural gas on a “no burn” night would not otherwise use natural gas for heat, the result would be a 31,900 metric ton annual increase in CO₂. This figure would obviously be lower to the extent that there is less than 100% compliance or that a percentage of households were burning wood for ambiance and not for heat (the latter being a likely scenario for a large percentage of households).

Also for reference, the District compared this total carbon neutrality figure to the overall GHG inventory for the Bay Area and for the State. 31,900 metric tons is .03 % of the Bay Area total GHG inventory, and .007% of the total State GHG inventory. These percentages give some idea of the significance of a worst case GHG increase from 6-3 if carbon neutrality is assumed.

Although these figures may be useful reference points, available information indicates the carbon neutrality assumption is not valid for wood burning in the Bay Area. Since a switch from wood to natural gas on Rule 6-3 no-burn nights would increase GHG emissions only to the extent that either, (1) burning wood is carbon neutral (since burning natural gas is clearly not carbon neutral) or, (2) burning wood produces lower GHG emissions than burning natural gas, taking into account efficiency and other factors, and since neither is the case, it can safely be predicted that GHG emissions will not increase as a result of 6-3. In reaching this conclusion, the District reviewed available scientific literature and applied the most credible conclusions therein to information about the Bay Area obtained through published studies and data from a District-conducted survey.

In the winter of 2005 – 2006, a survey was conducted by a contractor to BAAQMD to estimate the amount and frequency of wood burning on winter nights in the Bay Area. The survey found that 4.5% of Bay Area households used (not just owned) wood stoves, and that 35.9% used fireplaces. Over the survey time period, conducted on days after cold winter evenings on which wood burning devices were used, the survey found that 45.3% of households that used wood stoves burned on the previous evening, and that 14.0% of fireplace users burned the previous evening. The survey also estimated a total number of logs burned, and found that, during the survey period, 319,115 logs were burned per day in fireplaces and 174,281 logs were burned per day in wood stoves.

¹ Fargione et al., “Land Clearing and the Biofuel Carbon Debt” *Science* 319, 1235 (2008); Searchinger et al., “Use of U.S. Croplands for Biofuels Increases Greenhouse Gas Emissions Through Emissions from Land Use Change” *Science* 319, 1238 (2008).

A limited number of studies address the GHG impacts of wood combustion. In general, earlier papers suggest that wood burning may be carbon neutral, while more recent papers qualify that assessment and either limit the CO₂ “credit” from sequestration by replacement trees or limit the circumstances under which wood combustion can be said to have GHG benefits over other fuels.

In a 1998 paper prepared for a U.S. EPA/Air and Waste Management Association conference, personnel from the Hearth Products Association, EPA, and OMNI-Test Laboratories, Inc., which tests appliances for the hearth products industry, summarized air quality impacts of various residential space heating options.² In reviewing GHG impacts, the authors state that “a reasonable estimate of the steady state condition produced by standard wood harvesting techniques is that 40% of the carbon produced by RWC is in the form of fixed carbon.” By this, the authors meant that calculated CO₂ emissions for RWC (residential wood combustion) should be reduced by 40%, because young trees replace harvested trees and sequester an amount of carbon equal to 40% of the carbon emitted from burning the harvested wood. For their 40% figure, the authors cite a 1990 paper in *Science*³ and a 1993 AWMA paper⁴. The 1990 *Science* paper concludes that conversion of old-growth forests to young fast-growing forests will not decrease atmospheric carbon dioxide because timber harvest reduces on-site carbon storage and does not approach old-growth storage capacity for at least 200 years. The 1993 AWMA paper states that wood burning for residential heating causes no net increase in atmospheric carbon dioxide if wood is sustainably harvested from properly-managed forests.

A much more sophisticated study prepared in 2003 for the Australian Greenhouse Office and Environment Australia concludes that burning wood for residential heating reduces GHG emissions relative to natural gas, but only under the scenarios examined in the study, which all involved sustainable firewood production systems. The three production systems were (1) collecting dead and fallen wood from remnant woodlands, (2) harvesting in a sustainably-managed native forest, and (3) harvesting in a new plantation planted on former agricultural land. No scenario involved production of wood through land clearing activities. Most importantly for present purposes, the study included a sensitivity analysis showing that, for wood collected from remnant woodlands, burning wood in an open fireplace has higher GHG emissions than burning natural gas. Specifically, the study concluded that burning wood from remnant woodlands in an open fireplace produces emissions of 0.70 kg CO₂/kW-hr, which is more than double the

² Houck, Crouch, Keithley, McCrillis, and Tieg; Air Emissions from Residential Heating: The Wood Heating Option Put Into Environmental Perspective; The Proceedings of a US EPA and Air and Waste Management Association Conference: Emission Inventory: Living in a Global Environment,; v1, 373-384; 1998.

³ M.E. Harmon, W.K. Ferrell, and J.E. Franklin, “Effects on Carbon Storage of Conversion of Old-Growth Forests to Young Forests,” *Science* 247, 699 (1990).

⁴ J.F. Gulland, O.Q. Hendrickson, “Residential Wood Heating: the Forests, the Atmosphere, and the Public Consciousness” Paper 93-RP-136.02 presented at the 86th Annual Meeting of the Air and Waste Management Association (1993).

emissions from producing heat from natural gas, for which emissions are 0.31 kg CO₂ /kW-hr.

Based on dealer advertising, the primary firewood sold in the San Francisco Bay Area is oak. Oak is both the most prevalent source of firewood and also the most desirable, due to burn qualities. Bay Area dealers often advertise tree service companies as the primary source of the wood. Oak has been harvested in significant quantities from California's remnant woodlands beginning with the advent of ranching in California. Oak woodlands have been reduced by about half since the 1800's.⁵ From 1945 to 1973, most of the loss came from land clearing to support livestock production.⁶ Since 1973, woodland loss is attributable to urban growth, firewood harvesting, range clearing, and conversion to intensive agriculture.⁷ Between 1945 and 1985, oaks were cleared from 480,000 hectares in California.⁸ A more recent threat to the oak woodlands has been the conversion of native habitat to vineyards.⁹ This is occurring throughout Northern California on the periphery of the San Francisco Bay Area and in the foothills to the east of the Central Valley. In addition, the loss of oaks through Sudden Oak Death is primarily occurring in the San Francisco Bay Area, as fourteen counties are affected, including all nine Bay Area counties.¹⁰

Based on the Australian study discussed above and the available information about firewood used in the Bay Area, the imposition of no-burn requirements in the Bay Area is not expected to result in an increase in GHG emissions. Bay Area survey data shows that approximately two-thirds of the wood burned in the Bay Area is burned in fireplaces. According to the Australian study, GHG emissions from fireplace burning of wood gathered sustainably from remnant woodlands are more than double the GHG emissions from burning natural gas. Because oak firewood used in the San Francisco Bay Area comes largely from land clearing activities, GHG emissions from Bay Area wood burning would be expected to be even higher than those from the remnant woodland production system analyzed in the Australian study. This result should not be surprising because when a tree is harvested and not replaced, carbon dioxide is generated by burning the wood and, at the same time, an ongoing means of sequestering carbon is removed.

If no assumptions are made regarding carbon sequestration by trees, and wood and natural gas are compared purely on the basis of carbon dioxide produced per unit of heat

⁵ Standiford et al., "The Bioeconomics of Mediterranean Oak Woodlands: Issues in Conservation Policy" Paper presented at the XII World Forestry Congress, Québec City, Canada (2003).

⁶ Ibid.

⁷ Ibid.

⁸ C. Bolsinger, "The Hardwoods of California's Timberlands, Woodlands, and Savannas. U.S. Forest Service Resource Bulletin PNW-RB-148 (1988).

⁹ A.M. Merenlender, C.N. Brooks, G.A. Giusti "Policy Analysis Related to the Conversion of Native Habitat to Vineyard: Sonoma County's Vineyard Erosion and Sediment Control Ordinance as a Case Study" (2000) Available from the University of California Integrated Hardwood Range Management Program at http://danr.ucop.edu/ihrmp/policy_paper.pdf.

¹⁰ California Oak Mortality Task Force, Map: "Distribution of Sudden Oak Death as of February 14, 2008" (2008) Available from <http://www.suddenoakdeath.org/html/maps.html>.

energy delivered, burning natural gas on no-burn nights would produce lower GHG emissions than burning wood. Using the survey data, Table 3-11, below, compares the GHG emissions from wood-burning devices to the GHG emission that would be produced if the same amount of heat was produced by burning natural gas, as would be required on no burn nights. GHG emissions are reduced by a total of over 100,000 metric tons per year.

Table 3-11: GHG Emissions Direct Comparison, Wood Heat Replaced by Natural Gas Heat

Heat Value of Fuel, per curtailment day	GHG emissions; metric tons/yr
Wood; fireplaces, 2137.4 MM Btu useful heat	78,065
Wood; mfg. logs, 153.2 MM Btu useful heat	11,212
Wood, stoves, 8564.2 MM Btu useful heat	40,933
Wood; total, 3145 MM Btu useful heat input	130,210
Natural Gas; 3145 MM Btu useful heat input	29,419
Difference	(100,791)

Assumptions

- Efficiencies. This analysis uses a 10% heating efficiency factor for fireplaces, a 70% heating efficiency factor for wood stoves, and an 80% heating efficiency factor for a natural gas heater.
- Combustion efficiency. For these GHG emissions calculations, it is assumed that CO₂ emissions are the only GHG emissions from each type of combustion device.
- Number of no burn nights. Over the past five years, the average number of no burn nights was 17.1.
- Type of wood burned. The emissions estimates replace the Btu value of wood with natural gas combusted to get an equivalent Btu value. The Btu values used are based on the Btu value of red oak.

Even if one were to assume that emissions from wood burning should be reduced by 40% to account for carbon sequestration by trees, despite the lack of evidence to support such an assumption for the Bay Area, GHG emissions from burning wood would still be significantly higher than GHG emissions from burning natural gas to generate the same heat.

3.2.4 MITIGATION MEASURES

No significant adverse air quality impacts are anticipated from adoption of proposed Regulation 6, Rule 3: Wood-Burning Devices. No mitigation measures are required.

3.2.5 CUMULATIVE AIR QUALITY IMPACTS

The project, proposed Regulation 6, Rule 3: Wood-Burning Devices, does not have air quality impacts that are individually less than significant, but cumulatively significant. Adoption of the proposed rule will reduce emissions of particulate matter and other criteria air pollutants, toxic air contaminants and greenhouse gases.

3.2.6 CUMULATIVE MITIGATION MEASURES

No cumulatively significant adverse air quality impacts are anticipated from adoption of proposed Regulation 6, Rule 3: Wood-Burning Devices. No mitigation measures are required.

3.3 CONCLUSION

The project, proposed Regulation 6, Rule 3: Wood-Burning Devices, will 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. Based on this analysis, an increase in greenhouse gas emissions is not anticipated.

CHAPTER 4

ALTERNATIVES

Discussion

4.0 ALTERNATIVES

4.1 DISCUSSION

An EIR is required to describe a reasonable range of feasible alternatives to the proposed project that could feasibly attain most of the basic project objectives and would avoid or substantially lessen any of the significant environmental impacts of the proposed project (CEQA Guidelines §15126.6(a)). As discussed in Chapter 3 of this EIR and the Initial Study (see Appendix A), the proposed new rule is not expected to result in significant impacts to any environmental resources including aesthetics, agricultural resources, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation and traffic, and utilities service systems. Because no significant impacts have been identified for the proposed project, alternatives are not required to be analyzed in this EIR. The requirement to develop alternatives under CEQA Guidelines §15126.6 has been satisfied because no significant adverse impacts were identified for the proposed project. No further discussion of alternatives is required for this EIR.

CHAPTER 5

OTHER CEQA TOPICS

Relationship Between Short-Term and Long-Term
Productivity
Significant Irreversible Environmental Changes
Growth-Inducing Impacts

5.0 OTHER CEQA TOPICS

5.1 RELATIONSHIP BETWEEN SHORT-TERM AND LONG-TERM PRODUCTIVITY

An important consideration when analyzing the effects of a proposed project is whether it will result in short-term environmental benefits to the detriment of achieving long-term goals or maximizing productivity of these resources. Implementing Rule 6-3 is not expected to achieve short-term goals at the expense of long-term environmental productivity or goal achievement. The purpose of the proposed rule is to reduce emissions of particulate matter and visible emissions, particularly on winter nights when particulate matter concentrations could exceed the national health-based air quality standard for fine particulate matter with a diameter less than 2.5 microns. The proposed rule is expected to control air pollution from wood-burning stoves, fireplaces, and heaters, including wood pellet stoves. By reducing particulate matter and visible emissions, human exposure to air pollutants would also be reduced, providing long-term health benefits.

Implementing Rule 6-3 would not narrow the range of beneficial uses of the environment. Of the potential environmental impacts discussed in Chapter 3, no significant impacts to any environmental resource are expected. The beneficial air quality and health impacts associated with implementation of Rule 6-3 are expected to far outweigh any potential increase in CO₂ emissions. Existing programs are expected to provide long-term CO₂ emission decreases. Because no short-term environmental benefits are expected at the expense of long-term environmental goals being achieved, there is no justification for delaying the proposed action. The proposed project should be implemented now in order to meet the requirements of Senate Bill 656 (SB 656, Sher), adopted in 2003, as the District was required to develop a Particulate Matter Implementation Schedule in order to make progress toward attaining state and federal particulate matter standards. The District's wood burning program was identified in the District's Particulate Matter Implementation Schedule as one of the measures for enhancement and amendment. Rule 6-3 responds to that commitment. No short-term benefits at the expense of long-term impacts have been identified. In fact, the proposed project is expected to result in long-term emission reductions and long-term public health benefits.

5.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA requires an EIR to discuss significant irreversible environmental changes which would result from a proposed action should it be implemented. Irreversible changes include a large commitment of nonrenewable resources, committing future generations to specific uses of the environment (e.g., converting undeveloped land to urban uses), or enduring environmental damage due to an accident.

Implementation of the proposed rule is not expected to result in significant irreversible adverse environmental changes. Of the potential environmental impacts discussed in Chapter 3, no significant impacts to any environmental resource are expected. Air quality impacts are expected to be less than significant as implementation of proposed rule will result in overall emission reductions of PM10 and PM2.5. The rules would also result in a decrease in other criteria pollutants, toxic air contaminants and greenhouse gases.

Proposed Rule 6-3 is expected to result in long-term benefits associated with improved air quality even though the use of natural gas in the Bay Area is expected to increase. The project would result in reduced emissions of all pollutants, thereby improving air quality and related public health.

5.3 GROWTH-INDUCING IMPACTS

A growth-inducing impact is defined as the “ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment.” Growth-inducing impacts can generally be characterized in three ways. In the first instance, a project is located in an isolated area and brings with it sufficient urban infrastructure to result in development pressure being placed on the intervening and surrounding land. This type of induced growth leads to conversion of adjacent acreage to higher intensity uses because the adjacent land becomes more conducive to development and, therefore, more valuable because of the availability of the extended infrastructure.

A second type of growth-inducing impact is produced when a large project, relative to the surrounding community or area, affects the surrounding community by facilitating and indirectly promoting further community growth. The additional growth is not necessarily adjacent to the site or of the same land use type as the project itself. A project of sufficient magnitude can initiate a growth cycle in the community that could alter a community’s size and character significantly.

A third and more subtle type of growth-inducing impact occurs when a new type of development is allowed in an area, which then subsequently establishes a precedent for additional development of a similar character (e.g., a new university is developed which leads to additional educational facilities, research facilities and companies, housing, commercial centers, etc.)

None of the above scenarios characterize the project in question. Rule 6-3 will control emissions from wood-burning devices and no new development would be required as part of the proposed new rule. The proposed project is part of the Particulate Matter Implementation Schedule developed by the District to comply with SB656 to accommodate making progress toward attainment of state and federal particulate matter standards. The proposed project would not change jurisdictional authority or responsibility concerning land use or property issues (Section 40716 of the California Health and Safety Code) and, therefore, is not considered to be growth-inducing.

CHAPTER 6

REFERENCES

6.0 REFERENCES

- BAAQMD, 1998. BAAQMD CEQA Guidelines: Assessing the Air Quality Impacts of Projects and Plans, Revised December 1999.
- BAAQMD, 2005. 2005 Ozone Strategy.
- BAAQMD, 2005, Staff Report, Particulate Matter Implementation Schedule, November, 2005.
- BAAQMD, 2007. Toxic Air Contaminant Control Program Annual Report 2003 Volume I. August 2007.
- BAAQMD, 2007. Workshop Report, Wood Smoke Reduction Program, Proposed Regulation 6, Rule 3 to Control Particulate Matter and Visible Emissions from Wood-burning Devices. November 2007.
- BAAQMD, 2008. Sources of Fine Particles, Technical Report, April, 2008.
- Bolsinger, "The Hardwoods of California's Timberlands, Woodlands, and Savannas," US Forest Service Resource Bulletin PNW-RB-148, 1988.
- California Air Pollution Control Officer's Association, 2008. CEQA and Climate Change, January 2008.
- California Air Resources Board (CARB), 2007a. Initial Statement of Reasons for Rulemaking, Proposed Regulation for Mandatory Reporting of Greenhouse Gas Emissions Pursuant to the California Global Warming Solutions Act of 2006 (Assembly Bill 32). Planning and Technical Support Division Emission Inventory Branch, October 19, 2007
- California Oak Mortality Task Force, Map: "Distribution of Sudden Oak Death as of February, 2008", 2008; <http://www.suddenoakdeath.org/html/maps.html>.
- CARB, 2007. Draft California Greenhouse Inventory by IPCC Category, August 2007. http://www.arb.ca.gov/cc/ccei/inventory/tables/rpt_inventory_ipcc_sum_2007-11-19.pdf
- CARB, 2008. 2007 California Almanac of Emissions and Air Quality, CARB, 2008.
- Fargione, et al., "Land Clearing and the Biofuel Carbon Debt" Science 319, 1235, 2008,
- Gulland and Hendrickson, "Residential Wood Heating: the Forests, the Atmosphere, and the Public Consciousness" paper 93-RP-136.02 presented at the 86th Annual Meeting of the Air And Waste Management Association, 1993

Harmon, Ferrell, and Franklin, “Effects on carbon Storage of Conversion of Old-Growth Forests to Young Forests,” *Science* 247, 699; 1990

Houck, Crouch, Keithley, McCrillis, and Tieg: Air Emissions from Residential Heating: The Wood Heating Option Put Into Environmental Perspective; The Proceedings of a US EPA and Air And Waste Management Association Conference: Emission Inventory: Living in a Global Environment; v1, 373-384; 1998.

Magliano, Karen, Phillip Roth, Charles Blanchard, Steven Reynolds, Steve Ziman, and Rob DeMandel. California Regional PM10/PM2.5 Air Quality Study Objectives and Associated Data Analysis and Modeling Approaches. February 5, 1999.

Merelender, Brooks and Giusti, “Policy Analysis Related to the Conversion of Native Habitat to Vineyard: Sonoma County’s Vineyard Erosion and Sediment Control Ordinance as a Case Study,” 2000, University of California Integrated Hardwood Range Management Program; http://danr.ucop.edu/ihrmp/policy_paper.pdf.

Paul, Booth, Elliot, Jovanovic, Polglase and Kirshbaum, “Life Cycle Assessment of the Greenhouse Gas Emissions From Domestic Woodheating,” CSIRO Forestry and Forest Products, Prepared for the Australian Greenhouse Office and Environment Australia, 2003.

Searchinger, et al., “Use of U.S. Croplands for Biofuels Increases Greenhouse Gas Emissions Through Emissions from Land Use Change” *Science* 319, 1238, 2008.

Standiford, et al., “The Bioeconomics of Mediterranean Oak Woodlands: Issues in Conservation Policy” Paper presented at the XII World Forestry Conference, Quebec City, Canada, 2003.

U.S. EPA, 2007. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2005, <http://www.epa.gov/climatechange/emissions/downloads06/07CR.pdf>, April 15, 2007.

6.2 ORGANIZATIONS AND PERSONS CONSULTED

The CEQA statues and Guidelines require that organizations and persons consulted be provided in the EIR. A number of organizations, state and local agencies, and private industry have been consulted. The following organizations and persons have provided input into this document.

Organizations

California Air Resources Board
Bay Area Air Quality Management District
South Coast Air Quality Management District

List of Environmental Impact Report Preparers

Bay Area Air Quality Management District
San Francisco, California

Environmental Audit, Inc.
Placentia, California

CHAPTER 7

ACRONYMS

ACRONYMS

ABBREVIATION	DESCRIPTION
AB	Assembly Bill
ABAG	Association of Bay Area Governments
AB2588	Air Toxic "Hot Spots" Information and Assessment Act
AB32	California's Global Warming Solutions Act of 2006
ATCM	Airborne Toxic Control Measure
ATHS	Air Toxics Hot Spots Program
BAAQMD	Bay Area Air Quality Management District
Btu/cord	British thermal units per cord
CalEPA	California State Environmental Protection Agency
CARB	California Air Resources Board
CAT	Climate Action Team
CEQA	California Environmental Quality Act
CH ₄	Methane
CHP	California Highway Patrol
CO	Carbon monoxide
CO ₂	Carbon dioxide
CPUC	California Public Utilities Commission
DTSC	California Environmental Protection Agency, Department of Toxic Substances Control
EIR	Environmental Impact Report
EPS	Emissions Performance Standard
GHG	Greenhouse Gases
g/hr	grams per hour
H ₂ SO ₄	Sulfuric Acid
HFCs	Haloalkanes
HNO ₃	Nitric Acid
HWCL	Hazardous Waste Control Law
LPG	Liquefied petroleum gas
MACT	maximum achievable control technology
MEI	maximum exposed individual
MW-hr	Megawatt-hour
N ₂	Nitrogen
N ₂ O	Nitrous Oxide
NAAQS	National Ambient Air Quality Standards
NESHAPS	National Emission Standards for Hazardous Air Pollutants
NFC	National Fire Codes
NO	Nitric Oxide
NO ₂	Nitrogen Dioxide
NOP	Notice of Preparation
NOP/IS	Notice of Preparation/Initial Study
NOx	Nitrogen Oxide
NSR	New Source Review

O ₂	Oxygen
O ₃	Ozone
OES	Office of Emergency Services
OEHHA	Office of Environmental Health Hazard Assessment
OPR	Office of Planning and Research
PFCs	Perfluorocarbons
PM _{2.5}	particulate matter less than 2.5 microns equivalent aerodynamic diameter
PM ₁₀	particulate matter less than 10 microns equivalent aerodynamic diameter
ppb	parts per billion
pphm	parts per hundred million
ppm	parts per million
RCRA	Resource Conservation and Recovery Act
RMP	Risk Management Plan
ROG	Reactive Organic Gases
RWQCB	Regional Water Quality Control Board
SB97	California Senate Bill 97
SB 656	Senate Bill 656
SCAQMD	South Coast Air Quality Management District
SF ₆	Sulfur Hexafluoride
SO ₂	sulfur dioxide
SO _x	sulfur oxide
STAT	Spare the Air Tonight
TACs	toxic air contaminants
TPD	Tons per Day
TPY	Tons per Year
U.S. EPA	United States Environmental Protection Agency
ug/m ³	micrograms per cubic meter
VOC	volatile organic compounds

APPENDIX A

**NOTICE OF PREPARATION AND INITIAL STUDY ON THE DRAFT
ENVIRONMENTAL IMPACT REPORT.**



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

California Environmental Quality Act

NOTICE OF PREPARATION OF DRAFT ENVIRONMENTAL IMPACT REPORT FOR ADOPTION OF DISTRICT REGULATION 6: PARTICULATE MATTER, RULE 3: WOOD-BURNING DEVICES

Interested Agencies, Organizations and Individuals:

Subject: Notice is hereby given that the Bay Area Air Quality Management District (Bay Area AQMD or District) will be the lead agency and will prepare an Environmental Impact Report (EIR) in connection with the project described in this notice. This Notice of Preparation is being prepared pursuant to California Public Resources Code § 21080.4 and CEQA Guidelines Section 15082.

Project Title: Bay Area AQMD proposed Regulation 6: Particulate Matter, Rule 3: Wood-Burning Devices.

Project Location: The rule will apply within the Bay Area AQMD, which includes all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties, and the southern portions of Solano and Sonoma counties.

Project Description: The District is proposing to adopt a new rule, Regulation 6: Particulate Matter, Rule 3: Wood-Burning Devices. The proposed rule will apply to residences and commercial establishments (hotels, restaurant, etc.) with wood-burning devices. The rule will limit visible emissions to 20% opacity, except for a start-up period; prohibit the burning of garbage, treated or unseasoned wood, plastics or other non-wood products; require labeling of the health hazards of breathing particulate matter on firewood and manufactured solid fuel products sold in the Bay Area and provide instructions on how to find information on the burn status of any day; require seasoned wood sold in the Bay Area to have a moisture content of 20% or less and require sellers to provide seasoning instructions if unseasoned wood is sold; prohibit the sale, transfer or installation of wood-burning devices unless they are EPA Phase II certified or wood pellet stoves; allow wood-burning devices only if they are EPA Phase II certified or pellet stoves in new construction; and prohibit burning under one of two options during days when the District predicts that the concentration of fine particulate matter (particulate matter less than 2.5 microns in diameter) in ambient air would exceed 35 micrograms per cubic meter. Under the first option, no burning in any wood-burning device would be allowed. Under the second option, burning would only be allowed in EPA Phase II certified wood-burning devices or pellet stoves.

In addition, the District is proposing to amend Regulation 5: Open Burning and Regulation 1: General Provisions and Definitions. The amendment to Regulation 5 would prohibit outdoor recreational fires when the concentration of fine particulate matter standard was predicted to exceed 35 micrograms per cubic meter. The amendment to Regulation 1 deletes an exclusion from District standards for residential heating, enabling adoption of the standards in proposed Regulation 6, Rule 3.

Probable Environmental Impacts: Adoption of a new rule to limit particulate matter emissions from wood-burning devices is intended to and expected to benefit public health and the environment. However, the District has chosen to prepare an EIR to ensure a comprehensive evaluation of any potential impacts. Attached to this notice is an Initial Study. The Initial Study outlines the areas of potential environmental impact that will be further reviewed in the draft Environmental Impact Report.

Response: This notice provides information on the above project and provides you an opportunity to submit comments on potential environmental effects that should be considered in the EIR. If the proposed project has no bearing on you or your agency, no action on your part is necessary. Due to the time limits mandated by State law, your response must be sent at the earliest possible date but **not later than 30 days** after receipt of this notice. If you or your agency wishes to submit comments, they may be sent to Eric Pop, via the contact information below.

Appendix A - Notice of Preparation and Initial Study

Eric Pop, Air Quality Specialist
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109
Phone: (415) 749-5172 Fax: (415) 928-0338
Email: epop@baaqmd.gov
Date: March 10, 2008

Chapter 1

Description of the Proposed Rule

Prior Control Efforts in the Bay Area

The Bay Area Air Quality Management District (District) is proposing adoption of Regulation 6, Rule 3 (Rule 6-3): Wood-Burning Devices. This proposed rule would control air pollution from wood-burning stoves, fireplaces, heaters, including wood pellet stoves. The District proposes adoption of Regulation 6, Rule 3 to reduce emissions of fine particulate matter (PM_{2.5}, or particulate matter with a diameter less than 2.5 microns), particularly on winter nights when fine particulate matter concentrations could exceed 35 µ/m³ (micrograms/cubic meter), which is the basis for the national health-based air quality standard. The national 24-hour standard for fine particulate matter in ambient air was lowered from 65 µ/m³ to 35 µ/m³ in December, 2006.

Currently, fireplaces and wood stoves used to heat residences are exempt from District rules by Regulation 1, Section 110.4. However, from time to time the District receives air pollution complaints about residential wood-burning devices, such as excessive smoke and odor. Because the District's regulations of general applicability, such as Regulation 6: *Particular Matter and Visible Emissions*, and Regulation 7: *Odorous Substances*, and the public nuisance standard in Regulation 1 do not apply, the District has been responding to such complaints with informational literature advising residents of the dangers of particulate matter and how to burn with a minimum of smoke.

The District also has a voluntary program to minimize particulate matter emissions from wood-burning devices, Spare the Air Tonight (STAT). The STAT program asks residents, via e-mail, the District website and press releases to radio and TV, not to burn on days when the concentration of PM_{2.5} in ambient air is predicted to exceed 35 µ/m³. The STAT season runs from mid-November through mid-February, and has been active since 1991. Typically, there are between 20 and 30 STAT nights. The 2007-2008 season was atypical because there were only six. During the STAT season, the District conducts random telephone surveys to gauge the success of the voluntary program, the public's practices for burning to refine the emission inventory, and public attitudes and behaviors associated with wood burning.

In addition, the District has promoted a model ordinance to cities and counties that contains various elements that can reduce particulate matter from wood smoke. The model ordinance serves as a guidance document for cities and counties that wish to regulate sources of particulate matter in their communities. The model ordinance includes options for mandatory burning curtailments on STAT nights, for requiring that new or re-modeled homes contain only EPA Phase II certified devices, for prohibiting gas to wood heating conversion and for limiting fuel that can be burned. Enforcement of the model wood smoke ordinance typically occurs through the permit process at local

building departments. Residents must provide documentation that the device to be installed is allowed by the ordinance. To date, 41 Bay Area cities and eight counties have adopted aspects of this model ordinance, including a mix of voluntary and mandatory standards.

The District also co-sponsored and managed a financial incentive, or “wood stove change-out” program in Santa Clara County as part of an air quality mitigation program required by the California Energy Commission. Rebates were offered to residents to remove non-EPA-certified wood-burning devices, install only EPA-certified devices, or to retrofit wood-burning fireplaces with natural gas fireplaces. The District’s Cleaner Burning Technology Incentives Program offered a similar District-wide incentive program in 2007.

Harmful Effects of Wood Smoke

Wood-burning devices generate particulate matter. Combustion of wood also creates carbon dioxide, water vapor, carbon monoxide and volatile organic compounds, including toxic compounds. Partial or incomplete combustion, or burning wood that is not seasoned and dry, or burning garbage or other materials generates more particulate matter, carbon monoxide, and increases toxic compounds.

Residential wood combustion is an important contributor to ambient fine particle levels in the United States. District staff has identified wood smoke as the single greatest contributor on wintertime peak days (33%) to $PM_{2.5}$ in the Bay Area, as shown in Figure 2-1.

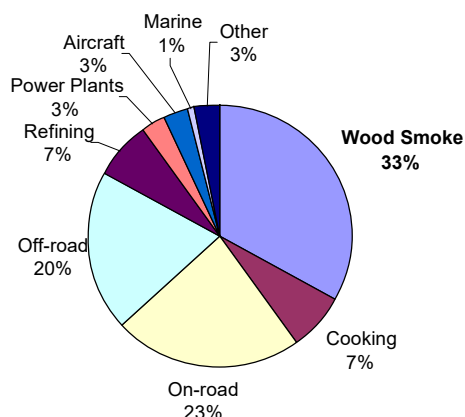


Figure 2-1. $PM_{2.5}$ Concentration on Peak Days by Constituent in the Bay Area.

Other studies find results and trends that support emission inventory estimates derived from the District data. The California Air Resources Board found that residential wood combustion makes up 20 percent to 35 percent of wintertime PM.

To estimate the amount of PM coming from wood-burning devices, including fireplaces, District staff used data from survey sample results from Bay Area residents. These results were then correlated with projected demographic trends from the Association of

Bay Area Governments (ABAG), which were based on U.S. Census data, and used to arrive at the estimated number of devices. These data, along with an annual through-put (fuel load), also derived from survey results, and an emission factor were then used to generate a PM₁₀ estimate for each county in the Bay Area. These data are summarized in Table 2-1 in tons per day (tpd) and tons per year (tpy), for both PM₁₀ (particulate matter 10 microns and below in diameter) and PM_{2.5}.

County	Wood Stove PM ₁₀ (tpd)	Fireplace PM ₁₀ (tpd)	Wood Stove PM _{2.5} (tpd)	Fireplace PM _{2.5} (tpd)
Alameda	0.03	2.28	0.03	2.19
Contra Costa	0.76	4.32	0.73	4.15
Marin	1.03	0.37	0.99	0.36
Napa	0.33	0.41	0.32	0.39
San Francisco	0.03	0.28	0.03	0.27
San Mateo	0.38	0.70	0.36	0.67
Santa Clara	0.65	3.11	0.62	2.99
Solano	0.05	0.89	0.05	0.85
Sonoma	1.27	1.43	1.22	1.37
Total Emissions Bay Area (tpd)	4.54	13.80	4.36	13.25
Total Emissions Bay Area (tpy)	1657	5037	1591	4836

Table 2-1. Summary of PM emissions from wood-burning devices by county.

Because the category of PM₁₀ also includes PM_{2.5}, a large portion of PM₁₀ particles are also PM_{2.5} particles. Therefore, the majority of PM from wood smoke are fine particles. It is these fine particles that are of greatest concern to public health.

Objectives

The objective of Rule 6-3 is to reduce particulate matter and visible emissions from wood-burning devices and thereby reduce ambient levels of particulate matter in the Bay Area, and to reduce wintertime peak concentrations, with the goal of attaining the federal PM_{2.5} standard. The Bay Area is also not in attainment with the State particulate matter standards, so further reductions in emissions of PM are needed for that purpose as well.

The Bay Area attains the federal annual PM₁₀ (particulate matter of less than 10 microns in diameter) standard, but is not in attainment of the California annual PM₁₀ or PM_{2.5} or the California 24-hour PM₁₀ standard. The Bay Area is unclassified for the national 24-hour PM₁₀ and new 24-hour PM_{2.5} standard.

The BAAQMD is not required to produce an attainment plan for particulate matter. However, under the requirements of Senate Bill 656 (SB 656, Sher), adopted in 2003, the District was required to develop a Particulate Matter Implementation Schedule in order to make progress toward attaining state and federal PM standards. That plan was adopted in November, 2005. The District’s wood burning program was identified in the District’s PM Implementation Schedule as one of the measures for enhancement and amendment. Rule 6-3 responds to that commitment.

Proposed Rule

The District is proposing Regulation 6, Rule 3 to reduce particulate matter and visible emissions from wood-burning devices in order to reduce ambient levels of particulate matter in the Bay Area, and to reduce wintertime peak concentrations to attain the national PM_{2.5} standard.

Visible Emissions: Proposed Rule 6-3 would limit visible emissions from wood-burning devices, except 6 minutes during any hour period, to 20% visible emissions (equivalent to 1 on a Ringelmann Scale), except for 6 minutes during any hour. This opacity limit would not apply during a 20 minute start-up period for any wood fire. This opacity standard is required of other District operations from stationary sources, including dust from construction sites and any other regulated source. Failure to meet a visible emissions standard is indicative of poor ventilation to a fire, or poorly seasoned or wet wood. Based on District inspection staff observations, this standard is not difficult to meet for properly maintained and operated fireplaces and wood stoves.

Prohibit Burning of Garbage: Proposed Rule 6-3 would prohibit the burning of garbage, treated wood, non-seasoned wood, used or contaminated wood pallets, plastic products, rubber products, waste petroleum products, paints and paint solvents, coal, animal carcasses, glossy and/or colored paper, salt water driftwood, particle board, and any material not intended by a manufacturer for use as a fuel in a wood-burning device at any time. These materials produce volatile organic compounds, particulate matter and toxic compounds.

Labeling: Proposed Rule 6-3 would require a label be placed on firewood for sale, including manufactured wood products such as artificial logs and wood pellets. The label would address the health impacts from burning wood and how to find out when burning is prohibited. In addition, the label would have information on how to find out if burning is allowed on any given day. Unseasoned wood (moisture content of greater than 20%) would be required to be labeled as such and contain a notification that burning unseasoned wood is not allowed and provide instructions for seasoning.

Seasoned wood: Proposed Rule 6-3 would require that wood burned in a wood-burning device must be seasoned, meaning that it must have a moisture content of 20% or less. Only seasoned wood can be burned in a wood burning device. Unseasoned firewood may be sold, but must include a warning that it is not legal to burn before seasoning and instructions must be provided for seasoning.

Sale, transfer or installation: Federal law already requires newly manufactured wood stoves to meet EPA Phase II certification standards. Proposed Rule 6-3 would require that wood stoves sold, transferred or installed in the District meet these standards. Stoves sold as part of a house or other real estate transaction would not be affected by this prohibition.

New Construction: Proposed Rule 6-3 would allow only EPA certified wood-burning devices or pellet stoves in new construction. This would, among other things, prohibit conventional wood-burning fireplaces in new housing developments.

Burning Curtailment: Proposed Rule 6-3 would require one of two options that will limit the ability to burn on STAT nights, defined as a night when the ambient concentration of particulate matter is forecast to exceed $35 \mu\text{m}^3$. Option 1 would not allow any burning in a wood-burning device on STAT nights. Option 2 would allow burning in EPA Phase II certified stoves and pellet stoves on STAT nights, but not allow the use of other conventional fireplaces and non-EPA certified stoves. An exemption would be provided for either option if wood burning was the only source of heat for a home. This initial study evaluates both options.

Proposed Regulation 6, Rule 3 is intended to be considered by the Bay Area Air Quality Management District Board of Directors in conjunction with proposed amendments to District Regulation 1: General Provisions and Definitions and Regulation 5: Open Burning. The purpose of the amendments to the Regulation 1 is to remove an exclusion from District regulations for fires used for residential heating. The purpose of the amendment to Regulation 5 is to remove an exemption for outdoor recreational fires on proposed curtailment days. These amendments, however, do not create any potential environmental impacts beyond those discussed herein. This Regulation 6, Rule 3 analysis discusses the potential environmental impacts of the proposed rule with these adjunctive amendments.

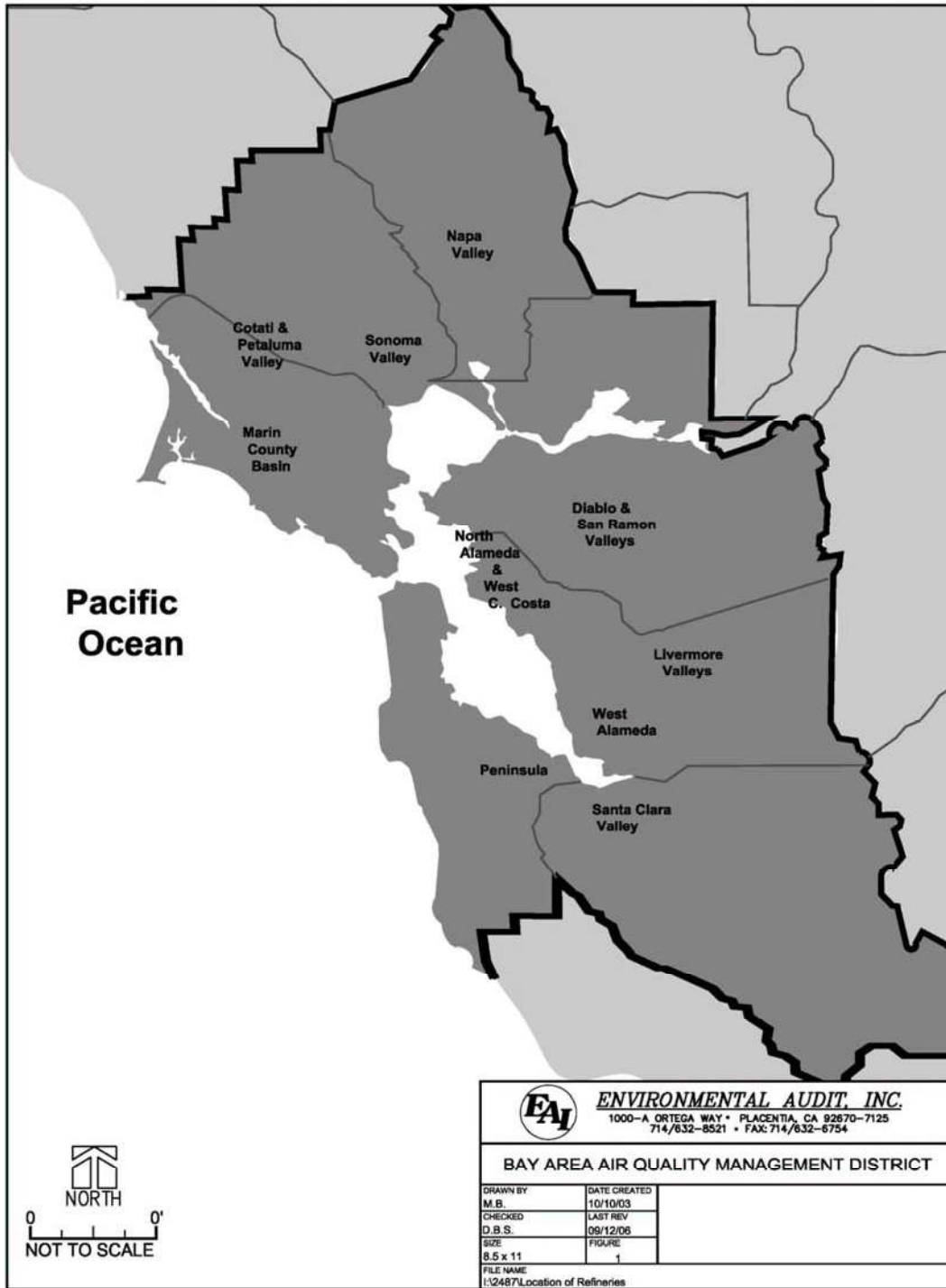
Affected Area

The proposed rule amendments would apply to residences and commercial businesses (hotels, restaurants, etc. with a fireplace or wood-burning device) within the BAAQMD jurisdiction. The BAAQMD jurisdiction includes all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma counties (approximately 5,600 square miles). The San Francisco Bay Area is characterized by a large, shallow basin surrounded by coastal mountain ranges tapering into sheltered inland valleys. The combined climatic and topographic factors result in increased potential for the accumulation of air pollutants in the inland valleys and reduced potential for buildup of air pollutants along the coast. The Basin is bounded by the Pacific Ocean to the west and includes complex terrain consisting of coastal mountain ranges, inland valleys, and bays.

The facilities affected by the proposed rule amendments are located within the jurisdiction of the Bay Area Air Quality Management District (see Figure 1).

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Chapter 2 Environmental Checklist

ENVIRONMENTAL CHECKLIST FORM

- 1. Project Title:** Bay Area Air Quality Management District (BAAQMD)
Proposed New Regulation 6, “Particulate Matter,” Rule
3, “Wood-Burning Devices”
- 2. Lead Agency Name and Address:** Bay Area Air Quality Management District
939 Ellis Street
San Francisco, California 94109
- 3. Contact Person and Phone Number:** Eric Pop, Compliance and Enforcement Division
415/749-5172 or epop@baaqmd.gov
- 4. Project Location:** This rule applies to the area within the jurisdiction of the
BAAQMD, which encompasses all of Alameda, Contra
Costa, Marin, San Francisco, San Mateo, Santa Clara,
and Napa Counties and portions of southwestern Solano
and southern Sonoma Counties. The constituents
affected by the rule are located in the entire area under
Bay Area Air Quality Management District jurisdiction.
- 5. Project Sponsor’s Name and Address:** (same as above)
- 6. General Plan Designation:** N/A
- 7. Zoning:** N/A
- 8. Description of Project:** See “Background” in Chapter 1
- 9. Surrounding Land Uses and Setting:** See “Affected Area” in Chapter 1
- 10. Other Public Agencies Whose
Approval Is Required:** None

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Environmental Factors Potentially Affected:

The environmental factors checked below would potentially be affected by this project (i.e., the project would involve at least one impact that is a “Potentially Significant Impact”, “Less Than Significant With Mitigation Incorporated”, or “Less-than-Significant Impact”), as indicated by the checklist on the following pages.

- | | | |
|--|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agricultural Resources | <input checked="" type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology/Soils |
| <input type="checkbox"/> Hazards and Hazardous Materials | <input type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Land Use/Planning |
| <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise | <input type="checkbox"/> Population/Housing |
| <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation/Traffic |
| <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Mandatory Findings of Significance | |

Determination:

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, so that an ENVIRONMENTAL IMPACT REPORT will be prepared.
- I find that the proposed project MAY have an impact on the environment that is “potentially significant” or “potentially significant unless mitigated” but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards and (2) has been addressed by mitigation measures based on the earlier analysis, as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the project, nothing further is required.

Signature

Date

Printed Name

For

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact	
I. AESTHETICS.					
Would the project:					
a.	Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b.	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c.	Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d.	Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara Counties, and portions of western Solano and southern Sonoma Counties. In terms of physiography, the Bay Area is characterized by a large, shallow basin surrounded by coastal mountain ranges. Because the area of coverage is so vast (approximately 5,600 square miles), land uses vary greatly and include commercial, industrial, residential, and agricultural uses.

Discussion of Impacts

a–d. Regulation 6, Rule 3 (Rule 6-3) is designed to limit emissions of particulate matter and visible emissions from wood-burning devices, through the requirement to use compliant wood-burning devices and prevent the use of non-compliant wood-burning devices during curtailment periods.

Rule 6-3 would restrict installation of wood-burning devices in new construction of buildings or structures to United States Environmental Protection Agency (U.S. EPA) Phase II certified wood-burning devices, pellet-fueled devices, or low mass fireplaces of a make and model that meets U.S. EPA low mass fireplace emission targets and has been approved in writing by the Air Pollution Control Officer (APCO) from the BAAQMD. In new developments, the installation of compliant wood-burning devices is expected to look essentially the same as non-

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compliance devices, so no change in the visual character of the environment is expected.

Rule 6-3 would establish criteria for the sale and installation of wood-burning devices. These requirements would control the type of indoor wood-burning devices that can be installed or used to replace existing devices. The Rule 6-3 compliant devices are similar in size and structure to the non-compliant devices, therefore this requirement is not expected to have an effect on the visual character of the environment. Proposed Rule 6-3 would reduce emissions of particulate matter, which can impact visibility, as well as air quality. A reduction in particulate matter emissions is expected to generate better visibility in the Bay Area.

Rule 6-3 would not require any new development, and compliant devices appear similar to non-compliant devices, therefore, obstruction of scenic resources or degrading the visual character of a site, including but not limited to: trees, rock outcroppings, or historic buildings, is not expected.

Rule 6-3 does not require any light generating equipment for compliance, so no additional light or glare would be created to affect day or nighttime views in the District.

Based on these considerations, significant adverse aesthetic impacts are not anticipated and will not be further analyzed in a Draft EIR. Since no significant aesthetic impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
II. AGRICULTURAL RESOURCES.				
In determining whether impacts on agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation. Would the project:				
a.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				
b.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?				
c.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use?				

Setting

As described under “Aesthetics,” land uses within the jurisdiction of the BAAQMD vary greatly and include agricultural lands. Some of these agricultural lands are under Williamson Act contracts.

Discussion of Impacts

a–c. Rule 6-3 is designed to limit emissions of particulate matter and visible emissions from wood-burning devices. The proposed rule would not require conversion of existing agricultural land to other uses. The proposed rule is not expected to conflict with existing agriculture-related zoning designations or Williamson Act contracts. Williamson Act lands within the boundaries of the BAAQMD would not be affected. No effects on agricultural resources are expected because the proposed rule would not required any new development, but would require compliant wood-burning devices in new development areas. Therefore, there is no

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potential for conversion of farmland to non-agricultural use or conflicts related to agricultural uses or land under a Williamson Act contract.

Based on these considerations, significant adverse impacts to agricultural resources are not anticipated and will not be further analyzed in a Draft EIR. Since no significant agricultural were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact	
III. AIR QUALITY.					
When available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:					
a.	Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b.	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c.	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d.	Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e.	Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f.	Diminish an existing air quality rule or future compliance requirement resulting in a significant increase in air pollution?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara Counties, and portions of western Solano and southern Sonoma Counties. Because the area of coverage is so vast (approximately 5,600 square miles), land uses vary greatly and include commercial, industrial, residential, and agricultural uses. Rule 6-3 would apply to all areas within the BAAQMD's jurisdiction.

The pollutants of greatest concern in the BAAQMD are various components of photochemical smog (ozone and other pollutants), particulate matter less than or equal to 10 microns in diameter (PM₁₀), and particulate matter less than or equal to 2.5 microns in diameter (PM_{2.5}). Ozone, a criteria pollutant, is formed from a

reaction of volatile organic compounds and oxides of nitrogen in the presence of ultraviolet light (sunlight). Particulate matter is made up of particles that are emitted directly, such as products of combustion and fugitive dust, as well as secondary particles that are formed in the atmosphere from reactions involving precursor pollutants such as oxides of nitrogen, sulfur oxides, volatile organic compounds, and ammonia. Secondary PM and combustion particles tend to be fine particles (PM_{2.5}), whereas fugitive dust is mostly coarse particles.

The Bay Area is classified as a non-attainment area for both the California and national ozone standards. The California standards are more stringent than the national standard. The Bay Area attains the national annual PM₁₀ standard, but is not in attainment of the California annual PM₁₀ or PM_{2.5} or the California 24-hour PM₁₀ standard. The Bay Area is unclassified for the national 24-hour PM₁₀ and 24-hour PM_{2.5} standard. There is no national annual PM₁₀ standard or California 24-hour PM_{2.5} standard. As with ozone, the California standards are more stringent. Particulate matter can cause serious health effects such as aggravated asthma, nose and throat irritation, bronchitis, lung damage, and premature death.

Discussion of Impacts

- a., c. Rule 6-3 is being proposed as part of an air quality control plan. In 2005 the BAAQMD published the “Particulate Matter Implementation Schedule”, pursuant to Senate Bill 656 (SB656), and wood smoke reduction was identified in that Schedule as a priority. Subsequently, the Air District Advisory Council examined wood smoke impacts on PM_{2.5} levels and issued recommendations to the Air District Board of Directors. The recommendations were accepted by the Air District Board of Directors and staff began work on a wood smoke reduction strategy. Rule 6-3 is one of many measures that, collectively, will reduce emissions of particulate matter and progress towards meeting the applicable federal and state air quality standards. The measures are not contingent on each other. Consequently, the rule is part of, and will not interfere with the implementation of an air quality plan.

The criteria pollutants are defined by the US EPA. They are ozone, carbon monoxide, particulate matter, sulfur dioxide, lead, and nitrogen oxide. Rule 6-3 would limit emissions of particulate matter by requiring that new and replacement wood-burning devices meet EPA emissions criteria, restricting the installation of wood-burning devices that do not meet EPA emissions criteria in new construction, and by limiting the use of the existing devices under one of two options on certain nights as described in Chapter 1. None of these measures could result in the increase of any of the criteria pollutants.

- b., d. The primary purpose of Regulation 6, Rule 3 is to limit emissions of particulate matter and visible emissions from wood-burning devices as

part of an overall wood smoke reduction program within the jurisdiction of the BAAQMD. Wood smoke has been a concern in the District since scientific research began establishing a stronger connection between public health and emissions from wood smoke. Combustion processes, including the combustion of wood in wood-burning devices, are a major source of manmade air pollution, including particulate matter. Carbon monoxide, hydrocarbons, nitrogen oxides and toxic compounds are additional dangerous byproducts from the combustion of wood.

- e. Rule 6-3 will result in a decrease in particulate emissions from wood burning devices. Wood burning devices can generate smoke that has a distinctive odor. Affected devices are not expected to create objectionable odors affecting a substantial number of people because the installation of compliant wood burning devices are expected to result in more efficient combustion, reducing particulate matter emissions and the related odors. Further, Rule 6-3 would prohibit the burning of garbage, treated wood, non-seasoned wood, used or contaminated wood pallets, plastic products, rubber products, waste petroleum products, paints and paint solvents, coal, animal carcasses, colored paper, salt water driftwood, particle board, and any material not intended by a manufacturer for use as a fuel in a wood-burning device. This requirement should also reduce odors.
- f. Even though the proposed rule is expected to result in a decrease in particulate matter emissions providing an air quality benefit, the proposed project may result in an increase in greenhouse gas emissions generating a potential impact on global climate change. This is because wood, a renewable resource, is considered “carbon neutral” whereas natural gas combusted to produce heat is not renewable and produces carbon dioxide, the primary contributor to global climate change. Therefore, there is the potential for cumulative greenhouse gas impacts which will be evaluated in a Draft EIR. Therefore, an EIR will be prepared to address air quality impacts associated with greenhouse gas emissions.

Based on these considerations, the cumulative increase in greenhouse emissions are potentially significant and will be further analyzed in a Draft EIR.

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		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
IV.	BIOLOGICAL RESOURCES.				
	Would the project:				
a.	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b.	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c.	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d.	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f.	Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara Counties, and portions of western Solano and southern Sonoma Counties. Because the area of coverage is so vast (approximately 5,600 square miles), land uses vary greatly and include

commercial, industrial, residential, and agricultural uses. Rule 6-3 would apply to all areas within the BAAQMD's jurisdiction.

Discussion of Impacts

- a-f Rule 6-3 is designed to limit emissions of particulate matter and visible emissions from wood-burning devices. The proposed rule would not require or bring about new residential or commercial development, but would restrict the installation of wood-burning devices in new development. Installation of new compliant devices is expected to be similar to installation of non-compliant devices. Therefore, installing compliant devices in new development or in existing structures is not expected to create additional impacts. Any new development that must comply with Rule 6-3 are constructed for business reasons other than to comply with Rule 6-3. Such projects may or may not have adverse impacts on biological resources. However, these projects would be built regardless of whether or not Rule 6-3 is in effect. As a result, the proposed rule would not directly or indirectly affect riparian habitat, federally protected wetlands, or migratory corridors.

The proposed rule would not conflict with local policies or ordinances protecting biological resources nor local, regional, or state conservation plans because it will only affect or restrict wood-burning devices in new development or prevent non-compliant wood-burning devices during curtailment periods. The proposed rule will also not conflict with any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or any other relevant habitat conservation plan.

Therefore, the proposed rule neither requires nor is likely to result in activities that would affect sensitive biological resources. Therefore, no significant adverse impacts on biological resources are expected.

Based on these considerations, significant adverse impacts to biological resources are not anticipated and will not be further analyzed in a Draft EIR. Since no significant impacts to biological impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
V.	CULTURAL RESOURCES.				
	Would the project:				
a.	Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d.	Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

Cultural resources are defined as buildings, sites, structures, or objects that might have historical, architectural, archaeological, cultural, or scientific importance. The State CEQA Guidelines define a significant cultural resource as a “resource listed or eligible for listing on the California Register of Historical Resources (CRHR)” (Public Resources Code Section 5024.1). A project would have a significant impact if it would cause a substantial adverse change in the significance of a historical resource (State CEQA Guidelines Section 15064.5[b]). A substantial adverse change in the significance of a historical resource would result from an action that would demolish or adversely alter the physical characteristics of the historical resource that convey its historical significance and that qualify the resource for inclusion in the CRHR or in a local register or survey that meets the requirements of Public Resources Code Sections 5020.1(k) and 5024.1(g).

The BAAQMD covers all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara Counties, and portions of western Solano and southern Sonoma Counties. Because the area of coverage is so vast (approximately 5,600 square miles), land uses vary greatly and include commercial, industrial, residential, and agricultural uses. Rule 6-3 would apply to all areas within the BAAQMD’s jurisdiction.

Discussion of Impacts

- a.-d. The proposed rule is not expected to have an effect on cultural resources because the proposed rule would not cause any new development. Rule 6-3 does not require any changes to existing fireplaces or other wood-burning devices. Therefore, Rule 6-3 is not expected to have significant impacts to historic buildings or require that wood-burning devices in historic buildings be removed or replaced.

The proposed rule would require that any new wood-burning devices installed be compliant with Rule 6-3. The removal and installation of non-compliant and compliant devices is not expected to require the use of heavy construction equipment, therefore, no impacts to historical resources are expected as a result of implementing Rule 6-3. No physical changes to the environment are expected to be required preventing disturbance to any paleontological or archaeological resources, nor would the rule require any physical changes that could disturb human remains. Any new residential or commercial operation that could have significant adverse affects on cultural resources would go through the same approval and construction process regardless of whether or not the proposed Rule 6-3 were in affect.

Based on these considerations, significant adverse impacts to cultural resources are not anticipated and will not be further analyzed in a Draft EIR. Since no significant impacts to cultural resources were identified, no mitigation measures are necessary or required.

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	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
VI. GEOLOGY AND SOILS.				
Would the project:				
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
1. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Strong seismic groundshaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in an onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara Counties, and portions of western Solano and southern Sonoma Counties. Because the area of coverage is so vast

(approximately 5,600 square miles), land uses vary greatly and include commercial, industrial, residential, and agricultural uses. Rule 6-3 would apply to all areas within the BAAQMD's jurisdiction.

Regional basement rocks consist of the highly deformed Great Valley Sequence, which include massive beds of sandstone interfingering with siltstone and shale. Unconsolidated alluvial deposits, artificial fill, and estuarine deposits, (including Bay Mud) underlie the low-lying region along the margins of the Carquinez Strait and Suisun Bay. The estuarine sediments found along the shorelines of Solano County are soft, water-saturated mud, peat and loose sands. The organic, soft, clay-rich sediments along the San Francisco and San Pablo Bays are referred to locally as Bay Mud and can present a variety of engineering challenges due to inherent low strength, compressibility and saturated conditions. Landslides in the region occur in weak, easily weathered bedrock on relatively steep slopes.

The San Francisco Bay Area is a seismically active region, which is situated on a plate boundary marked by the San Andreas Fault System. Several northwest trending active and potentially active faults are included with this fault system. Under the Alquist-Priolo Earthquake Fault Zoning Act, Earthquake Fault Zones were established by the California Division of Mines and Geology along "active" faults, or faults along which surface rupture occurred in Holocene time (the last 11,000 years). In the Bay area, these faults include the San Andreas, Hayward, Rodgers Creek-Healdsburg, Concord-Green Valley, Greenville-Marsh Creek, Seal Cove/San Gregorio and West Napa faults. Other smaller faults in the region classified as potentially active include the Southampton and Franklin faults.

Ground movement intensity during an earthquake can vary depending on the overall magnitude, distance to the fault, focus of earthquake energy, and type of geological material. Areas that are underlain by bedrock tend to experience less ground shaking than those underlain by unconsolidated sediments such as artificial fill. Earthquake ground shaking may have secondary effects on certain foundation materials, including liquefaction, seismically induced settlement, and lateral spreading.

Discussion of Impacts

- a.-e. No impacts on geology and soils are anticipated from the proposed rule that would apply to existing residential and commercial operations. The wood-burning devices to be regulated as part of this new rule will not create new development in the area. The proposed rule does not directly require structural alterations to existing structures.

Any new structures in the area must be designed to comply with the Uniform Building Code Zone 4 requirements since the Bay Area is located in a seismically active area. The local cities or counties are responsible for assuring that the proposed project complies with the

Uniform Building Code as part of the issuance of the building permits and can conduct inspections to ensure compliance. The Uniform Building Code is considered to be a standard safeguard against major structural failures and loss of life. The goal of the code is to provide structures that will: (1) resist minor earthquakes without damage; (2) resist moderate earthquakes without structural damage, but with some non-structural damage; and (3) resist major earthquakes without collapse, but with some structural and non-structural damage.

The Uniform Building Code bases seismic design on minimum lateral seismic forces ("ground shaking"). The Uniform Building Code requirements operate on the principle that providing appropriate foundations, among other aspects, helps to protect buildings from failure during earthquakes. The basic formulas used for the Uniform Building Code seismic design require determination of the seismic zone and site coefficient, which represent the foundation conditions at the site.

Any new residential or commercial operations will be required to obtain building permits, as applicable, for all new structures. New development or commercial operations must receive approval of all building plans and building permits to assure compliance with the latest Building Code prior to commencing construction activities. The issuance of building permits from the local agency will assure compliance with the Uniform Building Code requirements which include requirements for building within seismic hazard zones. No significant impacts from seismic hazards are expected since the project will be required to comply with the Uniform Building Codes. No major construction activities are expected from the proposed rule. Therefore, no significant adverse impacts on geology and soils are expected.

Since Rule 6-3 would mostly affect new residential and commercial operations in the area, it is expected that the soil types present in the affected facilities and residences would not be further susceptible to expansive soils or liquefaction due to adoption of the proposed rule. Additionally, subsidence is not expected to occur because grading, or filling activities at affected facilities and residences despite adoption of the proposed rule that would only restrict the installation of wood-burning devices.

The proposed project has no affect on the installation of septic tanks or alternative wastewater disposal systems. Consequently, no impacts from failures of septic systems related to soils incapable of supporting such systems are anticipated.

Based on these considerations, significant adverse geology and soil impacts are not anticipated and will not be further analyzed in a Draft EIR. Since no significant geology and soils impacts were identified, no mitigation measures are necessary or required.

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		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
VII. HAZARDS AND HAZARDOUS MATERIALS.					
	Would the project:				
a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b.	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c.	Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d.	Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e.	Be located within an airport land use plan area or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f.	Be located within the vicinity of a private airstrip and result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h.	Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara Counties, and portions of western Solano and southern Sonoma Counties. Because the area of coverage is so vast (approximately 5,600 square miles), land uses vary greatly and include commercial, industrial, residential, and agricultural uses. Rule 6-3 would apply to all areas within the BAAQMD's jurisdiction.

Facilities and operations within the District handle and process substantial quantities of flammable materials and acutely toxic substances. Accidents involving these substances can result in worker or public exposure to fire, heat, blast from an explosion, or airborne exposure to hazardous substances.

Fires can expose the public or workers to heat. The heat decreases rapidly with distance from the flame and therefore poses a greater risk to workers at specific facilities where flammable materials and toxic substances are handled than to the public. Explosions can generate a shock wave, but the risks from explosion also decrease with distance. Airborne releases of hazardous materials may affect workers or the public, and the risks depend upon the location of the release, the hazards associated with the material, the winds at the time of the release, and the proximity of receptors.

For all facilities and operations handling flammable materials and toxic substances, risks to the public are reduced if there is a buffer zone between process units and residences or if prevailing winds blow away from residences. Thus, the risks posed by operations at a given facility or operation are unique and determined by a variety of factors.

Discussion of Impacts

- a., b. Since wood, pellet-fuel, and wood ash are not considered hazardous materials, use of compliant wood-burning devices would not require the routine transport, use, or disposal of hazardous materials. The restriction of compliant wood-burning devices in new development and commercial operations, or prohibition of non-compliant wood-burning devices during curtailment periods, would not create a significant hazard to the public or environment through a reasonable foreseeable upset and accident conditions involving hazardous materials. The use of electrical heaters as an alternative to wood-burning devices would not result in potentially significant adverse impacts because the use of hazardous materials would not be required.

While natural gas devices substituted for wood-burning devices could introduce greater explosive risk, the majority of residences and facilities in the District already have natural gas service. Natural gas is flammable, can be explosive under certain conditions, and a release of

natural gas may result in potentially significant hazards and risk of upset to people. The majority of facilities that would be affected by the proposed rule already have natural gas pipeline infrastructure for natural gas delivery. Natural gas burning devices must meet American National Standards Institute (ANSI) standards. Compliance with applicable federal, state and local regulatory requirements for the design and installation of natural gas devices would make the risk of accidental release less than significant. Further, Rule 6-3 includes an exemption from Rule 6-3 for wood-burning devices in areas where natural gas service is not available; therefore, Rule 6-3 will not require the installation of new natural gas utility lines or increase the hazards related to the use of natural gas.

- c. The proposed rule would not generate hazardous emissions, handling of hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school. The use of compliant wood-burning devices in new development and during curtailment periods would not generate as many hazardous emissions as non-compliant wood-burning devices. Replacement of wood-burning devices with electric devices would reduce hazardous emissions or hazardous materials associated with wood burning.

Replacement of wood-burning devices with natural gas devices could increase risk of explosion. However, since natural gas devices would require building permits, compliance with federal, state, and local regulatory requirements for the design and installation of natural gas devices would limit the risk of accidental release to the degree that the risk would be expected to be less than significant regarding schools.

- d. The proposed rule would restrict the type of wood-burning devices at new residences and commercial operations. Government Code §65962.5 is related to hazardous material sites at industrial facilities. The proposed rule would affect residences and commercial facilities such as hotels, restaurants, lodges, etc., which are typically not associated with hazardous waste sites. Therefore, commercial facilities and residences would not normally be included on the list of hazardous material sites compiled pursuant to Government Code §65962.5. As a result, Rule 6-3 is not expected to affect any facilities included on a list of hazardous material sites and, therefore, would not create a significant hazard to the public or environment.
- e – f. The proposed rule would not result in a safety hazard for residents or workers within two miles of a public airport, a public use airport, or a private air strip. The use of compliant wood-burning, or alternative, devices in new development would not generate as many hazardous emissions as non-compliant wood-burning devices. Replacement of wood-burning devices with electric devices would reduce hazardous emissions or hazardous materials from wood burning.

Replacement of wood-burning devices with natural gas devices could increase risk of explosion. However, since natural gas devices would require building permits, compliance with federal, state, and local regulatory requirements for the design and installation of natural gas devices would limit the risk of accidental release to the degree that the risk would be expected to be less than significant regarding public airports or private air strip.

- g. No impacts on emergency response plans are anticipated from the proposed rule. Wood-burning devices or their alternatives are not typically major components of any evacuation or emergency response plan. The proposed rule neither requires nor is likely to result in activities that would impact the emergency response plan. No major construction activities are expected from the proposed rule. Therefore, no significant adverse impacts on emergency response plans is expected.
- h. No increase in hazards related to wildfires is anticipated from the proposed rule that would apply to existing structures utilizing compliant wood-burning devices. The proposed rule will not create new residential or commercial land use projects. Any new development that might occur in the District would occur for reasons other than the proposed rule. New land use project would require a CEQA analysis that would evaluate wildfire risks. Mitigation measures would be required to reduce impacts to the maximum extent possible if the analysis determined such risks to be significant. Proposed Rule 6-3 is not expected to reduce the amount of brush cleared in wildfire hazard areas as the brush clearing is generally required for compliance with fire codes. The burning of brush in wood burning devices under proposed Rule 6-3 could still be accomplished, as long as the brush is seasoned and not burned on prohibited days. Most wood brush from private property that would be burned is seasoned before burning to produce a desirable (hot) fire. As Rule 6-3 would only provide minor and sporadic delays in burning, no significant impacts are expected.

Based on these considerations, significant adverse hazards and hazardous materials are not anticipated and will not be further analyzed in a Draft EIR. Since no significant hazard and hazardous materials impacts were identified, no mitigation measures are necessary or required.

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	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
VIII. HYDROLOGY AND WATER QUALITY.				
Would the project:				
a. Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, resulting in a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation onsite or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h. Place within a 100-year flood hazard area structures that would impede or redirect floodflows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i. Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
j.	Contribute to inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles) so that land uses and affected environment vary substantially throughout the area and include commercial, industrial, residential, agricultural, and open space uses. Rule 6-3 would apply to all areas within the BAAQMD’s jurisdiction.

Reservoirs and drainage streams are located throughout the area and discharge into the Bays. Marshlands incised with numerous winding tidal channels containing brackish water are located throughout the area under BAAQMD jurisdiction.

Discussion of Impacts

- a – j. Rule 6-3 would limit the installation of new, and replacement of existing wood-burning devices in the District to compliant wood-burning devices. Compliant wood-burning devices do not use water for any reason, nor do they generate wastewater. Any construction activities regarding replacement of non-compliant wood-burning devices would be minor and would not require heavy equipment, so there would be no soil disturbance attributed to the proposed rule.

No impacts on hydrology/water quality resources are anticipated from the proposed rule. Because compliant wood-burning devices do not use water for any reason, the proposed rule would not require construction of additional water resource facilities, create the need for new or expanded water entitlements, of necessitate alteration of drainage patterns. The residences and commercial operations affected by the proposed rule are required to comply with wastewater discharge regulations. The requirement to utilize compliant wood-burning devices will have no impact on wastewater discharges, alter drainage patterns, create additional water runoff, place any additional structures

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within 100-year flood zones or other areas subject to flooding, or contribute to inundation by seiche, tsunami or mudflow. No major construction activities are expected from the proposed rule and no new structures are required. Therefore, no significant adverse impacts on hydrology/water quality are expected.

Based on these considerations, significant adverse hydrology and water quality impacts are not anticipated and will not be further analyzed in a Draft EIR. Since no significant hydrology and water quality impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
IX. LAND USE AND PLANNING.				
Would the project:				
a. Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

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Discussion of Impacts

a-c. Rule 6-3 would not create any new development, but would restrict installation of wood-burning devices to compliant devices in new development and prohibit burning of non-compliant devices during curtailment periods. Thus, Rule 6-3 does not include any components that would mandate physically dividing an established community or generate additional development.

The proposed rule has no components which would affect land use plans, policies, or regulations. Regulating PM10 and PM2.5 emissions from wood-burning devices will not require local governments to alter land use and other planning considerations due to the proposed rule. Habitat conservation or natural community conservation plans, agricultural resources or operations, would not be affected by Rule 6-3, and divisions of existing communities would not occur. Therefore, current or planned

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land uses with the District will not be significantly affected as a result of Rule 6-3.

Based on these considerations, significant adverse land use impacts are not anticipated and will not be further analyzed in a Draft EIR. Since no significant land use impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
X. MINERAL RESOURCES.				
Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara Counties, and portions of western Solano and southern Sonoma Counties. Because the area of coverage is so vast (approximately 5,600 square miles), land uses vary greatly and include commercial, industrial, residential, and agricultural uses. Rule 6-3 would apply to all areas within the BAAQMD's jurisdiction.

Discussion of Impacts

- a-b. The proposed rule is not associated with any action that would result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state, or of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. The proposed rule is not expected to create new development or result in construction outside any existing facility. Therefore, no significant impact to mineral resources is anticipated as a result of Rule 6-3.

Based on these considerations, significant adverse impacts to mineral resources are not anticipated and will not be further analyzed in a Draft EIR. Since no significant mineral resources impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
XI. NOISE.				
Would the project:				
a.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Expose persons to or generate noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies?				
b.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Expose persons to or generate excessive groundborne vibration or groundborne noise levels?				
c.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				
d.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?				
e.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Be located within an airport land use plan area, or, where such a plan has not been adopted, within two miles of a public airport or public use airport and expose people residing or working in the project area to excessive noise levels?				
f.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Be located in the vicinity of a private airstrip and expose people residing or working in the project area to excessive noise levels?				

Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara Counties, and portions of western Solano and southern Sonoma Counties. Because the area of coverage is so vast (approximately 5,600 square miles), land uses vary greatly and include commercial, industrial, residential, and agricultural uses. Rule 6-3 would apply to all areas within the BAAQMD's jurisdiction.

Discussion of Impacts

- a. Rule 6-3 would restrict installation of wood-burning devices in new development and prohibit use of non-compliant wood

burning devices during curtailment periods. Since no heavy-duty equipment is required to install compliant devices, noise impacts associated with the proposed rule are expected to be minimal. Operation of compliant wood-burning devices may require the addition of blowers or exhaust fans. Blowers and exhaust fans would be regulated by local building permits and are similar in some respects to those used in household water heaters. Noise from these systems, both indoors and outdoors, is expected to be limited to acceptable levels by the building permit process. Therefore, residences and commercial operations affected by the proposed rule are not expected to have a significant adverse affect on local noise control laws or ordinances.

- b. Rule 6-3 is not expected to generate or expose people to excessive groundborne vibration or groundborne noise. Equipment used to install wood-burning devices in new or existing residences or commercial operations are not in any way expected to generate vibrations.
- c. Rule 6-3 is not expected to result in a substantial permanent increase in ambient noise levels in the District. The proposed rule would not create new development. Compliant equipment and non-compliant equipment operate at similar noise levels, and are designed to be operated in residences and commercial facilities (e.g., hotels, restaurants, etc.), where operators are protected by noise regulations, and residences will not tolerate excessive noise levels. Permanent increases in noise levels are not anticipated as a result of the proposed rule.
- d. Rule 6-3 is not expected to increase periodic or temporary ambient noise levels to levels existing prior to the proposed rule. The installation or replacement of wood-burning devices in new facilities would require minor construction activities and would not require the use of heavy equipment. Operational noise levels are expected to be equivalent to existing noise levels as discussed earlier.
- e., f. Implementation of Rule 6-3 would require only minor construction in existing facilities, and does not require the use of heavy equipment for installation in new or existing residences or commercial operations. No new noise impacts are expected from any existing facilities during construction or operation regardless of their proximity to a public/private airport. Thus, people residing or working in the vicinities of public/private airports are not expected to be exposed to excessive noise levels due to the proposed project.

Appendix A - Notice of Preparation and Initial Study

Based on these considerations, significant adverse noise impacts are not anticipated and will not be further analyzed in a Draft EIR. Since no significant noise impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
XII. POPULATION AND HOUSING.				
Would the project:				
a. Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Displace a substantial number of existing housing units, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Displace a substantial number of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara Counties, and portions of western Solano and southern Sonoma Counties. Because the area of coverage is so vast (approximately 5,600 square miles), land uses vary greatly and include commercial, industrial, residential, and agricultural uses. Rule 6-3 would apply to all areas within the BAAQMD’s jurisdiction.

Discussion of Impacts

- a–c. The proposed rule is not expected to result in the construction of new facilities or the displacement of housing or people. Implementation of the proposed rule will result require that new development install compliant wood-burning devices and restricts wood-burning devices during curtailment periods development. These modifications and restrictions would not induce growth or displace housing or people in any way. The proposed rule is not expected to result in significant adverse affects on population or housing.

Based on these considerations, significant adverse impacts on population and housing are not anticipated and will not be further analyzed in a Draft EIR. Since no significant population and housing impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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XIII. PUBLIC SERVICES.

Would the project:

- a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:

Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara Counties, and portions of western Solano and southern Sonoma Counties. Because the area of coverage is so vast (approximately 5,600 square miles), land uses vary greatly and include commercial, industrial, residential, and agricultural uses. Rule 6-3 would apply to all areas within the BAAQMD's jurisdiction.

Given the large area covered by the BAAQMD, public services are provided by a wide range of entities. Fire protection and police protection/law enforcement services within the BAAQMD is provided by various districts, organizations, and agencies. There are several school districts, private schools, and park departments within the BAAQMD. Public facilities within the BAAQMD are managed by different county, city, and special-use districts.

Discussion of Impacts

- a., b. The facilities affected by the proposed rule are not expected to require any new or additional public services. As shown in Section VII – Hazards and Hazardous Material of this Initial Study, the use of compliant wood burning appliances is not expected to generate significant explosion or fire hazard impacts so no increase in fire protection services is expected. Rule 6-3 is not expected to have any adverse effects on local police departments and require additional police services as it would only require the installation of compliant wood-burning devices for new development. Rule 6-3 would not require the development and these projects would be built regardless of whether or not Rule 6-3 is in effect. Therefore, no significant adverse fire and police protection impacts from the proposed rule are expected.
- c., d. As discussed in Section XII, Population and Housing, implementing Rule 6-3 would not induce population growth. Therefore, with no increase in local population anticipated, additional demand for new or expanded schools or parks is not anticipated. As a result, no significant adverse impacts are expected to local schools or parks.
- e. Besides building permits, there is no other need for government services. The proposal would not result in the need for new or physically altered government facilities in order to maintain acceptable service ratios, response times, or other performance objectives. There will be no increase in population as a result of implementing Rule 6-3, therefore, no need for physically altered government facilities.

Based on these considerations, significant adverse impacts on public services are not anticipated and will not be further analyzed in a Draft EIR. Since no significant public services impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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XIV. RECREATION.

Would the project:

- | | | | | | |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a. | Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. | Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara Counties, and portions of western Solano and southern Sonoma Counties. Because the area of coverage is so vast (approximately 5,600 square miles), land uses vary greatly and include commercial, industrial, residential, and agricultural uses. Rule 6-3 would apply to all areas within the BAAQMD’s jurisdiction.

Discussion of Impacts

- a–b. Rule 6-3 has no provisions affecting land use plans, policies, or regulations. The proposed project would not increase or redistribute population and, therefore, would not increase the demand for or use of existing neighborhood and regional parks or other recreational facilities or require the construction of new or the expansion of existing recreational facilities. Therefore, implementation of Rule 6-3 is not expected to have any significant adverse impacts on recreation.

Based on these considerations, significant adverse impacts on recreation are not anticipated and will not be further analyzed in a Draft EIR. Since no significant recreation impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
XV. TRANSPORTATION/TRAFFIC.				
Would the project:				
a. Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Cause, either individually or cumulatively, exceedance of a level-of-service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara Counties, and portions of western Solano and southern Sonoma Counties. Because the area of coverage is so vast (approximately 5,600 square miles), land uses vary greatly and include commercial, industrial, residential, and agricultural uses. Rule 6-3 would apply to all areas within the BAAQMD's jurisdiction.

Transportation infrastructure within the BAAQMD ranges from single-lane roadways to multilane interstate highways. Transportation systems between major hubs are located within and outside the BAAQMD, including railroads,

airports, waterways, and highways. Localized modes of travel include personal vehicles, busses, bicycles, and walking.

Discussion of Impacts

- a., b. Additional traffic or significant increases of staffing at existing residential or commercial facilities that would result in changes to traffic patterns or levels is not expected. The proposed rule would not involve any activities that would alter air traffic patterns; substantially increase hazards caused by design features; result in inadequate parking capacity; or conflict with adopted policies, plans, or programs supporting alternative transportation. Therefore, no significant adverse impacts resulting in changes to traffic patterns or levels of service at local intersections are expected.
- c. The proposed rule could result in minor modifications to existing residences and commercial operations as well as restrictions on the type of wood-burning devices to be installed in new development. The proposed rule is not expected to involve the delivery of materials via air so no increase in air traffic is expected.
- d., e. The proposed rule is not expected to increase traffic hazards or create incompatible uses. No affect on emergency access to affected residences or commercial facilities is expected from adopting the proposed rule. Utilizing compliant wood-burning devices versus non-compliant devices is not expected to have a significant adverse impact on traffic hazards, create incompatible uses or emergency access.
- f. No changes are expected to parking capacity at or in the vicinity of affected facilities as Rule 6-3 only pertains to wood-burning devices. No increase in permanent workers is expected. Therefore, the proposed rule is not expected to result in significant adverse impacts on parking.
- g. The proposed rule affects wood-burning devices and is not expected to conflict with adopted policies, plans, or programs supporting alternative transportation modes (e.g., bus turnouts, bicycle racks).

Based on these considerations, significant adverse transportation and traffic impacts are not anticipated and will not be further analyzed in a Draft EIR. Since no significant transportation and traffic impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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XVI. UTILITIES AND SERVICE SYSTEMS.

Would the project:

a.	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b.	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c.	Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d.	Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements be needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e.	Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f.	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g.	Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara Counties, and portions of western Solano and southern Sonoma Counties. Because the area of coverage is so vast (approximately 5,600 square miles), land uses vary greatly and include commercial, industrial, residential, and agricultural uses. Rule 6-3 would apply to all areas within the BAAQMD's jurisdiction.

Discussion of Impacts

- a-e. The proposed rule is restricted to both the installation of new, and replacement of existing wood-burning devices, with compliant devices. These regulations regarding wood-burning devices will not generate or affect wastewater, stormwater or stormwater drainage, and will not require water or affect water supplies. No increases in demand for public utilities are expected as a result of the proposed rule.

- f., g. Rule 6-3 would require the installation of compliant wood-burning devices and generally would not generate additional waste. Rule 6-3 could encourage the replacement of existing devices with newer compliant devices. As existing devices are replaced, their disposal is expected to be categorized as solid waste. Solid waste is either recycled or disposed of in landfills. Rule 6-3 is not expected to generate any significant increase in solid waste. Since any facilities would be replacing their non-compliant wood burning devices because of a remodel, not because of Rule 6-3, compliant wood burning devices installed during remodels and non-wood burning devices installed in new development are not expected to generate any more solid waste than non Rule 6-3 compliant devices. In fact, natural gas burning devices would not generate solid waste (e.g., wood ash). Therefore, no significant adverse impacts are expected to solid waste as a result of the proposed rule.

Based on these considerations, significant adverse utilities and service system impacts are not anticipated and will not be further analyzed in a Draft EIR. Since no significant utilities and service system impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
XVII. MANDATORY FINDINGS OF SIGNIFICANCE				
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Does the project have impacts that are individually limited but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion of Impacts

- a. Rule 6-3 is not expected to create any new development. Because the rule will not require development, the proposed rule does not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory. Therefore, no significant adverse impacts are expected as a result of the proposed rule.

- b. Even though the proposed rule is expected to result in a decrease in particulate matter emissions providing an air quality benefit, the proposed project may result in an increase in greenhouse gas emissions generating a potential impact on global climate

change. Therefore, there is the potential for cumulative greenhouse gas impacts which will be evaluated in a Draft EIR. Rule 6-3 is not expected to generate any project-specific significant environmental impacts and is not expected to cause cumulative impacts in conjunction with any other environmental resources. Therefore, an EIR will be prepared to address air quality impacts associated with greenhouse gas emissions.

- c. Other than greenhouse gas impacts, Rule 6-3 is not expected to cause significant adverse effects on human beings. In fact Rule 6-3 is expected to reduce particulate matter emissions, reduce exposure to particulate matter, and reduce health impacts associated with exposure to particulate matter. Adoption of the rule is not expected to create significant adverse impacts on air quality. From the proceeding analyses, significant adverse impacts on aesthetics, agricultural resources, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, utility and service systems, and transportation and traffic are not an expected result from adoption of Rule 6-3.

APPENDIX B

RESPONSE TO COMMENTS RECEIVED ON THE DRAFT ENVIRONMENTAL IMPACT REPORT

APPENDIX B

FINAL ENVIRONMENTAL IMPACT REPORT

BAY AREA AIR QUALITY MANAGEMENT DISTRICT REGULATION 6, RULE 3, WOOD-BURNING DEVICES

COMMENTS AND RESPONSES TO COMMENTS

INTRODUCTION

This Appendix, together with other portions of the Draft Environmental Impact Report (Draft EIR), constitute the Final EIR for the proposed BAAQMD Regulation 6, Rule 3, Wood-Burning Devices Project.

The Draft EIR was circulated for a 45-day public review and comment period on May 5, 2008 and ending June 18, 2008. The Draft EIR is available at the Bay Area Air Quality Management District (BAAQMD), 939 Ellis Street, San Francisco, California 94109, or by phone at (415) 749-5172. The Draft EIR can also be downloaded by contacting the BAAQMD's web pages at:

http://www.baaqmd.gov/pln/ruledev/regulatory_public_hearings.htm.

The Draft EIR contained a detailed project description, the environmental setting for each environmental resource where the NOP/IS determined there was a potential significant adverse impact, an analysis of the potentially significant environmental impacts including cumulative impacts, project alternatives, mitigation measures, and other areas of discussion as required by CEQA. The discussion of the project-related and cumulative environmental impacts included a detailed analysis of air quality and greenhouse gas emissions.

The BAAQMD received three comment letters on the Draft EIR during the public comment period. The comment letters and responses to the comments raised in those letters are provided in this appendix. The comments are bracketed and numbered. The related responses are identified with the corresponding number and are included following each comment letter.

From: Robert Poindexter [mailto:bob@epoindexter.com]
Sent: Thursday, May 22, 2008 11:46 AM
To: Eric Pop
Subject: Comments to the Draft EIR on proposed Regulation 6, Rule 3: Wood Burning Devices

Pursuant to The California Environmental Quality Act I am submitting these comments to BAAQMD in connection with the Draft Environmental Impact Report prepared for BAAQMD for purposes of its proposed Regulation 6, Rule 3. I ask that the District consider these comments and make them part of the Environmental Impact Report. Also, please advise me if there are any changes to the EIR or if the District takes any action with respect to the EIR. Finally, I would appreciate it if you would send me a response to this email to confirm that you have received my comments.

I believe the Draft Environmental Impact Report (EIR) prepared for BAAQMD for purposes of its proposed Regulation 6, Rule 3 contains some substantial errors in connection with its conclusion that greenhouse gas (GHG) emissions will not increase as a result of Rule 6-3.

The EIR relied heavily on a 2003 study by the Australian Greenhouse Office (<http://www.greenhouse.gov.au/nrm/publications/pubs/firewood.pdf>) that was designed to compare GHG emissions from wood burned for domestic heating to GHG emissions from domestic heating from nonrenewable sources such as natural gas. The Australian study looked at wood collected from three different sources, remnant woodlands, managed native forests and new wood plantations. The study considered the loss of carbon sequestered in the woodlands and forests as a result of the harvesting of firewood as well as the cost of transportation and processing. In each case the study found that the use of firewood for domestic heating resulted in less GHG emissions than nonrenewable heating sources. Overall the Australian study concluded “in terms of limiting net greenhouse gas emissions, firewood is generally more favorable for domestic heating than other non-renewable sources of energy.”

1-1

The EIR calculates that the proposed Rule 6-3 would cause fireplace users to resort to their gas furnaces and, with full compliance, result in as much as an additional 31,900 metric tons of CO₂, a greenhouse gas, being introduced into the atmosphere annually. Despite this finding the District concludes that its proposed fireplace restrictions would not result in any increase in greenhouse gas emissions. How did the EIR reach a conclusion so different from the Australian study upon which it relied so heavily? The EIR investigators made the assumption that all of the wood being used in fireplaces was being sourced by the elimination of woodlands and that the loss of those trees (and the CO₂ being sequestered in them) offset the benefit derived from heating with wood. The District does not cite any basis for its assumption that woodlands are being eliminated in order to provide fuel for fireplaces. The only investigation on this issue disclosed in the EIR is that researchers reviewed firewood dealer advertising. The EIR itself contradicts the District’s assumption stating that much of the loss of woodlands in the Bay Area is

1-2

1-3

APPENDIX B- RESPONSE TO COMMENTS

due to urban growth, conversion of land to vineyards and Sudden Oak Death, all activities that would occur regardless of fireplace use.

1-3
concluded

I conducted a survey of all firewood dealers listed in the June 2007 AT&T yellow pages for Marin County. A summary of the information provided from all such dealers who were willing to provide information follows:

Bear Bottom Farms, 508 De Carlo Ave., Richmond, CA, (415) 454-2917
Contact: Don Podesto, manager

They sell approximately 2,500 cords/year. Approximately 60% is almond, 30% walnut and 5% cherry and 5% other. The almond, walnut and cherry wood principally comes from farmers in the central valley who tear out old trees and replace them with younger trees in order to improve production. Approximately 90% is replanted. The farmer will typically pay to have the trees removed and cut into pieces and the wood is sold to firewood dealers. The farmer's removal costs are typically about equal to what is paid by firewood dealers. Sometimes the wood is just turned into chips in which case the farmer incurs a substantial net expense.

1-4

This dealer regularly gets calls from tree services offering oak and other wood for free but the offers are rejected because those woods are incompatible with the operation.

Marin Resource Recovery Center, 565 Jacoby St., San Rafael, CA, (415) 860-2601
Contact: Joe Garbarino, manager

They sell 300 to 350 cords/year. Approximately 60% pine, 15% eucalyptus, 15% bay, 10% oak. All wood is brought to them as refuse for disposal. He cuts and dries the wood before selling.

(Note: This firewood seller is not listed in the AT&T yellow pages. I included them because it is where I have sourced my firewood for the past few years.)

Valley Firewood, (415) 302-9797

Contact: Angel Loza, manager

They sell approximately 250 cords/year. Approximately 70% is almond, walnut, cherry and 30% is oak. The fruit and nut wood comes from farmers who are replacing old trees with younger trees or changing crops. The oak comes from agricultural land where the rancher is thinning pastureland. In both cases it is believed the farmer/rancher has the land cleared in exchange for the firewood or pays some net amount to have the land cleared.

Country Boy Firewood, (415) 279-2272

Contact: Louis, manager

This dealer is unwilling to disclose annual sales for competitive reasons. Approximately 30% oak, 20% eucalyptus, 20% madrone, 20% soft woods and 10% other. All of the wood is sourced from arborists and tree trimmers who want to dispose of the wood. He believes substantially all of the trees are removed because they present a hazard or they have already fallen. He does not pay for any of the wood unless it has been cut to size and split, in which case he will pay to cover the cost of that additional service.

1-4

Fessenden Firewood, Hoffman and 30th St., Richmond, CA, (510) 236-4789

Bruce Fessenden, manager

This dealer sells roughly 2,500 cords/year. Sales are approximately 50% nut tree wood and 50% Oak. The nut tree wood comes from the central valley and is the result of farmers replacing old trees with younger trees. He believes the farmers come close to break even on the tree removal. The Oak comes from large ranches in the Red Bluff – Redding area. The ranchers thin overgrown woodlands for agricultural reasons. Ranchers also receive approximately \$30 to \$35 per cord. There is no clear cutting that he is aware of. He believes California Dept. of Fish and Game oversees the tree cutting and requires a permit before cutting can take place.

None of the firewood dealers interviewed provided any support for the EIR assumption that for each cord of firewood being burned in the Bay Area there is an equivalent reduction in California’s remnant woodlands. In truth, the survey described above indicates that substantially all of the firewood being sold comes from trees that are being removed for economic and safety reasons that are unrelated to domestic wood burning and would occur in the absence of domestic wood burning. Only the oak coming from northern California results in any remuneration to the landholder and that appears to be a case of sustainably managed woodlands, similar to the situation found in the Australian greenhouse Office study. There is no evidence to support the assumption in the EIR that woodlands are being “reduced” to supply firewood for the Bay Area. The EIR improperly allocated the loss of the trees (and their sequestered CO₂) to households burning wood for heat. This resulted in a gross understatement of the GHG emissions that would result from the adoption of Rule 6-3. The GHG emission analysis in the EIR should be recalculated with only GHG emissions arising from the cutting and transportation of firewood being allocated to the firewood used for domestic heating.

1-4
concluded

A second error in the EIR results from the fact that the EIR assumes that there are only two types of wood burning appliances used for heating homes, wood stoves with an efficiency of 70% and fireplaces with an efficiency of 10%. The Australian Greenhouse Office study, upon which the EIR relies so heavily, indicates the efficiency of a fireplace can be significantly better if it is equipped with an insert. The Australian study used the following efficiencies of wood burning appliances: open fireplace 10%, open fire insert 30%, slow combustion insert 60%, non-air tight potbelly stoves 40% and slow combustion stoves 70%. The EIR erroneously assumes all fireplaces have an efficiency of only 10% and the erroneous assumption has the effect of understating the GHG emissions that would result from the adoption of Rule 6-3. The EIR should include a statistically relevant survey of the types of wood burning appliances being used by households so that the efficiencies of those appliances can be accurately calculated.

1-5

A third error in the EIR results from the fact that the EIR assumes that a household heating with a wood burning appliance would use the same number of Btu as that same household would use when it is heating with natural gas. While wood burning appliances are capable of heating only a limited space, natural gas furnaces are typically designed to heat the entire home. When a household that is relying on a wood burning appliance for heat is forced by Rule 6-3 to switch to a natural gas furnace that household may be required to heat the entire home and this would presumably require significantly more Btu of heat. While there are gas-heating appliances that are capable of heating a small space similar to a wood-burning appliance, the EIR unjustifiably assumes they are available to every household. The EIR offers no evidence to support that assumption. The assumption in the EIR that households will require the same Btu of useable heat whether heating with wood or natural gas results in an erroneously low calculation of the GHG emissions that will result from the adoption of Rule 6-3. The EIR should include a statistically relevant survey of households regarding the heating appliances that are

1-6

available and how wood burning and gas heating appliances are used so that the GHG emissions from the adoption of Rule 6-3 can be accurately calculated.

1-6
concluded

In conclusion, BAAQMD's effort to improve Bay Area air quality through proposed Rule 6-3 is a laudable objective. Whether Rule 6-3 will truly be in the public's best interest can be determined only if the adverse effects from the Rule are accurately assessed. Global warming as a result of GHG emissions is being recognized as an increasingly serious environmental threat that is expected to have an adverse effect on millions of people over multiple generations. Underestimating the extent to which Rule 6-3 will contribute to global warming is a disservice to the public and handicaps well intentioned policy makers. I urge BAAQMD to correct the errors in the draft EIR before proceeding with a final consideration of Rule 6-3.

Robert R. Poindexter
23 Stetson Avenue
Corte Madera, CA 94925
(415) 924-8376

COMMENT LETTER NO. 1
ROBERT POINDEXTER, CITIZEN
MAY 22, 2008

General Response

The draft EIR concludes that rule provisions prohibiting burning wood on days when air quality is unhealthy would not increase greenhouse gas emissions even though natural gas would have to be burned instead of wood on those days. The EIR reaches this conclusion because (1) the available evidence shows that a significant portion of the firewood burned in the San Francisco Bay Area comes from sources that are not “carbon neutral,” and therefore no different than burning natural gas in terms of greenhouse gas consequences, and (2) much of the wood is burned in inefficient fireplaces¹ that would require large quantities of wood to produce the same heat produced by the relatively efficient burning of natural gas in a gas furnace.

The commenter argues that there would be an increase in GHG emissions because much of the wood comes from activities that would occur regardless of fireplace use, such as thinning of ranch land, tree trimming and removal by arborists, and loss of trees to sudden oak death. But this argument appears to involve a misunderstanding of “carbon neutrality” as it applies to the carbon cycle for trees. Burning wood can be said to be “carbon neutral” when the carbon dioxide released by burning wood is balanced by carbon dioxide removed from the atmosphere through photosynthesis in replacement trees. Only if a harvested tree is replaced by a new tree is there any carbon “credit.” Without this credit, burning firewood increases GHG emissions both when the firewood is harvested (by removing a carbon sequestration mechanism) and when it is burned (by releasing carbon bound up in the wood). Under these circumstances, firewood becomes just another carbon-releasing fuel, except that it typically has lower heating efficiency than other fuels.

Instead of assuming “carbon neutrality” based on tree replacement, the commenter may be assuming that when wood comes from a waste stream that would otherwise go to a landfill, using the wood as a fuel reduces GHG emissions because it replaces natural gas that would otherwise be required. If the commenter is making this waste-stream-diversion argument, the argument relies on a further assumption that burning the wood releases carbon that would otherwise be released in the landfill, and it ignores the significant efficiency difference between burning wood and burning natural gas. However, U.S.D.A. Forest Service scientists have shown that wood deposited in a landfill will remain indefinitely with almost no decay and no release of carbon.² In addition, it takes a great deal of wood to generate the same heat as is generated by a small amount of natural gas, given the widespread use of inefficient fireplaces in the Bay Area. As a

¹ Of the 1.2 million wood burning appliances in the Bay Area, 1.1 million are fireplaces.

² J.A. Micales and K.E. Skog, “The Decomposition of Forest Products in Landfills,” *International Biodeterioration and Biodegradation*, 39(2-3):145-158 (1997).

result, there is no basis for the argument that burning wood diverted from landfills instead of burning natural gas will reduce GHG emissions.

Because there are no simple answers in this area, the EIR relied in part on an Australian study in which scientists sought to model the complex carbon flows in three firewood production systems used in Australia.

Response 1-1

The commenter notes the EIR’s citation of the Australian study and quotes its conclusion that “in terms of limiting GHG emissions, the use of firewood for domestic heating is generally more favorable than the use of other non-renewable sources of energy.” However, the commenter fails to note that this conclusion applies to the specific scenarios analyzed and is not a general conclusion that burning firewood is always better than burning natural gas. The point made in the EIR (see pages 3-30 and 3-31) was that the sensitivity analysis in the Australian study showed that when dead and fallen wood is harvested from remnant woodland, and the wood is burned in open fireplaces, GHG emissions are higher than they are for burning natural gas, even though this wood harvesting is carried out in a sustainable manner. The authors of the Australian study specifically note this aspect of their study:

“Although our results do indicate that using firewood from woodlands was better than most other forms of domestic heating in terms of limiting emission of greenhouse gases, one must be careful when evaluating firewood use from woodlands. This is due to our sensitivity analysis indicating that emission of greenhouse gases would actually be equal to or higher than alternative forms of heating if growth rates were only 70% of our assumptions, and if tree mortality was slightly higher at 1.2% per year, or if the firewood was burnt in an open fireplace rather than in an open fire insert or another type of wood heater.”

Response 1-2

Contrary to the commenter’s assertions, the EIR does not state that the rule would result in as much as 31,900 metric tons of CO₂ annually. Instead, the EIR states that, if burning wood is assumed to be “carbon neutral,” the increase would be of this magnitude. The EIR (see page 3-31) explains how available evidence shows this to be an invalid assumption and how more appropriate assumptions yield a conclusion that the rule would not increase GHG emissions.

Response 1-3

The commenter asserts that the EIR’s conclusion that the rule would not increase GHG emissions is based on the assumption “that all of the wood being used in fireplaces was being sourced by the elimination of woodlands...” and that no basis was cited for the assumption “that woodlands are being eliminated to provide fuel for fireplaces.” First,

this comment appears to reflect the misunderstanding discussed in the General Response above. In determining whether a carbon “credit” applies, it is appropriate to look to whether a harvested tree is replaced by a new tree, and it is irrelevant why the tree was cut down. If oak is being used as firewood in the context of a general decline in oak woodland acreage, one can reasonably assume that a carbon “credit” is unwarranted. The dealer advertising reviewed by the Air District and the dealer survey performed by the commenter document the use of oak³, and the studies cited in the EIR document the decline in oak acreage.

Second, the EIR’s conclusion does not rely on an assumption that all wood burned is coming from the elimination of woodlands, and is therefore not carbon neutral. To the contrary, the EIR notes that even if a 40 percent credit is allowed (i.e., assume a reduction in GHG emissions of 40 percent for carbon sequestration by replacement trees), the use of natural gas would reduce GHG emissions, largely because of the significant difference in efficiency between fireplaces and natural gas furnaces. Based on the calculations in Table 3-11 in the EIR, GHG emissions would be higher for wood even if wood is given a GHG credit of 75 percent.

Response 1-4

The commenter states that his survey of firewood dealers does not support “the EIR assumption that for each cord of firewood being burned in the Bay Area there is an equivalent reduction in California remnant woodlands.” First, as noted in Response 1-3, the EIR does not rely on such an assumption. Instead, the EIR assumes that burning wood is not necessarily carbon neutral and concludes that even if a significant GHG credit is allowed for some portion of the wood supply, GHG emissions are higher for burning wood given the relative inefficiency of wood combustion. The comment appears to reflect the commenter’s assumption that carbon credits accrue because of the wood’s status as “waste” (i.e., it was harvested for reasons other than to supply firewood) and that burning waste wood therefore produces lower GHG emissions than burning natural gas. But, as discussed in the General Response, carbon credits result from the replacement of harvested trees by new trees, and studies show that burning waste wood has much higher GHG impacts than placing it in a landfill.

The commenter’s survey does support an assumption that some carbon credit is appropriate for some sources of wood. For example, if it is true that most wood from nut trees comes from replacement of old trees by new trees, as two survey responses suggest, then burning such wood may be carbon neutral. However, the survey does not support the commenter’s claim that oak involves “sustainably managed woodlands, similar to the situation found in the Australian Greenhouse Office study” in light of the evidence cited in the draft EIR. The Australian study assumes sustainably harvested remnant woodlands, which would mean that there is no reduction in acreage. Even though the

³ In addition, a consultant to the Air District conducted random surveys of Bay Area residents in 2005, 2006, and 2007 regarding wood burning practices. Of those respondents burning natural wood logs, 70% burned oak, while 8% burned almond or fruitwood.

individual examples from the commenter’s survey may involve thinning of oak woodland without a reduction in acreage, the studies cited by the EIR document an overall decline in California oak woodland acreage. The survey data therefore do not alter the conclusion of the EIR that, even if a significant carbon credit is allowed for wood, GHG emissions from burning wood are higher than from burning natural gas.

Response 1-5

The commenter claims that it is an “error” for the draft EIR to assume heating efficiencies of 10 percent for fireplaces and 70 percent for wood stoves. This comment is presumably directed at the Table 3-11 calculation of GHG emissions from burning wood and natural gas. The table includes footnotes explaining that, for purposes of the calculations in the table, wood stove heating efficiency is assumed to be 70 percent and fireplace heating efficiency is assumed to be 10 percent. Because the Australian GHG study used models that allowed use of a variety of efficiency assumptions for fireplaces and for wood stoves, the commenter asserts that reliance on a single figure for fireplaces “has the effect of understating the GHG emissions that would result from the adoption of Rule 6-3.”

The comment provides no basis for doubting the general validity of the assumptions and calculations in the EIR. First, while it is true that fireplace efficiency may be increased by use of a fireplace insert (thereby reducing GHG emissions), the assumed efficiency of 10 percent is almost double the efficiency of 5.8 percent actually measured by Lawrence Berkeley Laboratory in a study that looked at the net heating efficiency of an open fireplace in Walnut Creek, California.⁴ It is therefore doubtful that the efficiency assumption for fireplaces overstates GHG emissions for fireplace burning, even assuming some use of fireplace inserts. Second, the EIR assumes an efficiency of 70 percent for all wood stoves despite the lower efficiency of 40 percent noted in the Australian study for some stoves. Conventional U.S. wood stoves have an average efficiency of 54 percent while EPA-certified wood stoves have an average efficiency of 68 percent.⁵ Use of the 70 percent figure for woodstoves therefore understates wood stove GHG emissions by overstating their efficiency. As a result, even if fireplace GHG emissions are lower than the calculations show, which the commenter has not demonstrated, wood stove GHG emissions are higher than the calculations show. The calculations in the EIR therefore rely on balanced assumptions in calculating GHG emissions from burning wood in fireplaces and wood stoves, while the commenter would have the EIR make only those assumptions that favor his argument.

⁴ M.P. Modera and R.C. Sonderegger, “Determination of In-Situ Performance of Fireplaces,” University of California, Lawrence Berkeley Laboratory, report number LBL-10701, prepared for the U.S. Department of Energy (1980).

⁵ United States Environmental Protection Agency, AP 42, Fifth Edition, Compilation of Air Pollutant Emission Factors, Volume 1: Stationary, Point and Area Sources, Chapter 1, Section 1.10, “Residential Wood Stoves” (1996).

Response 1-6

The commenter asserts that in calculating the GHG impacts of prohibiting wood burning on days with unhealthy air quality, it is an “error” to assume that a home would require the same quantity of heat, regardless whether it comes from burning wood or from burning natural gas. The commenter states that wood-burning appliances are capable of heating only a small portion of a house while gas furnaces are typically designed to heat an entire home. The commenter then argues that “[w]hen a household that is relying on a wood-burning appliance for heat is forced by Rule 6-3 to switch to a natural gas furnace that household may be required to heat the entire home and this would presumably require significantly more Btu of heat.” Implicit in this argument is an assumption that those who burn for heat typically turn the gas furnace off and use only a room heated by the fireplace or wood stove. The commenter suggests that the EIR should include a survey regarding how wood burning appliances are used.

The use of behavioral assumptions, such as the one advocated by the commenter, is unlikely to alter the conclusions of the EIR. The assumption proposed by the commenter would apply only to those households that burn wood for heat⁶. Assumptions would also have to be made about those households that burn wood for “ambience” rather than for heat. The Air District conducted surveys in 2005, 2006, and 2007, and the data show that roughly half of Bay Area residents burning wood do so for ambience. For these residents, it is reasonable to assume that the home’s furnace continues to operate during wood burning. As a result, the heat from roughly half of the wood burned would not be replaced by GHG emissions from burning gas, since that gas is already being burned, and not as a consequence of the rule. Relying on this assumption, the EIR would assign no GHG emissions to half of the wood burned for ambience and roughly 15,000 metric tons per year for wood burned for heat (half the amount shown in Table 3-11). The EIR assumption that, in response to the rule, a gas furnace is turned on to replace wood heat in every case is therefore conservative and roughly doubles what the natural gas GHG emissions would be if “ambience” burning is addressed by an appropriate behavioral assumption.

If the commenter’s behavioral assumption is also used (i.e., “entire home” heat quantities from natural gas replace “small space” heat quantities from wood), the GHG emissions from burning natural gas to replace that half of the wood burned for heat would be greater than assumed in the EIR. However, the increase would be unlikely to alter the EIR conclusion that the rule would not lead to an increase in GHG emissions. Emissions would have to go from 15,000 metric tons (assigning zero natural gas GHG emissions for “ambience” burning) to more than the roughly 130,000 metric tons of GHG emissions shown in Table 3-11 for all wood burning. This increase is nearly an order of magnitude and highly unlikely.

⁶ Note that a very small percentage of Bay Area homes, approximately 1 percent based on 2000 census data, rely primarily on wood for heat. The comment appears to relate to those homes that may burn wood occasionally or regularly in an attempt to reduce the use of natural gas or to reduce energy costs.

The behavioral assumptions are speculative. In particular, the comment offers no evidence to support an assumption that those who burn for heat retreat to one room and turn off the furnace that heats the rest of the home. Though this may be the practice in some households, it may not be common enough as a regular practice to warrant an assumption that applies broadly, particularly given the relatively mild climate of the Bay Area. In any case, if behavioral assumptions are employed, they are unlikely to alter the conclusion of the EIR that curtailing wood burning would not increase GHG emissions.

28 May 2008

Note To: Eric Pop, Air Quality Specialist, BAAQMD

Comments on the Draft Environmental Impact Report (DEIR) on proposed District Regulation 6, Rule 3: Wood-Burning Devices.

Prepared by P. Michael Dubinsky, 695 Posada Way, Fremont, CA 94536

I have reviewed the DEIR on the proposed District Regulation 6, Rule 3: Wood Burning Devices. I do not agree with the provision of the proposed rule which would prohibit the use of EPA Certified equipment (wood stoves) on days which are determined to be Save The Night Time (STAT). My comments on the DEIR which underpin, in part, my views on this unnecessary provision to the proposed rule follow:

Pages 3-17 & 3-18 – Section 3.1.2.4. Describes the sources of Ambient Particulate Matter (PM) for the 9 county Bay area that are included in the BAAQMD’s jurisdiction. One source that is not mentioned is PM from foreign sources such as China. I have attached internet links to reports indicating that there is scientific viewpoint and documented evidence that PM travels via air-currents from Asian Countries such as China and impacts the West Coast of the USA.

2-1

The presence of PM from this additional source should be factored into the overall evaluation for impact and relevance. That does not appear to have been done. If PM from non-USA sources represents a significant contributor to the ambient PM then the solution to the concern about ambient PM adversely impacting Bay area air quality may not be found in the proposed rule. In addition my review of the *Technical Report dated April 2008, Sources of Fine Particles* listed among the reference materials for the DEIR cites data from 1999-2001 which makes it outdated and not representative of the current PM load that is present in the ambient air of the Bay area.

Page 3-24, Table 3-7 Summary of PM Emissions from Wood Burning Devices by County.

The data depicted on this Table appears to support the concept that fireplaces and not woodstoves are the chief contributor to PM₁₀ and PM_{2.5} emissions. The columns in the Table depicting data of emissions from wood burning stoves does not differentiate between EPA certified and non-EPA certified equipment.

2-2

I see it as logical and in keeping with the objectives of EPA’s certification program for wood stoves to hold the view that if a differentiation was made between EPA Certified and non-EPA certified stoves the actual emission profile would show a lower amount of emissions for the stoves which are EPA certified.

It is my view that the use of EPA Certified wood stoves during STAT designated times would not represent a significant contributor to PM in the air.

Page 3-26, Section 3.2.3.1 – In this section the stated objective of the proposed rule is repeated, i.e. to reduce the PM₁₀ and PM_{2.5} emissions. Based on the data presented in Table 3-7 it appears that allowing the use of EPA certified equipment would not compromise that objective.

2-3

In addition the first paragraph in this section highlights a logical incongruity inherent in the proposal, i.e. the proposed rule will specify that only EPA certified equipment can be used in new construction or remodeling however that same equipment cannot be used on certain days specified by the BAAQMD.

Page 3-28, Section 3.2.3.3 – The last paragraph on this page contains more data supporting the view that EPA certified equipment is not the significant contributor to the PM₁₀ and PM_{2.5} in the Bay area. The section states that only 4.5 % of Bay area households own and use wood stoves vs. 36% of households having and using fireplaces. The data also demonstrates that fireplaces are the “device” in which most logs are burned. Fireplaces are therefore the primary source of significant PM.

2-4

However once again there is no differentiation between EPA certified and non-EPA certified equipment which would demonstrate that EPA certified is more efficient in terms of not releasing fine particles into the air.

Thank you for the opportunity to comment on the DEIR.

Air Pollution Articles of Interest.

1. EcoBlog
http://blog.lib.umn.edu/tupp0008/environment/2008/03/chinas_air_pollution_an_intern.html
2. China Air Pollution reaches US
<http://www.cbsnews.com/stories/2006/07/28/ap/national/mainD8J53RV01.shtml>
3. NYTimes article from 2006
http://www.nytimes.com/2006/06/11/business/worldbusiness/11chinacoal.html?_r=1&oref=slogin
4. Wood Boilers Cut Heating Bills – Secondhand smoke?
<http://www.nytimes.com/2006/12/18/nyregion/18wood.html>
5. China’s Next Big Boom could be the Foul Air
<http://www.nytimes.com/2005/10/30/weekinreview/30yardley.html>

COMMENT LETTER NO. 2
P. MICHAEL DUBINSKY, CITIZEN
MAY 28, 2008

Response 2-1

The proposed new rule is intended to reduce fine airborne particulate matter from wood burning devices during those days when air quality is at its poorest, which is defined by the rule as forecast to exceed the National Ambient Air Quality Standard (NAAQS) for PM_{2.5}. Based on the District's ambient air monitoring network, these days occur during the winter when wind direction is from the east.

Particulates from China are typically at higher elevations, do not impact the Bay Area during days when the District is likely to be in excess of the PM_{2.5} standard, and are composed of material other than wood-smoke, namely desert sands and by-products of combustion from coal fired power plants. In addition, the District's air monitoring station along the coast demonstrates that sea salt is predominant on days with wind direction from the west; as stated prior, this occurrence does not coincide with elevated levels of wintertime PM. As such, this source is not a significant contributor to wintertime PM, which is when the District is likely to exceed the NAAQS.

The data used by the Air District to calculate the sources of fine particulate in the Bay Area utilizes the most current data available. The Air District has a network of PM monitoring stations throughout the Bay Area that utilize both, real time and filter analysis, for determining concentrations of fine PM. The Air District utilizes the most current state of the art monitoring methods and equipment in measuring fine PM.

Response 2-2

The proposed new rule is intended to reduce fine airborne particulate matter from wood burning devices during those days when air quality is at its poorest. Since all wood-burning devices contribute particulate air pollution during those days when air quality is at its poorest, curtailing use of all wood-burning device types is appropriate. The District is required to meet state PM_{10/2.5} standards by the earliest date achievable so all appropriate emission reductions are included.

Response 2-3

See Response 2-2 above.

Response 2-4

See Response 2-2 above.

From: Mike Martin [mailto:raminduction@vom.com]
Sent: Monday, May 12, 2008 9:28 PM
To: Eric Pop
Subject: draft EIR, Reg. 6 Rule 3

Dear Mr. Pop;

I've read this EIR, and after being assured that those of us in rural areas would be exempt from this onerous regulation, I have failed to see any language to back up the statements made to (yet again) fool the public.

The only wording even close to what your BAAQMD representatives have stated ("those not connected to natural gas would be exempt") is found on page 2-8 of the referenced report in "Burning Curtailment": "An exemption would be provided if wood burning was the SOLE source of heat for a home". Given the weasels we have as politicians and unelected dictators, this is so open to interpretation it is nearly a full employment clause for lawyers, and of course a back door method of screwing everyone outside the urban rabbit warrens.

Do you think that perhaps more specific language might be used so there is no chance for obfuscation, dissembling, and equivocating? Perhaps something to this effect: this regulation does NOT apply to those living outside city limits and in un-incorporated areas that are NOT hooked up to utility provided natural gas.

Yes, this is of great concern to me as I live in a rural area not served by utility provided natural gas. We do have utility provided electricity (unreliable in good weather and even worse in inclement weather), but if a power outage co-incides with one of your STAT situations, I do NOT like the idea that the GESTAPO or KGB will be kicking down my front door and my family experiences a Elian Gonzales, Branch Davidian, Ruby Ridge, or Mormon situation because some self-righteous urbanite or allergy sufferer denounces me for crimes against humanity by having a fire when the power is out in a pc determined STAT event.

A bit of plain English reassurance will go a long ways in this matter.

Sincerely,

Mike Martin
Sonoma County

**COMMENT LETTER NO. 3
MIKE MARTIN, CITIZEN,
MAY 12, 2008**

Response 3-1

The rule exempts any person who operates a wood-burning device in an area where natural gas service is not available and does not apply to any person whose only source of heat for residential space heating is a wood-burning device.

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Katie Rice and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 13, 2019

Re: Report on the Air District Incident Response Role and Recent Incident Response
Events

RECOMMENDED ACTION

None; receive and file.

BACKGROUND

The Air District's primary role in an incident is to provide support for emergency first responders. These incidents, which may result in major releases of air contaminants, require that Air District resources be utilized to aid first responders and to help minimize the impact of the incident on the public. The Air District becomes involved in an incident based on direct observations, referrals from other agencies, direct notifications from companies, news media reporting, and/or air pollution complaints from the public.

The Air District's incident response contributes in an advisory or support capacity to emergency response agencies utilizing Air District resources and expertise for air sample collection, air monitoring, meteorology forecasts, laboratory analysis, inspection, investigation, enforcement, identifying air emissions, health effects, media coordination, and general public messaging

DISCUSSION

Staff will outline the Air District's role in responding to incidents and update the board on the NuStar facility fire in Crockett and the recent wildfires affecting the Bay Area.

BUDGET CONSIDERATIONS/FINANCIAL IMPACT

None.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Wayne Kino

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Katie Rice and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 13, 2019

Re: Assembly Bill (AB) 617 Implementation into 2020

RECOMMENDED ACTION

None; receive and file.

BACKGROUND

Assembly Bill (AB) 617 was passed in 2017, to improve local air quality and health in disproportionately impacted communities. The law requires the California Air Resources Board (CARB) to work with community groups, air districts, and others to select locations from around the state where communities will work with local air districts to measure and reduce air pollution.

DISCUSSION

Since the passage of AB 617, Air District staff have been dedicated to its implementation. By the end of this second implementation year, we will have completed the development of a community-led emission reduction plan in West Oakland and will have initial monitoring underway in Richmond/San Pablo, as well as a working draft monitoring plan. We distributed \$350,000 in capacity-building grants in all high priority communities, including East Oakland/San Leandro, eastern San Francisco, eastern Contra Costa County, San Jose, the Tri-Valley, and Vallejo. To date, we have allocated over \$59 million in AB 617 incentives for cleaner cars, trucks, buses, and other mobile sources in all Bay Area AB 617 communities.

In 2020, we will be focusing our efforts on building community, and our own, capacity, to do the next wave of emission reduction plans and/or air monitoring. Over the next year, Air District staff will be undertaking both regional and community-level capacity-building work. At the regional level, Air District staff will work with community members and organizations in East Oakland/San Leandro, eastern San Francisco, eastern Contra Costa County, San Jose, the Tri-Valley, and Vallejo to build a Regional AB 617 Working Group. We will be working on rulemaking, including permit reform and new or updated rules for storage tanks, refinery wastewater, restaurants, backup generators, and construction. The Criteria and Toxics Reporting rule will be reviewed to update reporting requirements. We will also be coordinating with our regional agency and local government partners on Senate Bill 1000 implementation, the development of Plan Bay Area, and on a more collaborative approach to incentives and freight planning.

In individual high priority communities, Air District staff will be working on the implementation of the West Oakland Action Plan, including collaboration with the Port of Oakland. We will also be fine tuning our modeling and emissions data for West Oakland. Richmond/San Pablo will see the continued development of the monitoring plan, more community monitoring, data collection, and analysis. We will also begin moving toward an emission reduction plan in Richmond/San Pablo.

In each high priority community, i.e. East Oakland/San Leandro, eastern San Francisco, eastern Contra Costa County, San Jose, and Vallejo, Air District staff will be embarking on technical and community engagement work. We will be estimating the driving forces behind community exposure to particulate matter (PM)_{2.5}, as well as compiling previous studies, including historical and current land use data. Additionally, we will be working with community leaders and organizations to implement their Air District capacity-building grants, building relationships with additional community leaders, and finding opportunities for partnerships and collaboration around local air pollution or other related concerns.

BUDGET CONSIDERATION / FINANCIAL IMPACT

Costs for the current fiscal year are included in the current budget. Costs for next fiscal year will be evaluated when preparing the budget for that year. The level of effort will depend on continued state funding and the amount of that funding.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Christianne Riviere
Reviewed by: Elizabeth Yura