



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

BOARD OF DIRECTORS REGULAR MEETING

December 18, 2013

A meeting of the Bay Area Air Quality Management District Board of Directors will be held at 9:45 a.m. in the 7th Floor Board Room at the Air District Headquarters, 939 Ellis Street, San Francisco, California.

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 9:45 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 <http://www.baaqmd.gov/The-Air-District/Board-of-Directors/Agendas-and-Minutes.aspx> at the time of the meeting.

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 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 three 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 Boards at the location of the meeting and prior to commencement of the meeting. The remainder of the speakers wishing to address the Board on non-agenda matters will be heard at the end of the agenda, and each will be allowed 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 After the initial public comment on non-agenda matters, 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.

Up to ten (10) speakers may speak for three minutes on each item on the Agenda. If there are more than ten persons interested in speaking on an item on the agenda, 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. Speakers are permitted to yield their time to one other speaker; however no one speaker shall have more than six minutes. 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
DECEMBER 18, 2013
9:45 A.M.

BOARD ROOM
7TH FLOOR

CALL TO ORDER

Opening Comments
Roll Call
Pledge of Allegiance

Chairperson, Ash Kalra
Clerk of the Boards

PUBLIC COMMENT ON NON-AGENDA MATTERS

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 three 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.

CONSENT CALENDAR (ITEMS 1 – 5)

Staff/Phone (415) 749-

1. Minutes of the Directors Meeting of December 4, 2013
Clerk of the Boards/5073

2. Board Communications Received from December 4, 2013 through December 17, 2013
J. Broadbent/5052
jbroadbent@baaqmd.gov

A copy of communications directed to the Board of Directors received by the Air District from December 4, 2013 through December 17, 2013, if any, will be at each Board Member's place.

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

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

4. Notice of Violations Issued and Settlements in Excess of \$10,000 in November 2013
B. Bunger/4797
jbroadbent@baaqmd.gov

In accordance with Resolution No. 2012-08, the Board of Directors will receive a list of all Notices of Violation issued and all settlements for amounts in excess of \$10,000 during the month of November 2013.

5. Approval of Contract for Development of Near Roadway Monitoring Site at Laney College in Oakland

J. Broadbent/5052

jbroadbent@baaqmd.gov

The Board of Directors will consider authorizing the Executive Officer/APCO to execute a contract with L.D. Strobel Company to develop an air monitoring site at Laney College in Oakland as part of EPA's Near Roadway Air Monitoring Network totaling an amount not to exceed \$72,000.

COMMITTEE REPORT(S)

6. Report of the **Mobile Source Committee** Meeting of December 5, 2013

CHAIR: S. Haggerty

J. Broadbent/5052

jbroadbent@baaqmd.gov

The Committee received the following reports and members present supported staff recommendations that the Board of Directors' approve the following items as indicated below:

A) **Projects with Proposed Grant Awards over \$100,000**

1. *Approve Carl Moyer Program (CMP) projects with proposed grant awards over \$100,000.*
2. *Authorize for the Executive Officer/Air Pollution Control Officer (APCO) to enter into agreements for the recommended CMP projects.*

B) **Update on California Air Resources Board Truck and School Bus Regulations**

None. Informational item, received and filed.

C) **Transportation Fund for Clean Air (TFCA) County Program Manager Fund Policies for Fiscal Year Ending (FYE) 2015**

1. *Approve proposed Fiscal Year End (FYE) 2015 Transportation Fund for Clean Air (TFCA) County Program Manager Fund Policies.*

D) **Transportation Fund for Clean Air (TFCA) Audit and Cost-Effectiveness Reports**

None. Informational item, received and filed.

E) **Update on the Regional Bicycle Share Pilot Project**

None. Informational item, received and filed.

7. Report of the **Climate Protection Committee** Meeting of December 9, 2013

CHAIR: J. Avalos

J. Broadbent/5052

jbroadbent@baaqmd.gov

The Committee received the following reports:

A) **Regional Climate Protection Work Program**

None; received and filed.

B) **California Air Pollution Control Officers Association (CAPCOA) Greenhouse Gas (GHG) Reduction Exchange (Rx)**

None; received and filed.

8. Report of the **Executive Committee** Meeting of December 16, 2013

CHAIR: A. Kalra

J. Broadbent/5052

jbroadbent@baaqmd.gov

The Committee received the following reports:

A) **SB 1339 – Bay Area Commuter Benefits Program**

None; received and filed.

B) **Regional Agency Headquarters Status Report**

None; received and filed.

C) **Joint Policy Committee Update**

None; received and filed.

9. Report of the **Nominating Committee** Meeting of December 18, 2013

CHAIR: B. Wagenknecht

J. Broadbent/5052

jbroadbent@baaqmd.gov

The Committee received the following reports and recommends Board of Directors' approval of action items as indicated below:

A) **A slate of Board Officers for the 2014 term of office**

PRESENTATION(S)

10. Advisory Council Report

J. Broadbent/5052
jbroadbent@baaqmd.gov

Report of the Advisory Council from the February 13, 2013 meeting on Black Carbon: Concepts and Issues, the May 8, 2013 meeting on Black Carbon: Exposure, Mitigation and Trends in Emissions, and the September 11, 2013 meeting on Black Carbon: Health Effects of Exposure.

11. Public Participation Plan

J. Broadbent/5052
jbroadbent@baaqmd.gov

The Board of Directors will consider initiating implementing the Public Participation Plan.

12. Update on the Regional Plug-In Electric Vehicle (PEV) Readiness Plan

J. Broadbent/5052
jbroadbent@baaqmd.gov

The Board will receive an informational report on the Regional PEV Readiness Plan funded by the California Energy Commission, including a review of its findings and the guidance it contains for local and regional agencies.

CLOSED SESSION

13. **CONFERENCE WITH REAL PROPERTY NEGOTIATOR** – (*Government Code Section 54956.8*) *The Board of Directors will meet in closed session pursuant to Government Code Section 54956.8 to confer with real property negotiators to discuss the disposition and leaseback of real property as follows:*

Property: 939 Ellis Street, San Francisco, CA

Air District Negotiators: Jack P. Broadbent, Executive Officer/APCO
Jeffrey McKay, Deputy Air Pollution Control Officer
Tom Christian, Cassidy Turley
Ric Russell, Cassidy Turley

Negotiating Parties: Columbia Pacific Real Estate Fund I, L.P.

Under Negotiation: Price and Terms

OPEN SESSION

PUBLIC COMMENT ON NON-AGENDA MATTERS

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 three minutes each to address the Board on non-agenda matters.

BOARD MEMBERS' COMMENTS

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

14. Report of the Executive Officer/APCO
15. Chairperson's Report
16. Time and Place of Next Meeting: *Wednesday, January 15, 2014, 939 Ellis Street, San Francisco, California 94109 at 9:45 a.m.*
17. Adjournment

**CONTACT THE CLERK OF THE BOARDS
939 ELLIS STREET SF, CA 94109**

**(415) 749-5073
FAX: (415) 928-8560
BAAQMD homepage:
www.baaqmd.gov**

- To submit written comments on an agenda item in advance of the meeting.
- To request, in advance of the meeting, to be placed on the list to testify on an agenda item.
- To request special accommodations for those persons with disabilities. Notification to the Executive Office should be given at least 3 working days prior to the date of the meeting so that arrangements can be made accordingly.

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 Air District's headquarters at 939 Ellis Street, San Francisco, CA 94109, at the time such writing is made available to all, or a majority of all, members of that body.

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
939 ELLIS STREET, SAN FRANCISCO, CALIFORNIA 94109
FOR QUESTIONS PLEASE CALL (415) 749-5016 or (415) 749-4941

EXECUTIVE OFFICE:
MONTHLY CALENDAR OF AIR DISTRICT MEETINGS

DECEMBER 2013

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Board of Directors Executive Committee <i>(Meets on the 3rd Monday of each Month)</i>	Monday	16	9:30 a.m.	4 th Floor Conf. Room
Board of Directors Stationary Source Committee <i>(Meets on the 3rd Monday of each Month)</i> - CANCELLED	Monday	16	10:30 a.m.	Board Room
Board of Directors Nominating Committee <i>(At the Call of the Chair)</i>	Wednesday	18	9:30 a.m.	Room 716
Board of Directors Regular Meeting <i>(Meets on the 1st & 3rd Wednesday of each Month)</i>	Wednesday	18	9:45 a.m.	Board Room
Board of Directors Budget & Finance Committee <i>(Meets on the 4th Wednesday of each Month)</i> - CANCELLED	Wednesday	25	9:30 a.m.	4 th Floor Conf. Room <u>And via videoconference at</u> Santa Rosa Junior College Doyle Library, Room 4243 1501 Mendocino Avenue Santa Rosa, CA
Board of Directors Mobile Source Committee <i>(Meets on the 4th Thursday of each Month)</i> - CANCELLED	Thursday	26	9:30 a.m.	Board Room

JANUARY 2014

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Board of Directors Regular Meeting <i>(Meets on the 1st & 3rd Wednesday of each Month)</i> - CANCELLED	Wednesday	1	9:45 a.m.	Board Room
Advisory Council Regular Meeting <i>(Meets on the 2nd Wednesday of each Month)</i>	Wednesday	8	9:00 a.m.	Board Room
Board of Directors Regular Meeting <i>(Meets on the 1st & 3rd Wednesday of each Month)</i>	Wednesday	15	9:45 a.m.	Board Room
Board of Directors Climate Protection Committee <i>(Meets 3rd Thursday of every other month)</i>	Thursday	16	9:30 a.m.	4 th Floor Conf. Room
Board of Directors Executive Committee <i>(Meets on the 3rd Monday of each Month)</i>	Monday	20	9:30 a.m.	4 th Floor Conf. Room
Board of Directors Stationary Source Committee <i>(Meets on the 3rd Monday of each Month)</i>	Monday	20	10:30 a.m.	Board Room

JANUARY 2014

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Board of Directors Budget & Finance Committee <i>(Meets on the 4th Wednesday of each Month)</i>	Wednesday	22	9:30 a.m.	4 th Floor Conf. Room <u>And via videoconference at Santa Rosa Junior College Doyle Library, Room 4243 1501 Mendocino Avenue Santa Rosa, CA</u>
Board of Directors Mobile Source Committee <i>(Meets on the 4th Thursday of each Month)</i>	Thursday	23	9:30 a.m.	Board Room

FEBRUARY 2014

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Board of Directors Regular Meeting <i>(Meets on the 1st & 3rd Wednesday of each Month)</i>	Wednesday	5	9:45 a.m.	Board Room
Advisory Council Regular Meeting <i>(Meets on the 2nd Wednesday of each Month)</i>	Wednesday	12	9:00 a.m.	Board Room
Board of Directors Executive Committee <i>(Meets on the 3rd Monday of each Month)</i>	Monday	17	9:30 a.m.	4 th Floor Conf. Room
Board of Directors Stationary Source Committee <i>(Meets on the 3rd Monday of each Month)</i>	Monday	17	10:30 a.m.	Board Room
Board of Directors Regular Meeting <i>(Meets on the 1st & 3rd Wednesday of each Month)</i>	Wednesday	19	9:45 a.m.	Board Room
Board of Directors Budget & Finance Committee <i>(Meets on the 4th Wednesday of each Month)</i>	Wednesday	26	9:30 a.m.	4 th Floor Conf. Room <u>And via videoconference at Santa Rosa Junior College Doyle Library, Room 4243 1501 Mendocino Avenue Santa Rosa, CA</u>
Board of Directors Mobile Source Committee <i>(Meets on the 4th Thursday of each Month)</i>	Thursday	27	9:30 a.m.	Board Room

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Ash Kalra and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/Air Pollution Control Officer

Date: December 6, 2013

Re: Minutes of the Board of Directors Meeting of December 4, 2013

RECOMMENDED ACTION

Approve the attached draft minutes of the Board of Directors Meeting of December 4, 2013.

DISCUSSION

Attached for your review and approval are the draft minutes of the Board of Directors Meeting of December 4, 2013.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Sean Gallagher
Reviewed by: Rex Sanders

Attachments

Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109
(415) 749-5073

Board of Directors Regular Meeting
Wednesday, December 4, 2013

DRAFT MINUTES

CALL TO ORDER: Vice-Chairperson Nate Miley called the meeting to order at 9:56 a.m.

ROLL CALL

Present: Chairperson Ash Kalra; Vice-Chairperson Nate Miley; Secretary Carole Groom; and Directors Susan Adams, John Avalos, Teresa Barrett, Tom Bates, Cindy Chavez, John Gioia, Scott Haggerty, David Hudson, Roger Kim (on behalf of Edwin Lee), Carol L. Klatt, Liz Kniss, Eric Mar, Jan Pepper, Mary Piepho, Mark Ross, Jim Spering, Brad Wagenknecht and Shirlee Zane.

Absent: Director Tim Sbranti.

PLEDGE OF ALLEGIANCE: Vice-Chairperson Miley led the Pledge of Allegiance.

OPENING COMMENTS: None.

PUBLIC COMMENT ON NON-AGENDA MATTERS:

Kalli Graham, Pittsburg Defense Council, was invited to the podium to which there was no response.

NOTED PRESENT: Chairperson Kalra and Director Chavez were noted present at 9:59 a.m.

NOTED PRESENT: Director Kniss was noted present at 10:00 a.m.

PROCLAMATION(S)/AWARD(S):

Director Piepho recognized Tamara Hirata, Senior Air Quality Inspector, who completed the milestone of thirty (30) years of service with the Air District during this second half of the calendar year. Ms. Hirata addressed the Board in appreciation.

Director Miley recognized Ronald Carey, Jr., Senior Air Quality Inspector, who completed the milestone of twenty-five (25) years of service with the Air District during this second half of the calendar year. Mr. Carey addressed the Board in appreciation.

Director Haggerty recognized Robert Delarno, Air Quality Inspector II, who completed the milestone of twenty-five (25) years of service with the Air District during this second half of the calendar year. Mr. Delarno addressed the Board in appreciation.

Director Spering recognized Jeffrey Gove, Supervising Air Quality Specialist, who completed the milestone of twenty-five (25) years of service with the Air District during this second half of the calendar year. Mr. Gove addressed the Board in appreciation.

Director Bates recognized Henry Hilken, Director of the Planning, Rules and Research Division, who completed the milestone of twenty-five (25) years of service with the Air District during this second half of the calendar year. Mr. Hilken addressed the Board in appreciation.

Director Pepper recognized John Marvin, Air Quality Program Manager, who completed the milestone of twenty-five (25) years of service with the Air District during this second half of the calendar year. Mr. Marvin addressed the Board in appreciation.

Chairperson Kalra recognized Frederick Johnson, III, Inspector II, and Lilia Martinez, Administrative Secretary, in absentia, for their completion of milestone years of service with the Air District during this second half of the calendar year.

PRESENTATIONS [OUT OF ORDER]

9. Advisory Council Report [OUT OF ORDER]

This item was postponed until the Board meeting on December 18, 2013.

COMMITTEE REPORTS AND RECOMMENDATIONS [OUT OF ORDER]

6. Report of the Legislative Committee (LC) Meeting of November 18, 2013 [OUT OF ORDER]

Committee Chairperson Bates

The LC met on Monday, November 18, 2013, and approved the minutes of June 6, 2013.

The LC received a staff report on the 2013 legislative year, which emphasized two points. First, Assembly Bill (AB) 8 (Perea and Skinner) passed the Legislature and has been signed into law. This bill reauthorizes critical air quality funding programs due to expire in the next several years, including the Carl Moyer, AB 923 and AB 118 programs, and makes changes to the Clean Fuel Outlet Regulation. It provides over \$2 billion in funding to cut emissions through 2023. Second, the bill the Air District co-sponsored, Senate Bill (SB) 691 (Hancock), is a two-year bill. This measure is a response to the August 6, 2012, fire at the Chevron Richmond refinery, and would encourage compliance by establishing higher penalty ceilings for one-day incidents that severely disrupt communities. SB 691 is on the inactive file on the Assembly Floor, and could be voted on at any point in 2014.

The next meeting of the LC is at the call of the Chair.

Public Comments: None.

Board Comments: None.

Board Action:

Director Bates made a motion to approve the report of the LC; Director Wagenknecht seconded; and the motion carried unanimously.

7. Report of the Personnel Committee (PC) Meeting of December 2, 2013
Committee Chairperson Wagenknecht

The PC met on Monday, December 2, 2013, and approved the minutes of July 29, 2013.

The PC received the Advisory Council Interview summary material for the public health agency category seat, conducted interviews of applicants, and recommends Board of Directors' approval of the appointment to the Air District's Advisory Council of Sarat Mayer to the public health agency category seat, for a term beginning January 1, 2014 and expiring December 31, 2015. The PC also recommends Board of Directors' approval of incumbent reappointments, with the exception of Advisory Council Member Jeffrey Bramlett. Staff was directed to agendaize the reappointment of Advisory Council Member Jeffrey Bramlett for further discussion at the next meeting of the PC.

The next meeting of the PC is at the call of the Chair.

Public Comments: None.

Board Comments: None.

Board Action:

Director Wagenknecht made a motion to approve the report and recommendations of the PC; Director Piepho seconded; and the motion carried unanimously.

CONSENT CALENDAR (ITEMS 1 – 5)

- 1. Minutes of the Board of Directors Regular Meeting of November 6, 2013;**
- 2. Board Communications Received from November 6, 2013 through December 3, 2013;**
- 3. Notice of Violations Issued and Settlements in Excess of \$10,000 in October 2013;**
- 4. Authorize the Approval of a Purchase Order in Excess of \$70,000 Pursuant to Administrative Code Division II Fiscal Policies and Procedures, Section 4.3 Contract Limitations, for Purchase of Air Monitoring Equipment; and**
- 5. Proposed Regulatory Agenda for 2014.**

Public Comments:

Nicole Nikita Richards addressed the Board regarding the air quality impact of chemicals commonly used during fracking operations.

Board Comments: None.

Board Action:

Director Ross made a motion to approve Consent Calendar Items 1, 2, 3, 4 and 5; Director Piepho seconded; and the motion carried unanimously.

COMMITTEE REPORTS AND RECOMMENDATIONS (CONTINUED)

8. Report of the Nominating Committee (NC) Meeting of December 4, 2013
Chairperson Kalra

The NC met on Wednesday, December 4, 2013, and deferred approval of the minutes of November 7, 2012.

The NC considered nomination of Board Officers for the 2014 Term of Office and has no recommendation for the Board at this time. The NC will ask for nominations at today's meeting of the Board.

The next meeting of the NC is on Wednesday, December 18, 2013, at 9:30 a.m.

Public Comments: None.

Board Comments: None.

Board Action:

Chairperson Kalra made a motion to approve the report of the NC; Director Adams seconded; and the motion carried unanimously.

PRESENTATIONS (CONTINUED)

10. Overview and Permit Status of Energy Projects in the Bay Area

Jack Broadbent, Executive Officer/Air Pollution Control Officer, introduced the topic and Jim Karas, Director of Engineering, who gave the staff presentation Update on Energy Projects, including project locations, permit process overview, details of each of the four projects and a summary of the public participation process.

Board Comments:

Director Gioia asked staff to provide a brief summary of the status of and the Air District's role in each of the four proposed energy projects, which information was provided by Mr. Karas.

Director Zane asked about the Air District's authority relative to project expansions, which question was answered by Mr. Karas.

Director Ross asked for an explanation of the permit appeal process, which explanation was provided by Brian Bunger, District Counsel.

Public Comments:

Greg Karras, Communities for a Better Environment (CBE), gave a presentation in addressing the Board regarding the public health impacts of refining lower quality crude.

Diane Bailey, National Resources Defense Council (NRDC), gave a presentation in addressing the Board regarding the need for more comprehensive analysis of the proposed projects.

Chairperson Kalra asked that the Board be provided with copies of the presentations by Mr. Karras and Ms. Bailey.

Robert Bustos addressed the Board in support of the proposed energy projects.

Barbara Raymond addressed the Board in opposition to the proposed energy projects.

Chris Howe, Valero, addressed the Board to explain the air quality impact of the proposed energy project by Valero.

Ron Rowlett, Carpenters Union, addressed the Board in support of the proposed energy projects.

Martin Espinoza, Local 34 Pile Drivers, addressed the Board in support of the proposed energy projects.

Jason Gallia, Iron Workers 378, addressed the Board in support of a balanced approach to the consideration of the proposed energy projects.

Mark Plubell, Heat and Frost Insulators Local 16, addressed the Board in support of the proposed energy projects.

Walt Gill, Chevron, addressed the Board to provide an update on and explanation of the proposed energy project by Chevron.

Roger Lin, CBE, addressed the Board to read the Air District response to Valero's permit application and environmental impact report relative to the proposed energy project by Valero and to request that the permit applications be put on hold while the intent and impact of the projects are reviewed in a more transparent manner.

Craig Johns, Western States Petroleum Association, addressed the Board in support of the proposed energy projects.

John Galeotti, Operating Engineers Local Union No. 3, addressed the Board in support of the proposed energy projects.

Jacob Delbridge, Refinery Action Collaborative, addressed the Board to advocate for transparency during the permit review process for the proposed energy projects.

Timothy Jefferies, Boilermakers Local 549, addressed the Board in support of the proposed energy projects.

Armie Morgan, Local 3, addressed the Board in support of the proposed energy projects.

Nile Malloy, CBE, addressed the Board to share his experience relative to the Chevron refinery incident in August 2012 and the resulting lawsuit and to encourage more proactive leadership from the Air District.

Andres Soto, CBE, addressed the Board in opposition to the proposed energy projects.

Reverend Earl W. Koteen, Unitarian Universalist Legislative Ministry California, addressed the Board in opposition to the proposed energy projects.

Barbara Skinner, San Francisco 99% Coalition, addressed the Board to echo the requests made by CBE and the NRDC.

Valerie Love, Center for Biological Diversity, addressed the Board in opposition to the proposed energy projects.

Joffre Henderick, Jr., addressed the Board in opposition to the proposed energy projects.

Floyd Earl Smith, 350 Bay Area/BayCAP, addressed the Board to highlight the differences between the presentations given by staff and CBE and to request a delay in the issuance of permits to operate for the proposed energy projects.

Jeff Kilbreth addressed the Board to challenge the meaning of the term “modernization project” used by refineries and their ability to decrease emissions and to make note of the inadequacy of the regulatory structure relative to Chevron in the time leading up to the refinery incident in August 2012.

Mark Hughes, Phillips 66, addressed the Board to provide an update on and explanation of the proposed energy project by Phillips 66.

Stephanie Hervey, The Action Hub, addressed the Board in opposition to the proposed energy projects.

Marilyn Bardet, Good Neighbor Steering Committee of Benicia, addressed the Board in opposition to the proposed energy projects and to encourage increased transparency in the permit review process.

Jack Fleck, 350 Bay Area, addressed the Board in opposition to the proposed energy projects.

Ms. Graham addressed the Board in opposition to the proposed energy project by WesPac.

Nancy Rieser, Crockett Rodeo Working Group, addressed the Board in opposition to the proposed energy projects.

Sylvia Gray-White, CBE/Idle No More/350 Bay Area, addressed the Board regarding the failure of the Air District to fulfill its mission statement.

Jess Dervin-Ackerman, Sierra Club, addressed the Board in opposition to proposed projects that do not decrease current emissions, in support of enhanced climate action and in opposition to the proposed energy projects.

Jed Holtzman, 350 San Francisco, addressed the Board in opposition to the proposed energy projects.

Charles Davidson, 350 Bay Area, addressed the Board in opposition to the proposed energy projects.

Zoe Kelman, National Disease Cluster Alliance/Public Employees for Environmental Responsibility, addressed the Board to encourage expanded baseline data through a more robust monitoring program.

Chairperson Kalra invited public speakers to submit the remainder of their comments in writing for Board review after the meeting.

Colin Miller, Bay Localize/Local Clean Energy Alliance, addressed the Board to request that the permit applications be put on hold until the recently approved climate control regulations are in full effect.

Eduardo Martinez, Richmond Progressive Alliance, addressed the Board in opposition to the proposed energy projects.

Michael Bargo addressed the Board to encourage the Air District to continue providing globally-recognized leadership on climate change.

Board Comments (continued):

Chairperson Kalra asked staff to brief the appropriate committee on any progress relative to the permit of any of the proposed energy projects.

Mr. Broadbent gave a closing statement regarding the permit review process and Air District practice generally, Air District purview and the refinery rule making that is currently underway and likely be presented to the Board in the summer of 2014.

Director Ross asked that when “no net increase” is indicated that staff provide greater detail so the Board can see in what categories there are increases and decreases and for staff to consider implementing a third-party verification process. Director Ross and Mr. Broadbent discussed the advisability of asking a third-party to develop a comprehensive energy picture for the Air District.

Director Adams asked about the types of crudes currently being processed, the refining technologies in place and available, the changes in both that will result from the proposed energy projects and about Air District authority to ask these questions of regulated industry, which questions were answered by Messrs. Broadbent and Bungler. Director Adams noted the need to develop a set of data capable of answering the questions that surface.

Director Gioia noted the importance of providing the Board with staff comment letters that are prepared in response to proposed projects.

Director Zane asked staff to provide the cumulative impacts information for both before and after the proposed energy projects collectively and said the Board needs to be involved in the permit review process.

Director Haggerty requested more comprehensive briefings of proposed projects in their totality, rather than in the piecemeal way that permittees make their requests, as a speaker during public comment suggested is industry practice.

Director Piepho asked that any changes in Air District practice and procedure be applied to all permittees, not solely the refineries.

Chairperson Kalra said SB 691 (Hancock) is stalled in the State Assembly and encouraged interested members of the public to advocate for desired change at all available levels.

Board Action: None; informational only.

CLOSED SESSION

The Board adjourned to Closed Session at 12:40 p.m.

11. EXISTING LITIGATION (Government Code Section 54956.9(a))

Pursuant to Government Code Section 54956.9(a), the Board met in closed session to discuss with legal counsel the following case:

California Building Industry Association v. Bay Area AQMD, Alameda County Superior Court, Case No. RG-10548693; California Court of Appeal, First Appellate District, Case No. A135335; California Supreme Court, Case No. S214378.

12. CONFERENCE WITH REAL PROPERTY NEGOTIATOR (Government Code Section 54956.8)

Pursuant to Government Code Section 54956.8, the Board met in closed session to confer with real property negotiators to discuss the disposition and leaseback of real property as follows:

Property:	939 Ellis Street, San Francisco, CA
Air District Negotiators:	Jack P. Broadbent, Executive Officer/APCO Jeffrey McKay, Deputy APCO Tom Christian, Cassidy Turley Ric Russell, Cassidy Turley
Negotiating Parties:	Heights Properties, LLP
Under Negotiation:	Price and Terms

OPEN SESSION

The Board resumed Open Session at 12:52 p.m. with no reportable action.

PUBLIC COMMENT ON NON-AGENDA MATTERS: None.

BOARD MEMBERS' COMMENTS: None.

OTHER BUSINESS

13. Report of the Executive Officer/APCO:

Mr. Broadbent presented a summary of the Winter Fine Particulate Matter Season.

14. Chairperson's Report: None.

15. Time and Place of Next Meeting:

Wednesday, December 18, 2013, Bay Area Air Quality Management District Headquarters, 939 Ellis Street, San Francisco, California 94109 at 9:45 a.m.

16. Adjournment: The Board meeting adjourned at 12:53 p.m.

Sean Gallagher
Clerk of the Boards

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Ash Kalra and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: December 5, 2013

Re: Board Communications Received from December 4, 2013 through December 17, 2013

RECOMMENDED ACTION

None; receive and file.

DISCUSSION

Copies of communications directed to the Board of Directors received by the Air District from December 4, 2013 through December 17, 2013, if any, will be at each Board Member's place at the December 3, 2013 Board meeting.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Vanessa Johnson
Reviewed by: Rex Sanders

BAY AREA AIR QUALITY MANGEMENT DISTRICT

Memorandum

To: Chairperson Ash Kalra and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: December 5, 2013

Re: 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 month of November 2013. 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 November 2013:

Jack Broadbent, Executive Office / APCO, attended the 27th Annual Electric Vehicle Symposium and Exhibition Conference in Barcelona, Spain Nov 15 – 22, 2013.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Stephanie Osaze
Reviewed by: Jack M. Colbourn

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Ash Kalra and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: December 11, 2013

Re: Notices of Violation Issued and Settlements in Excess of \$10,000 November 2013

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 Violation issued, and all settlements for amounts in excess of \$10,000 during the calendar month 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

Attachments

NOTICES OF VIOLATION ISSUED

The following Notice(s) of Violation were issued in November 2013:

Alameda						
Site Name	Site #	City	NOV #	Issuance Date	Regulation	Comments
Evergreen Oil, Inc	A1190	Newark	A53206A	11/19/13	1-301	8 confirmed complaints - TK800 overflow
Hawkins Hawkins Company, Inc	A2662	Berkeley	A51073A	11/5/13	2-1-307	Exceeded 30 gal resin limit
Owens-Brockway Glass Container Inc	A0030	Oakland	A52527A	11/6/13	6-1-302	RCA#06L83 had opacity > 30% > 6 min/hr
Owens-Brockway Glass Container Inc	A0030	Oakland	A52528A	11/20/13	6-1-302	RCA#06L81/06L82 had opacity > 30% > 6 min/hr
United States Pipe & Foundry Company, LLC	A0083	Union City	A53205A	11/1/13	2-6-307	2-5-307 Episodes 06K62, 06K70, 06K71

Contra Costa						
Site Name	Site #	City	NOV #	Issuance Date	Regulation	Comments
Bridgehead Marine Services	B1302	Antioch	A53156A	11/25/13	2-1-302	No PO since Jan 2013
Chevron Products Company	A0010	Richmond	A52965A	11/25/13	11-12	Failure to monitor cargo trucks carrying Transmix per method21. Dev 3366 & 3373
Chevron Products Company	A0010	Richmond	A53179A	11/21/13	8-18-301	Dev #3689, Berth #4 Loading arm drain >100 ppm
Chevron Products Company	A0010	Richmond	A53180A	11/21/13	8-8-312	Dev #3690, Berth #4 wastewater sump >500 ppm

AGENDA: 4

Chevron Products Company	A0010	Richmond	A53180B	11/21/13	8-8-402.4	Dev #3690, Berth #4 wastewater sump >500 ppm
Chevron Products Company	A0010	Richmond	A53181A	11/21/13	2-6-307	Dev #3659, PC #8869.2, 40CFR60.482-10(c), Monitor temp <1564F, Epi 06L43
Chevron Products Company	A0010	Richmond	A53181B	11/21/13	10	Dev #3659, PC #8869.2, 40CFR60.482-10(c), Monitor temp <1564F, Epi 06L43
Chevron Products Company	A0010	Richmond	A53182A	11/25/13	2-6-307	Condition F. Late Title V Deviation reporting after issuance of NOV #A52449
Chevron Products Company	A0010	Richmond	A53183A	11/25/13	10	Episode #06L48, V-701 Fuel gas H2S Excess, 40 CFR 60.104(a)(1)
Crockett Cogeneration, A Cal Ltd Partnership	A8664	Crockett	A53237A	11/20/13	2-6-307	(Excess 10 - 06L49) - Ammonia Slip > 20 ppm/3-hrs avg (23.8 ppm)
Crockett Cogeneration, A Cal Ltd Partnership	A8664	Crockett	A53238A	11/20/13	2-6-307	Late report submittal / Due Date: 3/31/13
Parker Hannifin Corp, Veriflo Div	A1836	Richmond	A52964A	11/4/13	2-1-307	A-9 not used as required per permit cond. 17658
Tesoro Refining & Marketing Company LLC	B2758	Martinez	A53056A	11/14/13	9-1-307	>250 ppm Clk hr & 12 hr Avg (E06K87)
Tesoro Refining & Marketing Company LLC	B2758	Martinez	A53058A	11/8/13	9-1-307	>250 ppm SO2 at SRU
Tesoro Refining & Marketing Company LLC	B2758	Martinez	A53059A	11/21/13	9-2-301	Exceeded Ground Level H2S concentration standard
Tesoro Refining & Marketing Company LLC	B2758	Martinez	A53060A	11/21/13	1-522.4	Failure to report inoperative CEM monitor the following working day
Tesoro Refining & Marketing Company LLC	B2758	Martinez	A53061A	11/21/13	8-10-501	Failure to monitor pressure vessel as required

Santa Clara						
Site Name	Site #	City	NOV #	Issuance Date	Regulation	Comments
Los Esteros Critical Energy Facility	B3289	San Jose	A52016A	11/7/13	2-6-307	CEM excess (06L56) associated with breakdown (06L55)

Solano						
Site Name	Site #	City	NOV #	Issuance Date	Regulation	Comments
Valero Refining Company - California	B2626	Benicia	A52837A	11/7/13	8-5-328.1	Failure to meet permit conditions
Valero Refining Company - California	B2626	Benicia	A52839A	11/15/13	2-6-307	Failure to meet tank degassing requirements
Valero Refining Company - California	B2626	Benicia	A52840A	11/15/13	2-6-307	Failure to meet tank degassing requirements
Valero Refining Company - California	B2626	Benicia	A52841A	11/15/13	2-6-307	Failure to meet tank degassing requirements

SETTLEMENTS FOR \$10,000 OR MORE REACHED

There were no settlement(s) for \$10,000 or more completed in November 2013.

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Ash Kalra and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: December 6, 2013

Re: Approval for Execution of a Contract Totaling in Excess of \$70,000 for Site
Development Work Required by EPA Mandated Near-Road Monitoring Adjacent to
Interstate 880 at Laney College, Oakland CA.

RECOMMENDATIONS:

The Board of Directors will consider authorizing the Executive Officer/APCO to execute a contract not to exceed \$72,000, with L.D. Strobel Co. Inc., for site development work adjacent to Interstate 880 at Laney College in Oakland as required by EPA's Near-Road Monitoring regulation.

Funds for this purchase are part of an EPA grant recognized by the Budget and Finance Committee (October 24, 2012, Agenda Item 7).

BACKGROUND

In 2010, the EPA strengthened the health-based National Ambient Air Quality Standard (NAAQS) for nitrogen dioxide (NO₂) by adding a new 1-hour standard of 100 ppb. The new NO₂ standard protects public health by limiting short-term exposures to NO₂ concentrations.

Given the elevated pollutant concentrations near major roads and the potential for peak human exposures to occur on or near such roadways, and given that the public health protection envisioned under the revised NO₂ NAAQS depends on determining peak 1-hour NO₂ concentrations, the final NO₂ NAAQS requires monitors near major roadways in large urban areas to ensure the degree of public health protection envisioned in the final rule. In addition, the EPA is requesting that additional pollutants, such as carbon monoxide, particulate matter, and volatile organic compounds associated with vehicle traffic, be incorporated at any sites to help determine health risk associated with high traffic roadways.

The EPA regulation requires three sites to be located in the Bay Area based on population, roadway traffic and vehicle mix. The EPA has provided grant funding for site development and equipment purchase that has been previously recognized by the Budget and Finance Committee and incorporated in the Air Monitoring Section budget. This contract and associated Purchase Order will allow development of one site located on Laney College property near Interstate 880 in Oakland that represents the most desirable location based on EPA criterion. Staff worked with EPA, the National Resource Defense Council and various community groups to identify and arrange for this location.

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Ash Kalra and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/Air Pollution Control Officer

Date: December 5, 2013

Re: Report of the Mobile Source Committee Meeting of December 5, 2013

RECOMMENDED ACTION

A consensus of the Mobile Source Committee (Committee) members present supported staff recommendations that the Board of Directors approve the following items:

- A) Projects with Proposed Grant Awards over \$100,000:
 - 1. Approve Carl Moyer Program (CMP) projects with proposed grant awards over \$100,000; and
 - 2. Authorize the Executive Officer/Air Pollution Control Officer (APCO) to enter into agreements for the recommended CMP projects.
- B) None. Informational item, receive and file.
- C) Approve the proposed Fiscal Year Ending (FYE) 2015 Transportation Fund for Clean Air (TFCA) County Program Manager Fund Policies (Attachment A to the staff report), with the addition of language for pilot shuttles outside CARE areas setting cost-effectiveness at \$125,000 per ton of emissions reduced for the first two years of project operation.
- D) None. Informational item, receive and file.
- E) None. Informational item, receive and file.

BACKGROUND

The Committee met on Thursday, December 5, 2013. The Committee received the following reports and recommendations:

- A) Projects with Proposed Grant Awards over \$100,000;
- B) Update on California Air Resources Board Trucks and School Bus Regulations;

- C) TFCA County Program Manager Fund Policies for FYE 2015;
- D) TFCA Audit and Cost Effectiveness Reports; and
- E) Update on the Regional Bicycle Share Pilot Project.

Attached are the staff reports that were presented in the Committee packet.

Committee Chairperson Scott Haggerty will provide an oral report of the Committee meeting.

BUDGET CONSIDERATION/FINANCIAL IMPACT

- A) None. Through the CMP, Mobile Source Incentive Fund (MSIF) and TFCA, the Air District distributes “pass-through” funds to public agencies and private entities on a reimbursement basis. Administrative costs for both programs are provided by each funding source.
- B) None. The Air District receives funding for the administration of these programs as part of the California Goods Movement and MSIF programs.
- C) None. The recommended policy changes have no impact on the Air District’s budget.
- D) None. As required by California Health and Safety Code Section 44242(a), the costs of TFCA audits are taken from the TFCA motor vehicle registration fee surcharges. Resources for Audit #14 were identified in the Air District’s FYE 2013 budget.
- E) None. The Air District distributes “pass-through” funds to grantees on a reimbursement basis. Administrative costs for the TFCA program are provided by the funding source.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Sean Gallagher
Reviewed by: Rex Sanders

Attachments

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Scott Haggerty and
Members of the Mobile Source Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 19, 2013

Re: Projects with Proposed Grant Awards over \$100,000

RECOMMENDATIONS:

Recommend Board of Directors:

1. Approve Carl Moyer Program projects with proposed grant awards over \$100,000.
2. Authorize the Executive Officer/APCO to enter into agreements for the recommended Carl Moyer Program 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 (ARB), 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, stationary agricultural pump engines and forklifts.

Assembly Bill 923 (AB 923 - Firebaugh), enacted in 2004 (codified as Health and Safety Code 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 for grants under the CMP.

Since 1991, the Transportation Fund for Clean Air (TFCA) program has funded projects that achieve surplus emission reductions from on-road motor vehicles. Funding for this program is provided by a \$4 surcharge on motor vehicles registered within the San Francisco Bay Area as authorized by the California State Legislature. The statutory authority for the TFCA and requirements of the program are set forth in California Health and Safety Code Sections 44241 and 44242. Sixty percent (60%) of TFCA funds are awarded directly by the Air District through a grant program known as the Regional Fund that is allocated on a competitive basis to eligible projects proposed by project sponsors.

On February 4, 2013, the Board of Directors authorized Air District participation in Year 15 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. On November 18, 2009, the Air District Board of Directors authorized the Executive Officer/APCO to execute Grant Agreements and amendments for projects funded with TFCA funds, with individual grant award amounts up to \$100,000.

CMP and TFCA Regional Fund projects with grant award amounts over \$100,000 are brought to the Committee for consideration at least on a quarterly basis. Staff reviews and evaluates the grant applications based upon the respective governing policies and guidelines established by the ARB and/or the Air District's Board of Directors.

DISCUSSION

Carl Moyer Program:

The Air District started accepting applications for CMP Year 15 projects on July 23, 2013. The Air District has approximately \$15 million available for CMP projects from a combination of MSIF and CMP funds. Project applications are being accepted and evaluated on a first-come, first-served basis.

As of November 18, 2013, the Air District had received 54 project applications. Of the applications that have been evaluated between October 9, 2013 and November 18, 2013, seven (7) eligible projects have proposed individual grant awards over \$100,000. These projects will replace two diesel marine engines, three agricultural pump engines, three off-road diesel-powered tractors, and two off-road loaders with newer, low-polluting equipment. These projects will reduce over 8.2 tons of NOx, ROG and PM per year. Staff recommends allocating \$1,055,677 to these projects from a combination of CMP funds and MSIF revenues. Attachment 1 to this staff report provides additional information on these projects.

Attachment 2 lists all of the eligible projects that have been received by the Air District as of November 19, 2013, and summarizes the allocation of funding by equipment category (Figure 1), and county (Figure 2). This list also includes the Voucher Incentive Program (VIP) on-road replacement projects awarded since the last committee update. Approximately 17% of the funds have been awarded to projects that reduce emissions in highly impacted Bay Area communities. Attachment 3 summarizes the cumulative allocation of CMP, MSIF, and VIP funding since the Year 11 funding cycle. Since Year 11, more than \$59 million has been awarded to 507 projects.

TFCA:

No TFCA applications requesting individual grant awards over \$100,000 received as of November 18, 2013 are being forwarded for approval at this time.

BUDGET CONSIDERATION / FINANCIAL IMPACT:

None. Through the CMP, MSIF and TFCA, the Air District distributes “pass-through” funds to public agencies and private entities on a reimbursement basis. Administrative costs for both programs are provided by each funding source.

Respectfully submitted,

Jack P. Broadbent
Executive Director/APCO

Prepared by: Anthony Fournier
Reviewed by: Damian Breen

- Attachment 1: BAAQMD Carl Moyer Program/Mobile Source Incentive Fund projects with grant awards greater than \$100,000 (evaluated between 10/9/13 and 11/18/13)
- Attachment 2: Summary of all CMP Year 15/MSIF and VIP approved and eligible projects (as of 11/18/13)
- Attachment 3: Summary of program distribution by county and equipment category for CMP Years 11-15

AGENDA 4 - ATTACHMENT 1

BAAQMD Carl Moyer Program/ Mobile Source Incentive Fund projects
with grant awards greater than \$100k (Evaluated between 10/9/13 and 11/18/13)

Project #	Applicant name	Equipment category	Project type	Proposed contract award	Emission Reductions (Tons per year)			County
					NOx	ROG	PM	
14MOY47	Roger Thomas, Vessel: "Salty Lady" (Charter fishing)	Marine	Replacement of two (2) marine propulsion engines.	\$ 175,418.00	2.757	-0.039	0.110	San Francisco
15MOY39	Gregory Lyons (Lyon's Farms)	Ag/ off-road	Replacement of one (1) diesel-powered tractor.	\$ 136,188.00	0.547	0.072	0.025	Contra Costa
15MOY43	Morrison Chopping	Ag/ off-road	Replacement of one (1) diesel-powered tractor.	\$ 186,720.00	1.306	0.136	0.047	Sonoma
15MOY44	DeBernardi Dairy, Inc.	Ag/ off-road	Replacement of one (1) diesel-powered tractor.	\$ 120,910.00	0.581	0.072	0.028	Sonoma
15MOY46	Roy King Dairy	Ag/ off-road	Replacement of one (1) diesel-powered loader.	\$ 147,222.00	1.002	0.122	0.041	Sonoma
15MOY52	Mertens Dairy	Ag/ off-road	Replacement of one (1) diesel-powered loader.	\$ 174,777.00	0.880	0.111	0.043	Sonoma
15MOY49	C Mondavi and Sons, Inc.	Agriculture	Replacement of three (3) Irrigation pump engines	\$ 114,442.00	0.333	0.058	0.020	Napa
				\$ 1,055,677.00	7.407	0.532	0.313	

AGENDA 4 - ATTACHMENT 2

Summary of all CMP, MSIF and VIP approved/ eligible projects (As of 11/18/13)

Project #	Equipment category	Project type	# of engines	Proposed contract award	Applicant name	Emission Reductions (Tons per year)			Board approval date	County
						NOx	ROG	PM		
14MOY43	Agriculture	Irrigation pump engine replacement	1	\$ 45,548.00	Huneus Vintners, LLC	0.135	0.023	0.008	APCO	Napa
14MOY45	Marine	Engine replacement	1	\$ 90,311.00	Jim Rando - Misty Dawn (Commercial fisherman)	0.589	0.013	0.021	APCO	Santa Clara
14MOY46	Ag/ off-road	Loader replacement	1	\$ 43,160.00	Gregory Lyons (Lyons Farms)	0.187	0.034	0.015	APCO	Solano
14MOY50	Ag/ off-road	Tractor replacement	1	\$ 180,570.00	Fred Corda Farming & Ranching	0.742	0.048	0.017	10/16/2013	Marin
14MOY44	Off-road	Forklift replacement	3	\$ 106,010.00	Economy Lumber Company of Oakland, Inc.	0.481	0.086	0.036	10/16/2013	Alameda
15MOY4	Off-road	Backhoe replacement	2	\$ 71,020.00	Doyle's Work Company, Inc. (Excavation & Trenching)	0.225	0.055	0.028	APCO	Santa Clara
15MOY5	Ag/ off-road	Tractor replacement	1	\$ 182,804.00	McClelland's Dairy	0.665	0.074	0.030	10/16/2013	Sonoma
15MOY20	Off-road	Tractor and Loader replacement	5	\$ 2,290,140.00	Steven's Creek Quarry, Inc.	11.747	1.388	0.526	10/16/2013	Santa Clara
15MOY32	Ag/ off-road	Loader replacement	1	\$ 147,220.00	Gerald & Kristy Spaletta (Dairy)	0.613	0.107	0.038	11/6/2013	Sonoma
15MOY14	Ag/ off-road	Tractor replacement	2	\$ 66,928.00	Wolfskill Family Trust of 1990 (Vineyard Maintenance)	0.230	0.046	0.016	APCO	Solano
15MOY15	Ag/ off-road	Tractor replacement	1	\$ 30,952.00	Nichelini Vineyards, LLC	0.101	0.017	0.005	APCO	Napa
15MOY31	Ag/ off-road	Tractor replacement	1	\$ 111,490.00	Andrew Poncia dba Poncia Fertilizer Spreading	0.629	0.090	0.032	11/6/2013	Sonoma
15MOY33	Ag/ off-road	Tractor replacement	1	\$ 96,092.00	Daniel Evans (Farmer)	0.514	0.064	0.022	APCO	Marin
15MOY37	Off-road	Loader replacement	1	\$ 99,810.00	W.R. Forde Associates	0.582	0.076	0.026	APCO	Contra Costa
15MOY29	Ag/ off-road	Tractor replacement	1	\$ 159,821.00	Drew Dairy	1.075	0.123	0.043	11/6/2013	Sonoma
15MOY36	Ag/ off-road	Loader replacement	1	\$ 147,521.00	Jack Dei Dairy	0.557	0.097	0.035	11/6/2013	Sonoma
15MOY40	Off-road	Loader replacement	3	\$ 237,960.00	Napa Recycling & Waste Services LLC	1.778	0.024	0.050	11/6/2013	Napa
15MOY41	Ag/ off-road	Loader replacement	1	\$ 131,410.00	Neil McIsaac & Son	0.328	0.059	0.021	11/6/2013	Sonoma
15MOY1	Off-road	Loader replacement	2	\$ 99,970.00	Sanco Pipelines, Inc.	0.597	0.071	0.026	APCO	Santa Clara
15MOY22	Ag/ off-road	Tractor replacement	2	\$ 34,315.00	Oakview Vineyards, LLC	0.061	0.021	0.006	APCO	Napa
15MOY19	Ag/ off-road	Tractor replacement	1	\$ 30,952.00	Nord Vineyards, LLC	0.054	0.016	0.006	APCO	Napa
15MOY16	Ag/ off-road	Tractor replacement	3	\$ 70,895.00	TrioC Vineyards, LLC	0.218	0.042	0.014	APCO	Napa
15MOY12	Ag/ off-road	Tractor replacement	3	\$ 93,031.00	D'Ambrosio Brothers Investment Company (Vineyard)	0.247	0.063	0.023	APCO	Napa
14MOY47	Marine	Engine replacement	2	\$ 175,418.00	Roger Thomas, Vessel: "Salty Lady" (Charter fishing)	2.757	-0.039	0.110	TBD	San Francisco
15MOY39	Ag/ off-road	Tractor replacement	1	\$ 136,188.00	Gregory Lyons (Lyons Farms)	0.547	0.072	0.025	TBD	Contra Costa
15MOY43	Ag/ off-road	Tractor replacement	1	\$ 186,720.00	Morrison Chopping	1.306	0.136	0.047	TBD	Sonoma
15MOY44	Ag/ off-road	Tractor replacement	1	\$ 120,910.00	DeBernardi Dairy, Inc.	0.581	0.072	0.028	TBD	Sonoma
15MOY46	Ag/ off-road	Loader replacement	1	\$ 147,222.00	Roy King Dairy	1.002	0.122	0.041	TBD	Sonoma
15MOY52	Ag/ off-road	Loader replacement	1	\$ 174,777.00	Mertens Dairy	0.880	0.111	0.043	TBD	Sonoma

Project #	Equipment category	Project type	# of engines	Proposed contract award	Applicant name	Emission Reductions (Tons per year)			Board approval date	County
						NOx	ROG	PM		
15MOY49	Agriculture	Irrigation pump engine replacement	3	\$ 114,442.00	C Mondavi and Sons, Inc.	0.333	0.058	0.020	TBD	Napa
VIP139	VIP	Truck Replacement	1	\$ 30,000.00	Donald Lee Holmes	0.608	0.009	0.000	APCO	San Benito
VIP140	VIP	Truck Replacement	1	\$ 30,000.00	Nikolas Carasis	0.606	0.020	0.000	APCO	Contra Costa
VIP142	VIP	Truck Replacement	1	\$ 45,000.00	Forward Intermodal Systems, Inc.	0.905	0.013	0.000	APCO	San Francisco
VIP143	VIP	Truck Replacement	1	\$ 30,000.00	Galante Brothers	0.606	0.020	0.000	APCO	Santa Clara
VIP144	VIP	Truck Replacement	1	\$ 45,000.00	Zeiber Trucking Service, Inc.	0.905	0.013	0.000	APCO	San Joaquin
VIP145	VIP	Truck Replacement	1	\$ 45,000.00	San Miguel Transportation, Inc.	0.905	0.013	0.000	APCO	Sonoma
VIP146	VIP	Truck Replacement	1	\$ 40,000.00	Jaspal Singh	0.802	0.027	0.000	APCO	Alameda
VIP147	VIP	Truck Replacement	1	\$ 45,000.00	Jose E. Mejia	0.905	0.013	0.000	APCO	Santa Clara
VIP148	VIP	Truck Replacement	1	\$ 35,000.00	Raphelle Gabriel	0.702	0.010	0.000	APCO	San Mateo
VIP149	VIP	Truck Replacement	1	\$ 45,000.00	Tuan Q. Luu	0.905	0.013	0.000	APCO	Santa Clara
VIP150	VIP	Truck Replacement	1	\$ 25,000.00	Surdeep Singh DBA Arjan Transport	0.513	0.008	0.000	APCO	Solano
VIP151	VIP	Truck Replacement	1	\$ 45,000.00	Eugene R. Oliverio	0.905	0.013	0.000	APCO	Santa Clara
VIP152	VIP	Truck Replacement	1	\$ 35,000.00	Devinder Singh Nagra	0.702	0.010	0.000	APCO	Santa Clara
VIP153	VIP	Truck Replacement	1	\$ 40,000.00	Dong V. Le	0.811	0.012	0.000	APCO	Alameda
VIP154	VIP	Truck Replacement	1	\$ 35,000.00	Harjinder Singh Shergill	0.700	0.013	0.000	APCO	Sacramento
VIP155	VIP	Truck Replacement	1	\$ 45,000.00	Brian Scott Price	0.905	0.013	0.000	APCO	Salinas
VIP156	VIP	Truck Replacement	1	\$ 45,000.00	Dennis C. Leavitt Jr.	0.905	0.013	0.000	APCO	Alameda
VIP157	VIP	Truck Replacement	1	\$ 30,000.00	Calstone Co.	0.603	0.013	0.000	APCO	Santa Clara
VIP158	VIP	Truck Replacement	1	\$ 35,000.00	Manuel Gambao DBA MG Trucking	0.706	0.011	0.000	APCO	Riverside
VIP159	VIP	Truck Replacement	1	\$ 35,000.00	Lestor Jackson	0.706	0.011	0.000	APCO	Alameda
VIP160	VIP	Truck Replacement	1	\$ 45,000.00	Sanh Nguyen	0.905	0.013	0.000	APCO	Alameda
VIP161	VIP	Truck Replacement	1	\$ 35,000.00	Ruben Tinoco Rivera	0.706	0.011	0.000	APCO	Salinas
VIP162	VIP	Truck Replacement	1	\$ 25,000.00	Emilio Venegas	0.513	0.008	0.000	APCO	San Joaquin
VIP163	VIP	Truck Replacement	1	\$ 20,000.00	EXLS / Ultra Labs, Inc.	0.405	0.006	0.000	APCO	Alameda
VIP164	VIP	Truck Replacement	1	\$ 45,000.00	Ernesto Q. Tejada	0.905	0.013	0.000	APCO	Santa Clara
VIP165	VIP	Truck Replacement	1	\$ 20,000.00	Harkewal Singh Bhuller	0.402	0.006	0.000	APCO	Alameda
VIP166	VIP	Truck Replacement	1	\$ 45,000.00	M/M Feed	0.814	0.018	0.000	APCO	Mendocino
VIP167	VIP	Truck Replacement	1	\$ 35,000.00	Joseph Michael Velardi	0.702	0.010	0.000	APCO	Contra Costa
VIP168	VIP	Truck Replacement	1	\$ 40,000.00	Matthew P. Crowley	0.814	0.018	0.000	APCO	Monterey
VIP169	VIP	Truck Replacement	1	\$ 45,000.00	Matthew J. Domler	0.905	0.013	0.000	APCO	Solano
VIP170	VIP	Truck Replacement	1	\$ 15,000.00	Michael J. Haye	0.309	0.007	0.000	APCO	San Mateo
VIP171	VIP	Truck Replacement	1	\$ 35,000.00	Hydra Reload Inc. / Kellogg Distribution	0.702	0.010	0.000	APCO	Sacramento
VIP172	VIP	Truck Replacement	1	\$ 35,000.00	Kellogg Distribution Inc.	0.702	0.010	0.000	APCO	Sacramento
VIP173	VIP	Truck Replacement	1	\$ 45,000.00	Elliott Louis Nurse	0.905	0.013	0.000	APCO	Monterey
VIP174	VIP	Truck Replacement	1	\$ 30,000.00	Gary Lee Schultz	0.606	0.020	0.000	APCO	Santa Clara

Project #	Equipment category	Project type	# of engines	Proposed contract award	Applicant name	Emission Reductions (Tons per year)			Board approval date	County
						NOx	ROG	PM		
VIP175	VIP	Truck Replacement	1	\$ 45,000.00	Abdul Naik	0.905	0.013	0.000	APCO	Alameda
VIP176	VIP	Truck Replacement	1	\$ 45,000.00	Rene Alphonse LaChance	0.905	0.013	0.000	APCO	Tehama
VIP177	VIP	Truck Replacement	1	\$ 35,000.00	Luis R. Gomez	0.692	0.025	0.000	APCO	Solano
VIP178	VIP	Truck Replacement	1	\$ 45,000.00	Carl Joseph Johnson DBA Viking Transport	0.905	0.013	0.000	APCO	Santa Cruz
VIP179	VIP	Truck Replacement	1	\$ 45,000.00	Tim Amaro	0.900	0.030	0.000	APCO	Santa Clara
VIP181	VIP	Truck Replacement	1	\$ 10,000.00	Saraoni Food Service	0.143	0.002	0.003	APCO	Contra Costa
VIP182	VIP	Truck Replacement	1	\$ 35,000.00	Jaime Rameriz	0.702	0.01	0.000	APCO	Santa Clara
VIP183	VIP	Truck Replacement	1	\$ 45,000.00	Pleasanton Trucking, Inc.	0.905	0.013	0.000	APCO	Contra Costa
VIP184	VIP	Truck Replacement	1	\$ 15,000.00	Michael L. Nelson	0.311	0.011	0.000	APCO	Solano
VIP185	VIP	Truck Replacement	1	\$ 35,000.00	Manuel Curiel	0.700	0.013	0.000	APCO	Yuba
VIP186	VIP	Truck Replacement	1	\$35,000.00	Kamaljit Singh Nanra	0.702	0.010	0.000	APCO	Alameda
VIP187	VIP	Truck Replacement	1	\$40,000.00	Menne Ranch Hay, Inc.	0.811	0.012	0.000	APCO	Siskiyou
VIP188	VIP	Truck Replacement	1	\$45,000.00	Phillip Jon Medina DBA PM Trans	0.905	0.013	0.000	APCO	Santa Clara
VIP189	VIP	Truck Replacement	1	\$35,000.00	Rakesh Singh	0.700	0.013	0.000	APCO	Sacramento
VIP190	VIP	Truck Replacement	1	\$35,000.00	Jorge A. Ramirez	0.700	0.013	0.000	APCO	Yolo
VIP191	VIP	Truck Replacement	1	\$20,000.00	Fernando Almaraz/ Isaura Medrano	0.277	0.003	0.007	APCO	Alameda
VIP192	VIP	Truck Replacement	1	\$45,000.00	J/F Transport, LLC	0.905	0.013	0.000	APCO	Yolo
VIP193	VIP	Truck Replacement	1	\$40,000.00	Patricia Priestley Sanchez	0.811	0.012	0.000	APCO	Santa Clara
VIP195	VIP	Truck Replacement	1	\$35,000.00	J/H Trucking	0.702	0.010	0.000	APCO	Yolo
VIP196	VIP	Truck Replacement	1	\$10,000.00	Phillip Bettney Trucking, Inc.	0.203	0.003	0.000	APCO	San Francisco
VIP197	VIP	Truck Replacement	1	\$20,000.00	Juan Jose Macias	0.405	0.006	0.000	APCO	Santa Clara
VIP198	VIP	Truck Replacement	1	\$45,000.00	Jesus Garcia	0.898	0.020	0.000	APCO	Santa Clara
VIP199	VIP	Truck Replacement	1	\$45,000.00	Dhirendra Singh	0.905	0.013	0.000	APCO	Alameda
VIP200	VIP	Truck Replacement	1	\$45,000.00	Balwinder Singh	0.898	0.020	0.000	APCO	Santa Clara
VIP201	VIP	Truck Replacement	1	\$40,000.00	ACP Concrete Pumping, Inc.	0.811	0.012	0.000	APCO	San Benito
VIP202	VIP	Truck Replacement	1	\$45,000.00	PumpIt, Inc.	0.905	0.013	0.000	APCO	Sonoma
VIP203	VIP	Truck Replacement	1	\$35,000.00	Road Runner Mobile Truck Repair, Inc.	0.476	0.005	0.012	APCO	Solano
VIP204	VIP	Truck Replacement	1	\$30,000.00	Road Runner Mobile Truck Repair, Inc.	0.610	0.007	0.000	APCO	Solano
VIP205	VIP	Truck Replacement	1	\$10,000.00	Robert Guck / Raymond Guck	0.200	0.004	0.000	APCO	Napa
VIP206	VIP	Truck Replacement	1	\$35,000.00	Javier DeLaTorre or Jose DeLaTorre DBA DeLaTorre Landscaping	0.702	0.010	0.000	APCO	Yolo
VIP207	VIP	Truck Replacement	1	\$45,000.00	Joseph Jensen	0.905	0.013	0.000	APCO	Sonoma
VIP208	VIP	Truck Replacement	1	\$45,000.00	Harjit Singh	0.905	0.013	0.000	APCO	Placer
VIP209	VIP	Truck Replacement	1	\$45,000.00	Nicolas Gonzalez Vargas	0.905	0.013	0.000	APCO	Sacramento
VIP211	VIP	Truck Replacement	1	\$35,000.00	Gurdip Singh	0.702	0.010	0.000	APCO	Contra Costa
VIP212	VIP	Truck Replacement	1	\$10,000.00	Bonhams / Butterfields	0.135	0.002	0.004	APCO	San Francisco
		100 Projects	119	\$ 8,123,607.00		78.806	4.007	1.383		

Figure 1: CMP/ MSIF Funding Distribution by Equipment Category as of 11/18/13

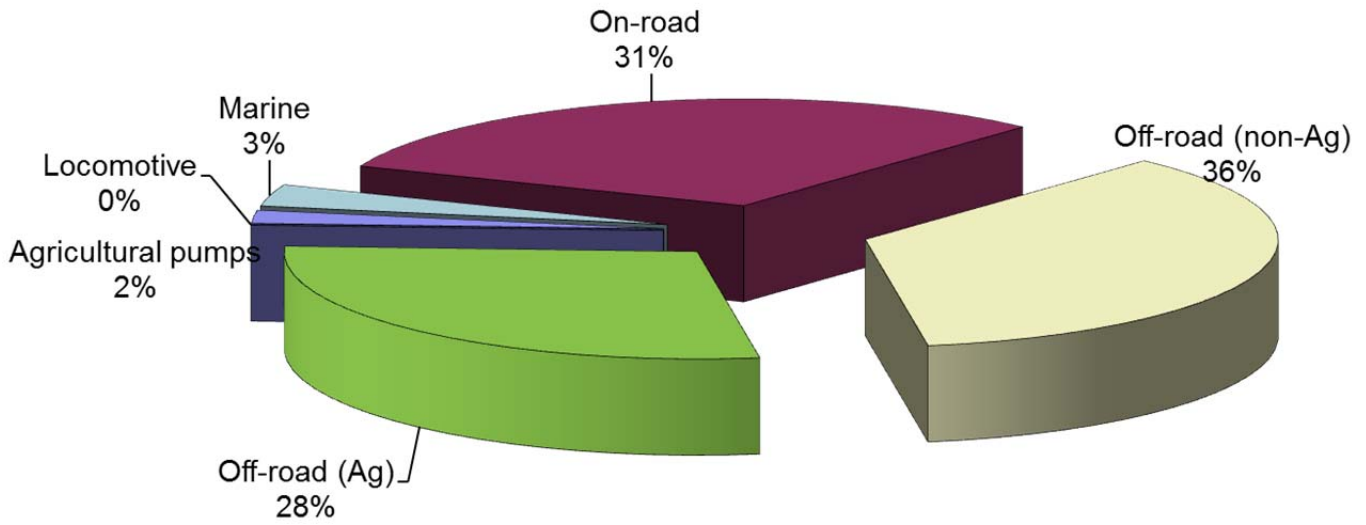
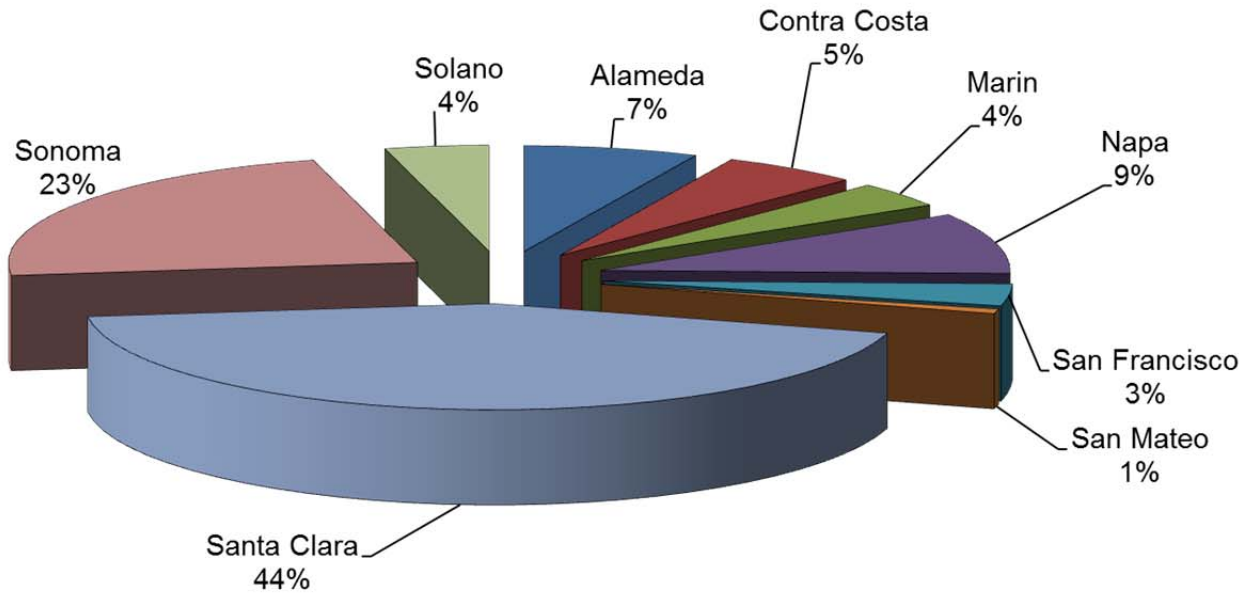


Figure 2: CMP/ MSIF Funding Distribution by County as of 11/18/13



AGENDA 4 - ATTACHMENT 3

Figure 3: CMP, MSIF, and VIP funding for Years 11-15 by equipment category

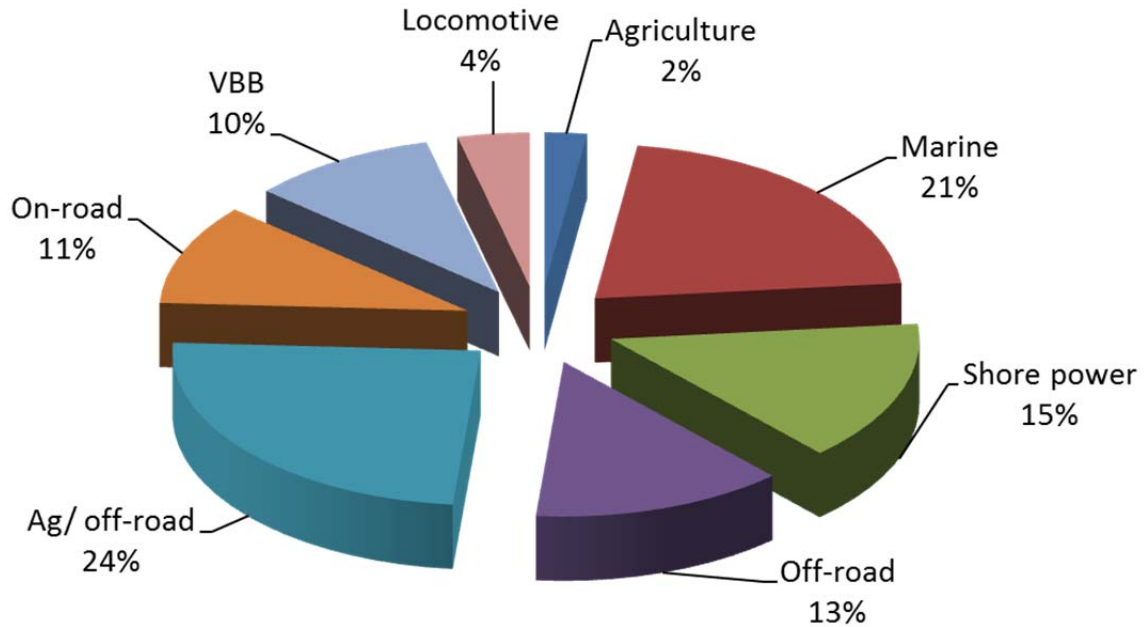
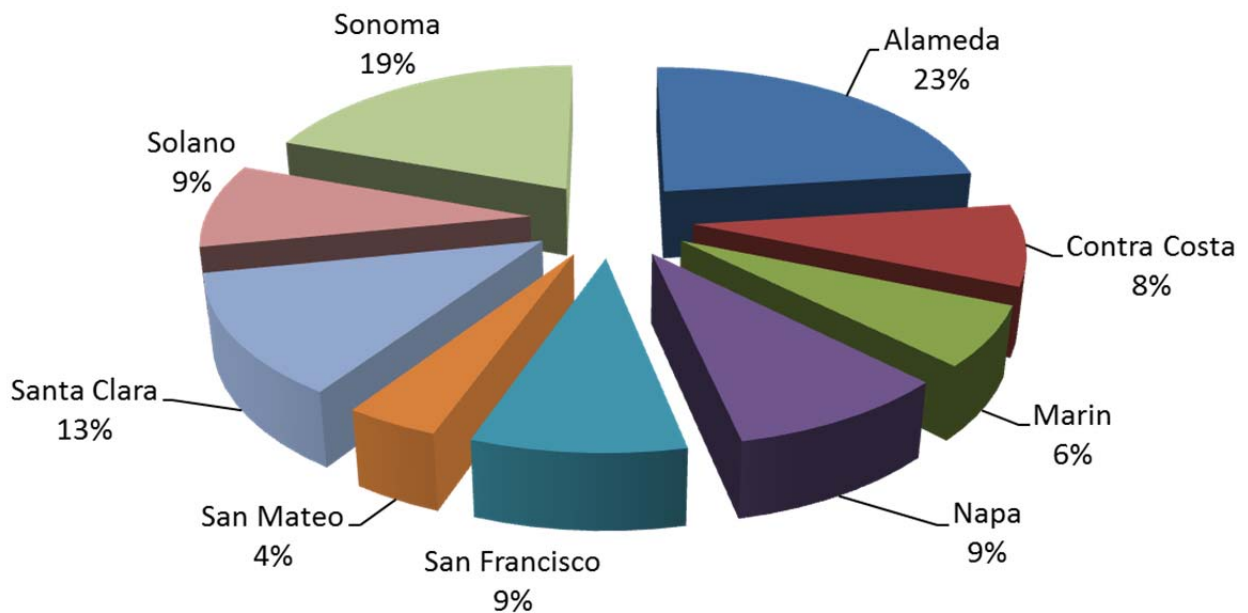


Figure 4: CMP, MSIF, and VIP funding for Years 11-15 by county



BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Scott Haggerty and
Members of the Mobile Source Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 19, 2013

Re: Update on California Air Resources Board Truck and School Bus
Regulations

RECOMMENDATION

None. Informational item, receive and file.

BACKGROUND

Port Drayage Truck Regulation:

In December of 2007, the California Air Resources Board (ARB) approved a regulation to reduce emissions from drayage trucks operating at California’s ports and intermodal rail yards. The first phase of the regulation went into effect on 12/31/09, and Phase 2 of the regulation goes into effect on 12/31/13. A summary of the regulation’s compliance schedule is shown in Table 1. The upcoming 12/31/13 requirement mandates all drayage trucks have 2007 model year engines. This is the last compliance requirement under the regulation. However, drayage trucks with 2007-2009 engines become subject to the requirements of the On-road Truck and Bus regulation and must be upgraded to a 2010+ model year engine by 1/1/23. Drayage trucks with 2010+ engines are fully compliant.

Table 1: ARB Drayage Truck Regulation Compliance Schedule

Phase	Date	Engine Model Years (MY)	Regulation requirement
Phase 1	12/31/09	1993 and older	Prohibited from operation as a drayage truck
		1994 – 2003	Install a Level 3 retrofit device
	12/31/11	2004	Install a Level 3 retrofit device
	12/31/12	2005 and 2006	Install a Level 3 retrofit device
Phase 2	12/31/13	1994 – 2006	Meet 2007 engine emissions standards
Truck & Bus Regulation	1/1/23	2007-2009	Meet 2010 engine emissions standards
	none	2010	Fully compliant

On-road Truck and Bus Regulation:

In December of 2008, ARB approved the Truck and Bus regulation to significantly reduce Particulate Matter (PM), and oxides of nitrogen (NOx) emissions from diesel vehicles operating in California. The regulation applies to nearly all diesel-fueled trucks and buses weighing more than 14,000 pounds that are privately owned and includes privately and publicly owned school buses. The regulation has different compliance schedules for trucks depending on their weight. Lighter trucks and buses weighing 14,001 to 26,000 pounds do not have compliance requirements until 1/1/15. Heavier (26,001 + pounds) trucks and buses have been subject to compliance requirements since 1/1/12.

As part of this report, staff will discuss the Air District's efforts to assist Bay Area fleets in reducing emissions from trucks by coming into early compliance with these regulations.

DISCUSSION

Port Drayage Truck Efforts:

While trucks serving all Bay Area ports and rail yards are subject to this regulation, its major impact is at the Port of Oakland (Port); the region's largest intermodal facility. Since 2009, the Air District has implemented several incentive programs to reduce emissions from port drayage trucks in the Bay Area. Over the past four years these programs have provided \$38 million to port truck owners in northern California to install 1,300 retrofit devices and replace 625 trucks, reducing over ninety five tons of PM emissions in West Oakland. An independent UC Berkley study has confirmed that these programs in combination with the ARB regulation have cut port truck pollution in West Oakland by approximately half.

As of November 1, 2013, the ARB Drayage Truck Registry database showed a total of 6,300 drayage trucks in service in northern California. Of the total registered drayage trucks, over 4,600 currently meet the 12/31/13 compliance requirement. Most of the trucks that were not yet compliant with the year-end deadline were eligible for grant funding from the Air District at some point over the past 5 years.

Currently no grant funding is available for port truck projects, but truck owners can still participate in an ARB loan program to help secure financing for truck replacements. Staff has worked with the Port and ARB to inform truckers of the upcoming Phase 2 requirement during the summer and will continue outreach efforts on the upcoming deadline and the ARB loan program until the end of the year.

Drayage trucks that are not compliant by the end of the year will not be able to enter California ports or rail yards but will be able to go into on-road service. These trucks have already been retrofitted and are compliant with the ARB Truck & Bus Regulation until approximately 2020. Also, the California Trucking Association (CTA) is working on a job recruitment tool. This tool connects drivers with retrofitted trucks to over-the-road job opportunities.

Recently staff met with City of Oakland Mayor Jean Quan, ARB staff, the Port and representatives of Port truck drivers who are seeking an extension to the compliance date for the drayage truck rule. ARB explained to the truck drivers that there was no possibility of an additional extension to the upcoming compliance date and informed them of the opportunity being offered by the CTA. Air District staff also presented the options for loans and over-the-road service listed above. The Air District requested that the Port and City of Oakland (City) seek to provide additional funding for these trucks and offered to administer any monies available for truck change-outs. Both the Port and City committed to seeking these monies but expressed doubts that any additional funding would be made available. The Air District also heard complaints regarding long queues of idling trucks and smoking on-dock equipment at the SSA terminal and has committed to increasing enforcement action in coordination with ARB in the Port area. All parties are committed to continuing this dialogue and further meetings are expected as the deadline approaches.

On-road Truck and Bus Efforts:

Staff estimates that there are more than 34,000 trucks in the Bay Area weighing over 26,001 lbs. The regulation identifies two options (Phase-in option or the Model Year option) for compliance for these vehicles in fleets with 4 or more trucks. Under the phase-in option retrofits will be required on 90% of a fleet's trucks by 1/1/14. Under the model year schedule, trucks with 1996 to 2006 model year engines will have to have a retrofit device by 1/1/14.

For small fleets (1 to 3 trucks), retrofits are required on one truck by 1/1/14, the second truck (if applicable) by 1/1/15, and the third truck (if applicable) by 1/1/16. All trucks will be required to have engines meeting the 2010 emissions standard by 1/1/23. It is estimated that approximately 6,000 trucks owned by small fleet operators will need to come into compliance by 1/1/14.

On 10/29/13, ARB issued an Executive Order making changes to the requirements for the I-Bond program. These changes create funding opportunities for fleets of three or fewer trucks. The Executive Order allows projects to be completed during 2014; allows older trucks to participate in the Proposition 1B Goods Movement Program (I-BOND); prioritizes funding for small fleet projects; and, extends the application period for small fleets.

Additionally, ARB issued a regulatory advisory on 11/11/13 that provides flexibility for truckers that allows them to get time extensions on the regulatory deadline based on good faith effort to comply with the rule requirements. Those seeking a good faith extension are required to report in the ARB TRUCRS database by 1/31/14, and are allowed to operate their truck(s) without being subject to enforcement action until 7/1/14. The advisory identifies any of the following trucker actions as good faith efforts:

- Entered into an agreement with an authorized retrofit installer for a PM filter retrofit on, or before 1/1/14
- Signed a purchase contract and ordered a replacement truck that is equipped with a PM filter (2007 model year engine or newer)
- Were approved or denied a loan or other financing for a retrofit PM filter or for a replacement truck that is equipped with a PM filter
- Small fleets that meet the requirements of the I-BOND program, apply for grant funding by the 12/12/13 deadline, and report into TRUCRS

Incentives

Since 2009, the Air District has implemented several incentive programs to reduce emissions from Bay Area trucks and buses. Over the past four years these programs have provided approximately \$31.7 million to on-road truck owners in northern California reducing over ninety tons of PM emissions.

Currently, the Air District has over \$5 million in grant funds available for truck replacement projects through the Voucher Incentive Program (VIP). Funding is available for trucks in fleets of 10 or fewer trucks, and is awarded on a first-come, first-served basis until all funds have been allocated. Under the current funding structure all trucks funded must be on the road by the end of 2013; however, staff will have additional VIP funding opportunities in 2014. If program demand exceeds available funding staff will update the Committee and request the allocation of additional Mobile Source Incentive Funds (MSIF) to continue the program.

The Air District has also been accepting project applications for the I-Bond Year 4 funding cycle since 8/26/13. The Air District has at least \$14.5 million available for truck replacement projects as part of this funding cycle. Staff will be accepting applications until 12/12/13. Applications will be reviewed, prioritized by project type/ fleets size, ranked, and funded in rank order until all funds have been awarded. Contracting is expected to begin in early 2014, and trucks will be on the road by 12/31/14.

In order to inform Bay Area truckers of these programs, staff is engaged in extensive outreach via: the Air District website, trucking associations, in-person meetings, collaboration with truck dealerships, email alerts, and several informational postcard mailings. This ongoing effort is being coordinated with the ARB and staff will continue to update the Committee on the progress of these efforts and current incentive programs.

Lower Emission School Bus Program (LESBP):

The ARB On-road Truck and Bus Regulation also requires a reduction of PM emissions from existing diesel school buses with a gross vehicle weight rating (GVWR) of greater than 14,000 pounds. School buses subject to the regulation must meet retrofit device requirements from 2012 to 2014. School bus fleets need to retrofit 33 percent of their buses by 1/1/12, 66 percent by 1/1/13 and 100 percent by 1/1/14. If an engine cannot be equipped with a retrofit device it will need to be replaced by 1/1/18.

Since 2000, the Air District has worked to provide more than \$49 million in funding to school bus owners and operators to replace old school buses, retrofit school buses with new diesel particulate filters, and replace expired Compressed Natural Gas (CNG) fuel tanks.

Recent Successes

Under the 2008 LESBP Guidelines, the Air District has retrofitted 290 school buses at 30 public school districts and public school transportation providers, replaced 107 public school buses at 37 public school districts, and replaced CNG fuel tanks on 67 buses at nine public school districts across the Bay Area. To accomplish this over \$21.2 million have been expended, including \$8.2 million in I-Bond funds (\$5.3 million for retrofits and \$2.9 million for bus replacements), and \$13 million in MSIF funding for bus replacements.

In the last six months, an additional \$18.8 million in MSIF funding has been used to retrofit 131 school buses (\$2.5 million), replace 98 public school buses (\$15 million), and replace 268 CNG tanks (\$1.3 million) on 67 buses.

Remaining Needs

Air District staff has conducted extensive outreach via informational mail-outs and direct phone calls and e-mails to Bay Area school bus owners and operators to inform them and remind them of the upcoming compliance deadlines. Overall, school bus owners and operators in the Bay Area have made significant progress in meeting the regulatory requirements. Information received from the 60 public school bus fleets (this number includes joint powers authorities (JPA) that provide buses for multiple school districts) in the Air District jurisdiction show that 50 fleets are in compliance with the requirements of the upcoming rule, 4 fleets are in the process of becoming compliant, and 6 fleets are not currently in compliance with the regulation.

The Air District is allowed to continue provide additional funding to school bus owners and operators to help them come into compliance after the 1/1/14 deadline and has opened an additional solicitation with approximately \$5 million in MSIF for bus replacements, retrofits, and CNG tank replacements.

BUDGET CONSIDERATION / FINANCIAL IMPACT:

None. The Air District receives funding for the administration of these programs as part of the I-Bond and MSIF programs.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Anthony Fournier and Karen Schkolnick
Reviewed by: Damian Breen

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
Memorandum

To: Chairperson Scott Haggerty and
Members of the Mobile Source Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 21, 2013

Re: Transportation Fund for Clean Air (TFCA) County Program Manager Fund Policies
for Fiscal Year Ending (FYE) 2015

RECOMMENDED ACTION

Recommend Board of Directors:

1. Approve the proposed FYE 2015 TFCA County Program Manager Fund Policies.

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 San Francisco Bay Area to fund projects that reduce on-road motor vehicle emissions. The Air District has allocated these funds to its Transportation Fund for Clean Air (TFCA) to fund eligible projects. The statutory authority for the TFCA and requirements of the program are set forth in California Health and Safety Code Sections 44241 and 44242.

By law, forty percent of these revenues are distributed to designated County Program Managers in each of the nine counties within the Air District's jurisdiction. Each year the Air District Board of Directors is required to adopt policies to allocate these funds that maximize emissions reductions and public health benefits. This report presents the proposed fiscal year ending (FYE) 2015 TFCA County Program Manager Fund Policies.

DISCUSSION

The proposed FYE 2015 TFCA County Program Manager Fund Policies are based on revisions to the FYE 2014 Policies that reflect input received from the Air District Board of Directors (Board), members of the public, and County Program Managers over this last year and ensure consistency with Health and Safety Code requirements. In particular, staff is proposing the Committee consider recommending that the Board do the following:

- Adopt minor changes in wording as part of the general policies to improve clarity and adherence to state statute.

- Revise the policy related to shuttle projects to make it consistent with the Board-adopted FYE 2014 TFCA Regional Fund Policies, and;
- Add Bike Share as an eligible project category.

On October 24, 2013, Air District staff issued a request for comments on the proposed Policies to the County Program Managers. Air District staff also met with County Program Manager representatives via a teleconference call on October 30, 2013 to discuss the proposed Policies. Eight of the nine County Program Managers submitted written comments by the November 13, 2013 deadline. Five of these commenters suggested no change to the FYE 2014 shuttle policy, removal of the restrictions of funding to commute hours and removal of the higher cost-effectiveness threshold for projects in Highly Impacted Communities as defined in the Air District's Community Air Risk Evaluation (CARE) Program. Of the three written comments received about adding bike share as an eligible project category, two County Program Managers agreed with this addition while one requested these project types continue to be considered on a case-by-case basis until more data on the Bay Area Bike Share pilot project are gathered. Staff has considered this input but believes that keeping the alignment between the TFCA Regional policies and the proposed County Program Manager Fund policies serves the emissions reductions goals of the program best.

Attachment A contains the proposed FYE 2015 Policies and Attachment B shows the changes between the proposed Policies and the previous year Policies. A listing of the comments received and the responses from Air District staff is provided in Attachment C.

BUDGET CONSIDERATION/FINANCIAL IMPACT

None. The recommended policy changes have no impact on the Air District's budget.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Geraldina Grünbaum
Reviewed by: Karen Schkolnick

Attachments:

- A. Proposed TFCA County Program Manager Fund Policies for FYE 2015
- B. Proposed TFCA County Program Manager Fund Policies for FYE 2015 Policies as a redlined version of Board-approved TFCA County Program Manager Fund Policies for FYE 2014 Policies
- C. Comments Received from County Program Managers on Proposed Policies and Air District Staff Responses

**Attachment A - Proposed TFCA County Program Manager Fund
Policies for FYE 2015**

Attachment B - Proposed TFCA County Program Manager Fund Policies for FYE 2015 Policies as a redlined version of Board-approved TFCA County Program Manager Fund Policies for FYE 2014 Policies

**Attachment C - Comments Received from County Program Managers
on Proposed Policies and Air District Staff Responses**

DRAFT TFCA County Program Manager Fund Policies for FYE 2015

The following Policies apply only to the Transportation Fund for Clean Air (TFCA) County Program Manager Fund.

BASIC ELIGIBILITY

1. **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 for FYE 2015.

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.

2. **TFCA Cost-Effectiveness:** Projects must achieve TFCA cost-effectiveness, on an individual project basis, equal to or less than \$90,000 of TFCA funds per ton of total emissions reduced, unless a different value is specified in the policy for that project type. (See “Eligible Project Categories” below.) Cost-effectiveness is based on the ratio of TFCA funds divided by the sum total tons of reactive organic gases (ROG), oxides of nitrogen (NOx), and weighted particulate matter 10 microns in diameter and smaller (PM10) reduced (\$/ton). All TFCA-generated funds (e.g., TFCA Regional Funds, 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, etc.), 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.

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 measures and mobile source measures included in the Air District's most recently approved plan for achieving and maintaining State and national ambient air

quality standards, which are adopted pursuant to HSC sections 40233, 40717 and 40919, and, when specified, with other adopted 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 (Policy #8).
 - 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 2015. “Commence” includes any preparatory actions in connection with the project’s operation or implementation. For purposes of this policy, “commence” can mean 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:** Projects that provide a service, such as ridesharing programs and shuttle and feeder bus projects, are eligible to apply for a period of up to two (2) years. 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 fiscal audit or the performance 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 five (5) years from the date of the Air District’s final audit determination in accordance with HSC section 44242, or 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 audit means a final audit report that includes an uncorrected audit finding that confirms an ineligible expenditure of TFCA funds. A failed performance audit means that the program or project was not implemented in accordance with the applicable Funding Agreement or grant agreement.

A failed fiscal or performance 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 only incur costs (i.e., contractually obligate itself to allocate County Program Manager Funds) after the Funding Agreement with the Air District has been executed.

10. **Insurance:** Both the County Program Manager and each grantee must 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:** Grant applications for projects that provide additional TFCA funding for existing TFCA-funded projects (e.g., Bicycle Facility Program projects) that do not achieve additional emission reductions are ineligible. Combining TFCA County Program Manager Funds with other TFCA-generated funds that broaden the scope of the existing project to achieve greater emission reductions is not considered project duplication.
12. **Planning Activities:** A grantee may not use any TFCA funds for planning related activities unless they are directly related to the implementation of a project or program that results in emission reductions.
13. **Employee Subsidies:** Projects that provide a direct or indirect financial transit or rideshare subsidy or shuttle/feeder bus service exclusively to the grantee's employees are not eligible.

USE OF TFCA FUNDS

14. **Cost of Developing Proposals:** Grantees may not use TFCA funds to cover the costs of developing grant applications for TFCA funds.
15. **Combined Funds:** TFCA fund may be combined with other grants (e.g., with TFCA Regional Funds or State funds) to fund a project that is eligible and meets the criteria for all funding sources.
16. **Administrative Costs:** The County Program Manager may not expend more than five percent (5%) 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. **Incremental Cost (for the purchase or lease of new vehicles):** For new vehicles, TFCA funds awarded may not exceed the incremental cost of a vehicle after all rebates, credits, and other incentives are applied. Such financial incentives include manufacturer and local/state/federal rebates, tax credits, and cash equivalent incentives. Incremental cost is the difference in cost between the purchase or lease price of the new vehicle, and its new conventional vehicle counterpart that meets the most current emissions standards at the time that the project is evaluated.
20. **Reserved.**
21. **Reserved.**

ELIGIBLE PROJECT CATEGORIES

22. Alternative Fuel Light-Duty Vehicles:

Eligibility: For TFCA purposes, light-duty vehicles are those with a gross vehicle weight rating (GVWR) of 8,500 lbs. or lighter. Eligible alternative light-duty vehicle types and equipment eligible for funding are:

- A. Purchase or lease of new hybrid-electric, electric, fuel cell, and CNG/LNG vehicles certified by the CARB as meeting established super ultra low emission vehicle (SULEV), partial zero emission vehicle (PZEV), advanced technology-partial zero emission vehicle (AT-PZEV), or zero emission vehicle (ZEV) standards.
- B. Purchase or lease of new electric neighborhood vehicles (NEV) as defined in the California Vehicle Code.
- C. CARB emissions-compliant vehicle system retrofits that result in reduced petroleum use (e.g., plug-in hybrid systems).

Gasoline and diesel (non-hybrid) vehicles are not eligible for TFCA funds. Funds are not available for non-fuel system upgrades, such as transmission and exhaust systems, and should not be included in the incremental cost of the project.

23. Alternative Fuel Medium Heavy-Duty and Heavy Heavy-Duty Service Replacement Vehicles (low-mileage utility trucks in idling service):

Eligibility: For TFCA purposes, medium and heavy-duty service vehicles are on-road motor vehicles with a GVWR of 14,001 lbs. or heavier. Eligible alternative fuel service vehicles are only those vehicles in which engine idling is required to perform the vehicles’ primary service function (for example, trucks with engines to operate cranes or aerial buckets). In order to qualify for this incentive, each new vehicle must be placed into a service route that

has a minimum idling time of 520 hours/year, and a minimum mileage of 500 miles/year. Eligible MHDV and HHDV vehicle types for purchase or lease are:

- A. New hybrid-electric, electric, and CNG/LNG vehicles certified by the CARB or that are listed by the IRS as eligible for a federal tax credit pursuant to the Energy Policy Act of 2005.

Scrapping Requirements: Grantees with a fleet that includes model year 1998 or older heavy-duty diesel vehicles must scrap one model year 1998 or older heavy-duty diesel vehicle for each new vehicle purchased or leased under this grant . Costs related to the scrapping of heavy-duty vehicles are not eligible for reimbursement with TFCA funds.

24. Alternative Fuel Heavy-Duty Replacement Vehicles (high mileage):

Eligibility: For TFCA purposes, Alternative Fuel Heavy-Duty Vehicles are defined as follows: Light-heavy-duty vehicles (LHDV) are those with a GVWR between 8,501 lbs. and 14,000 lbs., medium-heavy-duty vehicles (MHDV) are those with a GVWR between 14,001 lbs. and 33,000 lbs., and heavy-heavy-duty vehicles (HHDV) are those with a GVWR equal to or greater than 33,001 lbs. Eligible LHDV, MHDV and HHDV vehicle types for purchase or lease are:

- A. New hybrid-electric, electric, and CNG/LNG vehicles certified by the CARB or that are listed by the IRS as eligible for a federal tax credit pursuant to the Energy Policy Act of 2005.

TFCA funds may not be used to pay for non-fuel system upgrades such as transmission and exhaust systems.

Scrapping requirements are the same as those in Policy #23.

25. Alternative Fuel Bus Replacement:

Eligibility: For purposes of transit and school bus replacement projects, a bus is any vehicle designed, used, or maintained for carrying more than 15 persons, including the driver. A vehicle designed, used, or maintained for carrying more than 10 persons, including the driver, which is used to transport persons for compensation or profit, or is used by any nonprofit organization or group, is also a bus. A vanpool vehicle is not considered a bus. Buses are subject to the same eligibility requirements listed in Policy #24 and the same scrapping requirements listed in Policy #23.

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 (e.g., electric vehicle, CNG). 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-generated funds as long as the

equipment was maintained and has exceeded the duration of its years of effectiveness after being placed into service.

TFCA-funded infrastructure projects must be available to and accessible by the public. Equipment and infrastructure must be designed, installed and maintained as required by the existing recognized codes and standards and approved by the local/state authority.

TFCA funds may not be used to pay for fuel, electricity, operation, and maintenance costs.

27. **Ridesharing Projects:** Eligible ridesharing projects 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.

28. **Shuttle/Feeder Bus Service:**

These projects are intended to reduce single-occupancy vehicle commute-hour trips by providing the relatively short-distance connection between a mass transit hub and one or more commercial or employment centers. All of the following conditions must be met for a project to be eligible for TFCA funds:

- a. The project's route must provide connections only between mass transit hubs, e.g., a rail or Bus Rapid Transit (BRT) station, ferry or bus terminal or airport, and distinct commercial or employment areas.
- b. The project's schedule must coordinate with the transit schedules of the connecting mass transit services.
- c. The project may not replace or duplicate existing local transit service or service that ceased to operate within the past five years. Any proposed service that would transport commuters along any segment of an existing or any such previous service is not eligible for funding.
- d. The project must include only commuter peak-hour service, i.e., 5:00-10:00 AM and/or 3:00-7:00 PM.

Shuttle/feeder bus service applicants 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.

Project applicants that were awarded FYE 2014 TFCA County Program Manager Funds that propose identical routes in FYE 2015 may request an exemption from the requirements of Policy 28. c. These applicants would have to submit a plan demonstrating how they will come into compliance with this requirement within the next three years.

Pilot shuttle/feeder bus service projects are defined as new routes that are at least 70% unique and have not been in operation in the past five years. In addition to meeting the conditions listed above, pilot projects must also comply with the following:

- a. Applicants must provide data supporting the demand for the service, including letters of support from potential users and providers;

- b. Applicants must provide written documentation of plans for financing the service in the future;
- c. Projects located in Highly Impacted Communities as defined in the Air District Community Air Risk Evaluation (CARE) Program must not exceed a cost-effectiveness of \$500,000/ton during the first year of operation, \$125,000/ton for the second year of operation, and \$90,000 by the end of the third year of operation (see Policy #2);
- d. Projects located in CARE areas may receive a maximum of three years of TFCA funds under the Pilot designation; projects located outside of CARE areas may receive a maximum of two years of TFCA funds under this designation. After these time periods, applicants must apply for subsequent funding under the shuttle/feeder bus service designation, described above.

29. Bicycle Projects:

New bicycle facility projects that are included in an adopted countywide bicycle plan or Congestion Management Program (CMP) are eligible to receive TFCA funds. Eligible projects are limited to the following types of bicycle facilities for public use that result in motor vehicle emission reductions:

- A. New Class-1 bicycle paths;
- B. New Class-2 bicycle lanes;
- C. New Class-3 bicycle routes;
- D. New bicycle boulevards;
- E. Bicycle racks, including bicycle racks on transit buses, trains, shuttle vehicles, and ferry vessels;
- F. Bicycle lockers;
- G. Capital costs for attended bicycle storage facilities;
- H. Purchase of two-wheeled or three-wheeled vehicles (self-propelled or electric), plus mounted equipment required for the intended service and helmets; and
- I. Development of a region-wide web-based bicycle trip planning system.

All bicycle facility projects must, where applicable, be consistent with design standards published in the California Highway Design Manual.

30. Bay Area Bike Share

These projects 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. To be eligible for TFCA funds, bicycle share projects must work in unison with the existing Bay Area Bike Share Project by either increasing the fleet size within the initial participating service areas or expanding the existing service area to include additional Bay Area communities. Projects must provide required CEQA documentation and a suitability study demonstrating the viability of bicycle sharing. Projects must not exceed a cost-effectiveness of \$500,000/ton.

31. 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. For signal timing projects, TFCA funds may only be used for local arterial management projects where the affected arterial has an average daily traffic volume of 20,000 motor vehicles or more, or an average peak hour traffic volume of 2,000 motor vehicles or more (counting volume in both directions). Each arterial segment must meet the cost-effectiveness requirement in Policy #2.

32. 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; and
- 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.

Traffic calming projects are limited to physical improvements that reduce vehicular speed by design and improve safety conditions for pedestrians, bicyclists or transit riders in residential retail, and employment areas.

DRAFT *TFCA County Program Manager Fund Policies for FYE 2015*

The following Policies apply only to the Transportation Fund for Clean Air (TFCA) County Program Manager Fund.

BASIC ELIGIBILITY

1. **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 for FYE 2015.

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.

2. **TFCA Cost-Effectiveness:** Projects must achieve TFCA cost-effectiveness, on an individual project basis, equal to or less than \$90,000 of TFCA funds per ton of total ~~of~~ emissions reduced, unless a different value is specified in the policy for that project type. (See “Eligible Project Categories” below.) Cost-effectiveness is based on the ratio of TFCA funds divided by the sum total tons of reactive organic gases (ROG), oxides of nitrogen (NOx), and weighted particulate matter 10 microns in diameter and smaller (PM10) reduced (\$/ton). All TFCA-generated funds (e.g., TFCA Regional Funds, 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, etc.), 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.

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 measures and mobile source measures included in the Air District's most recently approved plan for achieving and maintaining State and national ambient air

Proposed TFCA County Program Manager Fund Policies for FYE 2015 Policies as a redlined version of Board-approved
TFCA County Program Manager Fund Policies for FYE 2014 Policies

quality standards, which are adopted pursuant to HSC sections 40233, 40717 and 40919, and, when ~~specified~~applicable, with other adopted 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 (Policy #8).
 - 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 ~~in~~-calendar year 201~~5~~4 or sooner. “Commence” includes any preparatory actions in connection with the project’s operation or implementation. For purposes of this policy, “commence” can mean 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:** Projects that provide a service, such as ridesharing programs and shuttle and feeder bus projects, are eligible to apply for a period of up to two (2) years. 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 fiscal audit or the performance 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 five (5) years from the date of the Air District’s final audit determination in accordance with HSC section 44242, or 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 audit means a final audit report that includes an uncorrected audit finding that confirms an ineligible expenditure of TFCA funds. A failed performance audit means that the program or project was not implemented in accordance with the applicable Funding Agreement or grant agreement.

A failed fiscal or performance 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 only incur costs (i.e., contractually obligate itself to allocate County Program Manager Funds) after the Funding Agreement with the Air District has been executed.

10. **Insurance:** Both the County Program Manager and each grantee must 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:** Grant applications for projects that provide additional TFCA funding for existing TFCA-funded projects (e.g., Bicycle Facility Program projects) that do not achieve additional emission reductions are ineligible. Combining TFCA County Program Manager Funds with other TFCA-generated funds that broaden the scope of the existing project to achieve greater emission reductions is not considered project duplication.
12. **Planning Activities:** A grantee may not use any TFCA funds for planning related activities unless they are directly related to the implementation of a project or program that results in emission reductions.
13. **Employee Subsidies:** Projects that provide a direct or indirect financial transit or rideshare subsidy or shuttle/feeder bus service exclusively to the grantee's employees are not eligible.

USE OF TFCA FUNDS

14. **Cost of Developing Proposals:** Grantees may not use TFCA funds to cover the costs of developing grant applications for TFCA funds.
15. **Combined Funds:** TFCA fund may be combined with other grants (e.g., with TFCA Regional Funds or State funds) to fund a project that is eligible and meets the criteria for all funding sources.
16. **Administrative Costs:** The County Program Manager may not expend more than five percent (5%) 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. **Incremental Cost (for the purchase or lease of new vehicles):** For new vehicles, TFCA funds awarded may not exceed the incremental cost of a vehicle after all rebates, credits, and other incentives are applied. Such financial incentives include manufacturer and local/state/federal rebates, tax credits, and cash equivalent incentives. Incremental cost is the difference in cost between the purchase or lease price of the new vehicle, and its new conventional vehicle counterpart that meets the most current emissions standards at the time that the project is evaluated.

20. **Reserved.**

21. **Reserved.**

ELIGIBLE PROJECT CATEGORIES

22. Alternative Fuel Light-Duty Vehicles:

Eligibility: For TFCA purposes, light-duty vehicles are those with a gross vehicle weight rating (GVWR) of 8,500 lbs. or lighter. Eligible alternative light-duty vehicle types and equipment eligible for funding are:

- A. Purchase or lease of new hybrid-electric, electric, fuel cell, and CNG/LNG vehicles certified by the CARB as meeting established super ultra low emission vehicle (SULEV), partial zero emission vehicle (PZEV), advanced technology-partial zero emission vehicle (AT-PZEV), or zero emission vehicle (ZEV) standards.
- B. Purchase or lease of new electric neighborhood vehicles (NEV) as defined in the California Vehicle Code.
- C. CARB emissions-compliant vehicle system retrofits that result in reduced petroleum use (e.g., plug-in hybrid systems).

Gasoline and diesel (non-hybrid) vehicles are not eligible for TFCA funds. Funds are not available for non-fuel system upgrades, such as transmission and exhaust systems, and should not be included in the incremental cost of the project.

23. Alternative Fuel Medium Heavy-Duty and Heavy Heavy-Duty Service Replacement Vehicles (low-mileage utility trucks in idling service):

Eligibility: For TFCA purposes, medium and heavy-duty service vehicles are on-road motor vehicles with a GVWR of 14,001 lbs. or heavier. Eligible alternative fuel service vehicles are only those vehicles in which engine idling is required to perform the vehicles’ primary service function (for example, trucks with engines to operate cranes or aerial buckets). In order to qualify for this incentive, each new vehicle must be placed into a service route that

Proposed TFCA County Program Manager Fund Policies for FYE 2015 Policies as a redlined version of Board-approved
TFCA County Program Manager Fund Policies for FYE 2014 Policies

has a minimum idling time of 520 hours/year, and a minimum mileage of 500 miles/year.
Eligible MHDV and HHDV vehicle types for purchase or lease are:

- A. New hybrid-electric, electric, and CNG/LNG vehicles certified by the CARB or that are listed by the IRS as eligible for a federal tax credit pursuant to the Energy Policy Act of 2005.

Scrapping Requirements: Grantees with a fleet that includes model year 1998 or older heavy-duty diesel vehicles must scrap one model year 1998 or older heavy-duty diesel vehicle for each new vehicle purchased or leased under this grant . Costs related to the scrapping of heavy-duty vehicles are not eligible for reimbursement with TFCA funds.

24. Alternative Fuel Heavy-Duty Replacement Vehicles (high mileage):

Eligibility: For TFCA purposes, Alternative Fuel Heavy-Duty Vehicles are defined as follows: Light-heavy-duty vehicles (LHDV) are those with a GVWR between 8,501 lbs. and 14,000 lbs., medium-heavy-duty vehicles (MHDV) are those with a GVWR between 14,001 lbs. and 33,000 lbs., and heavy-heavy-duty vehicles (HHDV) are those with a GVWR equal to or greater than 33,001 lbs. Eligible LHDV, MHDV and HHDV vehicle types for purchase or lease are:

- A. New hybrid-electric, electric, and CNG/LNG vehicles certified by the CARB or that are listed by the IRS as eligible for a federal tax credit pursuant to the Energy Policy Act of 2005.

TFCA funds may not be used to pay for non-fuel system upgrades such as transmission and exhaust systems.

Scrapping requirements are the same as those in Policy #23.

25. Alternative Fuel Bus Replacement:

Eligibility: For purposes of transit and school bus replacement projects, a bus is any vehicle designed, used, or maintained for carrying more than 15 persons, including the driver. A vehicle designed, used, or maintained for carrying more than 10 persons, including the driver, which is used to transport persons for compensation or profit, or is used by any nonprofit organization or group, is also a bus. A vanpool vehicle is not considered a bus. Buses are subject to the same eligibility requirements listed in Policy #24 and the same scrapping requirements listed in Policy #23.

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 (e.g., electric vehicle, CNG). 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-generated funds as long as the

Proposed TFCA County Program Manager Fund Policies for FYE 2015 Policies as a redlined version of Board-approved
TFCA County Program Manager Fund Policies for FYE 2014 Policies

equipment was maintained and has exceeded the duration of its years of effectiveness after being placed into service.

TFCA-funded infrastructure projects must be available to and accessible by the public. Equipment and infrastructure must be designed, installed and maintained as required by the existing recognized codes and standards and approved by the local/state authority.

TFCA funds may not be used to pay for fuel, electricity, operation, and maintenance costs.

27. **Ridesharing Projects:** Eligible ridesharing projects 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.

28. **Shuttle/Feeder Bus Service:**

~~These projects are intended to reduce single-occupancy vehicle commute-hour trips by providing the relatively short-distance connection between link a mass transit hub (i.e., rail or Bus Rapid Transit (BRT) station, ferry or bus terminal, airport) to or from a final destination and one or more commercial or employment centers. These projects are intended to reduce single-occupancy, commonly made vehicle trips (e.g., commuting or shopping center trips) by enabling riders to travel the remaining, relatively short, distance between a mass transit hub and the nearby final destination. The final destination must be a distinct commercial, employment or residential area. The project's route must operate to or from a mass transit hub and must coordinate with the transit schedules of the connecting mass transit's services. Project routes cannot replace or duplicate an existing local transit service. These services are intended to support and complement the use of existing major mass transit services. All of the following conditions must be met for a project to be eligible for TFCA funds:~~

- ~~a. The project's route must provide connections only between mass transit hubs, e.g., a rail or Bus Rapid Transit (BRT) station, ferry or bus terminal or airport, and distinct commercial or employment areas.~~
- ~~b. The project's schedule must coordinate with the transit schedules of the connecting mass transit services.~~
- ~~c. The project may not replace or duplicate existing local transit service or service that ceased to operate within the past five years. Any proposed service that would transport commuters along any segment of an existing or any such previous service is not eligible for funding.~~
- ~~a.d. The project must include only commuter peak-hour service, i.e., 5:00-10:00 AM and/or 3:00-7:00 PM.~~

Shuttle/feeder bus service applicants 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.

Project applicants that were awarded FYE 2014 TFCA County Program Manager Funds that propose identical routes in FYE 2015 may request an exemption from the requirements of Policy 28. c. These applicants would have to submit a plan demonstrating how they will come into compliance with this requirement within the next three years.

~~The project applicant must submit documentation from the General Manager of the transit district or transit agency that provides service in the area of the proposed shuttle route, which demonstrates that the proposed shuttle service does not duplicate or conflict with existing transit agency service.~~

~~The following is a listing of eligible vehicle types that may be used for service:~~

- ~~A. a zero-emission vehicle (e.g., electric, hydrogen)~~
- ~~B. an alternative fuel vehicle (CNG, liquefied natural gas, propane);~~
- ~~C. a hybrid electric vehicle;~~
- ~~D. a post-1998 diesel vehicle with a CARB Verified Diesel Emission Control Strategy (e.g., retrofit); or~~
- ~~E. a post-1990 gasoline-fueled vehicle.~~

Pilot shuttle/feeder bus service projects are ~~required to meet a cost-effectiveness of \$125,000/ton during the first two years of operation (see Policy #2).~~ A pilot project is a defined as new routes that are at least 70% unique and has not been in operation in the past five years~~previously been funded through TFCA.~~ In addition to meeting the conditions listed above, pilot projects must also comply with the following:

- a. Applicants must provide data supporting the demand for the service, including letters of support from potential users and providers;
- b. Applicants must provide written documentation, and of plans for financing the service in the future;
- c. Projects located in Highly Impacted Communities as defined in the Air District Community Air Risk Evaluation (CARE) Program must not exceed a cost-effectiveness of \$500,000/ton during the first year of operation, \$125,000/ton for the second year of operation, and \$90,000 by the end of the third year of operation (see Policy #2);
- d. Projects located in CARE areas may receive a maximum of three years of TFCA funds under the Pilot designation; projects located outside of CARE areas may receive a maximum of two years of TFCA funds under this designation. After these time periods, applicants must apply for subsequent funding under the shuttle/feeder bus service designation, described above.

29. Bicycle Projects:

New bicycle facility projects that are included in an adopted countywide bicycle plan or Congestion Management Program (CMP) are eligible to receive TFCA funds. Eligible projects are limited to the following types of bicycle facilities for public use that result in motor vehicle emission reductions:

Proposed TFCA County Program Manager Fund Policies for FYE 2015 Policies as a redlined version of Board-approved
TFCA County Program Manager Fund Policies for FYE 2014 Policies

- A. New Class-1 bicycle paths;
- B. New Class-2 bicycle lanes;
- C. New Class-3 bicycle routes;
- D. New bicycle boulevards;
- E. Bicycle racks, including bicycle racks on transit buses, trains, shuttle vehicles, and ferry vessels;
- F. Bicycle lockers;
- G. Capital costs for attended bicycle storage facilities;
- H. Purchase of two-wheeled or three-wheeled vehicles (self-propelled or electric), plus mounted equipment required for the intended service and helmets; and
- I. Development of a region-wide web-based bicycle trip planning system.

All bicycle facility projects must, where applicable, be consistent with design standards published in the California Highway Design Manual.

30. Bay Area Bike Share

These projects 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. To be eligible for TFCA funds, bicycle share projects must work in unison with the existing Bay Area Bike Share Project by either increasing the fleet size within the initial participating service areas or expanding the existing service area to include additional Bay Area communities. Projects ~~must have a completed and approved environmental plan~~ provide required CEQA documentation and a suitability study demonstrating the viability of bicycle sharing. Projects must not exceed a cost-effectiveness of \$500,000/ton.

30.31. 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. For signal timing projects, TFCA funds may only be used for local arterial management projects where the affected arterial has an average daily traffic volume of 20,000 motor vehicles or more, or an average peak hour traffic volume of 2,000 motor vehicles or more (counting volume in both directions). Each arterial segment must meet the cost-effectiveness requirement in Policy #2.

31.32. 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; and

Agenda Item 6 – Attachment B:

**Proposed TFCA County Program Manager Fund Policies for FYE 2015 Policies as a redlined version of Board-approved
TFCA County Program Manager Fund Policies for FYE 2014 Policies**

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.

Traffic calming projects are limited to physical improvements that reduce vehicular speed by design and improve safety conditions for pedestrians, bicyclists or transit riders in residential retail, and employment areas.

Comments received between 10/25/13 - 11/13/2013

Commenter and Agency	Comment	Staff Response
<p>Bill Hough Santa Clara Valley Transportation Authority</p>	<p>Policy 28. Shuttle/Feeder Bus Service. In general, VTA staff feels that shuttle projects benefit air quality in Santa Clara County and opposes any changes to current TFCA rules and policies regarding shuttle project eligibility. VTA staff feels that existing cost effectiveness requirements do an adequate job of screening out bad projects and maximizing the amount of TFCA funds that can be allocated to a project.</p> <p>Specifically, VTA objects to the proposed policy 28-d, which states “The project must include only commuter peak-hour service, i.e., 5:00-10:00 AM and/or 3:00-7:00 PM.” VTA has been an annual TFCA Program Manager Fund recipient for the DASH Shuttle program for over a decade and feels this policy is unnecessary. Currently, DASH shuttles operate weekdays from 6:00 to 9:00 and connect ACE, Caltrain and Capitol trains with trip generators in Downtown San Jose, including San Jose State University.</p> <p>VTA feels that the TFCA Cost-Effectiveness policy #2 effectively screens out low-performing shuttle routes. A shuttle serving an “off-peak” trip generator would have to meet cost effectiveness criteria regardless the hours of operation. If such a route were cost effective according to policy #2, it should not matter when it operates, making policy 28-d unnecessary. A Silicon Valley example might be Shoreline Amphitheater; it is currently inaccessible via transit yet the Mountain View Caltrain station is relatively close by. If it could be proven that an off-peak shuttle from Caltrain to Shoreline could cost effectively reduce car trips to events, that should be allowed as it would reduce emissions. Such a shuttle should not be automatically disallowed by an arbitrary hours-of-service policy.</p>	<p>The proposed policy is written to keep consistency between the County Program Manager and Regional Fund shuttle programs. This policy direction has been included to ensure the TFCA program meets the growing demand for grant funding across the nine-county Bay Area effectively by allocating shuttle funding to projects with the greatest potential to prevent long-distance commute trips.</p>
	<p>VTA staff acknowledges the TFCA Regional Fund policies will most likely be changed by the BAAQMD Board to incorporate these time of day restrictions. VTA staff feels that there is no reason for Program Manager Fund policies to march in lockstep with Regional Fund policies. An example of where the fund policies differ is Arterial Management projects; these are funded under the Program Manager Fund but not by the Regional Fund. Since VTA feels that fund policies need not be consistent, we would be receptive to a discussion of separating the two funds for accounting purposes. For example, a future policy might state that a shuttle could be funded with Regional Funds or Program Manager Funds, but not both. Under this proposal, the DASH shuttle would not be eligible for Regional Funds as it is funded by Program Manager funds.</p>	<p>The proposed policy is written to keep consistency between the County Program Manager and Regional Fund shuttle programs.</p> <p>Additionally, due to the need to expend TFCA funds in a timely manner and the long lead time necessary for Arterial Management projects, that project category is currently not eligible for TFCA Regional Fund funding</p>

Committer and Agency	Comment	Staff Response
	As an aside, VTA staff hopes that shuttles are not disallowed from the Regional Fund program in the future and points out that the ACE shuttles conform to the new “peak-hour only” policy.	The submitted remarks are noted.
<p style="text-align: center;">Peter Engel Contra Costa Transportation Authority</p>	<p>Policy 28. Shuttle/Feeder Bus Service: I think we are going down a slippery slope by changing the cost effectiveness requirements for this or any other project without proper vetting of the issues. While I understand the desire to get shuttles on the street in CARE areas I think it will be difficult at best for most to achieve. If the CE starts high and works down to the \$90K I think most shuttles will have difficulty achieving that and, similar to most transit routes, once the shuttle starts it will be politically difficult to remove it. It is also extremely difficult to find long term operating funds for this type of project. If the BAAQMD wants to look at increasing cost effectiveness limits I have no issues with that but would prefer it be done separately and well vetted through the region. Might I suggest if this is something the Board really wants that it be done on a case by case basis so that the parties involved can better understand the long term implications.</p>	<p>The proposed policy is written in to ensure that projects in highly impacted communities as defined in the Air District’s Community Air Risk Evaluation (CARE) Program) have a greater ability to start and succeed based on the higher need for emissions reductions in those communities.</p>
<p style="text-align: center;">Scott McDonald Transportation Authority of Marin</p>	<p>Policy 30. Bay Area Bike Share. We would recommend removing the environmental plan requirement below, if this remains a requirement of the bike share project please clarify what type of plan it is referring to. Based on our review, it was determined to be categorically exempt from CEQA in San Francisco.</p> <p>Policy 30. <i>“These projects 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. To be eligible for TFCA funds, bicycle share projects must work in unison with the existing Bay Area Bike Share Project by either increasing the fleet size within the initial participating service areas or expanding the existing service area to include additional Bay Area communities. Projects must have a completed and approved environmental plan and a suitability study demonstrating the viability of bicycle sharing. Projects must not exceed a cost-effectiveness of \$500,000/ton.”</i></p> <p>Also, we concur that the cost-effectiveness of \$500,000/ton for bike share projects seems appropriate.</p>	<p>The Air District agrees with the need to modify this language. Given that the Intergovernmental Agreement the Air District entered into with its partners for Bay Area Bike Share required that the partners be responsible for “local CEQA requirements and documentation,” the Air District proposes to modify the Policy to match that requirement. Please see the proposed modification to Policy 30.</p>

Comments Received from County Program Managers on Proposed Policies and Air District Staff Responses

<p>Chad Rathmann San Francisco County Transportation Authority</p>	<p>Policy 30. Bay Area Bike Share: First off we would like to thank you for updating the guidelines to include eligibility for Bay Area Bike Share. As you know, the expansion of bike share is a high priority for San Francisco and we appreciate Air District staff recommending this change to the policies.</p>	<p>The submitted remarks are noted.</p>
	<p>Policy 28. Shuttle/Feeder Bus Service: We oppose any limit on the use of TFCA funds to peak commute hours. While we appreciate Air District staff’s desire to maximize emissions reductions by focusing funding on peak commute times, we believe that in San Francisco this restriction unnecessarily limits our ability at the CMA level to fund projects that meet the specific and unique needs of San Francisco. Given the density and diversity of San Francisco, we believe that there are opportunities for shuttle projects to significantly and meaningfully reduce emissions at other times of the day outside of the peak commute period and we would like to maintain the flexibility to select projects given our local priorities (within the TFCA cost-effectiveness framework).</p>	<p>The proposed policy is written to keep consistency between the County Program Manager and Regional Fund shuttle programs. This policy direction has been included to ensure the TFCA program meets the growing demand for grant funding across the nine-county Bay Area effectively by allocating shuttle funding to projects with the greatest potential to prevent long-distance commute trips.</p>
<p>Danielle Schmitz Napa County Transportation & Planning Agency</p>	<p>Policy 30. Bay Area Bike Share. NCTPA is in strong support of Bike Share being an eligible project type, but has concern with the Air District’s suggested cost effectiveness thresholds under Policy Number 31 (Bike Share). The Air District is proposing to make the cost effectiveness threshold for Bike Share Programs \$500,000/ton of CO2 emissions reduced for the first year. Further, there has been discussion to drastically decrease the threshold to \$125,000/ton, and \$90,000/ton in consecutive years. NCTPA feels without having sufficient data that demonstrates a sponsor’s ability to meet certain thresholds, the Air District should hold off on approving TFCA Bike Share policies. The Air District should have more data to support the draft policy before it is approved. In the meantime, while the pilot Bike Share Program is underway, and data is being gathered, the Air District should approve TFCA Bike Share projects through an exception process.</p>	<p>The proposed policy is written in keeping with the guidance provided by the Air District Board of Directors to staff. This direction includes making bike share an eligible project category and providing a higher cost-effectiveness threshold for this category.</p>

Comments Received from County Program Managers on Proposed Policies and Air District Staff Responses

	<p>Policy 28. Shuttle/Feeder Bus Service: NCTPA also encourages the Air District to remove language that limits Shuttle/Feeder Bus services to specific commute hours in draft Policy Number 28 (Shuttle/Feeder Bus Service). Staff believes that projects should be evaluated on their ability to meet cost effectiveness requirements and limiting hours could hinder the ability of a shuttle or feeder bus to meet cost effectiveness.</p>	<p>The proposed policy is written to keep consistency between the County Program Manager and Regional Fund shuttle programs. This policy direction has been included to ensure the TFCA program meets the growing demand for grant funding across the nine-county Bay Area effectively by allocating shuttle funding to projects with the greatest potential to prevent long-distance commute trips.</p>
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<p>Matt Todd Alameda County Transportation Commission</p>	<p>Policy 28. Shuttle/Feeder Bus Service: Alameda CTC staff requests modifying the first sentence to read, “...<i>providing the relatively short distance connection...</i>” to reflect that because cost-effective shuttles distances vary from county to county a “short” shuttle trip should remain relative to the distance of the average car trip it eliminates. The distance of a shuttle route is factored into its TFCA cost-effectiveness evaluation, so it would seem unnecessary to include language in the policies regarding the distance of shuttle routes.</p>	<p>Please see the proposed modification to the first sentence of Policy 28 in keeping with this comment.</p>
	<p>Policy 28c. Shuttle/Feeder Bus Service: The Alameda CTC requests clarification on the policy language in this section that states that an existing shuttle project may not replace or duplicate service that ceased to operate within the past five years. It seems that this restriction would only be applicable to pilot projects.</p>	<p>This restriction applies to both pilot and existing projects. The policy does allow existing projects that were awarded FYE 2014 TFCA funds and are seeking FYE 2015 TFCA funds to request an exemption from this provision. Applicants would have to submit a plan demonstrating how the project would comply with this requirement within three years.</p>
	<p>Policy 28d. Shuttle/Feeder Bus Service: The Alameda CTC requests the deletion of policy 28d from the Policies to allow shuttle routes to remain TFCA-eligible for all hours of service that are cost-effective. Shuttle schedules are developed based on demand and so the peak hours for shuttles that serve destinations such as college campuses could see the highest commute period and corresponding shuttle ridership during the mid-day period. While the new restriction of providing TFCA funding only for the traditional commuter peak hours of 5am-10am and 3pm-7pm was deemed necessary for the Regional TFCA program, in order to limit the TFCA contribution for any one shuttle route, for the CPM funds, CMAs should remain able to program an amount of CPM funding to its shuttle routes that is cost-effective under Policy #2, based on county-level priorities and regardless of the hours of operation.</p>	<p>The proposed policy is written to keep consistency between the County Program Manager and Regional Fund shuttle programs. This policy direction has been included to ensure the TFCA program meets the growing demand for grant funding across the nine-county Bay Area effectively by allocating shuttle funding to projects with the greatest potential to prevent long-distance commute trips.</p>

Agenda Item 6 - Attachment C:
Comments Received from County Program Managers on Proposed Policies and Air District Staff Responses

<p style="text-align: center;">Matt Todd <i>Alameda County Transportation Commission</i> (continued)</p>	<p>During a recent meeting with Air District staff and CPM liaisons to discuss the draft Policies, Air District staff proposed that if the proposed limitation to the eligible hours for CMP TFCA funds were to be removed, that shuttles should then be precluded from receiving both Regional and CPM TFCA funding. While Alameda CTC staff acknowledges the difficulties of funding shuttles from a mix of regional and CPM TFCA, we would not support a shuttle route from being precluded from receiving both regional and CPM funds. Instead, Alameda CTC staff proposes the Air District consider that for such cases where shuttle routes are approved for TFCA from both Regional and CPM sources, that the regional policies regarding the limitations of TFCA funds to commuter peak hours would apply (i.e., for routes approved for both TFCA sources that the CPM funds would also be limited to funding only commuter peak hour service as defined in the regional policies).</p>	<p>While there was a discussion during the October 30th teleconference among the Air District and the County Program Managers about precluding shuttle routes from receiving both Regional Fund and County Program Manager funds, the Air District is not currently proposing such a restriction. Any consideration of this matter would require further discussions with all stakeholders, including the County Program Managers.</p>
<p style="text-align: center;">Diane Dohm, <i>Sonoma County Transportation Authority</i></p>	<p>We do not currently have any TFCA shuttle/feeder bus projects nor will we have any bike share projects any time soon. Therefore, we do not have any comments on these items. If TFCA ends up funding any part of future shuttles up here in Sonoma County, it is highly likely that they will run during rush-hour commuter times.</p>	<p>The submitted remarks are noted.</p>
<p style="text-align: center;">John Hoang, <i>City/County Association of Governments</i></p>	<p>Policy 28. Shuttle/Feeder Bus Service. The SamTrans shuttle programs we provide local TFCA funding to is for commute services and not for any community shuttles in the off peak therefore we are fine with the proposed changes to the policy and do not have any comments.</p>	<p>The submitted remarks are noted.</p>

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Scott Haggerty and
Members of the Mobile Source Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 21, 2013

Re: Transportation Fund for Clean Air (TFCA) Audit and Cost-Effectiveness Reports

RECOMMENDED ACTIONS:

Recommend Board of Directors:

1. Receive and file the results of Transportation Fund for Clean Air (TFCA) Audit #14.
2. Receive and file the Fiscal Year Ending (FYE) 2013 TFCA Report on Regional Fund Expenditures and Effectiveness (Attachment 2).

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 its nine-county jurisdiction to fund projects that reduce on-road motor vehicle emissions. The Air District allocates these funds to eligible projects through the Transportation Fund for Clean Air (TFCA). 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 programs implemented directly by the Air District (e.g., the Smoking Vehicle, enhanced mobile source enforcement and the Spare the Air Programs) and through a grant program known as the Regional Fund. The remaining forty percent of TFCA funds are forwarded to a designated agency within each Bay Area county to be distributed via the County Program Manager Fund.

HSC Section 44242 requires that the Air District perform an audit on all programs or projects funded with TFCA monies. On June 15, 2011, the Air District's Board of Directors (Board) selected Gilbert Associates, Inc. (Gilbert) as the independent auditor to conduct Audit #13, presented to the Board last year. As allowed by the terms of that selection, on December 5, 2012, the Board extended the contract with Gilbert to conduct Audit #14, the results of which are presented in this report.

In addition, HSC Section 44241 requires that the Board hold an annual public hearing to review the expenditure of TFCA funds to determine their effectiveness in improving air quality.

DISCUSSION

TFCA Audit #14

Gilbert conducted fiscal audits of TFCA Air District and Regional Fund projects that were completed between July 1, 2011 and June 30, 2012. The audits were conducted from December 2012 through August 2013. Gilbert conducted field work and completed and issued audit reports to each organization audited, and to the Air District for its TFCA-funded programs.

The audit results are presented in the attached Audit Summary Report prepared by Gilbert (Attachment 1). This Report is a compilation of the individual audit reports performed and lists the audited projects in Appendix B. Each organization was provided an opportunity to respond in writing to any findings and those responses are included in the individual audit reports.

The findings from this current audit were:

- A number of project sponsors continue to submit required quarterly, semi-annual, final and/or annual monitoring reports late;
- A number of project sponsors continue to fail to submit required quarterly and/or semi-annual reports;
- One project sponsor failed to notify the Air District of a change in operational status of two projects funded with TFCA funds within 30 days of the changes as required by contract; and
- Two project sponsors billed the Air District for unallowable indirect overhead costs.

The first two findings are consistent with the findings in previous audits, although the percent of organizations and projects with late or un-submitted reports has declined from the previous audit. In addition, there are no oversight findings attributable to the Air District in this audit as there have been in previous audits.

A discussion of the findings and the additional steps that Air District staff is taking to ensure that project sponsors comply with program requirements will be presented at the Committee meeting.

Report on Regional Fund Expenditures and Effectiveness

The FYE 2013 TFCA - Report on Regional Fund Expenditures and Effectiveness (report), provided in Attachment 2, summarizes TFCA Air District and Regional Fund expenditures on projects and programs that concluded during FYE 2013, and the effectiveness of these projects and programs. Key findings of the report include the following:

- TFCA funds were allocated to eligible projects and programs, consistent with the legislation that authorizes the TFCA program.

- The TFCA Regional Fund expenditures for projects and programs that concluded in FYE 2013 totaled \$11.67 million: \$8.72 million for projects implemented by other entities, \$2.28 million for Air District programs, and \$665,900 in administrative and indirect costs.
- These projects and programs reduced criteria pollutant emissions over their lifetimes by an estimated 140.18 tons, including 41.09 tons of reactive organic gases (ROG), 74.71 tons of nitrogen oxides (NO_x), and 24.39 tons of particulate matter (PM₁₀). The lifetime reduction of carbon dioxide (CO₂), a greenhouse gas, was approximately 29,200 tons.
- The Air District's Spare the Air program exceeded the \$90,000 per ton of emissions reduced cost-effectiveness threshold for calendar year 2013 (calculated as \$140,430.39 per ton of emissions reduced). However, it should be noted that this program has gone through extensive changes over the last few years. These changes include shifting from attempting to reduce emissions on an episodic basis ("Spare the Air" days) versus now attempting to reduce emissions on both an episodic and "everyday" basis.

While the program itself has changed, the cost-effectiveness methodology is still tied to the episodic events -- the Spare the Air days. The methodology needs to be revised to more accurately reflect the programs current operations. In order to implement this change, staff will review proposed calculation changes for that program's cost-effectiveness and make the necessary adjustments for FYE 2014.

- As part of the cost-effectiveness calculation for the bicycle facilities program, the cost-effectiveness of 8 projects was averaged. This averaging indicated that the total cost effectiveness for the program exceeded the \$90,000 per ton of emissions reduced cost-effectiveness cap for the program.

Further examination revealed that 7 of the 8 projects in this category met the \$90,000 per ton of emissions reduced cost-effectiveness cap for the program. However, 05R08, a bicycle and pedestrian improvement project by the Golden Gate Park Concourse Authority did not. Staff examined this project in detail and determined that there were multiple changes to its scope over a period of eight years. 05R08 was folded into a larger construction and road work project that was performed in Golden Gate Park to rebuild John Fitzgerald Kennedy Drive. The larger project had multiple stops and starts, and in the end, bicycle and pedestrian counts for the project did not live up to the usage numbers estimated by the project sponsor as part of the project application in 2005.

In response to the cost-effectiveness issues with 05R08 and difficulties completing similar projects, staff has rewritten the bicycle facilities program guidelines to more narrowly focus them on projects that can quickly achieve emissions reductions in compliance with TFCA cost-effectiveness caps.

BUDGET CONSIDERATION/FINANCIAL IMPACT:

None. As required by California Health and Safety Code Section 44242(a), the costs of TFCA audits are taken from the TFCA motor vehicle registration fee surcharges. Resources for Audit #14 were identified in the Air District's FYE 2013 budget.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Geraldina Grünbaum
Reviewed by: Karen Schkolnick

Attachments

Attachment 1: Audit Summary Report for the TFCA Regional Fund (Audit #14)

Attachment 2: FYE 2013 Report on TFCA Regional Fund Expenditures and Effectiveness

Attachment 1: Audit Summary Report for the TFCA Regional Fund

**Attachment 2: FYE 2013 Report on TFCA Regional Fund
Expenditures and Effectiveness**

**BAY AREA AIR QUALITY
MANAGEMENT DISTRICT**

**TRANSPORTATION FUND FOR CLEAN AIR
PROGRAM REGIONAL FUND**

AUDIT SUMMARY REPORT

PROJECT PERIOD ENDED JUNE 30, 2012

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
TRANSPORTATION FUND FOR CLEAN AIR PROGRAM REGIONAL FUND

TABLE OF CONTENTS

	<u>PAGE</u>
Introduction	1
Program Description	1
Audit Process	2
Sponsor Findings	4
Oversight Findings	6
Tables:	
1 – Sponsors with Late Reports	7
2 – Sponsors with Unfiled Reports	8
Appendix:	
A – Health and Safety Code Sections 44241 and 44242	9
B – Listing of Audited Projects	12

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

TRANSPORTATION FUND FOR CLEAN AIR PROGRAM REGIONAL FUND

AUDIT SUMMARY REPORT FOR THE PROJECT PERIOD ENDED JUNE 30, 2012

1. INTRODUCTION

The Bay Area Air Quality Management District (Air District) was created by the California legislature in 1955. The Air District's structure, operating procedures and authority are established by Division 26 of the California Health and Safety Code.

The Air District includes seven counties: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo and Santa Clara and portions of two other counties, Southwestern Solano and Southern Sonoma. The Air District is governed by a twenty-two member Board of Directors that includes representatives from all of the above counties.

The Air District's jurisdiction is limited principally to policing non-vehicular sources of air pollution within the Bay Area, primarily industry pollution and burning. Any company wishing to build or modify a facility in the Bay area must first obtain a permit from the Air District to ensure that the facility complies with all applicable rules.

The Air District also acts as the program administrator for Transportation Fund for Clean Air (TFCA) funds and Mobile Source Incentive funds (MSIF) derived from Assembly Bill 434 and Assembly Bill 923 respectively. TFCA and MSIF funding comes from a \$4 and \$2 surcharge, respectively, on motor vehicles registered within the Air District. TFCA funding may only be used to fund eligible projects that reduce motor vehicle emissions and support the implementation of the transportation and mobile source control measures in the Clean Air Plan in place at time of award. All projects must fall within the categories listed in State Law (Health and Safety Code Section 44241).

The Health and Safety Code requires the Air District to pass-through no less than 40% of the TFCA revenues raised within a particular county, after audit and administrative costs, to that county's designated Program Manager. The remaining 60% is for Regional Fund grants and is being allocated to projects on a competitive basis. Projects are evaluated using the Air District's Board adopted evaluation and scoring criteria.

2. PROGRAM DESCRIPTION

Health and Safety Code Sections 44223 and 44225 authorize a surcharge on the motor vehicle registration fee (surcharge) to be used by the Air District and local governments specifically for programs to reduce air pollution from motor vehicles. The Department of Motor Vehicles collects the surcharge and allocates the amounts to the Air District. The Air District administers these funds through the TFCA Program. Under the TFCA Program, money is allocated to two funds: (1) 60% is placed in the Regional Fund and allocated to entities on a competitive basis by the Air District and (2) 40% is placed in the Program Managers Fund and allocated to designated agencies. Allowable projects under Health and Safety Code Section 44241 include the following:

- Ridesharing programs
- Purchase or lease of clean fuel school and transit buses
- Feeder or shuttle bus service to rail and ferry stations and airports
- Arterial traffic management
- Demonstrations in congestion pricing of highways, bridges and public transit

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

TRANSPORTATION FUND FOR CLEAN AIR PROGRAM REGIONAL FUND

AUDIT SUMMARY REPORT FOR THE PROJECT PERIOD ENDED JUNE 30, 2012

- Rail bus integration and regional transit information systems
- Low emission vehicle projects
- Bicycle facility improvement projects
- Physical improvements that support "Smart Growth" projects

State law requires that any agency receiving TFCA funding be subject to an audit, at least once every two years. Health and Safety Code Section 44242 provides the legal compliance guidelines for the Air District to follow in the event revenues are not spent appropriately or when projects do not result in emission reductions. Health and Safety Code Sections 44241 and 44242 are provided in Appendix A.

The Air District retained the firm of Gilbert Associates, Inc. to conduct financial and compliance audits of completed projects funded through the Regional Fund for the project period ended June 30, 2012. These audits were conducted during the months of December 2012 through August 2013.

A total of 29 individual Sponsors and 41 projects were audited, with \$12,176,641 total funds expended. A listing of the projects audited is provided in Appendix B. Unqualified opinions were issued on all 29 reports.

3. AUDIT PROCESS

The audits were designed to address numerous financial and compliance objectives; however, the principal objectives of the audits were to (1) provide assurance that amounts reported in the Schedules of Expenditures are fairly stated, and (2) determine whether projects financed through the Air District's Regional Fund met funding agreement requirements. The audit procedures were specifically designed for TFCA financial and compliance requirements. The audit approach is described below:

Auditing Standards and Specific Procedures

The financial audits were performed in accordance with generally accepted auditing standards in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States for the period ended June 30, 2012.

Procedures performed included, but were not limited to:

- Gaining an understanding of the project sponsors' internal controls over financial reporting of the TFCA program through observation, inquiry, and supporting documentation.
- Tracing expenditures related to the TFCA program to the Sponsor's accounting records.
- Validating TFCA expenditures related to vendor disbursements, payroll, and administrative charges to supporting documentation.
- Conducting interviews with project sponsors to inquire about known, alleged or suspected fraud related to the program.

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

TRANSPORTATION FUND FOR CLEAN AIR PROGRAM REGIONAL FUND

AUDIT SUMMARY REPORT FOR THE PROJECT PERIOD ENDED JUNE 30, 2012

Compliance Auditing Procedures

The audits were performed in accordance with the requirements outlined in the Health and Safety Code, individual funding agreements and *Government Auditing Standards*. The principal focus of the compliance auditing procedures was to ensure TFCA expenditures were paid in accordance with the program's objectives (Health and Safety Code Sections 44241 and 44242). Detailed tests on select transactions were performed to verify compliance with the Health and Safety Code and individual funding agreements, but were not designed to provide assurance on overall project compliance.

Auditing procedures performed included, but were not limited to:

- Testing expenditures for allowable costs in accordance with Section 44241 of the Health and Safety Code.
- Verifying that the Sponsor used the TFCA funds for the reduction of emissions from motor vehicles.
- Determining that the Sponsor adopted appropriate resolutions authorizing the grant application or, where applicable, an authorizing letter of commitment.
- Verifying the expenditure of funds was within two years, unless a longer period was approved in writing by the Air District.
- Determining whether the Sponsor submitted to the Air District all required reports and that the reports contained all information required as specified on Attachment C of the funding agreement.
- Verifying the use of the Air District's approved logo or acknowledgment of the Air District in printed or electronic materials for public distribution.
- Determining if the Sponsor followed the indirect cost determination approach when allocating indirect costs to the project.
- Determining whether administrative costs were adequately supported and did not exceed 5% of the TFCA revenues.
- Determining whether other specific terms of the funding agreement were adhered to, such as additional reporting requirements.

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

TRANSPORTATION FUND FOR CLEAN AIR PROGRAM REGIONAL FUND

AUDIT SUMMARY REPORT FOR THE PROJECT PERIOD ENDED JUNE 30, 2012

4. SPONSOR FINDINGS

A summary of Sponsor audit findings is provided below.

Finding 2012-1: Late Filing of Reports

According to the funding agreement between the Air District and the Sponsors, Sponsors were required to submit to the Air District quarterly reports, a final report, and other reports specified in the Sponsor's funding agreements.

During the audit, we noted that the projects listed in Table 1 had one or more late reports. 16 Sponsors out of 29 (55.17%) and 16 projects out of the 41 audited (39.02%) had one or more late reports. The number of quarterly reports, final reports, and other reports submitted late are noted below:

	<u>Late Reports</u>	<u>Number of Sponsors</u>	<u>Number of Projects</u>
Quarterly reports	6	5	5
Semiannual reports	11	9	9
Final reports	1	1	1
Annual monitoring reports	<u>3</u>	2	2
Total late reports	<u>21</u>		

Air District's Response to Finding 2012-1

The Air District acknowledges this finding, and continues to take significant steps to assist project sponsors with submitting reports on time. These efforts include the Air District's strict adherence to the requirements of the Administrative Operating Procedure (AOP) for Regional Fund Administration. Specifically, the Air District continues to send reminders to all project sponsors three weeks prior to quarterly and semi-annual report due dates and follows up with telephone calls and/or emails beginning one week prior to the due date if a report is still not received. As outlined in the AOP, if a report is more than three weeks late, the project sponsor is sent a Delinquent Notice, which includes language warning that failure to submit a report will delay payment, may result in termination of the grant, and may render the sponsor ineligible from future grants.

This finding does indicate the need to further expand this AOP to cover the submittal of Annual Monitoring Reports. As a result, the Air District is in the process of updating this AOP to include procedures for the Annual Monitoring Reports similar to those that exist for quarterly and semi-annual reports. The Air District will also institute a series of mandatory office conferences for those grantees violating grant reporting times as a prelude to debarring project sponsors from program participation. The Air District will also investigate the procedures and mechanisms for debarring grantees from future participation in the program and seek Board of Directors approval on policies that outline these requirements.

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

TRANSPORTATION FUND FOR CLEAN AIR PROGRAM REGIONAL FUND

AUDIT SUMMARY REPORT FOR THE PROJECT PERIOD ENDED JUNE 30, 2012

Finding 2012-2: Unfiled Reports

According to the funding agreement between the Air District and the Sponsors, Sponsors were required to submit to the Air District quarterly or semiannual reports, a final report, and other reports specified in the Sponsor's funding agreements.

During the audit, we noted that the projects listed in Table 2 had one or more unfiled reports. 6 Sponsors out of 29 (20.69%) and 6 projects out of the 41 audited (14.63%) had one or more unfiled reports. The number of unfiled reports is noted below:

	<u>Unfiled Reports</u>	<u>Number of Sponsors</u>	<u>Number of Projects</u>
Quarterly reports	5	3	3
Semiannual reports	5	3	3

Air District's Response to Finding 2012-2

The Air District acknowledges this finding, and, as with late reports, has taken significant steps to reduce the likelihood of sponsors not filing reports. The steps the Air District follows (as outlined in its AOP for Regional Fund Administration) are outlined in the response to Finding 2012-1.

Finding 2012-3: Changes in Operational Status

According to the funding agreement between the Air District and the Sponsors, Sponsors were to notify the Air District in writing of any change in the operational status of equipment or services purchased or funded under the agreement within thirty days of the occurrence of such a change in operational status. During the audit, we noted four instances in which vehicles retrofitted with TFCA funds had been totaled and removed from operation prior to the completion of the projects' useful lives, but the Air District had not been notified within thirty days. The two projects that were noncompliant with the requirement to notify the Air District of changes in operational status are listed below. Each of the two projects had two vehicles that were removed from operation.

<u>Project Number</u>	<u>Project Sponsor</u>	<u>Project Description</u>
07R60	San Francisco International Airport	Purchase 27 CNG Vans
08R20	San Francisco International Airport	Purchase 26 Medium-Duty Compressed Natural Gas Vehicles

Air District's Response to Finding 2012-3

The Air District is currently determining the appropriate reimbursement amount to be requested from the San Francisco International Airport and is in consultation with counsel should additional legal remedies be required in this case.

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

TRANSPORTATION FUND FOR CLEAN AIR PROGRAM REGIONAL FUND

AUDIT SUMMARY REPORT FOR THE PROJECT PERIOD ENDED JUNE 30, 2012

Finding 2012-4: Unallowable or Unsupported Costs

According to the funding agreement between the Air District and the Sponsors, TFCA funding may not be used to reimburse indirect expenses. During the audit, we noted two instances in which unallowable indirect overhead costs were included in the project costs submitted to the Air District. The two projects that were noncompliant with the requirement to exclude indirect costs from TFCA project costs are listed below.

Project Number	Project Sponsor	Project Description
09BFP03	City of Daly City	Southgate Avenue Class II Bicycle Lane Gap Closure
09BFP04	City of Petaluma	Class III Bicycle Routes in Petaluma

In addition to the indirect costs charged to the program for the project listed above, the City of Petaluma also included payroll charges for an employee who was out on workers' compensation during the time charged. Furthermore, the City of Petaluma was unable to provide sufficient supporting documentation for certain costs of materials and equipment allocated to the project.

Air District's Response to Finding 2012-4

The Air District requested reimbursements in the amount of \$1,064.95 from the City of Daly City, and \$7,965.25 from the City of Petaluma, for the unallowable or unsupported costs discussed above. Both reimbursements were received in September 2013.

5. OVERSIGHT FINDINGS

No oversight findings noted as of and for the project period ending June 30, 2012.

TABLE 1
SPONSORS WITH LATE REPORTS

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

TRANSPORTATION FUND FOR CLEAN AIR PROGRAM REGIONAL FUND

**TABLE 1 - SPONSORS WITH LATE REPORTS
FOR THE PROJECT PERIOD ENDED JUNE 30, 2012**

Project Number	Project Sponsor	Project Description
09R54	Citrix Systems, Inc.	Six (6) Charging Points
09BFP03	City of Daly City	Southgate Avenue Class II Bicycle Lane Gap Closure
05R16	City of Oakland	Lakeshore Avenue Bicycling/Pedestrian Improvements
09R31	City of Palo Alto	(6) Electric Vehicle Charging Spots
09BFP04	City of Petaluma	Class III Bicycle Routes in Petaluma
10R07	City of Redwood City	Redwood City Commuter Shuttle
09BFP10	City of Santa Rosa	Class II Bicycle Lane on Coffey Lane
05R24	County of San Francisco	BikeInsight - Online Bicycle Route Mapping Tool
09R43	East Bay Regional Parks District	(3) Medium Duty Vehicle Purchase
06R17	Golden Gate Park Concourse Authority	Page & Stanyan Bicycle and Pedestrian Improvement Project
08R65	Presidio Trust	Purchase 1 Heavy-Duty Bus
06R10	San Mateo County Transit District	Adaptive Transit Signal Priority
09R13	San Francisco General Hospital	SFGH Pilot Shuttle
08R20	San Francisco International Airport	Purchase 26 Medium-Duty Compressed Natural Gas Vehicles
06R39	South San Francisco Scavenger Company	Purchase One (1) Compressed Natural Gas Roll-off Truck
07BFP17	Town of Windsor	Windsor River Road Class II Bicycle Lane

TABLE 2
SPONSORS WITH UNFILED REPORTS

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

TRANSPORTATION FUND FOR CLEAN AIR PROGRAM REGIONAL FUND

**TABLE 2 - SPONSORS WITH UNFILED REPORTS
FOR THE PROJECT PERIOD ENDED JUNE 30, 2012**

Project Number	Project Sponsor	Project Description
07R07	Alameda-Contra Costa Transit District	TravelChoice Transportation Marketing
05R16	City of Oakland	Lakeshore Avenue Bicycling/Pedestrian Improvements
07BFP15	City of Santa Rosa	Mendocino Avenue Bicycle Lanes - Gap Closure Project
05R24	County of San Francisco	BikeInsight - Online Bicycle Route Mapping Tool
08R65	Presidio Trust	Purchase 1 Heavy-Duty Bus
07BFP17	Town of Windsor	Windsor River Road Class II Bicycle Lane

APPENDIX A
HEALTH AND SAFETY CODE SECTIONS 44241 AND 44242

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

TRANSPORTATION FUND FOR CLEAN AIR PROGRAM REGIONAL FUND

AUDIT SUMMARY REPORT HEALTH AND SAFETY CODE SECTIONS 44241 AND 44242 FOR THE PROJECT PERIOD ENDED JUNE 30, 2012

44241

- (a) Fee revenues generated under this chapter in the bay district shall be subvned to the bay district by the Department of Motor Vehicles after deducting its administrative costs pursuant to Section 44229.
- (b) Fee revenues generated under this chapter shall be allocated by the bay district to implement the following mobile source and transportation control projects and programs that are included in the plan adopted pursuant to Sections 40233, 40717, and 40919:
 - (1) The implementation of ridesharing programs.
 - (2) The purchase or lease of clean fuel buses for school districts and transit operators.
 - (3) The provision of local feeder bus or shuttle service to rail and ferry stations and to airports.
 - (4) Implementation and maintenance of local arterial traffic management, including, but not limited to, signal timing, transit signal preemption, bus stop relocation and "smart streets."
 - (5) Implementation of rail-bus integration and regional transit information systems.
 - (6) Implementation of demonstration projects in telecommuting and in congestion pricing of highways, bridges, and public transit. No funds expended pursuant to this paragraph for telecommuting projects shall be used for the purchase of personal computing equipment for an individual's home use.
 - (7) Implementation of vehicle-based projects to reduce mobile source emissions, including, but not limited to, engine repowers, engine retrofits, fleet modernization, alternative fuels, and advanced technology demonstrations.
 - (8) Implementation of a smoking vehicles program.
 - (9) Implementation of an automobile buy-back scrappage program operated by a governmental agency.
 - (10) Implementation of bicycle facility improvement projects that are included in an adopted countywide bicycle plan or congestion management program.
 - (11) The design and construction by local public agencies of physical improvements that support development projects that achieve motor vehicle emission reductions. The projects and the physical improvements shall be identified in an approved area-specific plan, redevelopment plan, general plan, or other similar plan.

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

TRANSPORTATION FUND FOR CLEAN AIR PROGRAM REGIONAL FUND

AUDIT SUMMARY REPORT HEALTH AND SAFETY CODE SECTIONS 44241 AND 44242 FOR THE PROJECT PERIOD ENDED JUNE 30, 2012

- (c) (1) Fee revenue generated under this chapter shall be allocated by the bay district for projects and programs specified in subdivision (b) to cities, counties, the Metropolitan Transportation Commission, transit districts, or any other public agency responsible for implementing one or more of the specified projects or programs. Fee revenue generated under this chapter may also be allocated by the bay district for projects and programs specified in paragraph (7) of subdivision (b) to entities that include, but are not limited to, public agencies, consistent with applicable policies adopted by the governing board of the bay district. Those policies shall include, but are not limited to, requirements for cost-sharing for projects subject to the policies. Fee revenues shall not be used for any planning activities that are not directly related to the implementation of a specific project or program.
- (2) The bay district shall adopt cost-effectiveness criteria for fee revenue generated under this chapter that projects and programs are required to meet. The cost-effectiveness criteria shall maximize emissions reductions and public health benefits.
- (d) Not less than 40 percent of fee revenues shall be allocated to the entity or entities designated pursuant to subdivision (e) for projects and programs in each county within the bay district based upon the county's proportionate share of fee-paid vehicle registration.
- (e) In each county, one or more entities may be designated as the overall program manager for the county by resolutions adopted by the county board of supervisors and the city councils of a majority of the cities representing a majority of the population in the incorporated area of the county. The resolution shall specify the terms and conditions for the expenditure of funds. The entities so designated shall be allocated the funds pursuant to subdivision (d) in accordance with the terms and conditions of the resolution.
- (f) Any county, or entity designated pursuant to subdivision (e), that receives funds pursuant to this section, at least once a year, shall hold one or more public meetings for the purpose of adopting criteria for expenditure of the funds and to review the expenditure of revenues received pursuant to this section by any designated entity. If any county or entity designated pursuant to subdivision (e) that receives funds pursuant to this section has not allocated all of those funds within six months of the date of the formal approval of its expenditure plan by the bay district, the bay district shall allocate the unallocated funds in accordance with subdivision (c).

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

TRANSPORTATION FUND FOR CLEAN AIR PROGRAM REGIONAL FUND

AUDIT SUMMARY REPORT HEALTH AND SAFETY CODE SECTIONS 44241 AND 44242 FOR THE PROJECT PERIOD ENDED JUNE 30, 2012

44242

- (a) Any agency which receives funds pursuant to Section 44241 shall, at least once every two years, undertake an audit of each program or project funded. The audit shall be conducted by an independent auditor selected by the bay district in accordance with Division 2 (commencing with Section 1100) of the Public Contract Code. The district shall deduct any audit costs which will be incurred pursuant to this section prior to distributing fee revenues to cities, counties, or other agencies pursuant to Section 44241.
- (b) Upon completion of an audit conducted pursuant to subdivision (a), the bay district shall do both of the following:
 - (1) Make the audit available to the public and to the affected agency upon request.
 - (2) Review the audit to determine if the fee revenues received by the agency were spent for the reduction of air pollution from motor vehicles pursuant to the plan prepared pursuant to Sections 40233 and 40717.
- (c) If, after reviewing the audit, the bay district determines that the revenues from the fees may have been expended in a manner which is contrary to this chapter or which will not result in the reduction of air pollution from motor vehicles pursuant to that plan, the district shall do all of the following:
 - (1) Notify the agency of its determination.
 - (2) Within 45 days of the notification pursuant to paragraph (1), hold a public hearing at which the agency may present information relating to expenditure of the revenues from the fees.
 - (3) After the public hearing, if the district determines that the agency has expended the revenues from the fees in a manner which is contrary to this chapter or which will not result in the reduction of air pollution from motor vehicles pursuant to the plan prepared pursuant to Sections 40233 and 40717, the district shall withhold these revenues from the agency in an amount equal to the amount which was inappropriately expended. Any revenues withheld pursuant to this paragraph shall be redistributed to the other cities within the county, or to the county, to the extent the district determines that they have complied with the requirements of this chapter.
- (d) Any agency which receives funds pursuant to Section 44241 shall encumber and expend the funds within two years of receiving the funds, unless an application for funds pursuant to this chapter states that the project will take a longer period of time to implement and is approved by the district or the agency designated pursuant to subdivision (e) of Section 44241. In any other case, the district or agency may extend the time beyond two years, if the recipient of the funds applies for that extension and the district or agency, as the case may be, finds that significant progress has been made on the project for which the funds were granted.

APPENDIX B
LISTING OF AUDITED PROJECTS

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

TRANSPORTATION FUND FOR CLEAN AIR PROGRAM REGIONAL FUND

APPENDIX B FOR THE PROJECT PERIOD ENDED JUNE 30, 2012

Project Number	Project Sponsor	Project Description	Project Expenditures
07R07	Alameda-Contra Costa Transit District	TravelChoice Transportation Marketing	\$ 301,050
07R23	Associated Students, San Jose State University	Ridesharing and Trip Reduction	99,945
10R06	Associated Students, San Jose State University	Ridesharing and Trip Reduction	120,000
11R00	Bay Area Air Quality Management District	Administration	1,239,877
11R01	Bay Area Air Quality Management District	Smoking Vehicle Program	644,167
11R03	Bay Area Air Quality Management District	Spare the Air	947,651
09R54	Citrix Systems, Inc.	Six (6) Charging Points	12,000
03R30	City and County of San Francisco, MTA - Department of Parking and Traffic	Class 2 Bicycle Lanes - Folsom and Illinois Streets	89,535
05R26	City and County of San Francisco, MTA - Department of Parking and Traffic	Alemaney Boulevard Class-2 Bicycle Lane - Lyell to Bayshore	129,411
09BFP03	City of Daly City	Southgate Avenue Class II Bicycle Lane Gap Closure	18,783
08BFP09	City of Hayward	Bikeways Class II and III	22,658
05R16	City of Oakland	Lakeshore Avenue Bicycling/Pedestrian Improvements	350,000
09BFP01	City of Oakland	Class II and III Bikeways on E. 12th Street	10,500
09R31	City of Palo Alto	(6) Electric Vehicle Charging Spots	6,778
09BFP04	City of Petaluma	Class III Bicycle Routes in Petaluma	45,313
10R07	City of Redwood City	Redwood City Commuter Shuttle	20,000
07BFP15	City of Santa Rosa	Mendocino Avenue Bicycle Lanes - Gap Closure Project	33,000
09BFP10	City of Santa Rosa	Class II Bicycle Lane on Coffey Lane	6,913
05R24	County of San Francisco	BikeInsight - Online Bicycle Route Mapping Tool	200,000
09R43	East Bay Regional Parks District	(3) Medium Duty Vehicle Purchase	24,138
06R17	Golden Gate Park Concourse Authority	Page & Stanyan Bicycle and Pedestrian Improvement Project	35,000
08R37	Independent Construction	Retrofit 11 Heavy-Duty Vehicles	112,089
09R08	Metropolitan Transportation Commission	511 Rideshare Program	1,750,000
08R59	Pacific Water Trucks	Repower 3 Heavy-Duty Vehicles	115,118
09R11	Peninsula Corridor Joint Powers Board	Caltrain Shuttle Operation	992,868
10R11	Peninsula Corridor Joint Powers Board	Caltrain Shuttle Operation	1,000,000
08R65	Presidio Trust	Purchase 1 Heavy-Duty Bus	28,500
06R10	San Mateo County Transit District	Adaptive Transit Signal Priority	116,534
09R13	San Francisco General Hospital	SFGH Pilot Shuttle	31,489

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
TRANSPORTATION FUND FOR CLEAN AIR PROGRAM REGIONAL FUND
APPENDIX B
FOR THE PROJECT PERIOD ENDED JUNE 30, 2012

Project Number	Project Sponsor	Project Description	Project Expenditures
07R60	San Francisco International Airport	Purchase 27 CNG Vans	198,331
08R20	San Francisco International Airport	Purchase 26 Medium-Duty Compressed Natural Gas Vehicles	266,546
08R50	San Francisco International Airport	Retrofit 23 Diesel Shuttle Vehicles - Level 3 Devices	372,445
09R07	San Joaquin Regional Rail Commission	ACE Shuttle - Route 53	44,000
10R09	San Joaquin Regional Rail Commission	Wheels - Route 54	50,000
10R10	San Joaquin Regional Rail Commission	Wheels - Route 53	10,670
07R24	Santa Clara Valley Transportation Authority	ACE Shuttle Bus Program	955,494
10R05	Santa Clara Valley Transportation Authority	ACE Shuttle Bus Program	920,000
09R27	Silicon Valley Clean Cities Coalition	U.S. Department of Energy's - Clean Cities Coalition Outreach (Silicon Valley)	25,000
07R61	Sonoma County Transit	Replace 10 CNG Buses	720,379
06R39	South San Francisco Scavenger Company	Purchase One (1) Compressed Natural Gas Roll-off Truck	91,011
07BFP17	Town of Windsor	Windsor River Road Class II Bicycle Lane	19,448
Total Funds Expended			<u>\$ 12,176,641</u>
Total Sponsors Audited			29
Total Projects Audited			41



Bay Area Air Quality Management District

FISCAL YEAR ENDING 2013

**TRANSPORTATION FUND
FOR
CLEAN AIR (TFCA)**

**REPORT ON REGIONAL FUND
EXPENDITURES AND EFFECTIVENESS**

939 Ellis Street, San Francisco, CA 94109
www.baaqmd.gov

November 2013

Background

This Report summarizes expenditures for TFCA Regional Fund projects that concluded during fiscal year ending 2013 (FYE 2013).

Highlights of the Report

- ◆ **TFCA funds were allocated to eligible recipients for eligible projects and programs, consistent with the legislation that authorizes the TFCA.**
- ◆ **The TFCA Regional Fund expenditures for projects and programs that concluded in FYE 2013 totaled \$11.67 million, including \$8.72 million for projects, \$2.28 million for Air District programs, and \$665,900 in administrative and indirect costs.**
- ◆ **The lifetime emission reductions achieved by these projects and programs are estimated to be 41.09 tons of reactive organic gases (ROG), 74.71 tons of oxides of nitrogen (NO_x), and 24.39 tons of particulate matter (PM₁₀). Combined lifetime emission reductions for the three pollutants total 140.18 tons.**
- ◆ **The lifetime reduction in carbon dioxide (CO₂, a greenhouse gas) from these projects is approximately 29,200 tons.**

Introduction

On-road motor vehicles, including cars, trucks, and buses, constitute the most significant source of air pollution in the San Francisco Bay Area. Vehicle emissions contribute to unhealthy levels of ozone (summertime "smog") and particulate matter.

The TFCA

In 1991, the California State Legislature authorized the Air District to impose a \$4 surcharge on motor vehicles registered within the San Francisco Bay Area to fund projects that reduce on-road motor vehicle emissions. The Air District has allocated these funds to its Transportation Fund for Clean Air (TFCA) to fund eligible projects. The statutory authority for the TFCA and requirements of the program are set forth in California Health and Safety Code Sections 44241 and 44242.

Sixty percent (60%) of TFCA funds are awarded directly by the Air District through a grant program known as the Regional Fund. The remaining forty percent (40%) of TFCA funds are forwarded to the designated agency within each Bay Area county and distributed by these agencies through the County Program Manager Fund. Portions of the TFCA Regional Fund are allocated to eligible programs implemented directly by the Air District such as the Smoking Vehicle Program and the Spare the Air Program. The balance is allocated on a competitive basis to eligible projects proposed by project sponsors.

The Air District Board of Directors has adopted criteria for the evaluation and ranking of project applications for TFCA Regional Funds. Cost-effectiveness, expressed in terms of TFCA dollars per ton of reduced emissions, is the most important criterion for ranking projects.

TFCA-funded projects have many benefits, including the following:

- ♦ Reducing air pollution, including toxic particulate matter;
- ♦ Conserving energy and helping to reduce emissions of carbon dioxide (CO₂), a greenhouse gas;
- ♦ Reducing traffic congestion; and
- ♦ Improving physical fitness and public safety by facilitating pedestrian and other car-free modes of travel.

State legislation restricts TFCA funding to the following types of projects:

- ♦ **Implementation of ridesharing programs**
- ♦ **Clean fuel school and transit bus purchases or leases**
- ♦ **Feeder bus or shuttle service to rail and ferry stations and to airports**
- ♦ **Arterial traffic management**
- ♦ **Rail-bus integration and regional transit information systems**
- ♦ **Demonstrations in congestion pricing of highways, bridges and public transit**
- ♦ **Low-emission vehicle projects**
- ♦ **Smoking vehicles program**
- ♦ **Vehicle buy-back scrappage program**
- ♦ **Bicycle facility improvement projects**
- ♦ **Physical improvements that support “smart growth” projects**

Expenditures

This report covers TFCA Regional Fund projects and Air District sponsored programs with expenditures that concluded during FYE 2013.

The TFCA Regional Fund expenditures for projects and programs that concluded in FYE 2013 totaled \$11.67 million. This total includes \$2.28 million for the two programs administered directly by the Air District and \$8.72 million in grants to other organizations for projects. In addition, the Air District expended \$665,890.57 in administrative and audit costs associated with the oversight of these projects and programs.^a Appendix A lists expenditure details.

^a In FYE 2013, total TFCA revenues, for both the Regional Fund and County Program Manager Fund, were \$22.80 million. Administrative and audit costs across both programs totaled \$1.11 million.

Effectiveness

Air District staff calculates the emissions reduced over the life of projects that receive TFCA funding.

Projects and programs concluding in FYE 2013 are anticipated to reduce criteria pollutant emissions over their lifetimes by an estimated total of 140.18 tons. This total is the sum of ozone precursors (41.09 tons of ROG and 74.71 tons of NO_x) and particulate matter (24.39 tons of PM₁₀). The lifetime reduction of CO₂ is estimated at approximately 29,200 tons. It should be noted that for six of the Bicycle Facility Program projects listed in Appendix A (totaling nearly \$344,000) have a default cost-effectiveness value of \$90,000 per ton of emissions reduced. This default was used to simplifying cost-effectiveness calculations for program applicants and, based on the structure of that program, it is not necessary to recalculate project cost-effectiveness as part of this report.

The cost-effectiveness of TFCA projects is calculated by dividing the TFCA funds allocated to projects by the lifetime criteria pollutant emissions reductions (ROG, NO_x, and weighted PM₁₀ combined). The result is TFCA dollars per ton of reduced emissions.

A summary of expenditures, emission reductions, and cost-effectiveness values is provided in Table 1.

Table 1: Emission Reductions and Cost-Effectiveness (C/E) by Project Category for Projects and Programs Concluding in FYE 2013

Category	# of Projects	TFCA \$ Expended	% of TFCA \$ Expended	Emissions Reduced (tons) ¹	% of Emissions Reduced	C/E - Weighted (\$/tons) ²
Bicycle Facilities	8	\$642,336	5.51%	3.505	2.50%	\$110,285**
Shuttle / Feeder Bus and Ride Sharing	14	\$4,870,345	41.75%	87.42	62.36%	\$43,150
Transit Buses	3	\$2,080,000	17.83%	8.08	5.77%	\$222,362*
Heavy-Duty Vehicles	4	\$983,727	8.43%	19.24	13.72%	\$50,492
Light-Duty Vehicles	2	\$117,380	1.01%	1.41	1.01%	\$69,620
Other Project Types	1	\$24,961	0.21%	1.66	1.18%	\$17,660
Spare the Air	1	\$1,246,643	10.69%	7.16	5.11%	\$140,430** *
Smoking Vehicle	1	\$1,035,170	8.87%	11.71	8.36%	\$57,257
Total for Projects and Programs	34	\$11,000,562	100%	140.18	100%	\$65,694
Administration	1	\$665,891				

(1) Lifetime emission reductions of ROG, NO_x, and PM₁₀ combined.

(2) Consistent with the current California Air Resources Board methodology to calculate cost-effectiveness for the Carl Moyer Program, PM emissions were weighted by a factor of 20 to account for their harmful impacts on human health.

(3) Totals may vary due to rounding.

*Includes Advanced Technology Program Grant (Hydrogen buses) - \$500,000 cost effectiveness cap per ton of emissions reduced

**7 of 8 projects adhere to \$90,000 per ton of emissions reduced cost effectiveness cap – Project 05R08 causes average cost effectiveness to rise above project category cap.

***Project did not meet \$90,000 per ton of emissions reduced cost effectiveness cap

The information in Table 1 shows projects exceeding the \$90,000 per ton of emissions reduced cost effectiveness cap in two categories: the Bicycle Facilities and the Spare the Air Programs. The reasons for these exceedances are as follows:

Bicycle Facilities Program

As part of the cost-effectiveness calculation for the bicycle facilities program, the cost-effectiveness of 8 projects was averaged. This averaging indicated that the total cost effectiveness for the program exceeded the \$90,000 per ton of emissions reduced cost-effectiveness cap for the program.

Further examination revealed that 7 of the 8 projects in this category met the \$90,000 per ton of emissions reduced cost-effectiveness cap for the program. However, 05R08, a bicycle and pedestrian improvement project by the Golden Gate Park Concourse Authority did not. Staff examined this project in detail and determined that there were multiple changes to its scope over a period of eight years. 05R08 was folded into a larger construction and road work project that was performed in Golden Gate Park to rebuild John Fitzgerald Kennedy Drive. The larger project had multiple stops and starts, and in the end, bicycle and pedestrian counts for the project did not live up to the usage numbers estimated by the project sponsor as part of the project application in 2005.

In response to the cost-effectiveness issues with 05R08 and difficulties completing similar projects, staff has rewritten the bicycle facilities program guidelines to more narrowly focus them on projects that can quickly achieve emissions reductions in compliance with TFCA cost effectiveness caps.

Spare the Air Program

The Air District's Spare the Air program exceeded the \$90,000 per ton of emissions reduced cost-effectiveness threshold for calendar year 2013. However, it should be noted that this program has gone through extensive changes over the last few years. These changes include shifting from attempting to reduce emissions on an episodic basis ("Spare the Air" days) versus now attempting to reduce emissions on both an episodic and "everyday" basis.

While the program itself has changed, the cost-effectiveness methodology is still tied to the episodic events -- the Spare the Air days. The methodology needs to be revised to more accurately reflect the programs current operations. In order to implement this change, staff will review proposed calculation changes for that programs cost-effectiveness and make the necessary adjustments for FYE 2014.

Offset of Nitrogen Oxide Emissions from Agricultural Engines

On 5/18/2011, the Air District adopted Regulation 11, Rule 17, Limited Use Stationary Compression Ignition (Diesel) Engines in Agricultural Use. This rule reduces public exposure to toxic air contaminants from stationary compression ignition (diesel) engines used in agricultural operations within the District by requiring them to be replaced with lower emitting equipment

(Tier 4 engines). However, under the rule, an agricultural engine operator may request an alternative compliance plan that delays the replacement of their equipment until 2020 (Tier 0 or Tier 1 engine) and 2025 (Tier 2 engine) provided it operates no more than 100 hours in a calendar year and is located more than 1,000 feet from the nearest residence. This delay in rule implementation does not cause significant increases in particulate matter or volatile organic compound emissions but has the potential to increase nitrogen oxide emissions in excess of the California Environmental Quality Act (CEQA) significance threshold.

In order to mitigate this CEQA concern, the Air District offsets nitrogen oxides emissions from agricultural engine operators utilizing the alternative compliance plan with emissions reduced by its TFCA grant program. The total emissions requiring offsets as a result of Regulation 11, Rule 17, alternative compliance plan submittals from calendar year 2013 are 1.54 tons of nitrogen oxides. These are more than covered by emissions reductions from the TFCA program (approximately 11 tons of nitrogen oxides) in this calendar year.

**APPENDIX A:
TFCA Regional Fund Projects and Air District Programs Concluding in FYE 2013**

Project #	Sponsor	Project Title	TFCA \$ Expended
05R08	Golden Gate Park Concourse Authority	Bicycle & Pedestrian Improvements: Golden Gate Park, JFK Drive	\$173,247.82
05R17	West Contra Costa Transportation Advisory Comm.	Bicycle Cage Parking Facilities, Racks and Lockers for West Contra Costa County	\$125,375.00
07BFP02	Alameda County	East Lewelling Boulevard Class II Bikeway Improvement Project	\$59,500.00
07R05	Metropolitan Transportation Commission	Purchase Nine (9) Fuel Cell Transit Buses (1st of 2 projects)	\$1,500,000.00
07R06	Metropolitan Transportation Commission	Purchase Nine (9) Fuel Cell Transit Buses (2nd of 2 projects)	\$0.00
08BFP05	Alameda County Public Works	Stanley Boulevard Bicycle Lanes Project	\$127,500.00
08BFP08	City of Belmont	U.S. Highway 101 Bicycle/Pedestrian Overcrossing & Alameda de las Pulgas Bicycle Lane Project	\$72,500.00
08R17	Bauer's Intelligent Transportation	Purchase 10 compressed natural gas heavy-duty vehicles	\$419,293.78
09BFP02	City of Oakland	Class II and Class III Bikeways on 14th Street	\$56,550.00
09BFP06	City of San Jose	San Jose Citywide Bicycle Racks Installation	\$5,023.78
09BFP13	San Francisco Municipal Transportation Agency	Class II Bicycle Lane on John Muir Drive	\$22,639.22
09R14	City of Oakland	Oakland Waterfront - Uptown Pilot Shuttle	\$580,500.00
09R20	Mission Trail Waste Systems	(23) CNG Refuse Trucks	\$413,999.06
09R22	Sonoma County Transit	(2) CNG Transit Buses	\$80,000.00
09R23	South San Francisco Scavenger Co., INC	(4) CNG Refuse Trucks	\$79,737.19
09R26	Yellow Cab	(25) CNG Taxis	\$74,249.64
09R29	SF Environment	US DOE Clean Cities Coalition Outreach (SF)	\$24,960.67
09R37	Alameda County General Services Agency	(15) Hybrid Vehicles & (4) NEV	\$43,131.19
09R42	City of Palo Alto	(1) Heavy Duty Vehicle Purchase	\$70,696.50
10R08	Metropolitan Transportation Commission	511 Rideshare Program (7/1/11-6/30/12)	\$861,285.62
10R12	Livermore Amador Valley Transit Authority	Modification for BART to ACE Route	\$383,442.15
10R13	Livermore Amador Valley Transit Authority	Route 1A/B BART to East Dublin	\$44,503.64
10R15	City of Alameda	Estuary Crossing Bicycle/College Shuttle-Pilot	\$162,027.41
10R16	City of Richmond	Richmond Circular Shuttle-Pilot	\$289,392.34
11R06	Peninsula Corridor Joint Powers Board	Caltrain Shuttle	\$993,330.00
11R07	City of Redwood City	Redwood City Community Shuttle	\$19,925.49
11R08	Valley Transportation Authority	ACE Shuttle Bus	\$960,000.00
11R09	San Jose State University	SJSU - Ridesharing and Trip Reduction	\$120,000.00
11R10	San Joaquin Regional Rail Commission	Shuttle Route 54	\$50,000.00
11R11	San Joaquin Regional Rail Commission	Shuttle Route 53	\$33,001.66
11R13	The Presidio Trust	PresidiGO Downtown Shuttle	\$94,213.00
11R14	City of Oakland	Broadway Shuttle - "B"	\$278,724.00
Subtotal Projects:			\$8,218,749.16
FYE 2013	BAAQMD	Smoking Vehicle Program	\$1,035,169.82
FYE 2013	BAAQMD	Spare the Air	\$1,246,642.73
Subtotal Air District Programs:			\$2,281,812.55
FYE 2013	BAAQMD	TFCA Regional Fund Administration	\$665,890.57*
Grand Total:			\$11,666,452.28

* 60% of the total administrative and audit costs expended in FYE 2013.

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Scott Haggerty
and Members of the Mobile Source Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: October 10, 2013

Re: Update on the Regional Bicycle Share Pilot Project

RECOMMENDED ACTION:

None. Informational item, receive and file.

BACKGROUND

In the Bay Area, on-road vehicles account for more than 25% of criteria pollutants and 28% of greenhouse gas (GHG) emissions. Therefore, significant emission reductions from this transportation category are key to the Bay Area's attainment of air quality standards and to protecting global climate. The Bay Area Bike Share program (pilot project) was developed as a pilot project to assess how bicycle sharing could reduce these pollutants by reducing vehicle miles traveled (VMT) in single occupancy vehicles. The pilot project will collect information on vehicle emissions reduced by the system over a period of 12 to 24 months and will assess the viability of expanding bike sharing in the Bay Area, both within the pilot communities and in the larger region.

The Bay Area Air Quality Management District (Air District) is the lead administrator for the pilot project, which is being conducted in partnership with the City and County of San Francisco, the San Mateo County Transit District, the City of Redwood City, the County of San Mateo, and the Santa Clara Valley Transportation Authority. To initiate the pilot project, approximately \$11.2 million in public funding has been awarded by the Metropolitan Transportation Commission's (MTC) Congestion Mitigation and Air Quality Improvement Program (CMAQ) fund (\$7.1 million), the Air District's Transportation Fund for Clean Air (TFCA) (\$2.8 million), and local match funds from the partners (\$1.3 million). During the pilot project, the Air District is working with its partners and contractor, Alta Bicycle Share, Inc. (Alta), to secure additional funding from user fees and private sponsorships to successfully transition the program over to a self-sustaining system.

Bay Area Bike Share launched on August 29, 2013, as the first public bike share service in California and the first regional, multi-city bike share program in the country. The first phase of the pilot includes more than 600 bicycles that are available for check-out from 64 kiosk stations located within the participating pilot communities of San Jose, Palo Alto, Mountain View, Redwood City and San Francisco. Within the next few months, the first-phase fleet size will expand to 700 bicycles and 70 kiosk stations. A

second phase of the pilot, due to be completed in mid 2014, will expand the total pilot project fleet to 1,000 bicycles and 100 kiosk stations.

As part of this report, Air District staff will update the Committee on the recent asset valuation request for proposals (RFP), next steps to assess how best to expand the program and next steps with regard to system sponsorship.

DISCUSSION

Based on the size of other North American bicycle share systems and preliminary assessments of each of the pilot communities, it is anticipated that the Bay Area's program has the potential to grow to a fleet size of between 6,000 to 10,000 bicycles.

Request for Proposals (RFP) for Asset Valuation

In order to evaluate the branding potential of an expanded system to determine its worth in terms of media impressions (asset valuation) in the current pilot communities and other communities throughout the Bay Area, the Air District opened a request for proposals (RFP) on October 16, 2013. Subsequently, on October 25, 2013, the Air District hosted a bidder's conference that was attended by 10 non-partner agency participants in person and via web conference.

However, the RFP closed on 11/12/13 having received no responses. This result is not entirely unexpected as this is the first RFP of its kind in the nation. Staff is currently contacting attendees from the bidder's conference to determine why no bids were received. Based on the feedback from this process, staff will evaluate whether or not to reopen a modified version of the asset evaluation RFP or to move forward to a full system sponsorship RFP.

Planning for System Expansion

In parallel to the efforts on asset valuation and system sponsorship, the Air District and Metropolitan Transportation Commission (MTC) are also seeking to conduct an RFP for a consultant to assist the regional agencies in determining a model for system expansion. This RFP will seek a consultant to assist with:

- Determining the goals and benefits of a regional bike share program,
- Estimating demand and best locations for bike sharing in the region,
- Examining strategies for how a bicycle sharing regional system might integrate with the region's current transit system,
- Examining operating costs, funding options and business models including estimating capital required for system deployment, operations and maintenance.

In order to ensure inclusiveness in this process, the regional agencies will form a stakeholder group of interested parties to provide input on this RFP. Following the consultants evaluation, it is expected that an implementation and expansion plan for a regional system will be developed for review by the Air District and MTC. As program

administrator, the Air District will assist in this effort by providing available information on the pilot system's costs, usage, ridership data, system membership, and service levels.

BUDGET CONSIDERATION / FINANCIAL IMPACT:

None. The Air District distributes "pass-through" funds to grantees on a reimbursement basis. Administrative costs for the TFCA program are provided by the funding source.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Karen Schkolnick and Patrick Wenzinger
Reviewed by: Damian Breen

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Ash Kalra and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/Air Pollution Control Officer

Date: December 9, 2013

Re: Report of the Climate Protection Committee Meeting of December 9, 2013

RECOMMENDED ACTION

The Climate Protection Committee (Committee) has no recommendations of approval by the Board of Directors.

BACKGROUND

The Committee met on Monday, December 9, 2013. The Committee received the following reports:

- A) Regional Climate Protection Work Program; and
- B) California Air Pollution Control Officers Association (CAPCOA) Greenhouse Gas (GHG) Reduction Exchange (Rx).

Attached are the staff reports that were presented in the Committee packet.

Committee Chairperson John Avalos will give an oral report of the meeting.

BUDGET CONSIDERATION/FINANCIAL IMPACT

- A) Enhanced climate protection activities would require additional resources. Such resources will be identified and refined per feedback and direction from the Board of Directors and addressed in future budgets.
- B) Activities associated with implementing the CAPCOA GHG Rx may require additional resources. Such resources will be identified and considered as part of the District's 10-Point Climate Action Work Program and addressed in future budgets.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Sean Gallagher
Reviewed by: Rex Sanders

Attachments

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson John Avalos and Members
of the Climate Protection Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 27, 2013

Re: Regional Climate Protection Work Program

RECOMMENDED ACTION

Provide direction to staff on the draft 10-Point Work Program.

BACKGROUND

On November 6, 2013, the Air District Board of Directors unanimously adopted a resolution setting a goal of reducing regional greenhouse gas emissions 80% below 1990 levels by 2050, leading a regional planning effort to develop a regional climate action strategy, and directing staff to develop a work program to guide the Air District in these efforts in the near term. The Board also directed staff to convene a meeting of stakeholders to discuss the draft 10-Point Climate Action Work Program for the Bay Area (Work Program) that outlines the Air District's climate protection priorities over the next two years.

DISCUSSION

Staff will provide the Committee with an update on development of the Work Program and an estimate of staffing resources needed to implement the Work Program. The draft Work Program document attached to this memo reflects the direction staff received from the Board at its November 6th meeting. Staff is continuing to refine this document, including soliciting input from stakeholders at a meeting to be convened at the Air District on December 3rd.

At the Climate Protection Committee meeting on December 9th, staff will provide the Committee with an update on the draft Work Program, considering stakeholder input and further refinements by staff. Staff will also update the Committee on staff resources estimated to be needed to implement the Work Program. Staff anticipates that much of the work outlined in the draft Work Program will be incorporated into existing programs and be conducted by existing staff, with an additional seven (7) new FTEs needed to fully address all elements of the Work Program. It is expected that approximately 25% to 50% of such costs would be eligible for cost recovery via the Air District's GHG fee for stationary sources. Staff will continue to refine estimates of resources needed and potential for cost recovery. Staff believes this Work Program is a significant response to the Board's climate protection resolution and will strengthen Air District leadership on this critical issue.

BUDGET CONSIDERATION / FINANCIAL IMPACT

Enhanced climate protection activities would require additional resources. Such resources will be identified and refined per feedback and direction from the Board of Directors and addressed in current and future budgets.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Abby Young
Reviewed by: Henry Hilken

Attachment A: Draft 10-Point Climate Action Work Program for the Bay Area

10-POINT CLIMATE ACTION WORK PROGRAM FOR THE BAY AREA

11/27/13

This 10-Point Climate Action Work Program represents the focus and direction of the Air District's Climate Protection Program in 2013-2015. This Work Program reflects the Air District's strength in playing a coordinating role for policy implementation at the federal, state, regional and local levels. The actions described below will serve as the Air District's priorities for the next two years as it continues to work with many stakeholders to reduce the Bay Area's greenhouse gas (GHG) emissions.

1. **Set GHG Reduction Goal** – Set a goal to reduce GHG emissions in the Bay Area 80% below 1990 levels by 2050 to align the Air District with Executive Order S-3-05, and develop performance objectives, including per capita targets, to support this goal.
2. **Update GHG Inventory and Forecasting** – Update the Air District's regional GHG emissions inventory for the Bay Area. Conduct GHG emissions forecasts for 2020, 2035 and 2050 based on different GHG emission scenarios, which will lay a foundation for the development of the Regional Climate Action Strategy described below. Seek to incorporate effects of state (Scoping Plan), regional (Plan Bay Area and 2014 Clean Air Plan), and local (local climate action plans) initiatives. Identify gaps between forecast reductions from existing and proposed plans and measures, and the 2050 goal.
3. **Implement GHG Emissions Monitoring** – Initiate local monitoring of certain greenhouse gases, including methane and carbon dioxide. The Air District will integrate monitoring of methane within its current air toxics monitoring network. The Air District will work with UC Berkeley researchers to collect local CO₂ emissions data through a university-led network of local CO₂ monitoring stations. Data collected will help develop a better understanding of ambient concentration, variability and trends over time, as well as provide more specific local data for the regional GHG inventory.
4. **Develop Regional Climate Action Strategy** – Identify policy gaps between the 2050 GHG goal and local climate action plans, Plan Bay Area, and State regulations and policies where the Air District has authority to control GHG emissions. These potential Air District actions could be included in the 2014 Clean Air Plan and serve as a Regional Climate Action Strategy. The Strategy will encourage regional and local economic approaches that support the goals of this Work Program. Conduct an economic impacts study of the Strategy. Explore relationships between the Joint Policy Committee and its member agencies to support regional planning efforts to reduce GHG emissions. Work with local researchers, representatives of affected industry, commercial interests, governing bodies, environmental organizations and community groups to engage them in discussion about the need, and path forward, for significant GHG reductions.
5. **Support and Enhance Local Action** – Increase the local implementation of GHG-reducing policies and programs through enhanced technical assistance to cities and counties and special districts in preparing and implementing local Climate Action Plans. Expand technical assistance to local governments through development of incentive programs and CEQA mechanisms:
 - Support local climate action planning through data delivery, technical tools, providing a clearinghouse of information and promoting best practices;
 - Promote EV readiness and best practices in local plans;

- Explore funding sources for incentives to improve energy efficiency, including work with ARB to potentially use Cap and Trade auction proceeds;
 - Update CEQA thresholds for GHGs and update CEQA Guidelines to assist cities, counties and other lead agencies;
 - Work with lead agencies to use the CAPCOA GHG Exchange for offsite mitigation under CEQA (e.g., work with organizations such as the Marin Carbon Project to develop protocols for GHG reduction credits).
6. **Accelerate Rule Development** – Initiate rule development to advance GHG reduction in sources subject to Air District regulatory authority. Examples may include:
- Reduce methane emissions and other short-lived climate pollutants, such as black carbon;
 - Enhance and/or backstop upcoming federal requirements to control GHG emissions from new and existing power plants;
 - Increase deployment of heat mitigating technologies and policies, such as cool roofing and cool paving;
 - Explore opportunities to reduce energy use in the residential, commercial and industrial sectors.
7. **Expand Enforcement** – Expand enforcement of statewide regulations to reduce GHGs, especially short-term climate pollutants. Continue working with the Air Resources Board (ARB) to enforce existing Scoping Plan regulations addressing landfills, semiconductors and refrigerants. Work with ARB to explore further opportunities through the development of the Scoping Plan Update.
8. **Launch Climate Change & Public Health Impacts Initiative** – Collect and synthesize information, reports and data on the climate change impacts related to air quality, public health and disproportionate impacts. Work with state and local public health professionals to identify policies and programs targeting impacts that affect air quality and public health, including wildfires and extreme heat. Include impacts associated with black carbon emissions.
9. **Report Progress to the Public** – Select indicators to measure, track and report on progress toward the 2050 goal and related performance objectives. Report this information publicly, presented in a manner that informs and engages the public, such as Berkeley’s Climate Action Plan Results web page.
10. **Explore the Bay Area’s Energy Future** – Assign the Air District’s Advisory Council the role of investigating technical issues related to the Air District’s Climate Protection Program. Initially focus on the energy future of the Bay Area.

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson John Avalos and Members
of the Climate Protection Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 25, 2013

Re: California Air Pollution Control Officers Association (CAPCOA) Greenhouse Gas
Reduction Exchange

RECOMMENDED ACTION

None; receive and file.

BACKGROUND

On March 14, 2013, staff briefed the Committee on staff's work with other air districts in developing the California Air Pollution Control Officers Association (CAPCOA) Greenhouse Gas Reduction Exchange (GHG Rx). The purpose of the GHG Rx is to support implementation of local GHG reduction projects to create locally generated, high quality GHG emission reduction credits. Compliance with mitigation requirements under the California Environmental Quality Act (CEQA) is likely to be the largest market for credits on the GHG Rx.

DISCUSSION

Since the March 14, 2013 update to the Committee, the Air District's Air Pollution Control Officer signed a Memorandum of Understanding (MOU) with CAPCOA authorizing the Air District to participate as a member in the GHG Rx.

Staff will provide the Committee with an overview of the GHG Rx, including its objectives, components, procedures, and basic rules governing the participation of member air districts. Staff will also present on the status of the GHG Rx, which is expected to launch publicly in January, 2014.

BUDGET CONSIDERATION / FINANCIAL IMPACT

Activities associated with implementing the CAPCOA GHG Rx may require additional resources. Such resources will be identified and considered as part of the District's Climate Action Work Program and addressed in future budgets.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Abby Young
Reviewed by: Henry Hilken

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Ash Kalra and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/Air Pollution Control Officer

Date: December 9, 2013

Re: Report of the Executive Committee Meeting of December 16, 2013

PROPOSED RECOMMENDED ACTION

The Executive Committee (Committee) will receive only informational items and have no recommendations of approval by the Board of Directors.

BACKGROUND

The Committee will meet on Monday, December 16, 2013. The Committee will receive the following reports:

- A) Senate Bill 1339 – Bay Area Commuter Benefits Program;
- B) Regional Agency Headquarters Status Report; and
- C) Joint Policy Committee Update.

Attached are the staff reports that will be presented in the Committee packet.

Chairperson Ash Kalra will give an oral report of the Committee meeting.

BUDGET CONSIDERATION/FINANCIAL IMPACT:

- A) Air District resources to develop the program are included in the Fiscal Year End (FYE) 2013 and FYE 2014 budgets. The Metropolitan Transportation Commission has also dedicated resources to program development. Funding needed to administer the program on an on-going basis will be considered in developing the FYE 2015 budget and subsequent budget cycles.
- B) None.
- C) None.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Sean Gallagher
Reviewed by: Rex Sanders

Attachments

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
Memorandum

To: Chairperson Ash Kalra and Members
of the Executive Committee

From: Jack P. Broadbent, Executive Officer/APCO

Date: December 2, 2013

Re: SB 1339 – Bay Area Commuter Benefits Program

RECOMMENDED ACTION

None; receive and file.

BACKGROUND

Staff last briefed the Executive Committee on the development of the Commuter Benefits Program, authorized by SB 1339 (Yee), in October 2013. This bill authorizes the Air District and the Metropolitan Transportation Commission (MTC) to jointly adopt and implement a region-wide commuter benefits program that would apply to employers with 50 or more full-time employees within the boundaries of the Air District. Staff has recently completed nine public workshops throughout the region to solicit input on a draft rule (Regulation 14, Rule 1) that will serve as the foundation for the Bay Area Commuter Benefits Program (Program). Staff is currently working to prepare a proposed rule for consideration and adoption by the Board at a public hearing in March 2014.

DISCUSSION

Air District staff will update the Committee on progress in developing the Program.

BUDGET CONSIDERATION/FINANCIAL IMPACT

Air District resources to develop the program are included in the Fiscal Year End (FYE) 2013 and FYE 2014 budgets. MTC has also dedicated resources to program development. Funding needed to administer the program on an on-going basis will be considered in developing the FYE 2015 budget and subsequent budget cycles.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: David Burch
Reviewed by: Henry Hilken

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Ash Kalra and Members
of the Executive Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: December 2, 2013

Re: Regional Agency Headquarters Status Report

RECOMMENDED ACTION

None; receive and file.

DISCUSSION**Financing of Air District's Portion of 375 Beale Street**

On February 25 and February 27, 2013 the Executive Committee and the Budget and Finance Committee recommended, and on March 6, 2013 the Board of Directors approved, an authorization for the Executive Officer/APCO to prepare and sign the necessary documents to finance the purchase of the Air District's portion of 375 Beale Street (formerly 390 Main Street), San Francisco.

The Bay Area Headquarters Authority (BAHA) at its October 23, 2013 meeting approved the Air District's financing plan. BAHA authorized the purchase of up to \$30 million in Certificates of Participation (COPs) to be used for the financing of the Air District's portion of office space at 375 Beale Street. The transaction for the funding was completed on November 7, 2013.

Construction

Work on the Seismic Retrofit and Hard Demolition began in June and includes concrete demolition and drilling for dowel placement. The atrium demolition and soil excavation for foundation strengthening began in November. Attachment A includes recent construction pictures. Also, Attachment B is the construction schedule for 375 Beale Street.

Inter-Agency Shared Service Assessments

Over the last year, staff from the Air District, BAHA, Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG) have been working to develop options for sharing various business operations and to implement shared technology services upon move-in to 375 Beale Street. As part of this roadmap, the agencies engaged Accenture LLP (Accenture) to work with the information technology managers to recommend sharing levels, architecture and technology for sixteen elements identified as shared services candidates

(Attachment C). The administrative management staff from each of the agencies also developed recommendations for sharing resources to deliver other services including receptionist, meeting room management, mail, copy center and other general services.

Furniture Procurement

On November 13, 2013 BAHA issued a two-part Request for Qualifications/Request for Proposals (RFQ/RFP) inviting furniture dealers to submit a Statement of Qualifications (SOQ) to provide and install workstation and office (i.e. systems furniture, conference furniture, seating, storage units), public space and other ancillary furniture for 375 Beale Street. This RFQ will be used to create a list of prequalified firms that will receive a separate RFP. The total budget is \$5.0 million and includes 550 workstations/offices, 50 conference rooms and public area furniture.

The next phase of work involves 1) developing a governance framework for ownership, oversight and resources management of these agreed-upon services and 2) developing the technical design and specifications needed to move to the procurement phase.

Presentation

The board room layout design will be presented to the Executive Committee at its December 16, 2013 meeting. The Board room includes:

- A) A raised dais seating 25 board members in the front and 10 in a second row;
- B) An Executive Conference table seating 6, with podiums for public speakers and staff presentations on either side; and
- C) Raised seating for 119 audience members

The presentation will also include the design of the exterior, interior, and floor plans for the 6th, 7th, and 8th floors.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Mary Ann Okpalaugo
Reviewed by: Jack M. Colbourn

Attachments

375 Beale Construction Photographs: September, October and November 2013



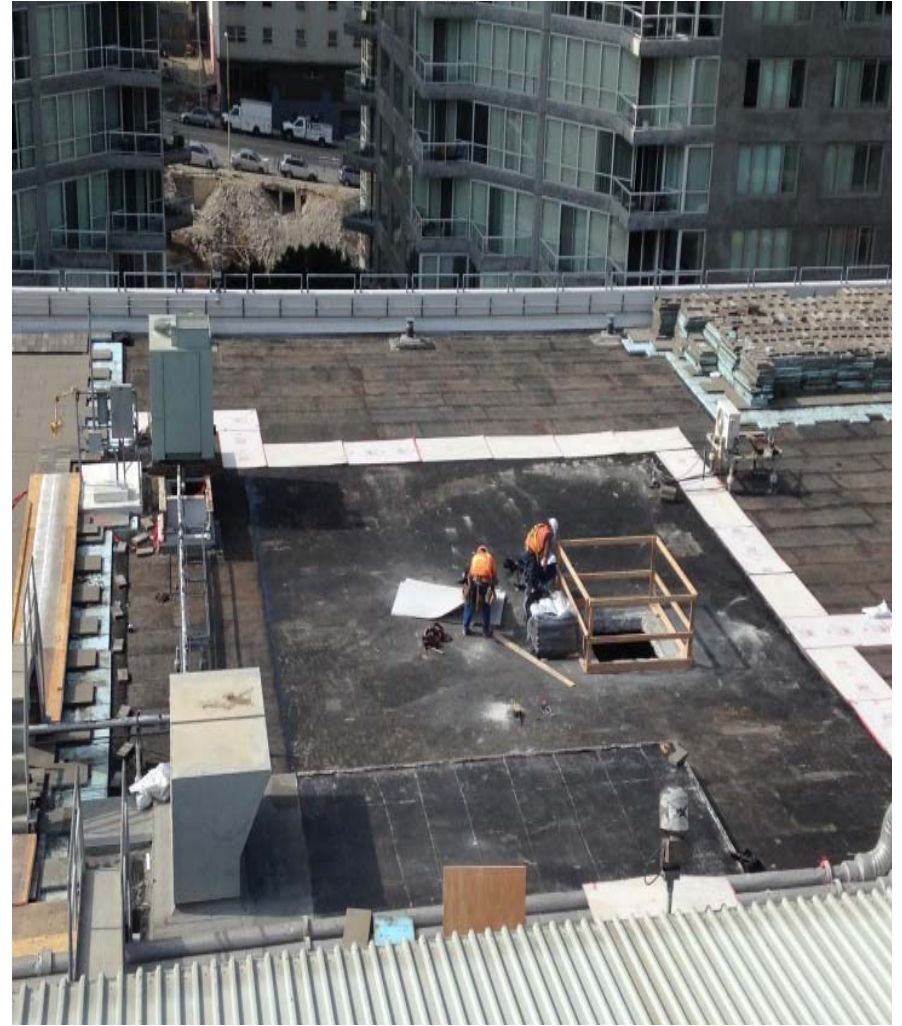
Beale Street entry: current condition.



Corner of Rincon Place and Beale Street: this former railcar entry will be the future retail entry.



Rebar dowels installed on the perimeter walls. Concrete will be shot against the walls to seismically strengthen the building.



Removal of roof waterproofing membrane to prepare for demolition over the future atrium



Removal of column above Multi-Purpose Room.



November - Shotcrete seismic retrofit work



Atrium work – Standing on 8th floor



201 Folsom Work – 50 feet down



**NOT FOR
CONSTRUCTION**

CD GMP SET
Sep 13, 2013

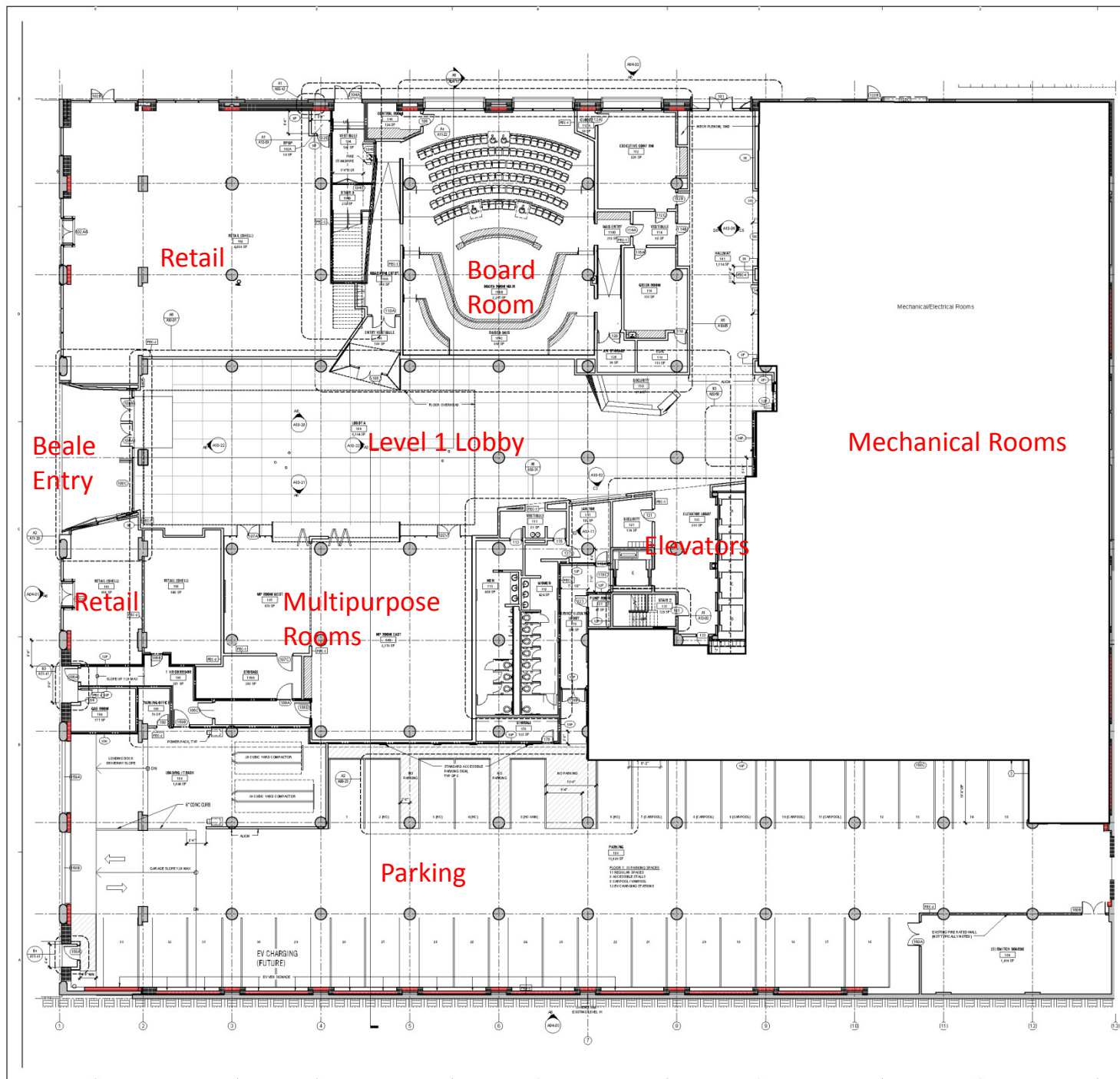
5784-01-08 11:00:15
USA# 01.11.2013

Revisions

Sheet Information

DATE	11/05/13
JOB NUMBER	40112.000
DRAWN	DS
CHECKED	AK
APPROVED	ET
TITLE	Level 01 Overall Plan

Sheet
A03-01



375 Beale Street

Construction Schedule

375 Beale Street Construction Schedule
 6/19/2013
 Revised 9/18/2013

REVISED SCHEDULE	2013											2014											2015			
	Ap	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	
1 Soft Demolition / Early Seismic																										
2 Seismic Retrofit GMP for BAHA Approval			X																							
3 Retrofit L1-L6																										
4 Tenant Relocates 7/2014																X										
5 Retrofit L7-L8																										
6 Mech/Elect/Plumb Design-Assist GMP for BAHA Approval							X																			
7 Core and Shell and Interiors GMP for BAHA Approval											X															
8 MEP, Core and Shell and Interiors																										
9 Move-in																										
10 Close out																										

Upcoming Milestones	Completion
1 MEP GMP to BAHA for approval	9/25/2013
2 Core and Shell and Interiors ready for regulatory review	8/21/2013
3 Receive Core and Shell and Interiors bids	mid-November 2013
4 Core and Shell and Interiors to BAHA approval	1/22/2014

The June 2013 schedule showed DEA moving out in April 2014 and agencies moving into 375 Beale in March and April 2015. The above schedule changes the DEA move-out to July 2014 with no impact to the agency move-in date by resquencing and phasing MEP, Core and Shell and Interiors work, which had not been considered previously.

Shared Workspace Technology Elements

Office Productivity Elements

- Email
- Calendaring/Meeting Scheduling
- Conference Room Scheduling
- Visitor Scheduling and Management
- Video Conferencing
- Webcasting
- Conference Room Audio/Visual Support Systems
- Printers/Copiers

IT Infrastructure Elements¹

- Electronic file storage and information collaboration services
- Telephone Systems
- Network
- Wireless (Wi-Fi) network
- Internet Connectivity
- Server Rooms
- IDF Rooms

1. *Technology already defined for most Infrastructure elements. To be considered for sharing alternatives only.*

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Ash Kalra and Members
of the Executive Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: December 5, 2013

Re: Joint Policy Committee Update

RECOMMENDED ACTION

None; receive and file.

BACKGROUND

The Joint Policy Committee (JPC) consists of Board/Commission representatives of the four regional agencies and provides a forum for discussing issues of regional importance. The recent focus of the JPC has been on climate adaptation and regional economic development.

DISCUSSION

The JPC has recently hired a new Director, Allison Brooks. At the December 16, 2013 meeting, the Executive Committee will have the opportunity to welcome Ms. Brooks to her new position. The topic of regional governance and the role of the JPC will be an important issue for the JPC and the regional agencies this coming year. Staff will explore this topic with the Committee at the December 16, 2013 meeting.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Jean Roggenkamp

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Ash Kalra and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: December 9, 2013

Re: Report of the Nominating Committee Meeting of December 18, 2013

RECOMMENDED ACTION

The Committee may recommend Board of Directors' approval of Board Officers for:

- Chairperson;
- Vice Chairperson; and
- Secretary.

BACKGROUND

The Nominating Committee will meet on Wednesday, December 18, 2013. The Committee will consider the 2014 Board Officers for the 2014 Term of Office.

Attached is the staff report presented in the Nominating Committee packet.

Chairperson Kalra will give an oral report of the meeting.

BUDGET CONSIDERATION/FINANCIAL IMPACT

None.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Vanessa Johnson
Reviewed by: Rex Sanders

Attachment

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

OFFICE OF DISTRICT COUNSEL

MEMORANDUM

DATE: November 25, 2013

TO: Ash Kalra, 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 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.

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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.

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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 Ash Kalra and Members
of the Nominating Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: November 25, 2013

Re: Consideration and Nomination of Board Officers for the 2014 Term of Office

RECOMMENDED ACTION:

Consider recommending Board of Directors' approval of Board Officers for:

- Chairperson
- Vice Chairperson
- Secretary

DISCUSSION

Air District Counsel, Brian Bunger has provided a memorandum addressed to Chairperson Kalra 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: Vanessa Johnson
Reviewed by: Rex Sanders

Attachment(s)

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

OFFICE OF DISTRICT COUNSEL

MEMORANDUM

DATE: November 25, 2013

TO: Ash Kalra, 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.

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BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Ash Kalra and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer / APCO

Date: November 21, 2013

Re: Report of the Advisory Council from the February 13, 2013 meeting on Black Carbon: Concepts and Issues, the May 8, 2013 meeting on Black Carbon: Exposure, Mitigation and Trends in Emissions, and the September 11, 2013 meeting on Black Carbon: Health Effects of Exposure

RECOMMENDED ACTION

None; receive and file.

FEBRUARY 13, 2013 ADVISORY COUNCIL MEETING

SUMMARY

The following presentations were made at the February 13, 2013 Advisory Council meeting on Black Carbon: Concepts and Issues:

1. ***Black Carbon: Concepts and Issues from a National Perspective*** by Sarah Rizk. Ms. Rizk is an Environmental Scientist, serving as a Clean Energy and Climate Change Office, with the US Environmental Protection Agency (US EPA), Region 9. Ms. Rizk works with a broad range of partners on reducing greenhouse gases (GHGs) through voluntary action. Her research focuses on the intersection between climate and health benefits. Her recent work quantifies the monetary health impacts of fossil fuel energy and analyzes policy pathways for reducing black carbon from diesel vehicles, drawing from existing regulatory policies. Sarah holds a B.S. and a M.S. in Earth Systems from Stanford University.
2. ***Black Carbon: Concepts and Issues from a Statewide Perspective*** by Bart Croes. Mr. Croes is currently the Division Chief for the Research Division of the California Air Resources Board (CARB). He is responsible for California's ambient air quality standards; climate change science and mitigation of high global warming potential gases; and health, exposure, and indoor air quality. He was the Public Sector Co-Chair for the NARSTO Executive Assembly, and a former member of the National Research Council (NRC) Committee on Research Pollution in Urban China and the US, a joint collaboration between the National Academy of Engineering, NRC, Chinese Academy of Engineering, and Chinese Academy of Sciences. He has been peer reviewer for the NRC,

US EPA, and numerous journals, and has received the Editors' Citation for Excellence in Refereeing from the Journal of Geophysical Research. Bart has published peer-reviewed articles on air quality simulation modeling, emission inventory evaluation, reactivity-based VOC controls, acid deposition, the weekend ozone effect for ozone and PM, PM data analysis and trends, diesel particle traps, and climate change impacts on California. He holds a B.S. in Chemical Engineering from the California Institute of Technology, a M.S. in Chemical Engineering from the University of California at Santa Barbara, and is a registered Professional Chemical Engineer in the State of California.

REPORT

The Advisory Council met on March 13, 2013 and April 10, 2013 to discuss the presentations and materials received at the February 13, 2013 meeting on Black Carbon: Concepts and Issues, and prepared a report for the Air District Board of Directors. This report, including recommendations, was finalized at the April 10, 2013 meeting and will be presented for consideration at the Board of Directors December 4, 2013 meeting.

MAY 8, 2013 ADVISORY COUNCIL MEETING

SUMMARY

The following presentations were made at the May 8, 2013 Advisory Council meeting on Black Carbon: Exposure, Mitigation and Trends in Emissions:

1. ***Black Carbon – Exposure and Mitigation*** by Veerabhadran Ramanathan Ph.D. Dr. Ramanathan is a Distinguished Professor at the Scripps Institution of Oceanography at the University of California, San Diego. In the 1970's, Dr. Ramanathan discovered the greenhouse effect of chlorofluorocarbons (CFCs) and numerous other manmade trace gases, and he forecasted in 1980, along with R. Madden, that global warming would be detectable by 2000. Dr. Ramanathan, along with Paul Crutzen, led an international team that first discovered widespread Atmospheric Brown Clouds (ABCs). He showed that ABCs led to large scale dimming, decreased monsoon rainfall and rice harvest in India, and played a dominant role in melting Himalayan glaciers. His team developed unmanned aerial vehicles with miniaturized instruments to measure black carbon (BC) in soot over Asia and to track pollution from Beijing during the Olympics. Dr. Ramanathan has estimated that reduction of BC can reduce global warming significantly, and he is following this up with Project Surya, which will reduce soot emissions from bio-fuel cooking in rural India for purposes of climate mitigation. Dr. Ramanathan chaired a National Academy report that calls for a major restructuring of the Climate Change Science Program, and it was received favorably by the Obama administration. His numerous awards include the 2009 Tyler Prize, Volvo Prize, Zayed prize, Rossby Medal, and Buys-Ballot Medal for pioneering studies in climate and environment. He has been elected to the American Philosophical Society, US National Academy of Sciences, Pontifical Academy by Pope John Paul II, and Royal Swedish Academy of Sciences.

2. ***Black Carbon in the San Francisco Bay Area: Trends in Ambient Concentrations and Emissions*** by Robert Harley Ph.D. Dr. Harley is a Professor in the Department of Civil and Environmental Engineering at the University of California, Berkeley, where he has been on the faculty since 1993. Prof. Harley holds a bachelor's degree in Engineering Science (Chemical Engineering option) from the University of Toronto, and both an M.S. and Ph.D. in Environmental Engineering Science from the California Institute of Technology (Caltech). Prof. Harley's research focuses on air quality and sustainable transportation; he is an author of over 75 papers published in peer-reviewed scientific journals. He now serves as an associate editor of *Atmospheric Chemistry and Physics*. Prof. Harley received the National Science Foundation's young investigator (CAREER) award in 1996, as well as a visiting scientist fellowship (1999-2000) at the University of Colorado / NOAA Aeronomy Lab in Boulder. He served for three years as Vice Chair of the Civil and Environmental Engineering Department at Berkeley (2001-04), chairing committees responsible for undergraduate curriculum and graduate student admissions. He also served as Environmental Engineering faculty group leader (2007-10). During the first half of 2011, he was a visiting scientist at the Max Planck Institute for Chemistry in Mainz, Germany. Prof. Harley is also appointed as a Faculty Scientist/Researcher in the Environmental Energy Technologies Division of Lawrence Berkeley National Laboratory, a U.S. Department of Energy science lab located adjacent to campus.

REPORT

The Advisory Council met on June 12, 2013 and July 10, 2013 to discuss the presentations and materials received at the May 8, 2013 Advisory Council meeting on Black Carbon: Exposure, Mitigation and Trends in Emissions, and prepared a report for the Air District Board of Directors. This report, including recommendations, was finalized at the July 10, 2013 meeting and will be presented for consideration at the Board of Directors December 4, 2013 meeting.

SEPTEMBER 11, 2013 ADVISORY COUNCIL MEETING

SUMMARY

The following presentations were made at the September 11, 2013 Advisory Council meeting on Black Carbon: Health Effects of Exposure:

1. ***Health Impacts Associated with Climate Change*** by Dr. Linda Rudolph, MD, MPH. Dr. Rudolph is co-director of the Climate Change and Public Health Project at the Public Health Institute in Oakland, CA. She is also principal investigator on a Public Health Institute project to advance integration of health into all policies in local jurisdictions around California. She holds an MD from the University of California at San Francisco and a Master of Public Health from the University of California at Berkeley. Previously, Dr. Rudolph served as the Deputy Director of the California Department of Public Health in the Center for Chronic Disease Prevention and Health Promotion and as the Health Officer and Public Health Director for the City of Berkeley.

2. *Black Carbon- Health Effects of Exposure* by Professor Michael Kleinman. Dr. Kleinman is Professor of Occupational and Environmental Medicine in the Department of Medicine at the University of California at Irvine. He is also Co-Director of the Air Pollution Health Effects Laboratory in the Department. He holds a Master in Chemistry from the Polytechnic Institute of Brooklyn and a Ph.D. in Environmental Health Sciences from New York University. He has published more than 100 articles in peer-reviewed journals dealing with environmental contaminants and their effects on cardiopulmonary and immunological systems, and has directed more than 50 controlled exposure studies of human volunteers and laboratory animals to ozone, particulate matter (PM), and other pollutants.

REPORT

The Advisory Council met on October 9, 2013 and November 13, 2013 to discuss the presentations and materials received at the September 11, 2013 Advisory Council meeting on Black Carbon: Health Effects of Exposure, and prepared a report for the Air District Board of Directors. This report, including recommendations, was finalized at the November 13, 2013 meeting and will be presented for consideration at the Board of Directors December 4, 2013 meeting.

BUDGET CONSIDERATIONS/FINANCIAL IMPACTS:

None.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Attachment A: Final Report on February 13, 2013 Advisory Council Meeting
Attachment B: Final Report on May 8, 2013 Advisory Council Meeting
Attachment C: Final Report on September 11, 2013 Advisory Council Meeting

Prepared by: Eric Stevenson
Reviewed by: Jean Roggenkamp



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

Executive Summary of the 2013 Efforts of the
Bay Area Air Quality Management District's
Advisory Council
Presented to the
Board of Directors
December 4, 2013

The focus of Advisory Council efforts during 2013 was Black Carbon (BC) aerosols and their adverse impacts on global climate and local health. BC is an important climate warming pollutant, with a short atmospheric life, i.e., it is a short-lived climate pollutant (SLCP). Its primary sources are diesel and wood smoke, and it also results in many adverse health effects. Comprehensive climate protection thus requires reductions in BC emissions, in addition to CO₂ and other greenhouse gases (GHGs). Climate protection strategies should maximize health co-benefits and require careful consideration of unintended adverse health- and climate-consequences.

The Advisory Council recommends that the Air District's Regional Climate Protection Strategy for the Bay Area include SLCPs, including BC. The Air District should develop strategies for climate protection that evaluate the potential for both adverse unintended consequences and beneficial health co-benefits. The Strategy should incorporate relevant health metrics, identify vulnerable populations, and include adaptation measures. The Advisory Council recommends that the Air District designate a Climate Protection point-person on staff to lead these efforts. The AC should provide expertise during development of the Strategy.

FINAL REPORT ON THE FEBRUARY 13, 2013 ADVISORY COUNCIL MEETING ON THE CONCEPTS AND ISSUES SURROUNDING BLACK CARBON POLLUTION

PRESENTATIONS DELIVERED

The following presentations were made at the February 13, 2013 Advisory Council meeting on Black Carbon:

Black Carbon: Concepts and Issues from a National Perspective

Presenter: Sarah Rizk, Environmental Scientist, Clean Energy and Climate Change Office, US Environmental Protection Agency (US EPA), Region 9, who works with a broad range of partners on reducing greenhouse gases (GHGs) through voluntary action. Her research focuses on the intersection between climate and health benefits. Her recent work quantifies the monetary health impacts of fossil fuel energy and analyzes policy pathways for reducing black carbon from diesel vehicles, drawing from existing regulatory policies. Sarah holds a B.S. and a M.S. in Earth Systems from Stanford University.

Black Carbon: Concepts and Issues from a Statewide Perspective

Presenter: Bart Croes, Division Chief, Research Division, California Air Resources Board (CARB), with responsibility for California's ambient air quality standards; climate change science and mitigation of high global warming potential gases; and health, exposure, and indoor air quality. He was the Public Sector Co-Chair for the NARSTO Executive Assembly, and a former member of the National Research Council (NRC) Committee on Research Pollution in Urban China and the US, a joint collaboration between the National Academy of Engineering, NRC, Chinese Academy of Engineering, and Chinese Academy of Sciences. He has been peer reviewer for the NRC, US EPA, and numerous journals, and has received the Editors' Citation for Excellence in Refereeing from the Journal of Geophysical Research. Bart has published peer-reviewed articles on air quality simulation modeling, emission inventory evaluation, reactivity-based VOC controls, acid deposition, the weekend ozone effect for ozone and PM, PM data analysis and trends, diesel particle traps, and climate change impacts on California. He holds a B.S. in Chemical Engineering from the California Institute of Technology, a M.S. in Chemical Engineering from the University of California at Santa Barbara, and is a registered Professional Chemical Engineer in the State of California.

KEY POINTS BY

Sarah Rizk, US EPA

1. Black Carbon (BC, see glossary for a list of definitions and acronyms) has been studied extensively by the US EPA. A seminal report was presented to the US Congress on BC in March 2012. This report outlines the state of the science on BC and explicitly states that despite remaining uncertainties about the climate impact of BC that require further research, currently available scientific and technical information provides a strong foundation for making mitigation decisions to achieve lasting benefits for public health, environment, and climate change impacts.

2. BC is a climate-forcing pollutant, which heats the atmosphere as the most strongly light-absorbing component of $PM_{2.5}$, which also reduces ice- and snow pack- albedo. Another component of $PM_{2.5}$ is organic carbon (OC), of which Brown Carbon (BrC) is a component; BrC is the most strongly absorbing component of OC. Despite remaining uncertainties on the magnitude of the net climate impact of BC and its co-pollutants, currently available information shows that BC is a net warming agent. Short term climate benefits from a reduction of atmospheric BC may include mitigated impacts from sea level rise and from tipping point events (e.g., ice cap elimination).
3. BC causes significant health impacts worldwide, consistent with those associated with $PM_{2.5}$, e.g., respiratory and cardiovascular effects, as well as premature death. Emissions and ambient concentrations of directly emitted $PM_{2.5}$ are often highest in urban areas, and global BC mitigation measures could thus potentially lead to hundreds of thousands of avoided premature deaths annually.
4. Controls on BC emissions offer an opportunity to quickly reduce its impact on global climate change, as BC particulates settle out of the atmosphere in less than 14 days, rather than over decades (as with major GHGs).
5. Based on short- and long-term climate and health goals, select metrics (e.g., global warming net forcing, cost effectiveness) and time horizons are needed to evaluate and track mitigation strategies and to explore implications from remaining uncertainties.
6. US and California agencies have made progress on reducing BC emissions through a variety of mechanisms, e.g., diesel PM reduction plans. Areas for continued US mitigation include, open biomass burning, mobile sources, and residential heating and cooking. While globally heating and cooking are significant sources, they contribute only 4% of total US BC emissions.
7. To maximize climate benefits from PM health mitigation measures, ambient concentrations of BC and its co-emitted pollutants should be considered in PM attainment strategies.

Bart Croes, CARB

1. BC is an adverse contributor to both global climate change and public health. California has made significant progress towards reduced BC emissions, e.g., thru diesel engine controls, advanced clean-car regulations, and burning restrictions. Due to these actions, BC only contributes 11% of California climate change impacts on a 100-year global warming potential basis, as opposed to 23% globally; short term impacts in California could be higher.
2. Diesel engines are the primary BC source in California. A 2010 Caldecott Tunnel study indicated that the dirtiest 10% of trucks in the study produced half of all measured BC emissions. Over the last 40 years a factor of three reductions in BC emissions has resulted from changes in diesel combustion, while concurrent diesel usage has increased from

about 10 to 70 million barrels per year. By 2020, California is expected to have reduced diesel PM emissions by 85% below its 2000 levels. Additional emission reductions by 2020 are planned through a combination of new vehicle emissions standards, fuel rules, and fleet rules.

3. Agricultural and residential burning controls also have resulted in reduced emissions of both BC and BrC, a class of particulates that includes both elemental and organic carbon compounds that absorb both ultraviolet and visible solar radiation.

EMERGING ISSUES AND RECOMMENDATIONS

Increasing information shows that BC emissions have significant roles in global climate change and public health impacts. Not all BC emissions sources have the same effect, however, due to variations in magnitude, location, and types of co-emitted pollutants. While some BC emissions produce climate atmospheric cooling and others produce warming, on balance the accepted scientific view is that BC emissions have a net warming effect, although exact magnitudes remain uncertain. BC emissions also have significant adverse public health impacts, consistent with those associated with PM_{2.5} exposure. BAAQMD staff included many of the above concepts in their November 2012 report: Understanding Particulate Matter.

Brown carbon (BrC), a common co-emitted pollutant with BC, was identified as a potentially important climate forcer, but it is not fully understood if it has a warming or cooling impact. The Advisory Council will further address BrC in a future report.

The Advisory Council has thus identified the following emerging issues and recommendations, which could lead the Air District to increased activities in the following action areas:

Research

1. **Research:** Ongoing research continues to increase understanding of BC and BrC impacts on climate change and public health. Public policy choices should utilize this new information in the evaluation of benefits from individual mitigation options. Although residential, agricultural, and open burning are known major sources of BrC, refinement concerning its health and climate impacts need further study.

Recommendation: The Air District should continue to review the research on health and climate impacts from both BC and BrC, as well as the research on mitigation strategies.

Source-Specific Reduction Strategies

2. **Biomass Burning:** Biomass combustion contributes 35% of US BC emissions, and resulting health impacts are well documented.

Recommendation: In addition to ongoing Air District PM_{2.5} emission-reduction programs (e.g., for wild fire hazard reduction, residential wood burning, smoke

management, chipping, and composting), the Air District should also develop new (regulatory and incentive) programs for safer and more efficient biomass combustion in areas such as improved open burning, equipment upgrades, and wood combustion rules.

3. **Diesel Engines:** Transport contributes 52% of US BC emissions, and diesel accounts for 93% of that amount. Diesel engines are also the primary source of regional BC emissions, even though this sector has had great reductions. Mobile source rules, technology improvements, and declining equipment costs will result in continued turnover of the on- and off-road diesel fleets and in decreasing ambient BC concentrations, but more can be done to accelerate these trends. BC mitigation strategies (e.g., diesel retrofits) offer cost-effective mitigation of near-term climate effects.

Recommendation: The Air District and CARB should accelerate adoption of cleaner engines in the Bay Area through revision of grant criteria and incentives, especially for off road diesel engines.

Information Development

4. **Inventory:** Development of a BC emissions inventory would support multiple air quality and climate change goals and contributes to understanding the magnitude and complexity of these inter-related problems, e.g., by understanding co-emitted pollutant emissions rates and relative contributions by sector.

Recommendation: The Air District should develop an inventory of BC and (where relevant and possible) co-emitted pollutants.

5. **Modeling:** Modeling of BC emissions and ambient-concentrations, as well as of the morphology and fate of BC, OC, and co-emitted pollutants, will help evaluate their health and climate impacts.

Recommendation: Evaluate the capabilities of existing models and identify needed improvements.

6. **Monitoring:** Limited ambient BC monitoring is carried out for public-health and regulatory reasons, but additional measurements are needed to provide more detailed information on BC concentrations and to update and verify emission inventories. This may require new stations and perhaps new equipment.

Recommendation: The Air District should develop an enhanced BC monitoring plan to determine spatial and temporal concentration variations.

Regional and Ongoing Reduction-Strategies

7. **Inter-agency cooperation:** BC is an important short-term climate forcer, whose emissions if controlled would result in reduced atmospheric concentrations. Other agencies, e.g., CARB, BAR, and MTC, also are involved in such successful local reduction strategies.

Recommendation: The Air District should consult with local, regional, and state agencies to ensure synergy with its PM and multi-pollutant planning processes.

8. **Control-Strategy Metrics:** Metrics should align with jurisdictional health and/or climate goals. Selected goals will influence metrics for evaluating BC control strategies. Metrics should accurately reflect progress toward those goals and be capable of measuring the overall effectiveness of mitigating both climate-change and public-health impacts.

Recommendation: The Air District should incorporate BC, co-emitted pollutants, climate change, and health cost-benefit data into future planning processes and regulations.

9. **Compliance:** Compliance with existing regulations to reduce BC emissions can be achieved through educational outreach, incentives, and regulatory efforts, each an important component of a successful air quality and climate protection program.

Recommendation: The Air District should continue to measure the success of, and to improve as necessary, existing incentives, educational efforts, grant programs, and compliance strategies to reduce BC emissions from all sources. This could include public education of emission impacts, benefits from diesel-engine regulations, and advocating for increased enforcement of state and federal diesel engine regulations.

Recommendation: The Air District should interact with BAR with respect to lube oil burning vehicles

GLOSSARY: Many definitions are condensed from the March 2012 US EPA Report to Congress on Black Carbon

BAR: Bureau of Automotive Repair.

Biomass: Organic materials, such as wood and agricultural wastes, which can be burned to produce energy or converted into a gas for use as a fuel.

Black Carbon (BC): Solid form of mostly pure carbon, produced by incomplete combustion; the most effective form of PM (by mass) at absorbing all wavelengths of solar radiation.

Brown Carbon (BrC): Class of particulate OC that absorb ultraviolet and visible solar radiation. Can be directly emitted during incomplete combustion, or it can form as atmospheric pollutants age.

Climate Change: Significant change in climate (e.g., temperature, precipitation) lasting for extended periods (i.e., decades or longer). May result from natural factors (e.g., changes in solar intensity), natural processes (e.g., changes in ocean circulation); and/or human activities that change atmospheric composition (e.g., fossil fuel consumption) and/or land surfaces (e.g., deforestation, urbanization).

Co-Emitted Pollutants Gases and particles emitted with BC, e.g., OC, sulfates, nitrates, sulfur dioxide, nitrogen oxides.

Greenhouse Gas (GHG): Gas that absorbs infrared atmospheric radiation, e.g., water vapor, carbon dioxide, methane, and nitrous oxide.

Hazardous Air Pollutant (HAP): Pollutants known or suspected to cause cancer or other serious health issues (e.g., reproductive effects or birth defects).

Open Biomass Burning: Burning of vegetative material, e.g., agricultural burning, prescribed burning, and wildfires.

Organic Carbon (OC): Compounds containing carbon (bound with other elements, e.g., hydrogen and oxygen). May be a product of incomplete combustion or formed through the oxidation of atmospheric VOCs.

Particulate Matter (PM): Complex mixture of small particles and liquid droplets suspended in atmosphere in various size ranges, i.e., PM₁₀, PM_{2.5}, and ultrafine.

PM_{2.5}: Particles with diameters ≤ 2.5 micrometers.

Volatile Organic Compounds (VOCs): Organic carbon in vapor phase.

Wildfire: Unplanned ignition from lightning, volcanoes, human actions, or escaped prescribed fires.

REPORT ON THE MAY 8, 2013 ADVISORY COUNCIL MEETING ON THE BLACK CARBON: MEASUREMENT AND MODELING, AND BLACK CARBON: EXPOSURE AND MITIGATION

Key Points

Black Carbon – Exposure and Mitigation

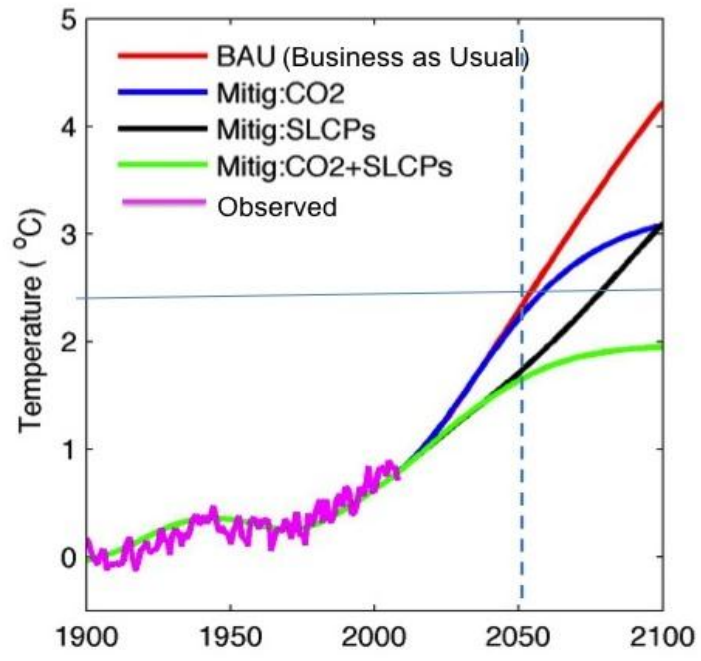
Presenter: Veerabhadran Ramanathan, Distinguished Professor, Scripps Institution of Oceanography, University of California, San Diego. In the 1970s Dr. Ramanathan discovered the greenhouse effect of chlorofluorocarbons (CFCs) and numerous other manmade trace gases, and he forecasted in 1980, along with R. Madden, that global warming would be detectable by 2000. Dr. Ramanathan, along with Paul Crutzen, led an international team that first discovered widespread Atmospheric Brown Clouds (ABCs). He showed that ABCs led to large scale dimming, decreased monsoon rainfall and rice harvest in India, and played a dominant role in melting Himalayan glaciers. His team developed unmanned aerial vehicles with miniaturized instruments to measure black carbon (BC) in soot over Asia and to track pollution from Beijing during the Olympics. Dr. Ramanathan has estimated that reduction of BC can reduce global warming significantly, and he is following this up with Project Surya, which will reduce soot emissions from bio-fuel cooking in rural India for purposes of climate mitigation. Dr. Ramanathan chaired a National Academy report that calls for a major restructuring of the Climate Change Science Program, and it was received favorably by the Obama administration. His numerous awards include the 2009 Tyler Prize, Volvo Prize, Zayed prize, Rossby Medal, and Buys-Ballot Medal for pioneering studies in climate and environment. He has been elected to the American Philosophical Society, US National Academy of Sciences, Pontifical Academy by Pope John Paul II, and Royal Swedish Academy of Sciences.

1. Black carbon (BC; all acronyms are defined in Glossary), along with methane, ozone, and some hydrofluorocarbons (HFCs), are termed short-lived climate pollutants (SLCPs) and are positive (i.e., warming) climate forcers,¹ with BC second only to CO₂ as a climate warming forcer. The Global Warming Potential (GWP; see Glossary) per ton of BC is estimated to be 2,500-4,000 times that of CO₂ (not accounting for the warming effects of BC through the reduction of snow and ice pack albedo after its deposition). Due to the short period of time that BC remains in the atmosphere (days to months), the range of BC's GWP values (2,500-4,000) depends upon the time frame examined (100 vs. 20 years, respectively).
2. Effective approaches to mitigate global climate change must include a two-part strategy that reduces both SLCPs and long-lived pollutants (such as CO₂). As shown in Figure 1 (below), while mitigating CO₂ or SLCPs alone will produce measurable decreases in global temperatures, when compared to proceeding with business as usual, mitigating both simultaneously could avoid approximately half the warming expected by 2050. Of

¹ Positive (i.e., warming) climate forcers (see Glossary) cause more solar energy to be retained by the planet, thus producing a warming effect. Negative (i.e., cooling) forcers have the opposite effect, i.e., they act as "mirrors" to scatter solar energy, thus producing a cooling effect.

the total warming avoided by 2050 through the mitigation of SLCPs and CO₂ in concert, 90% is attributable to SLCP mitigation. While effects from the mitigation of long-lived pollutants like CO₂ might not be felt until well into the future, reduction of SLCPs can result in mitigation of some near-term climatic impacts, e.g., immediate SLCP control could reduce expected 2050 increases in sea level by an estimated 30%.

Figure 1: Observed and simulated global mean surface temperature under different mitigation strategies



Source: Hu A, Xu Y, Tebaldi C, Washington WM, Ramanathan V. Mitigation of short-lived climate pollutants slows sea-level rise. *Nature Climate Change*, advance online publication, 14 Apr 2013.

3. Exposure to BC results in significant health impacts. A recent WHO study estimated that ambient particulate matter (PM), of which BC is a major component, accounts for approximately 3.1 million deaths annually worldwide. Additionally, it is estimated that indoor air pollution from solid-fuel combustion, during which BC is produced, accounts for 3.5 million deaths annually worldwide. Local reductions in BC emissions thus can result in immediate improvements in local health.
4. California actions since the 1980s to reduce PM, especially from diesel sources, have resulted in an approximately 50% reduction in BC concentrations, and this reduction has occurred in spite of increased diesel fuel consumption. At the same time, only a negligible reduction has been achieved for many co-emitted pollutants that act as cooling climate forcers. These results justify diesel emission reduction programs as a continued component of climate change mitigation.

5. BC emissions are increased from vehicles in congestion situations, due to idling, stopping, and restarting.
6. BC emissions are a significant problem in Asia, Africa, and other developing regions with weak diesel regulations and with high use of traditional solid-fuel cookstoves. California has been successful in reducing its BC emissions, primarily through regulations mandating adoption of improved diesel technologies in recent decades. California can thus assist developing countries in reducing their BC emissions by sharing expertise on policy implementation and on technical innovations (e.g., diesel control technologies and development of cleaner, low-emitting cookstoves).
7. BC can be measured in real time using cellphones augmented with relatively inexpensive thermal-optic technologies. These technologies could be deployed to community members to provide better estimates of local BC concentrations.
8. Brown carbon (BrC), a subcomponent of organic carbon (OC), defined by its optical absorption properties, is commonly co-emitted with BC during biomass burning. It appears to have a warming effect on climate, with a GWP of 20-25% of that of BC.
9. Some components of biomass burning (e.g., ash and nitrate precursors) are cooling climate forcers, while others (BC and BrC) are warming climate forcers. It is now thought that the net effect of biomass burning on climate is either zero or slightly warming.

Black Carbon in the San Francisco Bay Area: Trends in Ambient Concentrations and Emissions

Presenter: Robert Harley, Professor, Department of Civil and Environmental Engineering, University of California, Berkeley, where he has been on the faculty since 1993. Prof. Harley holds a bachelor's degree in Engineering Science (Chemical Engineering option) from the University of Toronto, and both an M.S. and Ph.D. in Environmental Engineering Science from the California Institute of Technology (Caltech). Prof. Harley's research focuses on air quality and sustainable transportation; he is an author of over 75 papers published in peer-reviewed scientific journals. He now serves as an associate editor of *Atmospheric Chemistry and Physics*. Prof. Harley received the National Science Foundation's young investigator (CAREER) award in 1996, as well as a visiting scientist fellowship (1999-2000) at the University of Colorado / NOAA Aeronomy Lab in Boulder. He served for three years as Vice Chair of the Civil and Environmental Engineering Department at Berkeley (2001-04), chairing committees responsible for undergraduate curriculum and graduate student admissions. He also served as Environmental Engineering faculty group leader (2007-10). During the first half of 2011, he was a visiting scientist at the Max Planck Institute for Chemistry in Mainz, Germany. Prof. Harley is also appointed as a Faculty Scientist/Researcher in the Environmental Energy Technologies Division of Lawrence Berkeley National Laboratory, a U.S. Department of Energy science lab located adjacent to campus.

1. Results from a recent Denver-based speciated PM_{2.5} study indicate that the BC fraction of traffic-related PM_{2.5} is highly correlated with adverse cardiovascular and respiratory hospital admissions. It is still unclear, however, whether BC is directly toxic, or whether BC particles carry toxic chemicals on their surface.
2. Coefficient of Haze (COH) is an excellent surrogate for BC concentrations. Long-term COH measurements in the Bay Area were available until 2003, when their samplers were discontinued due to lack of available parts. These measurements showed that Bay Area BC concentrations steadily decreased over the decades.
3. Real-time BC monitoring in the Bay Area can be accurately accomplished by use of relatively low cost real-time light absorption methods. Within the Air District monitoring network, BC is explicitly observed by fine-particulate speciation at four sites and by real-time absorption at three others.
4. In the Bay Area, BC accounts for approximately 10% of winter PM_{2.5} emissions, almost exclusively from mobile sources and wood smoke. Combining the Air District's winter PM_{2.5} emissions inventory with source apportionment results from Dr. Lynn Hildemann shows that heavy-duty trucks and off-road mobile sources together account for 73% of emissions, while another 21% are from wood smoke.² Some local concentrations may result from emissions originating from areas outside the Bay Area.
5. Bay Area studies of BC show:
 - a. BC concentrations (like PM_{2.5} in general) are highest in the winter due to stable meteorological conditions (i.e., poor mixing) and increased seasonal residential wood-burning.
 - b. BC emission rates per gallon for diesel-fueled vehicles are currently 50 times greater per vehicle on average than those of gasoline-fueled vehicles.
 - c. As the diesel fleet gets cleaner, the majority of Bay Area BC traffic emissions will come from an increasingly small number of vehicles. This remaining group of uncontrolled vehicles thus represents an important target for reducing overall BC concentrations.
 - d. Emission controls on port drayage have decreased localized peak BC concentrations in West Oakland, but area-wide annual average BC concentrations have not decreased. This is likely due to the local dominance of other sources, such as adjacent railroads and traffic on nearby highways.
6. BrC emissions from lubricating-oil burning are higher in diesel (as compared to gasoline) vehicles, as diesel engines consume more lubricating oil (except in the case of gasoline gross polluters).

² Recent analysis by Air District staff attributes Bay Area BC emissions as follows: 50% from diesel engines, 15% from other fossil fuel combustion, 25% from residential wood-burning, and 10% from other wood smoke sources. These data can be viewed on page 51 of the 2012 report: *Understanding Particulate Matter: Protecting Public Health in the San Francisco Bay Area*.
baaqmd.gov/~media/Files/Planning%20and%20Research/Plans/PM%20Planning/ParticulatesMatter_No_v%207.ashx

7. Major decreases in BC are expected to continue as California regulations pertaining to heavy-duty diesel engines take effect. Additional California regulatory efforts that will control BC emissions from goods movement, light-duty vehicles, and wood-burning are also underway.

Emerging Issues

Many issues raised by the speakers are well covered in pages 47-58 of *Understanding Particulate Matter: Protecting Public Health in the San Francisco Bay Area* (cited in footnote #2 above).

1. Efforts aimed at BC reduction are essential components in the mitigation of the adverse effects of climate change and thus must be implemented in concert with efforts to reduce CO₂ and other climate warming forcers.
2. While climate change is generally considered on a global level, widespread local control of BC emissions can result in significant immediate local health benefits and in important near-term climate benefits at the global and local levels (e.g., in California, through increased surface snow-pack albedo and consequent lower risk of reduced water supply).
3. BrC appears to be a contributor to climate change, but further quantification of its influence is necessary.
4. Co-emitted species produced during biomass burning in California (such as nitrate precursors and ash) are cooling climate forcers and must be considered when developing BC and BrC mitigation strategies.
5. The underlying mechanisms behind, and the relative magnitude of, the direct health effects of BC and BrC, as well as of the toxic chemicals carried on their surfaces, are not fully understood. Further research in these areas will help refine and clarify priorities for emission reduction targets.
6. A detrimental positive feedback loop (see Glossary) exists, in which BC- and BrC-induced climate change results in increased drought, leading to increased wildfire risk, and in turn to greater BC and BrC emissions.
7. California and Air District regulations to limit diesel emissions and PM have been successful in reducing BC concentrations, but more reduction is needed. Targets for local and regional BC emission reduction in the Bay Area include:
 - a. Diesel sources, e.g., rail, ship, airport ground equipment, back-up generators, and gross polluting mobile sources
 - b. Traffic management, including congestion mitigation and traffic calming

- c. Residential (indoor and outdoor) wood-burning devices, recreational burning (e.g., campfires or bonfires), agricultural burning, and open biomass burning, including forest management.
 - d. Residential and commercial cooking, especially char broiling and barbecuing
8. BC is not currently part of the cap-and-trade system and it is not clear if it will be, but if it were, using the 2,500-4,000 GWP range of BC and a currently accepted California carbon market value of \$10-15 per ton of CO₂ equivalent, BC could potentially be worth \$25,000-60,000 per ton. The relative costs of reducing CO₂ and BC emissions will influence the feasibility of future reductions.
9. Burning of vehicle engine lubricating oil is linked to BrC emissions.
10. Wintertime BC and BrC emissions are of greatest concern for California climate due to more stable winter meteorological conditions and to the presence of the Sierra snow and ice, onto which BC is deposited, leading to accelerated melting.
11. Continued measurements of Bay Area BC and BrC can help verify the success of regulatory and incentive programs. Empirical evidence of successful mitigation efforts can support similar models for BC and BrC reduction programs that can provide health and climate benefits to communities worldwide.

Recommendations

The Advisory Council thus recommends that the Air District:

1. Improve Bay Area BC and BrC monitoring networks to better understand sources contributing to PM_{2.5} health effects and to track the impacts of emissions control progress over the next decade. Increased monitoring is needed, both in locations with existing long-term measurements (for trend analysis) and in areas where more information is needed. To that end:
 - a. Continue and expand Bay Area BC monitoring, concentrating on locations where historical COH measurements were once collected. Consider redeployment of COH monitors, if possible.
 - b. Track progress on the development of BrC monitoring technologies.
 - c. Further investigate BC in high peak concentration areas, such as in much-studied West Oakland, and expand ambient monitoring and source apportionment studies.
 - d. Explore supplementation of the BC monitoring network through widespread deployment of low-cost monitoring technologies. These monitors could be useful during air pollution episodes, such as the recent Richmond refinery fire.
 - e. Continue to refine and develop BC, BrC, and OC emissions inventories.
 - f. Research the magnitude of the inter-basin transport of BC and BrC, e.g., to and from the Central Valley.

2. Continue and accelerate Air District efforts to target emission control of BC and BrC within the Bay Area. Additional control measures to consider or enhance include:
 - a. Incentives and regulatory mechanisms that target:
 - Diesel sources, including gross polluting vehicles, off-road mobile equipment, rail, ship, airport ground equipment, and back-up generators
 - Residential indoor and outdoor burning [including fireplaces, wood stoves, chimineas (see Glossary), and fire pits], recreational burning (e.g., bonfires and campfires), agricultural burning, and open biomass burning and forest management
 - Residential and commercial cooking, including char broilers, barbecues, and wood-burning pizza ovens
 - b. Emphasis on seasonal regulations and incentives that reduce winter BC and BrC emissions. For example, increasing the effectiveness of the Winter Spare the Air program.
 - c. Continued incentive funding for programs to scrap vehicles with high-emitting diesel and gasoline engines.
 - d. Working with the business community and others to develop more sustainable transport of freight and goods.
 - e. Assisting planning agencies to implement strategies that minimize traffic and optimize flow on Bay Area roads.
 - f. Supporting federal, state, and local policies and programs that reduce emissions, especially as they relate to ongoing CARB diesel reduction regulations.
3. Assess the relative health and climate effects of a range of contaminants (especially, CO₂, PM_{2.5}, BC, BrC, OC, nitrate precursors, ash, and methane) from a variety of source categories (e.g., fossil and renewable fuels burned in various engines, in heating and cooking appliances, and during wildfires). When developing climate and/or health improvement strategies, examine how the mitigation of one contaminant may have an unintended adverse consequence on the climate and/or health impacts of another contaminant.
4. Assess current and potential buyback-type programs (for old cars, old diesels, and wood burning devices) and consider modifying buyback formulas to incorporate information on BC's climate forcing potential. For example, use of the per-ton BC carbon credit value of \$25,000-60,000 (as described above), vehicle buyback and fireplace removal/retrofit programs could be amended to reflect the value of reduced BC (and other climate forcing co-emitted pollutants, as applicable) emissions. Such programs could be subsidized by money collected from the purchase of carbon credits.
5. Educate the public about: a) the roles BC and BrC play as SLCPs and b) the fact that technologies and tools to reduce BC and BrC emissions are presently available.
6. Given the rapid growth in research on numerous climate pollutants and on appropriate mitigation strategies, consider enhancing or expanding Air District staffing to designate a climate change point-person.

Glossary

ABAG: Association of Bay Area Governments in the San Francisco Bay Area

Albedo: Fraction of solar energy (shortwave radiation) reflected from the earth back into space by atmospheric aerosols and land surfaces. Measure of reflectivity of earth's atmosphere and surface. Pure ice, especially with snow atop it, has a high albedo. Ice or snow contaminated with BC has a reduced albedo, is less reflective, and therefore absorbs more solar energy.

Ash: Inert, non-combustible chemical compounds (generally similar to earth crustal elements) present in fuel or wood that can be co-emitted with other combustion emissions (e.g., CO₂, water vapor, BC, NO_x, etc.). Refined fuels (diesel, gasoline, and jet fuel) produce low ash amounts. Ash can scatter solar radiation in multiple directions, including back into space, thereby having a cooling effect on the climate. In the atmosphere, ash contributes to ambient PM_{2.5} and PM₁₀ concentrations.

BC: Black Carbon. Solid form of mostly pure carbon, produced by incomplete combustion of diesel and other fuels. Most effective form of PM (by mass) for absorbing all wavelengths of solar radiation.

Biomass: Organic materials, such as wood and agricultural wastes, which can be burned to produce energy or converted into a gas for use as fuel.

BrC: Brown Carbon. Component of OC related to the burning of biomass and of lubricating oil in vehicle engines. BrC absorbs ultraviolet and visible solar radiation, though not as efficiently as BC.

CARB: California Air Resources Board

Chiminea: Freestanding, front-loading, wood-burning fireplace or oven with a bulbous body, used in decorative backyard settings.

Climate forcers (negative and positive): Pollutants causing cooling or heating of the atmosphere, respectively.

CO₂: Carbon dioxide. Climate-warming product of combustion of organic materials (fuels and biomass).

COH: Coefficient of Haze. Measure of ambient air particulates highly correlated with BC measurements. Manufacture of COH analyzers has been discontinued.

Co-Emitted Pollutants: Gases and particles emitted concurrently with BC emissions (e.g., OC, sulfur dioxide, and nitrate and sulfate precursors).

GWP: Global Warming Potential. A measure of a chemical's relative contribution (per ton) to global warming in comparison to CO₂. A GWP is calculated over a specific time interval, commonly 20, 100, or 500 years.

HFC: Hydrofluorocarbon. Fluorocarbons used as refrigerants and in other industrial processes.

Mirrors: Used to describe air pollutants (e.g. nitrates, sulfates, and ash) that scatter solar radiation in many directions, including back into space, and thus have a cooling effect on climate.

MTC: Metropolitan Transportation Commission in the San Francisco Bay Area.

OC: Organic carbon. Compounds containing carbon (bound with hydrogen and other elements, e.g., oxygen). May be a product of incomplete combustion or formed through the oxidation of atmospheric Volatile Organic Compounds (VOCs).

PM: Particulate matter. A complex mixture of small particles and liquid droplets suspended in the atmosphere in various size ranges (i.e., PM₁₀, PM_{2.5}, ultrafine).

PM2.5: Ambient particulate matter less than 2.5 microns in diameter.

Positive Feedback Loop: Series of events that reinforce the original action. In context of this report, for example, BC and BrC emissions lead to increased global warming, which results in increased frequency of forest fires, which in turn emit BC and BrC, thus perpetuating and enhancing the BC and BrC cycles.

SLCP: Short-lived climate pollutants (e.g., BC, BrC, methane, ozone, and some HFCs) that have relatively short lifetimes (i.e., half lives of days to months) in the atmosphere compared to CO₂ and nitrous oxide (N₂O), which stay in the atmosphere for decades.

WHO: World Health Organization. United Nations health authority responsible for providing information, health-based standards, and guidelines on a broad spectrum of health issues, including the effects of air pollutants.

DRAFT REPORT ON THE SEPTEMBER 11, 2013 ADVISORY COUNCIL MEETING ON
BLACK CARBON: HEALTH EFFECTS OF EXPOSURE

SUMMARY

The following presentations were made at the September 11, 2013 Advisory Council meeting on Black Carbon and Climate Change- Health Impacts:

1. Health Impacts Associated with Climate Change by Dr. Linda Rudolph, MD, MPH. Dr. Rudolph is co-director of the Climate Change and Public Health Project at the Public Health Institute in Oakland, CA. She is also principal investigator on a Public Health Institute project to advance integration of health into all policies in local jurisdictions around California. She holds an MD from the University of California at San Francisco and a Master of Public Health from the University of California at Berkeley. Previously, Dr. Rudolph served as the Deputy Director of the California Department of Public Health in the Center for Chronic Disease Prevention and Health Promotion and as the Health Officer and Public Health Director for the City of Berkeley.
2. Black Carbon- Health Effects of Exposure by Professor Michael Kleinman. Dr. Kleinman is Professor of Occupational and Environmental Medicine in the Department of Medicine at the University of California at Irvine. He is also Co-Director of the Air Pollution Health Effects Laboratory in the Department. He holds a Master in Chemistry from the Polytechnic Institute of Brooklyn and a Ph.D. in Environmental Health Sciences from New York University. He has published more than 100 articles in peer-reviewed journals dealing with environmental contaminants and their effects on cardiopulmonary and immunological systems, and has directed more than 50 controlled exposure studies of human volunteers and laboratory animals to ozone, particulate matter (PM), and other pollutants.

This is Prof. Kleinman's second presentation to the Advisory Council in two years. On October 12, 2011 he discussed his research on neurological and cardiopulmonary effects of inhaled particles on humans and laboratory animals. In that presentation, Prof. Kleinman demonstrated that semi-volatile components of PM_{2.5} and ultrafine particles (UFP) can promote airway allergies and accelerate development of cardiovascular disease, and that they can increase production of inflammatory mediators, damaging brain cells. The September 11th presentation provided an update on Prof. Kleinman's research, including the unique effects of nanoparticles.

KEY POINTS

Dr. Linda Rudolph

1. Climate change is the greatest public health challenge of the 21st century. Climate change will continue to result in direct and indirect health impacts, including: heat-related illness and death, asthma and other respiratory disease, cardiovascular disease, vector-borne disease, water- and food-borne disease, increased allergies from increased pollen counts, other infectious disease (e.g., valley fever), mental health disorder, malnutrition, and food insecurity (see Glossary).

2. The Intergovernmental Panel on Climate Change (IPCC) in their *Managing the Risks of Extreme Events and Disasters to Advance Climate Change*,¹ predict that extremes in weather events will increase in frequency and intensity under projected climate change scenarios. Severe climate events have already been shown to result in significant negative health effects. Examples include:
 - a. During the 2006 heat wave in California, 650 excess deaths occurred, and an even greater number of excess emergency room visits and hospitalizations resulted. A large number of excess deaths occurred in areas typically cooler and lacking air conditioning; about 45% of those who died lived alone.²
 - b. Acute health care costs from just six major climate events (i.e., from heat waves, wildfires, ozone pollution, hurricanes, flooding, and infectious disease) in the U.S. between 2000 and 2009 totaled \$14 billion and led to 1,699 premature deaths.³
3. Climate change threatens our survival by disrupting systems upon which humans depend, such as water, food, and shelter, and thus peace and social stability. Faster and more aggressive action is needed to avert the worst effects of climate change and to avoid catastrophic impacts on future generations.
4. Climate change will impact vulnerable populations to the greatest extent. Those already most at risk for adverse health problems (e.g., poor, young, old, and disenfranchised) may not be as resilient at responding to climate events (e.g., due to lack of air conditioning or transportation).
5. The effects of climate change may overwhelm ongoing air quality improvement efforts. For instance, warmer temperatures throughout inland California are expected to result in up to 30 more days per year of unhealthy ground-level ozone concentrations. This is known as a “climate penalty.”
6. According to Dr. Dan Cayan, Director of the Climate Research Division at the Scripps Institution of Oceanography, annual average temperatures in the Bay Area are expected to increase 3.5-11⁰F by 2050, depending on the specific location within the Bay Area,

¹ IPCC, 2012. *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation*. A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change [Field, C.B., V. Barros, T.F. Stocker, D. Qin, D.J. Dokken, K.L. Ebi, M.D. Mastrandrea, K.J. Mach, G.-K. Plattner, S.K. Allen, M. Tignor, and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, UK, and New York, NY, USA, 582 pp. Also available online at: http://www.ipcc.ch/publications_and_data/publications_and_data_reports.shtml#SREX. Accessed October 15, 2013.

² Hoshiko S, English P, Smith D, Trent R. A simple method for estimating excess mortality due to heat waves, as applied to the 2006 California heat wave. *Int J Public Health*. 2010 Apr; 55(2):133-7. doi: 10.1007/s00038-009-0060-8. Epub 2009 Aug 13. PMID: 19680599.

³ Knowlton K, Rotkin-Ellman M, Geballe L, Max W, Solomon GM. Six climate change-related events in the United States accounted for about \$14 billion in lost lives and health costs. Health and Environment Program, Natural Resources Defense Council, New York City, NY, USA. *Health Aff (Millwood)*. 2011 Nov; 30(11):2167-76. doi: 10.1377/hlthaff.2011.0229.

with inland areas most affected. The Bay Area may be particularly vulnerable because the population is not well-adjusted to high temperatures and its existing infrastructure is not well suited for adaptation (e.g., buildings are designed for coastal mild climates and lack air conditioning systems).

7. A public health climate strategy requires dramatic reductions in greenhouse gas (GHG) emissions, preparation, and building climate resilient communities. Strategies should include greater energy efficiency standards (for buildings and vehicles), greater use of pervious surfaces, cool roofs, urban greening, and development of plans to protect vulnerable populations from extreme heat and other severe weather events.
8. Many climate-focused efforts have health co-benefits, and many health-focused efforts also have climate co-benefits:
 - a. GHG reduction measures as outlined in California's Assembly Bill 32 Scoping Plan are expected to result in measurable health co-benefits, including reduction of PM and oxides of nitrogen (NO_x) emissions. A recent study estimates these reductions by 2030 as 1 and 15%, respectively, when compared to business as usual.
 - b. Changing transportation modes to active transportation (i.e., cycling, walking, and transit), not only reduces GHG emissions and other air pollutants, but also provides other health benefits. Maizlish et al., 2011,⁴ using ITHIM (an active transportation computer model), predicted that if active transportation in the Bay Area were to increase from the current average of less than 5 minutes a day to 22 minutes (from a 2 to 15% mode share), not only would there be a 14% reduction in GHG emissions, but dramatic health benefits could be expected due to the increase in exercise and physical activity (benefits equal in magnitude to those achieved by California's Tobacco Control Program, which has averted one million excess deaths since implementation 25 years ago). The modeled Bay Area benefits of increased active transportation include a(n):
 - 14% reduction in heart disease, stroke, and diabetes
 - 6-7% reduction in depression and dementia
 - 5% reduction in breast and colon cancers
 - additional 9.5 months of life expectancy per person
 - annual health cost savings of \$1.4 to \$22 billion.

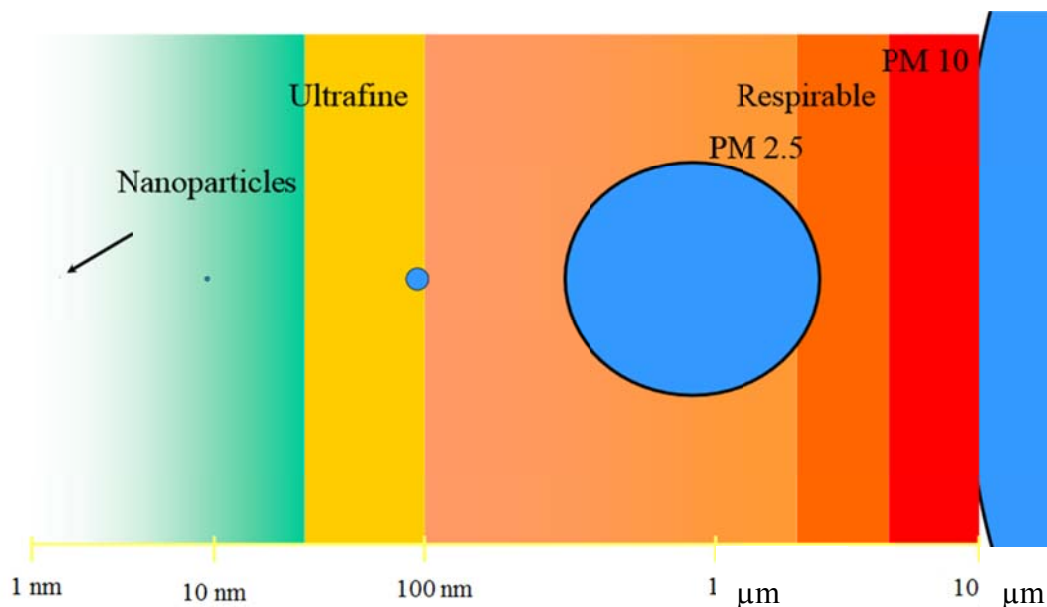
It is important to note, however, that ITHIM also predicts a 19% increase in avoidable bicycle and pedestrian injuries due to increased potential for conflicts with vehicles. Therefore, in promoting active transportation it is important to identify measures that also address bicycle and pedestrian safety.

⁴ Maizlish N, Woodcock J, Co S, Ostro B, Fanai A, Fairley D. Health Cobenefits and Transportation-Related Reductions in Greenhouse Gas Emissions in the San Francisco Bay Area. *Am J Public Health*. 2013 Apr;103(4): 703-9. doi: 10.2105/AJPH.2012.300939. PMID: 23409903. Technical Report available online at: http://www.cdph.ca.gov/programs/CCDPHP/Documents/ITHIM_Technical_Report11-21-11.pdf. Accessed October 15, 2013.

Prof. Michael Kleinman

1. Brown Carbon (BrC) and Black Carbon (BC) aerosols are present in the nanoparticle size range. Figure 1 illustrates the size of nanoparticles compared to larger particles. The 10 micron (μm) particle shown in the blue area on the right of Figure 1 is approximately one-sixth the diameter of a human hair.

Figure 1. Particle Size scale.



Source: Professor Michael Kleinman

2. Combustion processes result in formation of nanoparticles. Studies of roadways in Southern California show that the majority of particles measured were < 1 micron in diameter, and that those closest to the source were even smaller and ranged between 70 and 80 nanometer (nm).
3. More recently, nanoparticles manufactured for use in electronics, grinding during finishing processes, and research, including medical research can have a similar structure to diesel exhaust particles and can be inflammatory in the human body.
4. The surface area per unit mass of nanoparticles is greater than that of larger particles. This allows for a greater number of potentially toxic particles to attach to nanoparticle surfaces, and be subsequently inhaled.
5. Due to the small size of nanoparticles, they can be deposited deep in the lung, can penetrate across cell membranes, and can be transported via the bloodstream to distal organs, potentially resulting in a wide range of adverse health effects. These health effects can include impacts on cardiovascular and pulmonary function, as well as cellular and DNA damage. While some toxic materials present on BrC and BC aerosol particles are fairly insoluble, evidence exists that some nanoparticles and/or partially soluble particle components may be transported to other organs, affecting the lungs, liver, brain, and heart.

6. Both BrC and BC contain organic carbon. Prof. Kleinman conducted a study on mice that evaluated health effects from the organic components of BrC and BC. He exposed mice over an eight week period to particles containing organic components and to particles stripped of semi-volatile organics, including highly toxic organic compounds, such as Polycyclic Aromatic Hydrocarbons (PAHs). The following results were observed:
 - a. Mice exposed to particles without semi-volatile organic components showed increased cholesterol, as well as arterial wall thickening.
 - b. Mice exposed to particles with semi-volatile organic components also showed increased cholesterol and arterial wall thickening, but further showed increased arterial plaque, and decreased heart rate variability (an adverse health effect).
7. Prof. Kleinman 's studies concluded:
 - a. While adverse health effects from nanoparticles stripped of organics still remain important, it appears that the semi-volatile fraction of particulates may be the key contributor in leading to inflammation and development of atherosclerosis and heart disease
 - b. Thermal-emission control technologies that remove semi-volatile organics not only reduce PM pollution, but may also reduce the toxicity of residual particles (e.g., by removing PAHs, oxygenated hydrocarbons, and free radicals)
 - c. Exposure to laboratory-concentrated ambient particles (CAPs) increases inflammatory responses in the brain and is associated with damage to dopamine producing brain cells (same as in degenerative nerve diseases, such as Parkinson's).⁵

EMERGING ISSUES

1. Global climate change is happening faster than expected and at the upper end of IPCC scenario projections. Aggressive measures are needed to address climate change.
2. The recent Yosemite Rim Fire may provide an opportunity to further examine health impacts from large wildfires, anticipated to increase with climate change.
3. Air quality has and will continue to improve, but these improvements may be partially offset by effects from climate change (a climate penalty). In the Bay Area, the potential

⁵ This information appeared in Dr. Kleinman's presentation materials, but was not orally presented to the Advisory Council.

for this climate penalty may be mitigated by summer daytime coastal cooling, an expected reverse-reaction result of climate change.⁶

4. Preparation for public health implications from climate change requires:
 - a. Identification of vulnerable populations and development of policies to protect them, such as strengthening social support networks
 - b. Designing communities that:
 - i. enhance walking, cycling, and public transit
 - ii. improve energy efficiency
 - iii. adapt to, and recover from, impacts from heat, drought, floods, and sea level rise.
5. Public Health climate strategies should take full advantage of both climate and health strategies that provide co-benefits. Metrics can assess relative health benefits of climate policies. Some strategies may reduce both GHGs and other pollutants, but may present potential conflicts and may need further policy development, including:
 - a. Spare the Air Day alerts that recommend that the public bicycle and walk on days when air quality is poor, potentially expose sensitive groups to higher levels of air pollution.
 - b. Building high density development in high traffic areas may result in greater pedestrian and cycling injuries and may increase risks from higher levels of air pollutants.
6. Removal of highly toxic organics, including PAHs, from particles before inhalation can have substantial health benefits by reducing build-up of arterial plaque and its resulting adverse effects on the cardiovascular system. Processes for removing organic toxins are similar to engine afterburner technologies, which not only reduce pollution, but may also reduce the toxicity of residual particles.
7. Nanoparticles use in products (i.e., engineered nanomaterial) and manufacturing has increased with little safety research and regulation. The unique properties of some engineered nanotubes (see glossary), which may have a similar structure as diesel particles, pose special challenges, ranging from the effects of occupational exposures to the final disposition of discarded products. The National Institute of Occupational Safety and Health (NIOSH) is recommending concentration levels to the Occupational Safety and Health Administration (OSHA) to address workplace safety issues resulting from the use of carbon nanotubes. Such regulations present challenges, because the current proposal regulates nanotubes and nanofibers at one $1 \mu\text{g}/\text{m}^3$, the quantification limit in air samples.

⁶ Lebassi, B., J. Gonzalez, D. Fabris, E. Maurer, N. Miller, C. Milesi, P. Switzer, and R. Bornstein, 2009: Observed 1970-2005 cooling of summer daytime temperatures in coastal California. *Journal of Climate*. 22, 3558-73.

RECOMMENDATIONS

The following recommendations are based on the presentations given at the September 11, 2013 meeting of the Advisory Council, as well as from Advisory Council input:

1. The Air District should continue, and consider additional, climate protection strategies to reduce GHG and short-lived climate pollutant (SLCP) emissions and to provide guidance to protect vulnerable populations and promote building of resilient communities. The Air District should consider the following strategies:
 - a. Compile and supplement specific research⁷ and analyses to understand the effects of spatial and temporal variations of climate change (including potential beneficial air quality effects from summer daytime coastal cooling), air pollution, and health impacts in the Bay Area and for vulnerable populations.
 - b. Develop an outreach program that includes education of the public to understand climate change impacts on local health and air quality.
 - c. Develop a regional GHG emission reduction plan to demonstrate reasonable progress toward meeting targets in California's Executive Order S-3-05 to reduce GHG emissions by 80% below 1990 levels by 2050. This plan should also include SLCPs and strategies to address them.
 - d. Develop health metrics to evaluate relative co-benefits from climate and air quality strategies.
 - e. Identify climate protection and adaptation strategies, and work with applicable agencies and municipalities to incorporate applicable policies as part of land use planning.

⁷ There are at least two existing reports that have explored the vulnerability of the Bay Area to climate events. These reports are referenced below:

1. Jerrett, Michael, Jason G. Su, Colleen E. Reid, Bill Jesdale, Alberto M. Ortega Hinojosa, Seth B. Shonkoff, Edmund Seto, Rachel Morello-Frosch (University of California, Berkeley). 2012. Mapping Climate Change Exposures, Vulnerabilities, and Adaptation to Public Health Risks in the San Francisco Bay and Fresno Regions. California Energy Commission. Publication number: CEC-500-2012-041. Available online at: <http://www.energy.ca.gov/2012publications/CEC-500-2012-041/CEC-500-2012-041.pdf>. Accessed October 16, 2013.
2. Cooley, H., E. Moore, M. Heberger, and L. Allen (Pacific Institute). 2012. Social Vulnerability to Climate Change in California. California Energy Commission. Publication Number: CEC-500-2012-013. Available online at: http://www.pacinst.org/wp-content/uploads/2013/02/full_report31.pdf. Accessed October 16, 2013.

2. The Air District should support all necessary strategies that promote active transportation, including:
 - a. Increased funding for transit operations and alternative (to solo driving) transportation choices (e.g., transit, vanpools, carpools, car sharing, bicycle sharing), including use of funds from cap and trade, toll increases, high occupancy toll lane revenues, and tax measures.
 - b. Increased funding and promotion of improved roadway designs for safer walking- and cycling-infrastructure (i.e., complete streets; see Glossary) to maximize health co-benefits from reduced air pollution and increased physical activity (see the National Association of City Transportation Officials' Urban Bikeway Design Guide at: <http://nacto.org/cities-for-cycling/design-guide/>).
 - c. Expanded funding for bicycle infrastructure, with a focus on secure bicycle parking near transit, workplaces, and schools. Incentive funding for bicycle purchases and/or subsidized bicycle sharing, especially for low income populations.
 - d. Ensuring that the 2016 Regional Transportation Plan maximizes health benefits from active transportation.
3. The Air District should evaluate both the relative climate and health benefits and risks from infill development (e.g., exposure to air pollutants, pedestrian/cycling injuries) and identify appropriate policies to address them.
4. The Air District should continue to work with other agencies to address indoor air quality in both new development and existing buildings, particularly near air pollution sources. While tighter building envelopes improve energy efficiency and reduce infiltration of external pollutants, those generated indoors become increasingly important and require adequate filtration and ventilation.
5. The Air District should further investigate the relative health risks and benefits from recommending walking and cycling on high air pollution days, particularly with respect to sensitive populations (e.g., asthmatics). Some Air recommendations may require reformulation, with a goal of promoting active transportation, while providing appropriately protective recommendations for such sensitive populations.
6. The Air District should monitor and support research on processes that reduce emissions of the semi-volatile organic fraction of UFPs generated in a wide range of combustion engines.
7. The Air District should continue to monitor and support research and regulations related to nanoparticles use in industrial and consumer products, e.g., toxicological testing, biomonitoring, and product labeling.

In addition throughout 2010, the Advisory Council investigated strategies for aggressively reducing GHG emissions to meet California's 2050 GHG target of an 80% reduction in emissions below 1990 levels. Specifically, the recommendations from its October 2010 meeting should be reviewed by the Air District for inclusion, as appropriate, to its plans to meet its long-term GHG reduction goals (see Attachment A for those recommendations).

DRAFT

ACRONYMS

BC: black carbon

BrC: brown carbon

CAP: concentrated ambient particles

EPA: (United States) Environmental Protection Agency

GHG: greenhouse gases

HEPA: high efficiency particulate air

IPCC: Intergovernmental Panel on Climate Change

ITHIM: Integrated Transport and Health Impact Model. For more information see:

http://www.cdph.ca.gov/programs/CCDPP/Documents/ITHIM_Technical_Report11-21-11.pdf

Micrometer (μm): one millionth of a meter or 1,000 nm

Nanometer (nm): one billionth of a meter

NIOSH: National Institute of Occupational Safety and Health

NO_x: oxides of nitrogen

OSHA: Occupational Safety and Health Administration

PAH: polycyclic aromatic hydrocarbon

PM: particulate matter

SLCP: Short-lived climate pollutant

UFP: ultrafine particles

GLOSSARY

Complete Streets: Transportation policy and design approach that requires streets to be planned, designed, operated, and maintained to enable safe, convenient, and comfortable travel, and to provide access for users of all ages and abilities, regardless of their mode of transportation. Focus should be on separating pedestrians and cyclists from motor traffic and slowing traffic to safe speeds. Complete Streets is intended to allow for safe travel by those walking, bicycling, driving automobiles, riding public transportation, or delivering goods.

Food Insecurity: Limited or uncertain availability of nutritionally adequate and safe foods, or limited or uncertain ability to acquire acceptable foods in socially acceptable ways.

Nanoparticles: Particle having one or more dimensions of the order of 100 nanometers or less.

Nanotubes: A hollow cylindrical carbon structure used in nanotechnology

Attachment A

Recommendations from the Advisory Council Report from the October 13, 2010 Meeting Strategies and Technologies for the Transportation Sector

The Air District should:

1. Work with MTC and ABAG to condition transportation and development investments and grants upon implementation of parking reform. The Air District should also include parking reform policies in development of an indirect source rule.
2. Work with MTC to analyze induced demand impacts from MTC's HOT Lane network expansion (study being done by MTC consultant Parsons Brinkerhoff). Modeling does not currently, but should, include a range of impacts of induced demand or increased housing at suburban fringe. The Air District should specify that net revenues from HOT lanes be used for expanded non-highway transit and transit choices, rather than expansion of the highway system.
3. Work with MTC to consider adoption of a quantification tool that evaluates a broad range of public health impacts and benefits from transportation and land use policies and decisions. The Air District should also encourage MTC to conduct a performance-based analysis of transportation projects to ensure investments are cost effective.
4. Through the Air District's role in the Joint Policy Committee, encourage MTC to evaluate all transportation projects, including projects in previous Regional Transportation Plans (RTP), for impacts on VMT and potential to induce growth. The air district should encourage MTC to only include SCS/ RTP projects that do not increase personal VMT and do not induce sprawl. Additionally, the air district should implement the relevant Transportation Control Measures and Leadership Platform* in the 2010 Clean Air Plan to address those issues.
5. Develop a social marketing campaign to increase walking, cycling, and transit, based on latest research of proven strategies that affect behavior change, including comparison-with-neighbor policies.
6. Seek state legislation requiring CMAs to expand their mission statement from primarily "congestion management" to include a major emphasis on reducing-GHG and to enable a focus on: health; increasing mode share of walking, cycling, and transit; and on reducing VMT, rather than managing congestion.
7. Develop a toolkit for planners, local agencies, and CMAs for land use and transportation policies that have the greatest public health, air quality, and GHG reduction benefits.

8. Require use of cool paving materials, such as high albedo materials, for future outdoor surfaces, such as parking lots, median barriers, and roadway improvements to reduce urban heat island effects and to save energy.
9. Use MTC's SB 375 implementation planning funds for local community planning processes.
10. Build upon SB 535 (Yee) to support development of a strong statewide ZEV mandate and incentives to help the state reach aggressive GHG reduction goals.
11. Continue to work with other agencies in regional efforts to fund and accelerate EV charging infrastructure and streamline residential charging station installation and permitting, including incentives to promote solar EV charging installations. In addition, work with cities, counties, and utility districts to assist property owners in funding charging stations through Property Assessed Clean Energy (PACE) bonds, pursuant to SB 1340 (Kehoe).
12. Promote expansion of congestion toll pricing to all other regional bridges. Revenues raised should be used to improve public transit service in those corridors.
13. Develop and promote policies and programs, including securing necessary legislative authority, to achieve significant reductions in employer-related vehicle miles traveled, including mandating employer transportation demand management plans, such as have been adopted by Oakland (GreenTRIP) and San Francisco. Additionally, the air district should implement the relevant Transportation Control Measures and Leadership Platform* in the 2010 Clean Air Plan to support these policies.
14. Support establishment of a VMT fee or gasoline tax in the Bay Area to achieve GHG, criteria pollutant, and air toxics reductions goals, and implement the relevant Transportation Control Measures and Leadership Platform in the 2010 Clean Air Plan to support this recommendation.

* Leadership Platform: Some of the most potentially beneficial measures in the Bay Area 2010 Clean Air Plan (CAP) to improve air quality will require action by other agencies, such as CARB or US EPA, or adoption of new legislation. The CAP also thus includes a Leadership Platform, summarized in its Volume I, Table 4-7, which identifies policies and actions by other entities to complement the CAP control strategy.

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Ash Kalra and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: December 5, 2013

Re: Public Participation Plan

RECOMMENDED ACTION:

Initiate implementation of the Public Participation Plan.

BACKGROUND

Work on the Bay Area Air District Public Participation Plan (Plan) began in 2011. The goal of this effort was to ensure an agency-wide approach to engaging stakeholders in Air District plans, rules and initiatives.

Staff worked with Kearns & West, Collaboration and Strategic Communications, in developing the Plan. This team conducted research on current Air District engagement processes, surveyed interested groups regarding their members' outreach and participation needs, drafted a framework for the Plan, developed an overview of best practices and convened and facilitated an External Stakeholder Advisory Task Force. The Task Force was comprised of 29 representatives from throughout the Bay Area including; non-governmental and community-based organizations, regulated businesses and associations, and local government planning and health agencies. The group helped the Air District review best practices and identify those they felt were most important. They also helped to get the word out to others within their industry, organization or interest group. An Internal Working Group of 12 Air District staff members compiled current Air District practices, evaluated new public participation methods and provided internal review.

Components of the Plan include the importance of public participation, an overview of the Air District's structure and programs current methods for public engagement and recommended strategies for enhancing public participation practices in the future. This document will help the Air District conduct stakeholder outreach in a consistent manner. It will also provide the public with a clearer understanding of how to engage with the Air District on issues of interest. The Plan includes a language assistance analysis, outlining the top five spoken languages in each county, after English. The analysis will aid staff in making translation decisions when translation or interpretation services might be necessary in a given neighborhood of the Bay Area.

The Air District invited stakeholders to review the Plan between May and August 2013 through four regional public workshops in Oakland, San Francisco, San Jose and Santa Rosa. Staff presented the Plan to 14 civic, non-profit, industry and community organizations and surveyed the public at three county fairs and four regional events. Public comments and edits to the Plan were compiled and incorporated in the Fall 2013.

Regular updates on the progress and development of the Public Participation Plan have been made to the Public Outreach Committee and final revisions were presented in October 2013. In November 2013, staff met with the External Stakeholder Advisory Task Force to present the Plan and received support for its implementation.

DISCUSSION

At the December 18, 2013, Board of Directors meeting, staff will present an overview of the Public Participation Plan, thank the members of the External Stakeholder Advisory Task Force for their participation and invaluable assistance, and recommend that the Board of Directors initiate implementation of the strategies outlined in the Plan. The Public Participation Plan will be a living document, periodically updated to incorporate changes and improvements. Staff will work with the Public Outreach Committee on the implementation and evolution of the Public Participation Plan.

BUDGET CONSIDERATION/FINANCIAL IMPACT:

Funding for development of the Plan was included in the Fiscal Year Ending (FYE) 2011-2013 budgets. Funds for implementation are included in the FYE 2014 budget.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Kristina Chu
Reviewed by: Lisa Fasano

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson Ash Kalra and
Members of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: December 5, 2013

Re: Update on the Regional Plug-in Electric Vehicle (PEV) Readiness Plan

RECOMMENDATION:

None. Informational item, receive and file.

BACKGROUND

Recognizing the potential of Plug-in Electric Vehicles (PEV) to be an important technology in reducing emissions, the Bay Area Air Quality Management District (Air District) has allocated more than \$8 million in Transportation Fund for Clean Air (TFCA) funding to deploy PEV infrastructure and vehicles over the past four fiscal years (fiscal years ending (FYE) 2010, 2011, 2012 and 2013). To ensure that these investments are well coordinated with the Bay Area's needs, the Air District applied for, and was successfully awarded, a number of state and federal grants to undertake regional PEV readiness planning for both the Bay Area and Monterey Bay regions.

Using funding from the United States Department of Energy (DOE), the Air District completed the first portion of a regional PEV readiness planning process in December 2012. Two additional grants from the California Energy Commission (CEC) have allowed for more planning work to be undertaken separately in the Bay Area and Monterey. This additional funding has allowed for the development of a final Bay Area Regional Plug-In Electric Vehicle Readiness Plan (the Plan) and as part of this report the Board of Directors (Board) will receive an overview of that document (the compilation work under both the DOE and CEC grants), an update on its findings, implementation guidance and next steps.

DISCUSSION

United States Department of Energy (DOE) Grant

The Air District is one of six awardees that received funding from the DOE to collaborate on a California PEV readiness plan. In order to complete this effort locally, the Air District partnered with the Association of Bay Area Governments (ABAG), Metropolitan Transportation Commission (MTC), Bay Area Clean Cities Coalitions (East Bay, San Francisco and Silicon Valley), Bay Area Electric Vehicle Strategic Council, Monterey

Bay Unified Air Pollution Control District (MBUAPCD), and Monterey Bay Electric Vehicle Association (MBEVA). Under this grant, the Air District worked to produce a document based on the following:

- Projections for PEV ownership and deployment; barriers to PEV ownership, deployment, and steps to eliminate barriers identified.
- Key strategic zones/areas for deployment and types of charging stations for regional PEV charging infrastructure.
- An assessment of local government's PEV readiness with respect to permitting and inspection practices; zoning and parking rules, local ordinances; and building codes.
- A review and discussion of opportunities for industry stakeholder training and consumer education; and strategies for minimizing grid and utility impacts.

California Energy Commission (CEC) PEV Planning Grant

While the process undertaken for the DOE grant addressed a number of significant PEV readiness areas for the region, there are a number of additionally important topics that lie outside of the scope of that effort. In order to address these, the Air District expanded its planning efforts in 2013 seeking to analyze the following areas under two separate CEC grants for the Bay Area and Monterey Bay regions:

- Development of strategies that support accelerated PEV adoption in private and public fleets.
- Identification of strategies to attract PEV manufacturing, production, infrastructure and services to the Bay Area and California.
- Integration of the Regional PEV Plan into the Bay Area's Sustainable Communities Strategy (SCS) plan.

Work on these elements for the Bay Area's CEC grant has been completed and it is expected that the Monterey effort will be completed in February 2014.

Key Findings for the Bay Area

The results of the DOE and CEC processes highlighted the following potential gaps and barriers to PEV readiness in the Bay Area:

- The relatively higher cost of the vehicle and associated infrastructure are still a barrier for most consumers.
- 50% of cities and counties in the region indicated that they may need additional resources such as training and additional time to attain PEV readiness in the areas of zoning ordinances, building codes and permitting practices.
- To date, the majority of charging infrastructure has been installed in single-family homes. Additional effort and resources will be required to meet the existing and future demand for charging at multi-family dwelling units, workplaces, and away-from-home destinations (e.g. entertainment and recreational centers).

Maps from the Plan showing the "readiness" of local governments in the Bay Area and of proposed strategic and priority locations for future public charging infrastructure will be provided to the Board for discussion as part of the presentation for this agenda item.

Implementation Guidance

In order to address these findings, the Plan proposes a series of short- (1 to 2 years), medium- (3 to 5 years), and long-term (6 to 10 years) PEV readiness actions for consideration by Bay Area local governments as described in Attachment 1. The actions represented in the attachment comprise suggested strategies that: 1) accelerate PEV deployment in the region, 2) integrate PEV deployment into the Sustainable Communities Strategy, 3) prepare utilities for mass PEV deployment, and 4) lay out roles that could be adopted by both local and regional governments with regard to PEV readiness. Additionally, the Plan makes a number of suggestions that could be followed by local governments regarding attracting and retaining PEV manufacturing and service companies for the region.

Outreach

In order to finalize the Plan, staff conducted the following public workshops and webinar:

Table 1- Public Workshops and Webinar on the Plan

San Francisco BAAQMD - 7th Floor Board Room, 939 Ellis Street, San Francisco, CA 94109	October 10, 2013 (Thursday); 7 PM-8:30 PM;
Oakland Oakland City Hall - Hearing Room 4, 1 Frank H. Ogawa Plaza, Oakland, CA 94612	October 15, 2013 (Tuesday); 7 PM-8:30 PM;
Online Webinar	October 16, 2013 (Wednesday); 9:30 AM-11 AM
San Jose San Jose City Hall - Meeting Room W-120, 200 E. Santa Clara Street, San José, CA 95113	October 16, 2013 (Wednesday); 7 PM-8:30 PM

Additionally, staff sought input from its regional partners, the Bay Area Electric Vehicle Strategic Council and local governments (cities and counties). The closing date for comments on the Plan was October 18, 2013, at which time the Air District reviewed and incorporated input received into the final plan document. A full listing of comments received is incorporated in the planning document as Appendix G.

Next Steps

Following the Plan’s receipt by the Board, staff will forward it to the California Energy Commission and will also present it to the Metropolitan Transportation Commission and Association of Bay Area Governments in December 2013 and January 2014.

Additionally, the Air District will host an event for Bay Area public officials to discuss the suggested local government PEV readiness elements of the Plan on March 14, 2014, at the Craneway Pavilion in Richmond, California. This event will be part of the Northern California Alt-Car Conference, which features numerous EV manufacturers and the opportunity for public officials to test drive both EV and alternative fuel vehicles.

BUDGET CONSIDERATION / FINANCIAL IMPACT:

None. The Air District match and administrative funding for these projects comes from the TFCA program.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Karen Schkolnick
Reviewed by: Damian Breen

Attachment 1 - Recommended Key Short-, Medium-, and Long-Term PEV Readiness
Actions

ATTACHMENT 1 - Timeline of suggested short-, medium-, and long-term PEV readiness actions, by implementing stakeholder

Regional Agencies

- Prioritize grant funding for quick charge network; incentives for PEV purchases; and EVSE in MDUs, workplaces
- Develop incentive programs and systems to monitor PEV deployment, local PEV readiness, and uptake of medium- and heavy-duty PEVs in fleets
- Convene EV readiness summit of local elected officials
- Implement Go EV campaign
- Develop schedule for stakeholder training and outreach
- Monitor uptake of PEVs in Impacted/ Environmental Justice Communities
- Coordinate on statewide efforts: develop statewide readiness guidelines, MDU charging guidelines, and workplace charging guidelines; convene roundtable of CEOs; develop cost of ownership business calculator and report on incentives for employees

Local Governments

- Adopt building code standards for EVSE
- Develop process to expedite EVSE permitting in single-family residences
- Create a residential EVSE permitting checklist
- Train permitting and inspection officials in basic EVSE installation
- Share best practices

Regional Agencies

- Provide PEV incentives through vehicle buybacks & feebates
- Monitor PEV deployment and local government PEV readiness

Local Governments

- Adopt EVSE requirements into building/zoning code
- Allow PEV parking to count toward minimum requirements
- Incorporate PEV readiness policies into general plans, climate action plans, or adopt as stand-alone plans

Utilities

- Evaluate smart grid opportunities for PEVs
- Provide renewable energy options for PEV drivers



Utilities

- Evaluate impact of rate structures on PEVs
- Create notification protocol for PEVs and EVSE

Regional Agencies

- Update EVSE design guidelines
- Develop Regional Public Charger Network
- Monitor PEV deployment, local government PEV readiness, and uptake of PEVs in Impacted/Environmental Justice Communities

Local Governments

- Adopt PEV parking design guidelines
- Adopt PEV parking regulations and enforcement policies
- Ensure that permitting staff at counter are knowledgeable on EVSE installation

Utilities

- Evaluate and upgrade distribution infrastructure
- Implement consumer outreach programs

Definition of Terms

- PEV - Plug-In Electric Vehicle
- EVSE – Electrical Vehicle Supply Equipment
- MDU – Multi-dwelling Unit
- EV – Electric Vehicle
- CEO - Chief Executive Officer