



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

BOARD OF DIRECTORS' REGULAR MEETING

October 4, 2006

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.

BOARD OF DIRECTORS' REGULAR MEETING A G E N D A

WEDNESDAY
OCTOBER 4, 2006

BOARD ROOM
7TH FLOOR

9:45 A.M.

CALL TO ORDER

Opening Comments
Roll Call
Pledge of Allegiance
Proclamation/Commendation

Gayle B. Uilkema, Chair
Clerk of the Boards

PUBLIC COMMENT PERIOD

Public Comment on Non-Agenda Items, Pursuant to Government Code Section 54954.3
Members of the public are afforded the opportunity to speak on any agenda item. All agendas for regular meetings are posted at District headquarters, 939 Ellis Street, San Francisco, CA, at least 72 hours in advance of a regular meeting. At the beginning of the regular meeting agenda, an opportunity is also provided for the public to speak on any subject within the Board's subject matter jurisdiction. Speakers will be limited to three (3) minutes each.

CONSENT CALENDAR (ITEMS 1 – 4)

Staff/Phone (415) 749-

1. Minutes of September 20, 2006

M. Romaidis/4965
mromaidis@baaqmd.gov

2. Communications

J. Broadbent/5052
jbroadbent@baaqmd.gov

Information only

3. District Personnel on Out-of-State Business Travel

J. Broadbent/5052
jbroadbent@baaqmd.gov

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

4. Set Public Hearing for October 18, 2006 to Consider Proposed Amendments to Regulation 8, Rule 5: Storage of Organic Liquids and Adoption of a California Environment Quality Act (CEQA) Negative Declaration

H. Hilken/4642
hhilken@baaqmd.gov

The proposed amendments to Regulation 8, Rule 5 would set requirements for tank shells, tank pontoons, tank cleaning agents, tank degassing, and removal of sludge; create a voluntary self-inspection and maintenance program; and clarify exemptions and language throughout the rule.

COMMITTEE REPORTS AND RECOMMENDATIONS

5. Report of the **Stationary Source Committee** Meeting of September 25, 2006

CHAIR: J. SILVA

J. Broadbent/5052
jbroadbent@baaqmd.gov

6. Report of the **Budget and Finance Committee** Meeting of September 27, 2006

CHAIR: C. DALY

J. Broadbent/5052
jbroadbent@baaqmd.gov

Action(s): The Committee recommends Board of Directors' approval of the following:

- A) Transfer \$961,860 from the Reserve for Building and Facilities and approve an increase in the FY 2006/2007 Building Maintenance Capital Outlay budget of \$961,860, and authorize the Executive Officer/APCO to issue purchase orders not to exceed \$961,860 for deferred Maintenance of Carpet, furniture, server space and ADA compliance of restrooms;*
- B) Amend the FY 2006/2007 Budget by increasing the Department of Homeland Security (DHS) Grant Revenue from \$1,943,818 to a total of \$2,087,103, and correspondingly increase the budget for BioWatch (Program 809), and authorize the Executive Officer/APCO to issue a purchase order for monitoring equipment not to exceed \$143,285; and*
- C) Transfer \$425,000 from the Reserve for Radio Replacement and approve an increase in the FY 2006/2007 Communications Equipment Capital Outlay budget by \$425,000, and authorize the Executive Officer/APCO to issue purchase orders with a total not to exceed \$425,000.*

7. Report of the **Personnel Committee** Meeting of September 28, 2006

CHAIR: P. KWOK

J. Broadbent/5052
jbroadbent@baaqmd.gov

Action(s): The Committee may recommend Board of Directors' approval of an appointment to the alternate Attorney member position on the Air District's Hearing Board.

PRESENTATION

8. Community Air Risk Evaluation Program Update

H. Hilken/4642
hhilken@baaqmd.gov

Staff will provide an update on the Community Air Risk Evaluation (CARE) program.

OTHER BUSINESS

- 9. Report of the Executive Officer/APCO
- 10. Chairperson's Report
- 11. 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)

12. Time and Place of Next Meeting - 9:45 a.m., Wednesday, October 18, 2006-939 Ellis Street, San Francisco, CA 94109
13. Adjournment

CONTACT CLERK OF THE BOARD - 939 ELLIS STREET SF, CA 94109

(415) 749-4965
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 Clerk's Office should be given at least 3 working days prior to the date of the meeting so that arrangements can be made accordingly.

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chair Uilkema and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: September 25, 2006

Re: Board of Directors' Draft Meeting Minutes

RECOMMENDED ACTION:

Approve attached draft minutes of the Board of Directors meeting of September 20, 2006.

DISCUSSION

Attached for your review and approval are the draft minutes of the September 20, 2006 Board of Directors' meeting.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
939 ELLIS STREET – SAN FRANCISCO, CA 94109

Draft Minutes: Board of Directors' Regular Meeting – September 20, 2006

Call To Order

Opening Comments: Chair Gayle B. Uilkema called the meeting to order at 9:46 a.m.

Roll Call: Present: Gayle B. Uilkema, Chair, Tom Bates, Harold Brown, Chris Daly (9:55 a.m.), Scott Haggerty (9:49 a.m.), Jerry Hill, Yoriko Kishimoto, Carol Klatt, Liz Kniss (10:14 a.m.), Janet Lockhart (9:49 a.m.), Jake McGoldrick, Nate Miley (9:49 a.m.), Mark Ross, Michael Shimansky, John Silva, Tim Smith, Pamela Torliatt, Brad Wagenknecht.

Absent: Mark DeSaulnier, Dan Dunnigan, Erin Garner, Patrick Kwok.

Chair Uilkema announced that staff has provided a binder that includes inquiries and public comments on the Spare the Air Program, and the Air District's and Chair's responses. The binder is available for Board members to review.

Pledge of Allegiance: The Board of Directors recited the Pledge of Allegiance.

Directors Scott Haggerty, Janet Lockhart, and Nate Miley arrived at 9:49 a.m.

Public Comment Period: The following individual came forward and spoke on the Pacific Steel Casting facility in Berkeley:

Judith Meyer
Berkeley, CA 94702

Proclamation/Commendation

The Board of Directors presented a plaque to James Corazza, Deputy Clerk of the Boards in the Executive Office for his dedicated service to the Air District, the Advisory Council and the Board of Directors for over 20 years.

Director Chris Daly arrived at 9:55 a.m.

Consent Calendar (Items 1 – 3)

1. Minutes of August 2, 2006
2. Communications. Correspondence addressed to the Board of Directors. For information only.

3. Monthly Activity Reports: *Report of Division Activities for the months of July and August 2006.*

Board Action: Director Brown moved approval of the Consent Calendar; seconded by Director Ross; carried unanimously without objection.

Committee Reports and Recommendations

4. Report of the Public Outreach Committee Meeting of August 30, 2006

Director Wagenknecht presented the report and stated that the Public Outreach Committee met on Wednesday, August 30, 2006.

Staff provided an update on the 2006 Spare the Air program. Eleven Spare the Air advisories have been issued to date. Region-wide transit ridership increased by 15%. The results of the survey taken on the free fare days were reviewed and staff discussed behavioral changes, environmental results, and customer complaints. The Committee discussed ideas for the 2007 Spare the Air Program and provided direction to staff. Potential funding sources for the 2007 Program were reviewed by staff.

A report on the District's Youth Outreach Program was presented to the Committee. Staff reviewed the Clean Air Challenge curriculum and noted that the teacher workshops will start in the near future. The program is designed for sixth through twelfth grades. The in-school live theatre performances of "Smogzilla" target kindergarten through sixth grade. The objectives and approach of the programs were discussed.

The next meeting of the Committee will be at the Call of the Chair.

Board Action: Director Wagenknecht moved that the Board of Directors' approve the report of the Public Outreach Committee; seconded by Director Smith; carried unanimously without objection.

5. Report of the Mobile Source Committee Meeting of September 11, 2006

Action(s): The Committee recommended Board of Directors' approval of the following:

- A) *Vehicle Incentive Program (VIP) for fiscal year 2006/2007, including: a) allocation of \$600,000 in Transportation Fund for Clean Air (TFCA) Regional Funds for the fiscal year 2006/2007 VIP funding cycle; and b) approval of the VIP guidelines;*
- B) *Allocation of \$2,240,000 in Mobile Source Incentive Fund revenues to fund the Lower-Emission School Bus Program; and*
- C) *Direct Mail Center as the contractor for the FY 2006/2007 Vehicle Buy-Back Program direct mail service provider and authorize the Executive Officer to execute a contract for up to \$88,935 to provide such service.*

Director Smith presented the report and stated that the Committee met on Monday, September 11, 2006.

The Committee received a report on the Vehicle Incentive Program (VIP) for fiscal year 2006/2007 and recommends Board of Directors approval of the VIP for fiscal year 2006/2007, including:

- A) the allocation of \$600,000 in Transportation Fund for Clean Air (TFCA) Regional Funds, and
- B) the proposed VIP guidelines presented as Attachments A and B of Agenda Item 4 of the staff report included in your packets.

The San Francisco County Program Manager Expenditure Plan for fiscal year 2006/2007 regarding the plug-in hybrid demonstration project was withdrawn from the agenda.

Staff provided a report on the allocation of Mobile Source Incentive Fund (MSIF) revenues to the Lower-Emission School Bus Program. Staff reported that the State has budgeted \$25 million for the replacement of pre-1977 buses. The Air District may receive a portion of the funds and staff was directed by the Committee to expend State funds to the extent they are available. The Committee recommends Board of Directors approval of the allocation of \$2,240,000 of MSIF revenues to the Lower-Emission School Bus Program for the purchase of new school buses, without requiring matching funds from participating school districts. The Committee received a report on the selection of a contractor for the direct mail campaign for the Vehicle Buy Back Program. The Committee recommends Board of Directors approval of:

- A) the selection of Direct Mail Center as the contractor for the fiscal year 2006/2007 Vehicle Buy Back Program direct mail service provider; and
- B) authorizing the Executive Officer to execute a contract for up to \$88,935 with Direct Mail Center to provide direct mail services for the VBB Program, with the option to renew the contract for an additional year at the Air District's discretion.

A report on the Ozone Strategy Further Study Measure 18: Indirect Source Mitigation was presented to the Committee. The Committee gave direction to staff on next steps and speaking points as presented to the Board.

The next meeting of the Committee is scheduled for 9:30 a.m., Monday, October 16, 2006.

Board Action: Director Smith moved that the Board of Directors approve the recommendations and the report of the Mobile Source Committee; seconded by Director McGoldrick.

Chair Uilkema highlighted the attachment to the report regarding Next Steps/Speaking Points and noted they were for the Directors to use. The motion then carried unanimously without objection.

6. Report of the Executive Committee meeting of September 13, 2006

Action(s): The Committee recommended that the Board of Directors' authorize the Executive Officer/APCO to initiate a program with the Sacramento Metropolitan Air Quality Management District for joint use of Carl Moyer Program Funds for multi-regional projects in the amount of \$500,000.00.

Chair Uilkema presented the report and stated that the Committee met on Wednesday, September 13, 2006 and received and filed the Reports of the Hearing Board and Advisory Council. Advisory Council Chair, Kraig Kurucz, noted that several members of the Council attended the Air & Waste Management Association Conference in New Orleans. Mr. Kurucz provided brief updates on the following key topics the Council is working on: particulate matter, woodsmoke, greenhouse gas programs, and the Community Air Risk Evaluation (CARE) Program.

Staff provided an overview of SB 225, which would change the formula for distribution of Carl Moyer funds. The Bay Area District and the Sacramento Metropolitan AQMD would like to initiate a program whereby Carl Moyer funds would go towards multi-regional projects. The Committee recommends that the Board of Directors' authorize the Executive Officer/APCO to initiate a program with the Sacramento Metropolitan Air Quality Management District with the allocation of \$500,000.00 each year from Carl Moyer Program funds towards multi-regional projects. The Sacramento Metropolitan Air Quality Management District's Board of Directors unanimously approved the program and a matching allocation of \$500,000.00 in Carl Moyer Program Funds.

The Committee received an update on the recent activities of the Spare the Air Program, including results of the survey. The Committee provided direction to staff on several items.

Staff provided an update on the Community Air Risk Evaluation (CARE) Program. The Program is a multi-phase program and Phase I concentrated on the development of toxic air contaminants emission estimates. Phase I is near completion. Phase II will focus on modeling concentrations and continued mitigation. An update on the CARE Program will be presented to the full Board at a future meeting.

Staff presented a report on mercury emission from crematories and reviewed background information on mercury; its health effects; mercury emissions from crematories, which are estimated to be 27 pounds per year; the regulation of mercury from crematories; and the amount of mercury found in the San Francisco Bay. Copies of the presentation are at each Board member's place.

Ted Droettboom updated the Committee on recent activities of the Joint Policy Committee.

The next meeting of the Committee will be at the Call of the Chair.

Board Action: Chair Uilkema moved that the Board of Directors approve the recommendation and report of the Executive Committee; seconded by Director Daly; carried unanimously without objection.

Director Liz Kniss arrived at 10:14 a.m.

Closed Session

The Board convened to Closed Session at 10:14 a.m.

7. Conference with District's Labor Negotiators (Government Code § 54957.6(a))

*Agency Negotiators: Jack P. Broadbent, Executive Officer/APCO
Michael Rich, Human Resource Officer*

*Employee Organization: Bay Area Air Quality Management District Employees'
Association, Inc.*

8. Conference with Legal Counsel – **Existing Litigation**
Pursuant to Government Code Section 54956.9(a), a need existed to meet in closed session with legal counsel to consider the following cases:
 - A. **Bay Area AQMD v. Pacific Steel Casting Company, et al.**, Alameda Superior Court, Case No. RGO6284043
 - B. **Thomasina Mayfield v. Bay Area AQMD**, San Francisco Superior Court, Case No. CGC-06-455723

Open Session

The Board reconvened to Open Session at 10:43 a.m. and Brian Bunger, Legal Counsel reported that the Board of Directors met in Closed Session on agenda items 7. and 8. and provided direction to Counsel and staff on these matters.

Other Business

9. Report of the Executive Officer/APCO – Mr. Broadbent reviewed the following:
 - A) The District is going from its summer to winter Spare the Air Programs. There have been 12 days which exceeded the Federal 8-hour standard and 18 days which exceeded the State 8-hour standard.
 - B) The Board has been provided with a binder on the correspondence and responses on the District's Spare the Air Program.
 - C) There is a list of Community Events at each Board member's place.
 - D) On August 1, 2006, the District received all of the Flare Management Plans from the refineries. Three of the five were incomplete. The refineries have an additional 45 days to complete the incomplete Plans.
 - E) The Climate Protection Summit is scheduled for Friday, November 10, 2006. The Summit will be held from 9 a.m. to 4 p.m. at the Yerba Buena Garden Center.
10. Chairperson's Report – Chair Uilkema reported on the following items:
 - A) Encouraged Committee members to attend their respective meetings as one Board member will be unavailable for a period of time due to a family issue. The goal is to make sure there are quorums for the Committee meetings.
 - B) Recommended that the Board members see the movie *An Inconvenient Truth*.
11. Board Members' Comments – There were none.

Draft Minutes of September 20, 2006 Regular Board Meeting

12. Time and Place of Next Meeting – 9:45 a.m., Wednesday, October 4, 2006 – 939 Ellis Street, San Francisco, CA 94109
13. Adjournment – The meeting adjourned at 10:48 a.m.

Mary Romaidis
Clerk of the Boards

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chair Uilkema and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: September 25, 2006

Re: Board Communications Received from September 20, 2006 through October 3, 2006

RECOMMENDED ACTION:

Receive and file.

DISCUSSION

A list of Communications received by the Air District from September 20, 2006 through October 3, 2006, if any, will be at each Board member's place at the October 4, 2006 Regular Board meeting.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chair Gayle B. Uilkema and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: September 26, 2006

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

RECOMMENDED ACTION:

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 that the following District personnel have or will travel on out-of-state business.

DISCUSSION

Guy Gimlen, Air Quality Engineer in the Planning, Rules and Research Division attended a Power Plant Air Pollutant Control "Mega" Symposium held in Baltimore, Maryland, August 29 – 31, 2006.

Michael Bachman, Information Systems Manager, John Chiladakis, Information Systems Manager, Derek Klein, Programmer Analyst, Eddie C. Ng, Systems Analyst and David James Systems Analyst will attend SANS Security Training held in Las Vegas, NV October 1 – 8, 2006.

Peter Hess, Deputy Air Pollution Control Officer was the keynote speaker at the Georgia Annual Environmental Conference in Atlanta, Georgia on October 2 & 3, 2006. Travel expenses paid by the Air & Waste Management Association.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Michael White
Reviewed by: Jeff McKay

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
Memorandum

To: Chair Gayle B. Uilkema and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: September 25, 2006

Re: Set Public Hearing on Proposed Amendments to Regulation 8, Rule 5:
Storage of Organic Liquids, and Adopt a CEQA Negative Declaration

RECOMMENDED ACTION:

Set public hearing for October 18, 2006 to consider adoption of proposed amendments to Regulation 8, Rule 5: Storage of Organic Liquids and adoption of a CEQA Negative Declaration.

DISCUSSION

The District is proposing to amend Regulation 8, Rule 5: Storage of Organic Liquids and adopt a California Environmental Quality Act (CEQA) Negative Declaration. Regulation 8, Rule 5 regulates organic liquid storage tanks in order to reduce ozone forming emissions to the atmosphere. The rule primarily affects petroleum refineries, chemical plants, and bulk gasoline distribution facilities. The proposed amendments will implement control measure SS-9 from the Bay Area 2005 Ozone Strategy. The proposed amendments 1) clarify an exemption in the rule for storage tanks subject to District Regulation 8, Rule 7: Gasoline Dispensing Facilities; 2) create a new, voluntary self-inspection and maintenance program; 3) add structural integrity requirements for tank shells and emission limitations on tank pontoons; 4) add limits on the organic content of cleaning agents used on tank interiors and impose containment standards for sludge removed from tanks; and 5) replace an annual source test requirement with an emission monitoring requirement during tank degassing. In addition, the proposed amendments clarify language throughout the rule.

An initial study for the proposed amendments has been conducted, concluding that the proposed amendments would not have significant adverse environmental impacts. The District intends to adopt a negative declaration for the amendments pursuant to Public Resources Code section 21080(c) and CEQA Guidelines section 15070 et seq.

A public hearing notice, the proposed amendments to Regulation 8, Rule 5, the CEQA documents and a staff report are available on the District's website at http://www.baaqmd.gov/pln/ruledev/regulatory_public_hearings.htm.

BUDGET CONSIDERATION/FINANCIAL IMPACTS

None.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Daniel Belik
Reviewed by: Henry Hilken

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
Memorandum

To: Chair Gayle B. Uilkema and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: September 25 2006

Re: Report of the Stationary Source Committee Meeting of September 25, 2006

RECOMMENDED ACTION

Receive and file.

BACKGROUND

The Stationary Source Committee met on Monday, September 25, 2006. Staff reported on the following items:

- A) Proposed Amendments to Regulation 8, Rule 5: Storage of Organic Liquids;
- B) Status of Flare Minimization Plans; and
- C) Proposed Amendments to Regulation 9; Rule 9: Nitrogen Oxides from Stationary Gas Turbines.

Attached are the staff reports presented to the Committee for your review.

Chairperson John Silva will give an oral report of the meeting.

BUDGET CONSIDERATION/FINANCIAL IMPACT

None.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
Memorandum

To: Chairperson Silva and
Members of the Stationary Source Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: September 12, 2006

Re: Proposed Amendments to Regulation 8, Rule 5: Storage of Organic
Liquids

RECOMMENDED ACTION:

Receive and file.

BACKGROUND

The 2005 Ozone Strategy includes Control Measure SS-9, which is a commitment to consider amendments to Regulation 8, Rule 5: Storage of Organic Liquids. Rule 8-5 mandates equipment standards for organic liquid storage tanks. The rule applies mainly to large, floating-roof tanks at petroleum refineries and gasoline bulk terminals. On July 19, 2006, staff conducted a public workshop at the Contra Costa County Board of Supervisors' chambers in Martinez, CA to discuss proposed amendments to Rule 8-5. Staff has received public comments, finalized the proposed amendments, and scheduled a public hearing for the Board of Directors' consideration.

DISCUSSION

Staff will provide the Committee with the following information:

- A summary of comments received in response to the public workshop; and
- A description of the proposed amendments to Regulation 8, Rule 5.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Julian Elliot
Reviewed by: Daniel Belik

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
Memorandum

To: Chairperson John Silva and Members
of the Stationary Source Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: September 14, 2006

Re: Update on Flare Minimization Plans

RECOMMENDED ACTION:

Informational Report. Receive and file.

BACKGROUND

Regulation 12, Rule 12, "Flares at Petroleum Refineries" (Reg 12-12) was adopted on July 20, 2005 to reduce flaring at the five Bay Area refineries without compromising refinery safety. The regulation requires refineries to develop Flare Minimization Plans (FMPs) to reduce emissions from flares by minimizing the frequency and duration of flaring. The primary purpose of the FMP is to provide for the expeditious implementation of all feasible prevention measures.

Reg 12-12 requires that each refinery submit a FMP by August 1, 2006. The FMPs must include future measures to minimize flaring. The District has 45 days to review the FMP to ensure the FMP has accurate and complete information about the refinery's flare operations. The FMPs must include sufficient detail to allow the District staff to evaluate the adequacy of the planned reductions and prevention measures. Effective November 1, 2006, any non-emergency flaring at a refinery must be consistent with their FMP.

FMP PROCESS STATUS

The District has reviewed the information submitted by the five refineries and has determined that two of the FMPs are complete and three are incomplete. The refineries were notified of their FMP status by letter on September 15 or 18, 2006 based on the date of receipt of their FMP. The refineries with incomplete FMP's now have up to 45 days to provide the required information.

Once a refinery has been determined to have a complete FMP, District staff will then evaluate the FMP for adequacy based on planned reductions and all feasible prevention measures that minimize emissions from flaring. During the staff evaluation, the FMPs will undergo a 60-day public comment period. District staff will then consider the public comments before taking final action to approve or disapprove a FMP.

Staff is preparing a plan for the dissemination of the FMPs to the public and a procedure to meet with the public. Staff will continue to provide updates to the Stationary Source Committee on the progress of implementation of Reg 12-12.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Wayne Kino
Reviewed by: Kelly Wee

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
Memorandum

To: Chairperson Silva and
Members of the Stationary Source Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: September 12, 2006

Re: Proposed Amendments to Regulation 9, Rule 9: Nitrogen Oxides
from Stationary Gas Turbines

RECOMMENDED ACTION:

Receive and file.

BACKGROUND

The 2005 Ozone Strategy includes Control Measure SS 14, which is a commitment to consider amendments to Regulation 9, Rule 9: Nitrogen Oxides from Stationary Gas Turbines. Staff issued a draft rule and workshop report and conducted a public workshop on May 31, 2006 at the District office. Concern about cost effectiveness was the primary issue that emerged from the workshop. Since the workshop, staff has continued conducting detailed analysis of emission control technologies and associated costs.

DISCUSSION

Staff will provide the Committee with the following information:

- Review of the affected facilities and equipment;
- Progress since the public workshop;
- Second draft of proposed amendments for Regulation 9, Rule 9;
- Current status of the rule development process; and
- Next steps.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Guy Gimlen
Reviewed by: Daniel Belik

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chair Gayle B. Uilkema and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: September 25, 2006

Re: Report of the Budget & Finance Committee Meeting of September 27, 2006

RECOMMENDED ACTION:

The Committee recommends that the Board of Directors approve the following:

- A) Transfer \$961,860 from the Reserve for Building and Facilities and approve an increase in the FY 2006/2007 Building Maintenance Capital Outlay budget of \$961,860, and authorize the Executive Officer/APCO to issue purchase orders not to exceed \$961,860 for deferred Maintenance of Carpet, furniture, server space and ADA compliance of restrooms;
- B) Amend the FY 2006/2007 Budget by increasing the Department of Homeland Security (DHS) Grant Revenue from \$1,943,818 to a total of \$2,087,103, and correspondingly increase the budget for BioWatch (Program 809), and authorize the Executive Officer/APCO to issue a purchase order for monitoring equipment not to exceed \$143,285; and
- C) Transfer \$425,000 from the Reserve for Radio Replacement and approve an increase in the FY 2006/2007 Communications Equipment Capital Outlay budget by \$425,000, and authorize the Executive Officer/APCO to issue purchase orders with a total not to exceed \$425,000.

BACKGROUND:

The Budget & Finance Committee meet on Wednesday, September 25, 2006. Staff presented the attached reports, and recommendations on the following items:

- Fourth Quarter Financial Report for Fiscal Year 2005/2006;
- Deferred Maintenance: Carpet, Furniture, Server Space and ADA Compliance of Restroom;
- Consider Amending FY 2006/2007 Budget to Recognize Increased Revenue from Homeland Security Grant; and
- Replacement of Field Communications System

Attached are the staff reports presented to the Committee.

Chairperson Chris Daly will give an oral report of the meeting.

BUDGET CONSIDERATION/FINANCIAL IMPACT:

For item A above, The FY 2006/2007 Building Maintenance Capital Outlay budget will be increased by \$961,860 with a transfer from the Reserve for Building and Facilities.

For item B above funds for this Budget Amendment and related purchase order are funded by a federal Department of Homeland Security Grant that will cover the entire cost of the monitoring equipment. There will be no financial impact on the District's general revenue resources.

For item C above the FY 2006/2007 Communications Equipment Capital Outlay budget will be increased by \$425,000 with a transfer from the Reserve for Radio Replacement.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

BAY AREA AIR QUALITY MANGEMENT DISTRICT

Memorandum

To: Chairperson Daly and Members
of the Budget and Finance Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: September 12, 2006

Re: Fourth Quarter Financial Report – Fiscal Year 2005-06

RECOMMENDED ACTION:

Informational report. Receive and file.

DISCUSSION

GENERAL FUND BUDGET: STATEMENT OF REVENUE

Comparison of Budget to Actual Revenue

- County Revenue receipts were \$16,870,585 (112.1%) of budgeted revenue.
- Permit Fee receipts were \$21,636,234 (113.7%) of budgeted revenue.
- Asbestos Fees were \$1,650,093 (102.0%) of budgeted revenue.
- Toxic Inventory Fees were \$445,875 (87.5%) of budgeted revenue.
- Penalties and Settlements were \$3,467,675 (147.4%) of budgeted revenue.
- Interest Income was \$898,257 (179.6%) of budgeted revenue.
- Miscellaneous Revenue receipts were \$285,226 (156.0%) of budgeted revenue.

GENERAL FUND BUDGET: STATEMENT OF EXPENDITURES

Comparison of Budget to Actual Expenditures

- Salaries and Benefits were \$35,961,463 (96.1%) of estimated expenditures.
- Operational Services and Supplies were \$9,006,958 (98.6%) of estimated expenditures.
- Capital Outlay was \$610,913 (76.9%) of estimated expenditures.

TFCA FUND: STATEMENT OF INCOME AND EXPENDITURES

- Total Revenue was \$7,745,668 (76.1%) of estimated revenue and expenditures.
- In keeping with TFCA Fund requirements, expenditures must equal revenue.
- Salary and Benefits were \$1,285,573 (66.9%) of estimated expenditures.
- Operational Services and Supplies were \$6,460,095 (78.3%) of estimated expenditures.

FUND BALANCES

FUND BALANCES	6/30/2004 Audited	6/30/2005 Audited	6/30/2006 Projected
SPECIAL RESERVES:			
Reserve for Imprest Cash (Cash Revolving Fund)	1,200	1,200	1,200
Reserve for Building and Facilities	2,894,175	2,894,175	2,772,175
Reserve for PERS Funding	3,500,000	3,500,000	3,100,000
Reserve for Radio Replacement	3,500,000	3,500,000	3,500,000
Reserve for State Ozone Modeling Plan	350,000	350,000	0
Reserve for Production System (Best of Breed)	2,100,000	500,000	250,000
Reserve for Prior Year Adjustments	15,000	15,000	15,000
Reserve for Capital Equipment	378,000	378,000	297,925
Reserve for Encumbrances	0	1,760,075	2,000,000
Reserve for Contingencies	265,000	400,000	400,000
Reserve for Workers Compensation Self Funding	1,000,000	1,000,000	1,000,000
TOTAL SPECIAL RESERVES:	14,003,375	14,298,450	13,336,300
MULTI-YEAR APPROPRIATIONS:			
Appropriation – Production System	0	1,485,743	1,555,667
Appropriation - Other	0	37,053	183,325
TOTAL MULTI-YEAR APPROPRIATIONS:	0	1,522,796	1,738,992
UNDESIGNATED:	8,125,285	8,991,610	9,300,950
TOTAL FUND BALANCES	22,128,660	24,812,856	24,376,242

BUDGET CONSIDERATION/FINANCIAL IMPACT

No impact on Fiscal Year 2005/2006 budget.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Michael White
Reviewed by: Jeffrey McKay

BAY AREA AIR QUALITY MANGEMENT DISTRICT

Memorandum

To: Chairperson Daly and Members
of the Budget and Finance Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: September 22, 2006

Re: Deferred Maintenance: Carpet, Furniture, Server Space and Compliance of ADA Restroom

RECOMMENDED ACTION:

Consider recommending that the Board of Directors approve staff's recommendation to transfer \$961,860 from the Reserve for Building and Facilities and approve an increase in the FY 2006/2007 Building Maintenance Capital Outlay budget of \$961,860, and authorize the Executive Officer/APCO to issue purchase orders not to exceed \$961,860.

BACKGROUND

The District has substantial deferred requirements for maintenance of office space. In particular, cubicles, carpets and furniture require replacement and repair. Therefore, District staff has prepared for standardization and centralization of furniture and carpet purchasing. The following descriptions of negotiated, standardized carpet and furniture were presented to the Budget and Finance Committee in February of 2006. A first installation of these standardized products was approved by the Board of Directors in February of 2006 with very positive results.

Carpet

The District has historically used a light-to-medium duty broadloom woven carpet. Substantial savings can be obtained with an alternate selection. In particular, the District intends to use high stain resistant, high-to-extreme duty carpet squares. There are multiple sources of savings with this selection. The cost of the carpet itself is substantially less. No padding is required. The cost of installation is less. The life of the carpet (lifetime guarantee) is much greater. The cost of repair and replacement is less. A summary table of these attributes is presented below.

(\$ per yard)	<u>Cost</u>	<u>Pad</u>	<u>Installation</u>	<u>Grade</u>	<u>Total</u>
Broadloom (recent 7th floor)	36.31	3.00	25.00	Light-to-Medium	64.31
Mannington Carpet Squares	22.62	-	22.31	High-to-Extreme	44.93

The cost for the carpet squares was negotiated directly with the manufacturer and is below the General Services Administration (GSA) cost of \$25.33 per square yard.

Furniture Sets

The District has historically used multiple sources to meet its furniture requirements. However, District requirements for both standard offices and cubicles can be met by a single vendor. A

furniture set includes a corner desk, a 30” return, a 72” credenza, two under mount filing cabinets (pedestals size), two overhead storage bins, a personal storage tower, a task light (mounted under overhead storage bins), and a tack board (mounted under overhead storage bins).

After negotiation with various vendors the District considered three offerings presented below.

(\$ / office or cubical)	Cost
Sierra Furniture	3,217
Corner Office	2,264
Commercial Services Group	2,024

Commercial Services Group was selected based on cost and superior support infrastructure. The product supplied is Allsteel brand with a lifetime warranty. The negotiated cost is 64% off list. GSA cost is 63.5 % off list.

DISCUSSION

Following the successful initial use of these standard materials, (primarily on the West wing of the 6th floor) staff recommends the Board of Directors proceed to address the outstanding deferred maintenance issues on other wings.

The District headquarters is a seven story structure with East and West wings. Floors two through six exhibit the majority of the deferred maintenance needs. Of the ten wings requiring work, these funds will provide for five prioritized wings and two special projects (ADA and Server Room).

Cost Breakdown

Wing	Paint and Miscellaneous	Common Space	Floor / Carpet	Furniture and cubicles	Installation and Design	TOTAL
7 (ADA)		\$112,000				\$112,000
6 (IS)		\$75,000				\$75,000
6 East	\$23,101	\$3,000	\$54,831	\$47,961	\$42,632	\$171,525
5 West	\$17,897	\$0	\$45,000	\$50,139	\$44,568	\$157,604
4 East	\$22,152	\$0	\$45,000	\$46,334	\$41,186	\$154,672
3 East	\$28,101	\$10,198	\$54,831	\$32,663	\$29,034	\$154,827
2 West	\$15,000	\$0	\$45,000	\$40,358	\$35,874	\$136,232
TOTAL	\$106,251	\$200,198	\$244,662	\$217,456	\$193,294	\$961,860

Compliance of ADA Restroom (7th floor)

Federal standards call for ADA restrooms on each floor. The District currently provides ADA facilities at the basement level and on the 4th floor. Staff will present a plan to provide ADA facilities on the 7th floor.

Secondary Server Room (6th Floor)

The District’s deferred maintenance includes the rooms that house its IS infrastructure. The current state of these facilities relate directly to District data security and integrity. Staff will present a plan to introduce a secondary server room.

Funding

The District has built the Reserve for Building and Facilities to \$2.9M over a period of several years.

BUDGET CONSIDERATION/FINANCIAL IMPACT

The FY 2006/2007 Building Maintenance Capital Outlay budget will be increased by \$961,860 with a transfer from the Reserve for Building and Facilities.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Jeff McKay

BAY AREA AIR QUALITY MANGEMENT DISTRICT
Memorandum

To: Chairperson Daly and Members
of the Budget and Finance Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: September 20, 2006

Re: Consider Amending FY 2006/2007 Operating Budget to Recognize
Increased Revenue under a Department of Homeland Security Grant,
and Authorize EO/APCO to Issue Purchase Orders not to exceed
\$143,285 for Monitoring Equipment

RECOMMENDED ACTION:

Consider recommending that the Board of Directors amend the FY 2006/2007 Budget by increasing the Department of Homeland Security (DHS) Grant Revenue from \$1,943,818 to a total of \$2,087,103, and correspondingly increase the budget for BioWatch (Program 809), and authorize the Executive Officer/APCO to issue a purchase order for monitoring equipment not to exceed \$143,285.

SUMMARY:

In accordance with the District's Administrative Code, Division II, Fiscal Policies and Procedures, Section 4.3, staff requests that the Committee recommend that the Board authorize the Executive Officer to amend the FY 2006/2007 budget as indicated and issue a purchase order for monitoring equipment not to exceed the amount of \$143,285. The funding source is an increase in the DHS Grant.

DISCUSSION:

The BioWatch monitoring program began in February of 2003 with eight locations in the San Francisco area. In July of 2003, the monitoring network expanded to 14 locations with 6 additional sites in the San Jose area. In May of 2006, the DHS increased the grant award to expand the number of monitoring sites in the network to provide additional coverage in the Bay Area. This expansion is currently underway.

On September 3, 2006, the DHS awarded additional grant funds to allow purchase of monitoring equipment for possible future expansions into indoor transportation hubs and to provide back-up equipment for the existing network. The DHS negotiated a discounted price with the sole vendor of the monitoring equipment and has provided a methodology to order the equipment through the vendor to receive this discount. The DHS awarded these additional funds to local operators of the BioWatch network to ensure local needs were met and to avoid costs associated with shipping and warehousing of equipment at DHS facilities.

BUDGET CONSIDERATION/FINANCIAL IMPACT:

Funds for this Budget Amendment and related purchase order are funded by a DHS Grant that will cover the entire cost of the monitoring equipment. There will be no financial impact on the District's general revenue resources.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Jeff McKay
Gary Kendall

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
Memorandum

To: Chairperson Daly and Members
of the Budget and Finance Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: September 27, 2006

Re: Replacement of the Field Communications System

RECOMMENDED ACTION:

Consider recommending that the Board of Directors transfer \$425,000 from the Reserve for Radio Replacement and approve an increase in the FY 2006/2007 Communications Equipment Capital Outlay budget by \$425,000, and authorize the Executive Officer/APCO to issue purchase orders with a total not to exceed \$425,000.

BACKGROUND

Radio Communications

The field inspector's current voice communication system is a two-way, conventional UHF radio system comprised of car radios, radio transmitters, microwave links, and a dispatch console. The system is owned by the District and is similar to ones used by police and fire departments. Constructed in the mid-1970s, this system is used by field inspectors and dispatchers in the Compliance & Enforcement Division to transmit air pollution operational information (complaints, notifications, etc.) and receive the results of investigations (Inspections, NOVs, etc.). The radio system needs replacement because the equipment has become obsolete and replacement parts are becoming unavailable.

Other Communications

Inspectors have very limited use of mobile data systems. They use Nextel Blackberry devices for telephone and email and laptop computers for limited Internet access. DSL connections at four field offices also provide some access to District computers through a secure Virtual Private Network via their laptop computers.

DISCUSSION

As part of efforts to upgrade or replace its current 30-year-old communications system, the District issued a request for proposals (RFP) on 1/17/06, prepared with the assistance of a professional radio consulting firm, Thayer Consulting. Staff sent the RFP to 46 leading communications firms to solicit bids and published it on the District Website. A bidders' conference was held and 15 individuals representing 10 companies attended. The District received 3 proposals, from the Telepath Corporation (Telepath), IP MobileNet (IP Mobile) and

Sprint. Comparative analyses were made by an interdivision RFP selection team from Technical Services, Information Technology, and Compliance & Enforcement.

Goals of the project included: (1) reliable voice communications; (2) coverage that exceeds the current system; (3) safety of inspectors; (4) data functionality that supports field operations; (5) improvement in inspector morale and sense of community; and (6) an implementation strategy that allows for future flexibility.

Proposed Solutions for Radio

Two companies (Telepath and Sprint) presented solutions for voice communications. Sprint's solution is based on a conventional cellular telephone network and is offered as an alternative to UHF radio. Telepath is offering analog voice communications over their FCC-licensed UHF radio tower network. While similar to the District's current radio system, this service is expected to provide increased coverage in all Bay Area counties, compared to the District-owned system. Telepath is a privately owned radio network and under their proposal the District would no longer need to own and maintain radio transmission equipment (microwave backbone and radio towers) or own FCC radio transmission frequencies.

Proposed Solutions for Data Communications

All the RFP bids received presented solutions for data transmission but none of them met an information transfer rate acceptable for District needs. IP Mobile's solution was for data communications only and proposed proprietary mobile radio technology broadcasting via VHF waves. Sprint proposed its i-Den "air-cards," a laptop card, as a data solution. Telepath's data solution is based on using UHF radio subcarrier waves to transmit text messages. These technologies all have a maximum information transfer rate of 56 kilo-bytes per second (kbps), which staff determined to be too slow to meet data transfer needs.

Since this determination, staff has investigated a number of new commercial broadband transmission systems. Of the systems investigated, only Verizon wireless (Verizon) and Sprint's new broadband network provide the data transfer speed determined to meet District needs. Based on field testing and analysis of coverage maps, staff has determined that Verizon provides the most comprehensive coverage for data in the Bay Area. Although Verizon's air-cards are recommended for their superior performance, staff will continue to evaluate and select cost effective products that meet the District's needs.

RFP Analysis and Recommendations

No single company provided a solution that completely met the project goals through an integrated voice/data communications system. The RFP selection team evaluated the proposals received based on the criteria listed in the RFP (system design, implementation, customer support and cost). The selection team evaluated the content of the RFP bids and how well the proposal fulfilled the project goals. The following table presents the results of the RFP evaluation:

Table 1 – Results of RFP Evaluation

Company	RFP Bid Rating (%)	Initial Cost
Telepath	72	\$380,000
Sprint	48	\$124,000
IP Mobile (Data Only)	36	\$670,000

Sprint’s proposal, while the low bid, did not adequately fulfill the project goals through the rating criteria. In particular, Sprint’s proposal did not meet inspector safety requirements because conventional cellular telephone networks are subject to failure during major disasters. In addition, their proposal did not satisfy the District’s information transfer rate needs.

Telepath’s proposal includes access to their private radio network, installation of base-station equipment and car radios, and robust maintenance and equipment warranties. Telepath also proposed to remove and dispose of the District’s 30-year-old radio equipment. Staff performed reference checks on Telepath with Intel Corporation, Cisco Systems (Global Wide), Alameda County, the City of Santa Cruz, the Gilroy and Hayward Police Departments, and the California Communications Officers Association. All the references highly recommended Telepath for both maintenance and service. The RFP selection team also evaluated Telepath’s proposal during a technology demonstration on 6/7/06.

Staff therefore recommends Telepath’s proposal as it will effectively meet field staff’s operational and safety requirements, with increased coverage in all Bay Area counties.

Costs of a New System

The following table displays the costs of the recommended multi-platform solution in comparison to the current communications system:

Table 2 – Capital and Reoccurring Costs for Existing and Proposed Communications

Communications System	Capital Costs	Monthly Costs	Annual
<u>Current</u>			
• Radio			
Tower Leases/Maintenance/WATS Line	N/A	\$6,400	\$76,800
Unplanned Maintenance/Upgrades	N/A	N/A	\$23,000
• Data (None)	N/A	N/A	N/A
Total		\$6,400	\$99,800
<u>Proposed</u>			
• Radio			
Telepath Radio Service	\$380,000	\$3,200	\$38,400
• Data			
Verizon Air-cards	N/A	\$5,000	\$60,000
Transition Plan	\$45,000		
Total	\$425,000	\$8,200	\$98,400

This table shows that an initial capital expenditure of \$380,000 is necessary for a new radio system. However, the current radio system's operational costs, including tower leases and transmitter maintenance, are approximately \$76,800 per year. Telepath's proposal would result in a \$38,400, or 50%, operational cost savings each year over the current District-owned radio system. Staff proposes to utilize the cost savings to provide an expansion of data communication to field inspectors. With mobile data access, District field staff will not have to drive to field offices or the District office to gain computer access, thus increasing District efficiency.

Staff also contracted with Spectrum Resources, an expert in the field of public safety communications, to provide an estimate of the potential value of the District's current FCC radio frequencies. Staff received a report on 5/22/06 indicating the potential value to be, upon auction, somewhere in the region of \$50,000 to \$100,000. These monies could also be applied to offset the capital cost of the Telepath proposal.

Staff has developed a transition plan to move from the existing radio system to the new field communication system, and has estimated the transition costs to be \$45,000 to introduce the data communications capabilities.

Conclusions

Based on analysis of the RFP bids received, Staff recommends:

- Acceptance of Telepath's RFP bid which offers the District a reliable and familiar radio communication technology that meets field staff's operational and safety requirements.
- Use of Verizon's air-cards which offer field staff remote field access to District computer systems and represent a significant opportunity to increase operational efficiency, with the flexibility to switch to better products as technology develops.

Funding

The District has built the Reserve for Radio Replacement to \$3.5M over a period of several years.

BUDGET CONSIDERATION / FINANCIAL IMPACT:

The FY 2006/2007 Communications Equipment Capital Outlay budget will be increased by \$425,000 with a transfer from the Reserve for Radio Replacement.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Kelly Wee

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
Memorandum

To: Chair Gayle B. Uilkema and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/APCO

Date: September 25, 2006

Re: Report of the Personnel Committee Meeting of September 28, 2006

RECOMMENDED ACTION:

The Committee may recommend the appointment of one of the candidates interviewed on September 28, 2006, as the alternate member for the Attorney member category to the District Hearing Board. The alternate Attorney member will fill an unexpired term ending June 3, 2009.

BACKGROUND:

Pursuant to Section 40800 of the California Health and Safety Code the District is required to maintain a Hearing Board consisting of five members. Further, Section 40801 requires that one of the Hearing Board members be admitted to the practice of law in this state. Section 40800 allows the District to appoint one alternate for each member of the Hearing Board with the same qualifications specified in Section 40801. The alternate serves for the same term as the member.

DISCUSSION:

The Personnel Committee will meet September 28, 2006 to conduct interviews of candidates to fill the alternate Attorney member position. Based on the Committee's review of each candidate's background and responses to interview questions, the Personnel Committee may recommend to the full Board of Directors that one of the candidates be selected for the alternate Attorney member position. The recommended selection is from a pool of seven candidates for the alternate positions.

Chairperson Kwok will give an oral report of the meeting.

BUDGET CONSIDERATION/FINANCIAL IMPACTS:

None.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Mary Romaidis
Approved by: Mary Ann Goodley

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
Memorandum

To: Chair Uilkema and Members
of the Board of Directors

From: Jack P. Broadbent
Executive Officer/ APCO

Date: September 25, 2006

Re: Status Report on the Community Air Risk Evaluation (CARE) Program

RECOMMENDED ACTION

For information only.

BACKGROUND

The Community Air Risk Evaluation (CARE) program was established by the District in 2004. The objectives of the CARE program are, first, to identify locations with high emissions of toxic air contaminants (TAC) and high exposures of sensitive populations to TAC and, second, to use this information to help the District establish policies to guide mitigation strategies that obtain the greatest health benefit from TAC emission reductions. A Task Force of academics, community groups, and health and industry representatives provides regular review and input to the CARE program.

The CARE program is a multi-phase program, the first phase of which is nearly complete. In each phase, technical studies will be conducted to progressively improve District estimates for where TAC exposures are occurring, particularly exposures of sensitive populations. In each phase, the technical information derived will be used to inform and guide emission reduction strategies. One of the strategies of the CARE program is to develop and implement targeted TAC emission reductions as the program progresses.

As staff reported to the Executive Committee on September 13, 2006, a new CARE program manager was hired in May, 2006, and the program has made significant progress. The program has a refined direction and timeline, and benefits from good working relations with members of the CARE Task Force.

DISCUSSION

Phase I of the CARE program is nearing completion. District staff and consultants have completed a preliminary annual inventory of TAC emissions in the Bay Area. This emissions inventory has been geographically mapped to reveal the locations, within the Bay Area, where the highest emissions are occurring. Completed, or nearing completion, are a number of support studies that either contributed to the development of the TAC emissions inventory or can be used to evaluate it. These studies show that about 80% of the cancer-risk-weighted emissions in the Bay Area are from

diesel particulate matter (PM). About 50% of the risk-weighted emissions for chronic, non-cancer, health risks are from acrolein, a chemical that is emitted from the combustion of fossil fuels and other sources. Acrolein is also the dominant source of emissions weighted by acute health risk.

In Phase I, District staff also compiled demographic and health statistic data that can be used to identify people who are particularly sensitive to the effects of TAC. District staff intends to use the TAC emissions data and the demographic and health statistic data to identify areas where TAC reduction measures are particularly needed. Staff intends to use the data to develop and implement risk reduction programs, including grant and incentive programs, community outreach efforts, collaboration with other governmental agencies, model ordinances, new regulations for stationary sources and indirect sources, and advocacy for additional legislation. Staff will update the Board on the status of the CARE program with respect to findings and policy recommendations from Phase I activities.

BUDGET CONSIDERATION/FINANCIAL IMPACT

None.

Respectfully submitted,

Jack P. Broadbent
Executive Officer /APCO

Prepared by: Phil Martien
Reviewed by: Henry Hilken

Attachment: CARE Program Phase I Findings and Policy Recommendations

Community Air Risk Evaluation Program

Phase I Findings and Policy Recommendations
Related to
Toxic Air Contaminants in the San Francisco Bay Area

September 2006

Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109

1. INTRODUCTION

1.1 Background

In the San Francisco Bay Area toxic air contaminants* (TAC) are a serious concern, as they are in other major metropolitan areas. The California Air Resources Board (ARB) lists 189 compounds as TAC, including particulate matter (PM) specifically from diesel internal combustion engines; benzene, a constituent of gasoline and a product of incomplete combustion; and 1-3 butadiene and formaldehyde, also products of incomplete combustion. Health risks posed by these compounds include cancer risks; chronic, non-cancer risks, such as diseases of the lungs, liver, and kidneys; and acute risks, such as eye and respiratory irritations. A distinction is made between TAC and criteria pollutants, such as ozone and PM from all sources. Though both types of pollutants can have serious health effects, the regulatory frameworks for controlling them differ.

The Bay Area Air Quality Management District (Air District) currently implements a variety of programs that reduce TAC emissions and exposures. Under State law, the Air District's primary mission is to regulate stationary sources and indirect sources, and, through its regulatory, enforcement, and permit programs, the Air District reduces criteria pollutant and toxic emissions from these sources. Through its grant and incentive programs, the Air District allocates approximately \$40 million in annual funding to provide incentives to reduce criteria pollutant and toxics emissions from on-road and off-road mobile sources. In addition, the Air District has an advisory role on air quality issues related to development, housing, and transportation. The Air District also supports and sponsors legislation to reduce criteria pollutant and toxic emissions from on-road and off-road mobile sources and other sources; develops model ordinances to reduce criteria and toxic pollutant emissions from on-road and off-road mobile sources and area sources; and conducts public information campaigns to increase public awareness of and involvement in pollution reduction programs.

High TAC emissions often occur near communities where, due to age (youth or seniors), high rates of asthma or other medical conditions, lack of medical services, and other socio-economic factors, residents may be particularly sensitive to the effects of TAC. These concerns led to State legislation (AB 1390, Lowenthal) which requires that California air districts with more than one million residents distribute at least 50% of their Carl Moyer Grant funding in such a manner that directly benefits communities with the most significant exposures. These concerns have also underscored the need for the Air District to develop improved tools to map and assess TAC emissions and exposures throughout the region in order to identify areas where emission reduction activities should be focused.

1.2 The Community Air Risk Evaluation Program

The goal of the Community Air Risk Evaluation (CARE) program is to identify locations with high toxic emissions and sensitive populations, and to use the information to help the Air District establish policies for the use of its incentive funding, regulatory authority, and other programs to reduce toxic emissions in areas with high TAC exposures and sensitive populations.

* Key words and phrases are defined in an appended glossary.

In Phase I of the CARE Program, the Air District and its consultants* – with input from CARE Task Force members, including scientists, community groups, and industry representatives – developed a preliminary emissions inventory of TAC and compiled demographic and health-statistics data to help identify locations with high levels of TAC and populations who are especially sensitive to TAC. The TAC emissions inventory is an annual inventory for year 2000 derived using emissions models and engineering calculations. The TAC inventory was displayed on a map of the Bay Area to indicate locations where emissions are highest.

To support the development, refinement, and evaluation of the Bay Area toxic inventory, a number of additional studies were undertaken in Phase I, including a telephone survey of residential wood burning, a carbon-14 analysis to determine new versus old carbon fractions in the ambient air, a chemical mass balance (CMB) study to estimate the source contributions to various ambient PM compounds, and a CMB analysis of organic PM compounds. Such measurement-based studies are helpful to verify that the TAC emissions estimates are realistic. Findings from Phase I are described in Section 2.

Findings from the technical studies will be used to help design measures to reduce exposure to toxic compounds, especially for sensitive populations. Activities to reduce exposure will begin being implemented immediately, as further technical analysis proceeds in Phases II and III. In Phase I, for example, the Air District included in the procedures for its Carl Moyer Program a method to target areas with high PM and sensitive populations. Additional policy recommendations are described in Section 3.

In Phase II of the CARE Program, with continued input from the Task Force, the Air District will work to improve the TAC inventory and begin preliminary modeling to estimate concentrations of TAC in the Bay Area. In Phase III, the modeling of TAC concentrations will be refined and more detailed assessments of exposure will be made using measurements and modeling. Phases II and III are outlined in Section 4.

1.3 Scope and Audience

This document summarizes the findings of Phase I of the CARE Program and presents policy recommendations aimed at reducing health risks from TAC in the Bay Area. This document targets a general audience with concerns about TAC in the Bay Area, as well as policy makers, communities, and industry groups who can use this information to help design effective TAC control strategies. In addition to summarizing Phase I findings and policy recommendations, this document also outlines the goals for Phases II and III of the CARE Program.

* The Air District worked with Sonoma Technology Inc. (STI) to develop a gridded emissions inventory of toxic air contaminants.

2. FINDINGS – PHASE I

2.1 Emissions of Toxic Air Contaminants in the San Francisco Bay Area

In Phase I of the CARE program, an annual emissions inventory of TAC was developed for a 2 by 2 kilometer (approx. 1 square mile) grid system covering the Bay Area. This gridded inventory represents emission levels in year 2000 and includes emissions from individual facilities (point sources), on-road mobile sources, and off-road mobile and other distributed sources (area sources). The compounds included in the TAC inventory are those defined by ARB, including diesel PM and other toxic compounds such as benzene and formaldehyde. In addition to mapping and evaluating them directly, the emissions of each toxic compound were weighted by their toxicity. For example, benzene has a higher cancer risk than MTBE, so it receives a higher weight. The risk-weighted emissions can be compared on the basis of their relative risks.

In the Bay Area, diesel PM accounts for about 80% of the cancer risk from airborne toxics (Figure 1a). This finding is consistent with the findings made by the South Coast Air Quality Management District in the MATES I and II studies and with statewide findings made by ARB. Diesel PM consists of primarily fine particles. In addition to the toxic effects of diesel PM, all fine particulate matter also aggravates heart and respiratory disease, including asthma. Major sources of diesel PM include on-road and off-road heavy duty diesel trucks and construction equipment (Figure 1b). The highest diesel PM emissions occur in the urban core areas of eastern San Francisco, western Alameda, and northwestern Santa Clara Counties (Figure 2a).

The major contributor to acute (short term) non-cancer health effects in the Bay Area is acrolein, a chemical formed from the combustion of fossil fuels and photochemical reactions in the atmosphere. The major contributor to chronic (long term) non-cancer health effects in the Bay Area is also acrolein. Major sources of acrolein in the Bay Area include on-road mobile sources and aircraft (Figure 1c-f). Areas with high acrolein emissions are near commercial and military airports and freeways (Figure 2b).

The emissions inventory of TAC and associated potential health risks estimated in Phase I are the best available estimates for the Bay Area. However, the inventory and estimates of risk should be considered preliminary because they are subject to change as further analysis is carried out in Phases II and III.

2.2 Supporting Studies

To support the development of the Bay Area TAC inventory and to assist in its evaluation, the Air District conducted a number of additional studies. A telephone survey of residential wood burning provided an estimation of total wood burning in the Bay Area that is consistent with previous estimates; however, the study indicated that much less wood burning occurs in San Francisco County than previously estimated and more occurs in Alameda, Contra Costa, and North Bay Counties. A carbon-14 analysis showed that during both summer and winter new carbon (wood burning, forest fires, food preparation) and old carbon (fossil fuel combustion) each contribute about half the total carbon collected on PM filter samples in the Bay Area. Confirming this result and reconciling it with emissions inventory estimates will be important future steps. A chemical mass balance (CMB) study was conducted to estimate the source

contributions of various sources to ambient particulate matter. Similarly, a CMB analysis of organic PM compounds is underway to apportion the organic portion of observed PM concentrations. These types of studies are important since diesel PM cannot be measured directly.

2.3 Demographic and Health Statistics Geospatial Data

Many children (under 18), seniors (over 64), and low-income families (below 185% of U.S. poverty level) live in core urban areas of the Bay Area. These populations, as well as the total population of the Bay Area, were gridded in the same 2 x 2 kilometer grid used for the TAC emissions (Figure 3a-c). As a group, children and seniors are more sensitive to the harmful effects of TAC. In addition, low income residents often have less access to health care compared to the overall population of the Bay Area.

Western Alameda County and eastern San Francisco County have high hospitalization rates for childhood (under 14) asthma (Figure 3d). Studies have shown that children living near freeways are more likely to develop asthma and are likely to be more sensitive to the effects of TAC*. While no attempt is being made here to establish a causative link between the asthma hospitalization rates shown in Figure 3d and TAC emissions, it is clear that areas with high rates of childhood asthma are important targets for reductions in TAC emissions. Comparison of the maps of demographic and health data (Figures 3a-d) to TAC emissions (Figures 2a-b) reveals that high TAC emissions occur near areas with low-income and sensitive populations.

2.4 Population-weighted Emissions

In order to identify areas with both high emissions and sensitive populations, the Air District developed maps of emissions weighted by total population, or by sensitive populations (Figure 4a-d). For example, Figure 4 shows diesel PM emissions weighted by demographic and health data: diesel PM was weighted by population under 18 (4a), population over 64 (4b), family income less than 185% of federal poverty level (4c), and age-adjusted asthma rates for children 14 and under (4d).

3. POLICY RECOMMENDATIONS

3.1 Targeted Mitigation

One of the objectives of the CARE Program is that information gained at each phase of the program be used to help direct mitigation strategies. The Air District intends to use Phase I findings to target appropriate mitigation measures in areas with high TAC emissions and sensitive populations, that is, population-weighted TAC emissions can be used as a surrogate for TAC exposures. The Air District recognizes that population-weighted emissions are not a perfect surrogate for exposure; however, they are a reasonable indicator of where mitigation efforts should be focused while more refined technical analysis proceeds. The CARE program is

* For example, the East Bay Children's Respiratory Health Study, published by J. J. Kim, S. Smorodinsky, M. Lipsett, B. C. Singer, A. T. Hodgson, and B. Ostro in 2004, conducted a school-based investigation of "Traffic-related Air Pollution near Busy Roads."

committed to following up with more sophisticated techniques for evaluating exposure in Phases II and III.

In the following sections a number of potential policy responses are outlined that adapt existing mitigation strategies and target them using Phase I emissions and demographic data to achieve the goals of the CARE program.

3.2 Grant and Incentive Programs

Through the Carl Moyer Program, the Transportation Fund for Clean Air, the Mobile Source Incentive Fund and other grant programs, the Air District distributes approximately \$40 million per year in incentive funding to reduce emissions from on-road and off-road sources. Data from Phase I of the CARE program will help the Air District focus grants and incentives in areas with high TAC emissions and sensitive populations. Combining gridded emissions of diesel PM and other TAC with population and health effects data is an example of how these data can be used.

The Air District has already focused certain grant programs in this way. Gridded emission information for fine PM has already been incorporated into the policies and procedures for awarding past grant cycles of Carl Moyer Funds. Following this precedent, Air District staff intends to recommend to the Board of Directors that the CARE Program Phase I gridded toxic emissions, population and health effects information be incorporated into the policies and procedures for awarding other Air District grant and incentive funds.

Model year 2007 and later on-road heavy-duty diesel (HDD) vehicles have substantially lower PM emissions than older vehicles. However because of the relatively low turnover rate and high mileage accumulation for HDDs, it will be many years before substantial emission reductions are achieved by fleet turnover alone. Off-road diesel sources, including construction equipment, ships, cargo handling equipment, trains, etc., which are not subject to the same stringent emission standards as on-road HDDs, contribute an increasingly larger fraction of total diesel PM emissions. In addition, the high per vehicle cost (about \$5,000 to \$25,000) of reducing diesel PM emissions from existing sources through retrofits or replacement means that only a small fraction of the existing high emitting diesel PM sources can be cleaned up or replaced each year. Thus, there is a need to use these limited resources as effectively as possible.

3.3 Public Involvement

The Air District conducts public information campaigns to increase public involvement in pollution reduction programs. The Air District works with local Resource Teams in communities including West Oakland, West Contra Costa County, and East Palo Alto to encourage public involvement, and holds numerous meetings throughout the Bay Area on local air quality concerns. For example, the Air District was integrally involved in efforts to enforce the State's new anti-idling rules for diesel trucks that service the Port of Oakland area. Several workshops were held to explain these new regulations to local residents. The Phase I findings will provide critical information to Air District staff and to community members as the Air District continues to work with Bay Area communities.

3.4 Collaboration with Other Government Agencies

The Air District has worked closely with Cal/EPA and others on statewide efforts to reduce air quality impacts from goods movement. The Air District is also collaborating with the Metropolitan Transportation Commission, the Port of Oakland, and other stakeholders to reduce emissions from goods movement in the Bay Area. The Air District is also working closely with ARB and two railroads to implement the statewide Railroad Memorandum of Understanding. The CARE Program Phase I findings will provide critical technical support for these efforts.

The Air District also has an advisory role on air quality issues related to land use development, housing, and transportation. The Air District reviews and comments on local general plans and environmental documents. Air District staff will incorporate Phase I findings into outreach to cities and counties regarding TACs, buffer zones, and incompatible land uses.

Although the State and federal governments regulate mobile sources, the largest sources of diesel PM and other TACs, the Air District works closely with ARB to achieve stringent mobile source regulations. In 2005 the Air District supported ARB regulations on Cargo Handling Equipment at Ports and Railyards and Auxiliary Engines on Ocean-Going Vessels. The Phase I findings will help the Air District and Bay Area communities to advocate for additional regulations from ARB.

3.5 Model Ordinances

The Air District develops model ordinances to reduce criteria and toxic pollutant emissions that are adopted and enforced by local governments. For example, the Air District has developed a model ordinance to limit residential wood burning that many local jurisdictions have adopted. Similarly, the Phase I findings will aid the Air District as we explore other such model ordinances, such as local ordinances to limit idling of diesel equipment.

3.6 Regulations

The Air District has authority to regulate criteria pollutant and toxic emissions from stationary sources and indirect sources. The CARE Program Phase I findings will help identify priorities for TAC reductions in new or modified Air District regulations. Initial emphasis will likely be placed on stationary sources. The Air District also has authority to regulate indirect sources, however, so the Air District may also consider regulatory programs focused on large indirect sources of TAC, for example facilities that attract large numbers of diesel vehicles.

3.7 New Legislation

The Air District sponsors and supports legislation to reduce criteria pollutant and toxic emissions from on-road and off-road mobile sources and other sources. For example, in 2006 the Air District supported SB 1601 (Lowenthal), which would have required Best Available Control Technology to reduce emissions at California ports. In 2005, the Air District supported several bills related to the reduction of TAC, including AB 694 (Chan), which the Air District sponsored to expand the use of Transportation Fund for Clean Air (TFCA) funding to clean up Bay Area

heavy duty diesel vehicles that are not part of public agency fleets*. Phase I findings will help identify and advocate for additional legislation.

4. NEXT STEPS

4.1. Future Work

Future phases of the CARE program will build on work in Phase I to refine the preliminary TAC inventory, apply air quality models to estimate TAC concentrations, and collect supplemental measurements of TAC concentrations (Phase II). Measurement-based and model-based concentrations will be used in combination with exposure models to more realistically estimate actual population exposures (Phase III). Additional TAC mitigation strategies will also be defined. The outlines below begin to summarize future phases of the CARE program. More details will be developed in a CARE protocol document.

4.2. Phase II

In Phase II the Air District will:

- Further develop the TAC emissions inventory, including a reevaluation of diesel PM emissions from construction equipment;
- Conduct preliminary modeling, at both regional and local scales during a summer and a winter season to estimate TAC concentrations;
- Participate with ARB and the Port of Oakland to conduct a *health risk assessment* (HRA) for the port;
- Work with ARB to conduct an HRA for the West Oakland community;
- Carry out measurement studies (already in planning phase) of organic and elemental carbon to estimate diesel PM in cooperation with ARB;
- Refine and implement mitigation strategies identified in Phase I.

4.3. Phase III

Phase III tasks are still preliminary, and may include the following:

- Further develop the TAC emissions inventory;
- Refine regional and local scale modeling;
- Apply tools developed during the Port of Oakland HRA to other communities;
- Conduct exposure analyses, including micro-scale analyses, to estimate actual population exposures;
- Refine and implement mitigation strategies identified in Phases I and II.

* Public agency fleets were already eligible.

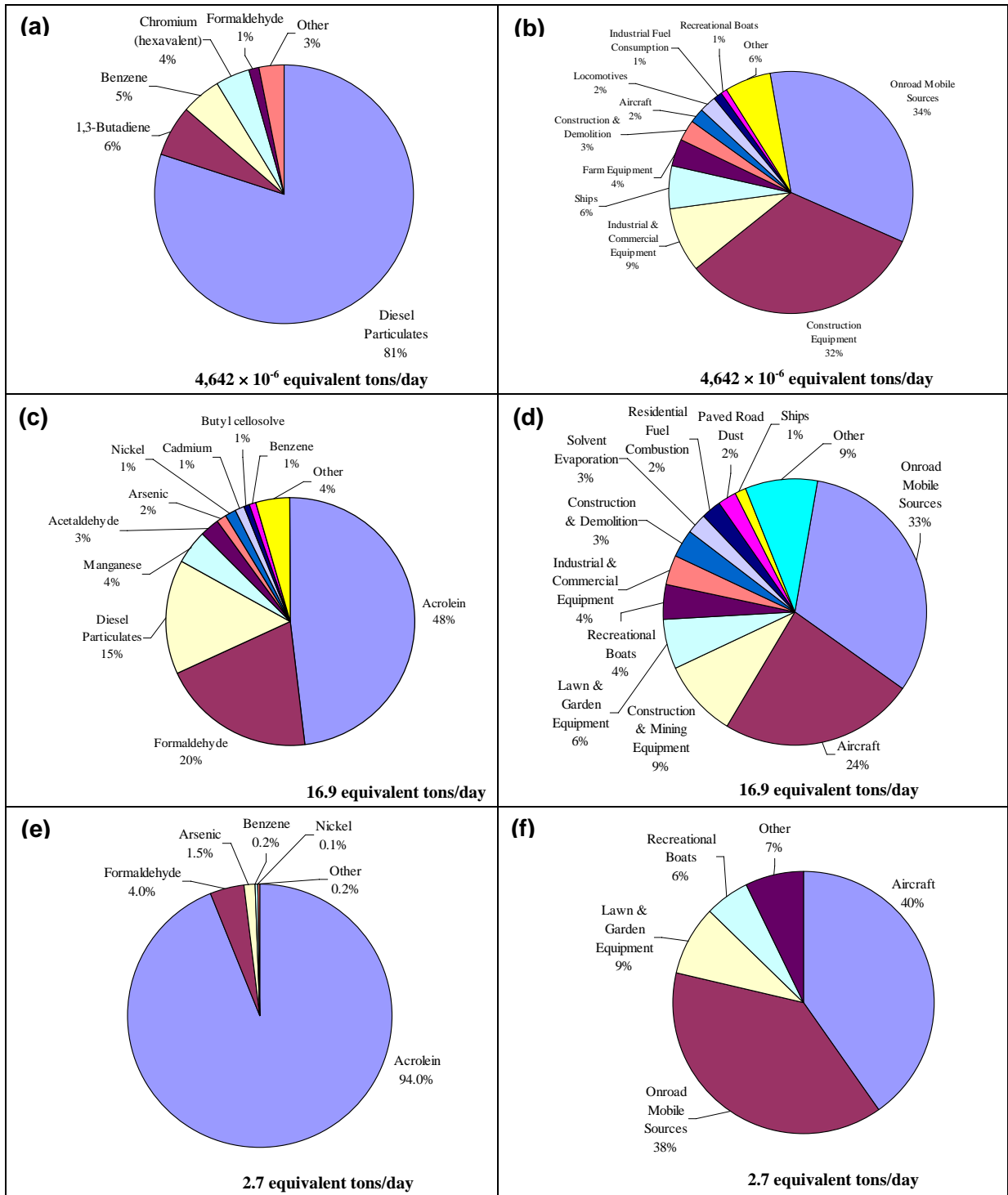


Figure 1. Contributions to Bay Area-wide toxicity-weighted emissions, broken down by TAC and by emissions source category: (a) cancer toxicity-weighted emissions by pollutant; (b) cancer toxicity-weighted emissions by source category; (c) chronic toxicity-weighted emissions by pollutant; (d) chronic toxicity-weighted emissions by source category; (e) acute toxicity-weighted emissions by pollutant; (f) acute toxicity-weighted emissions by source category.

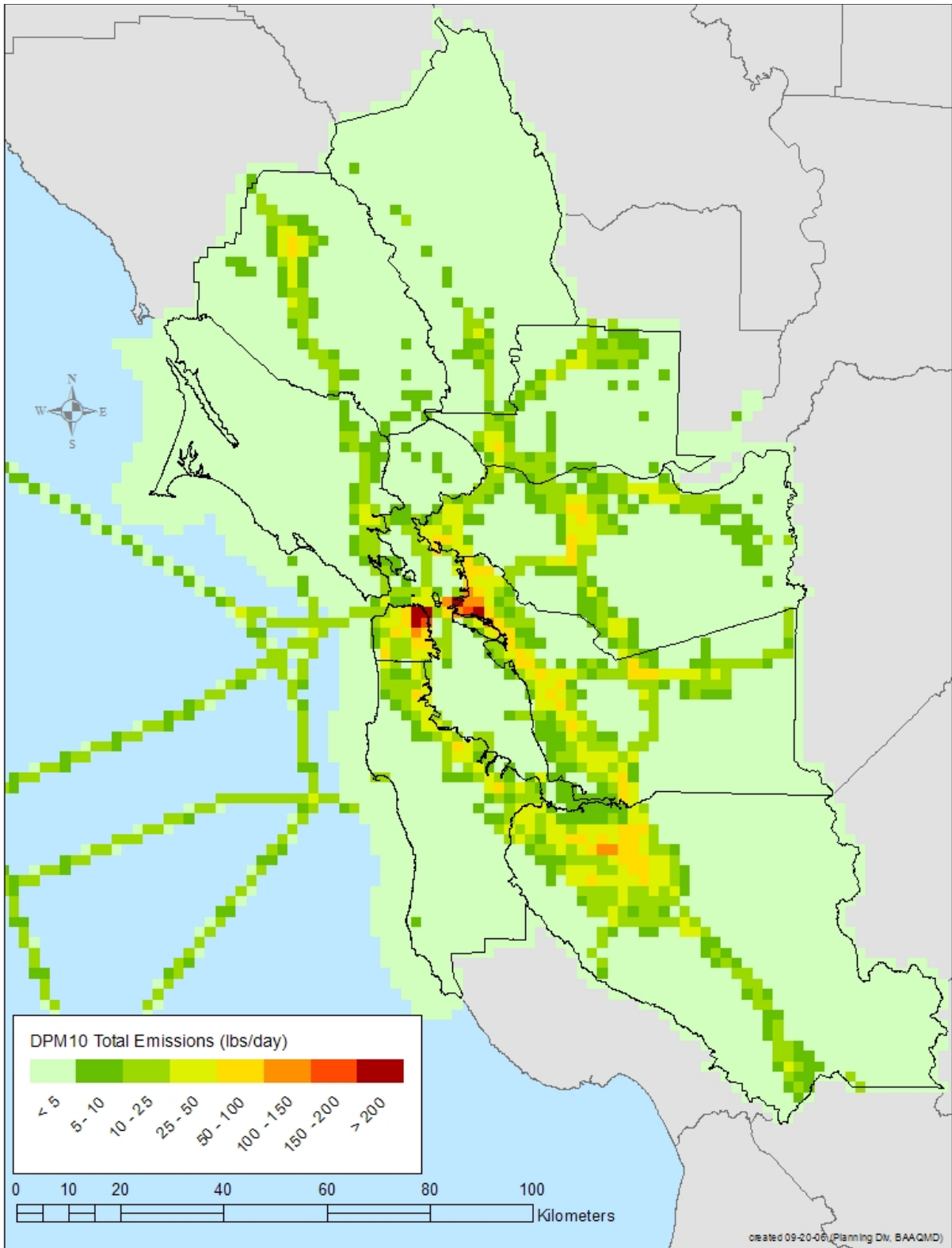


Figure 2a. Emission density plot of diesel particulate emissions.

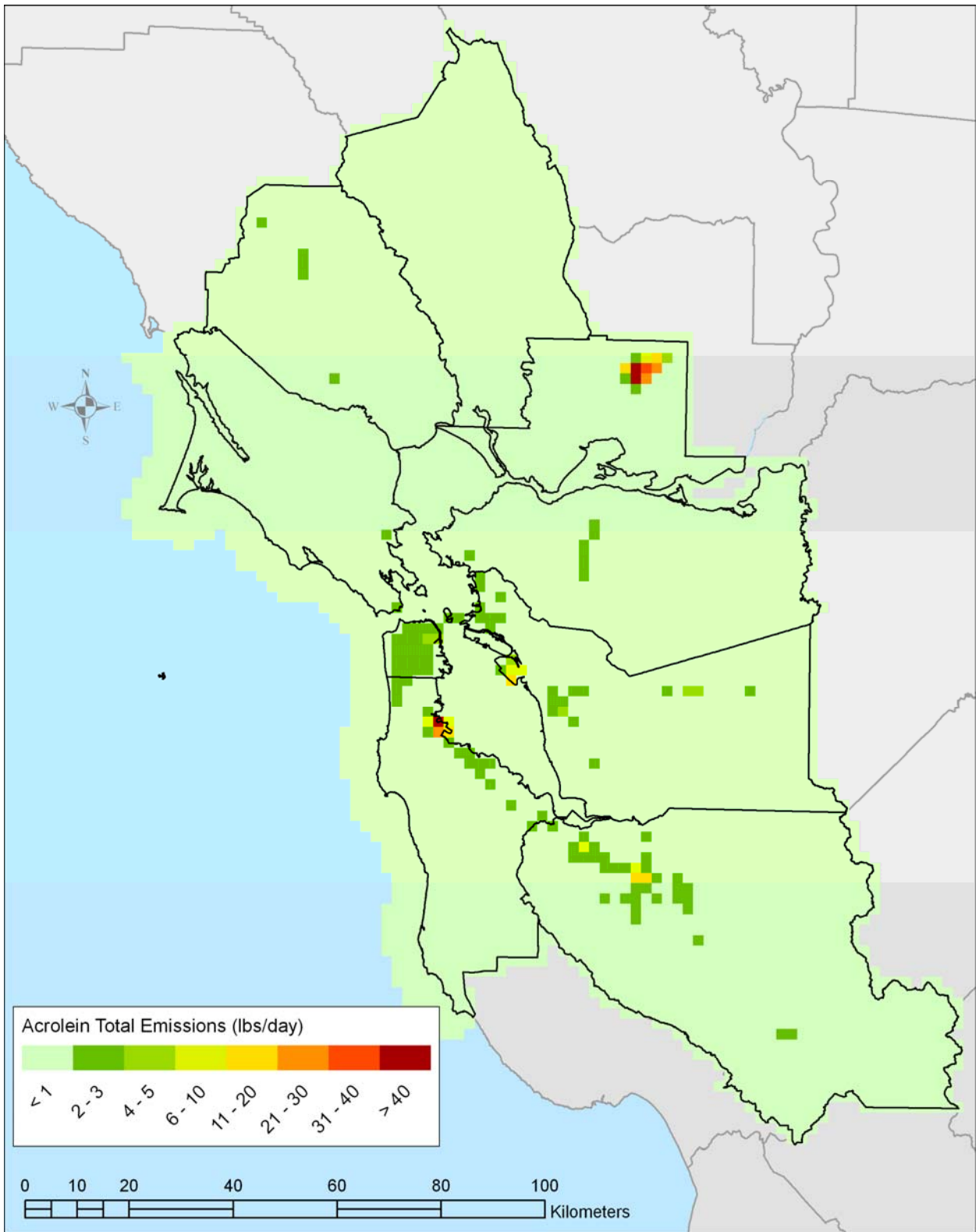


Figure 2b. Emission density plot of acrolein emissions.

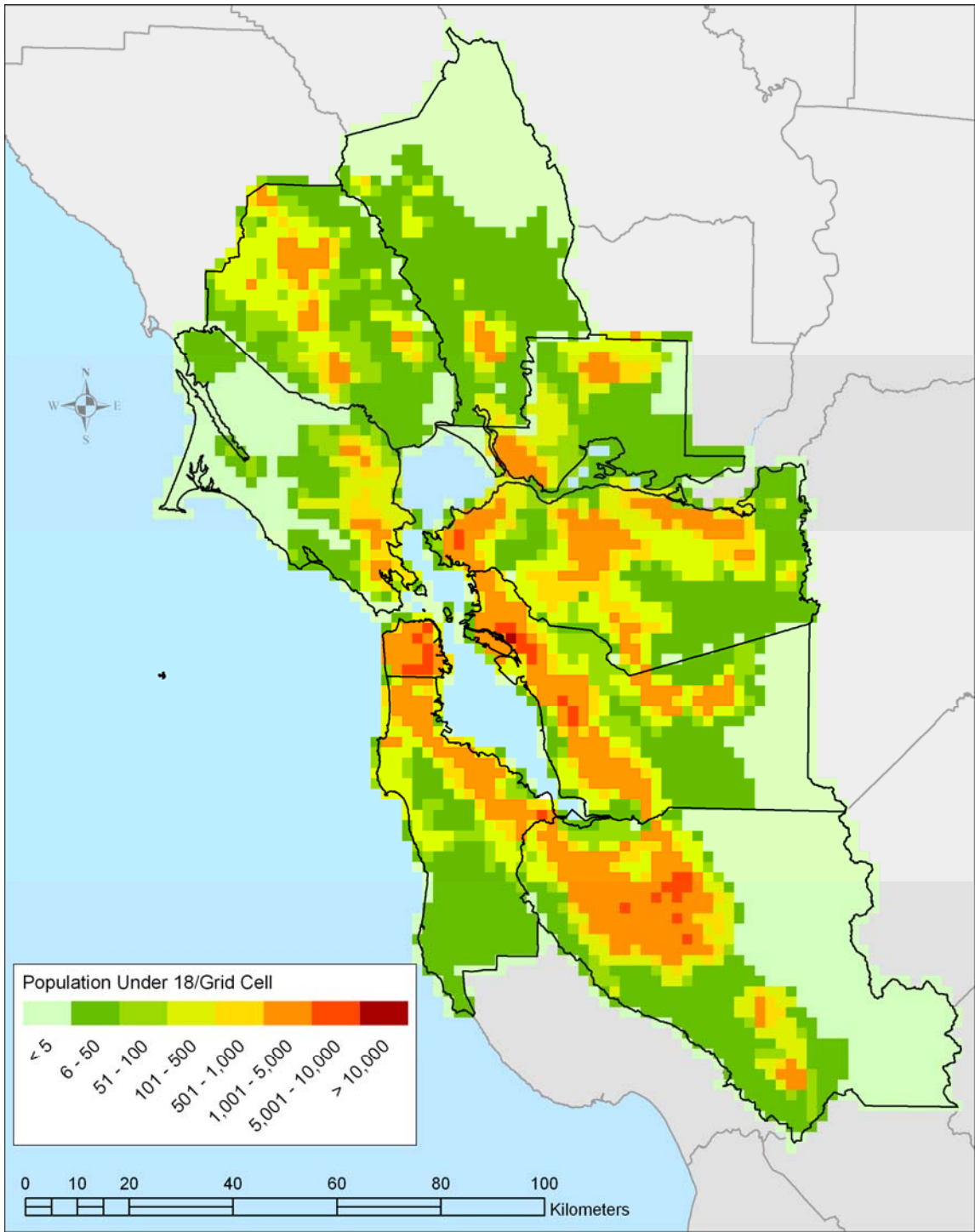


Figure 3a. Distribution of populations under 18 years of age.

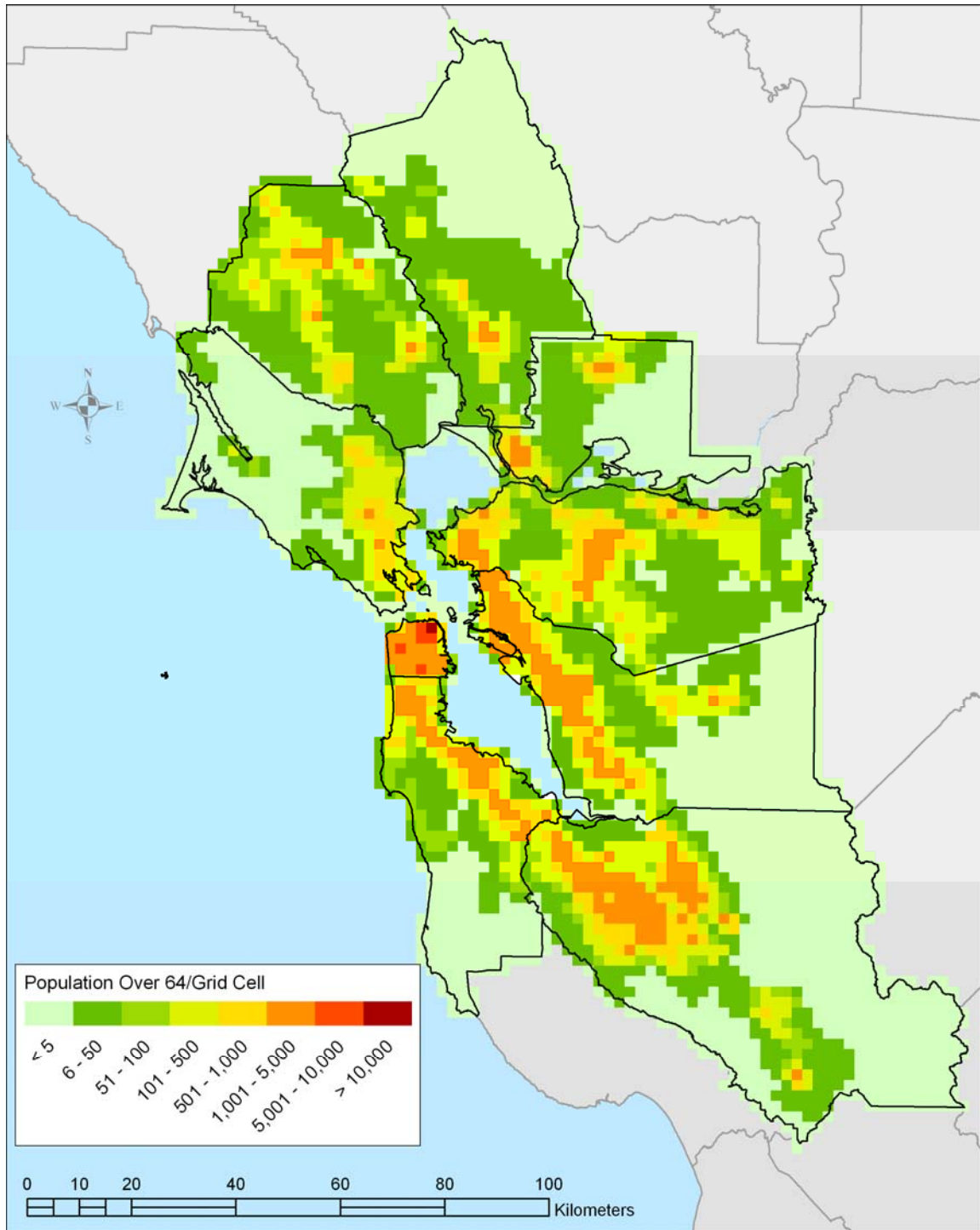


Figure 3b. Distribution of populations over 64 years of age.

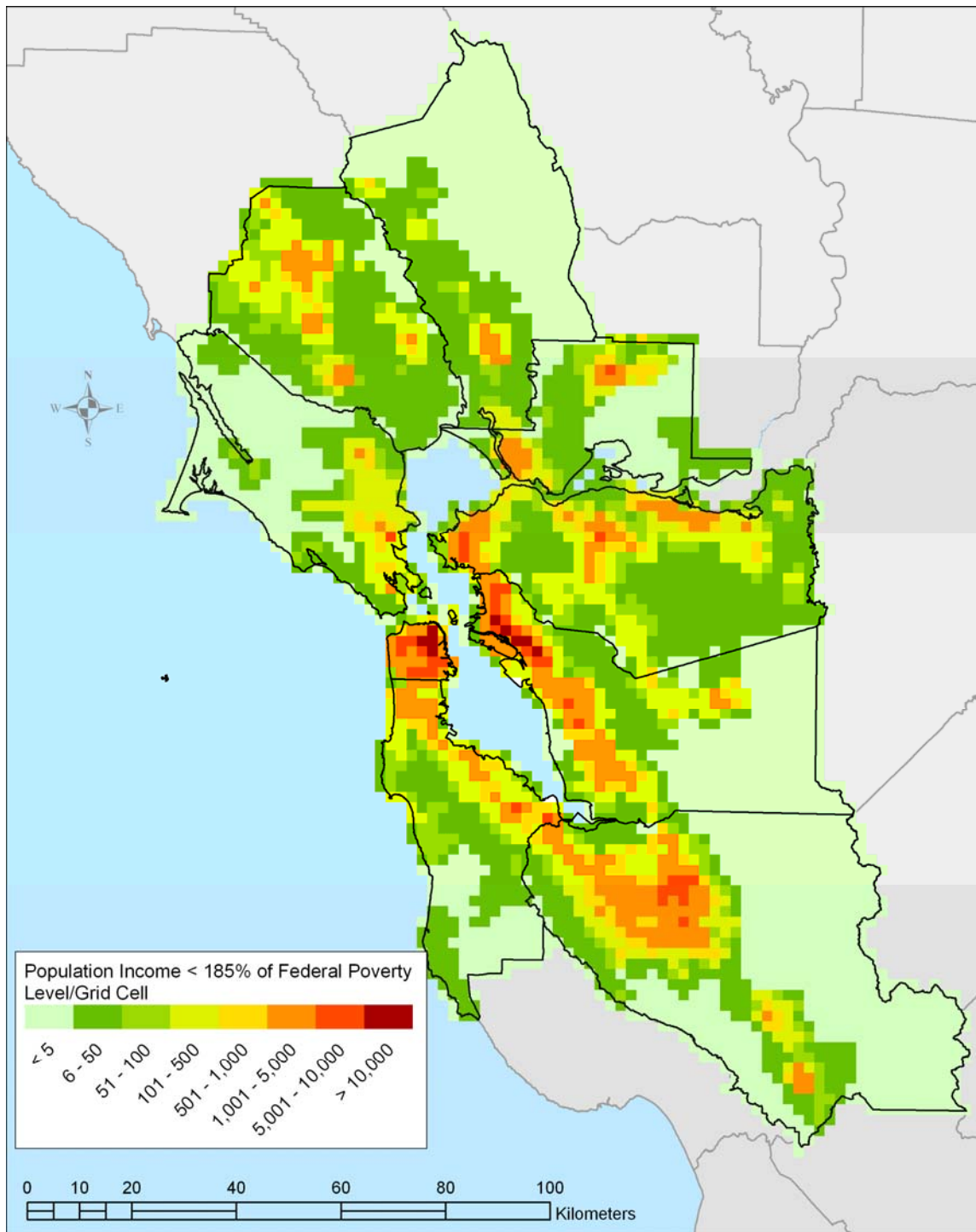


Figure 3c. Distribution of populations living in households earning less than 185% of the federal poverty level.

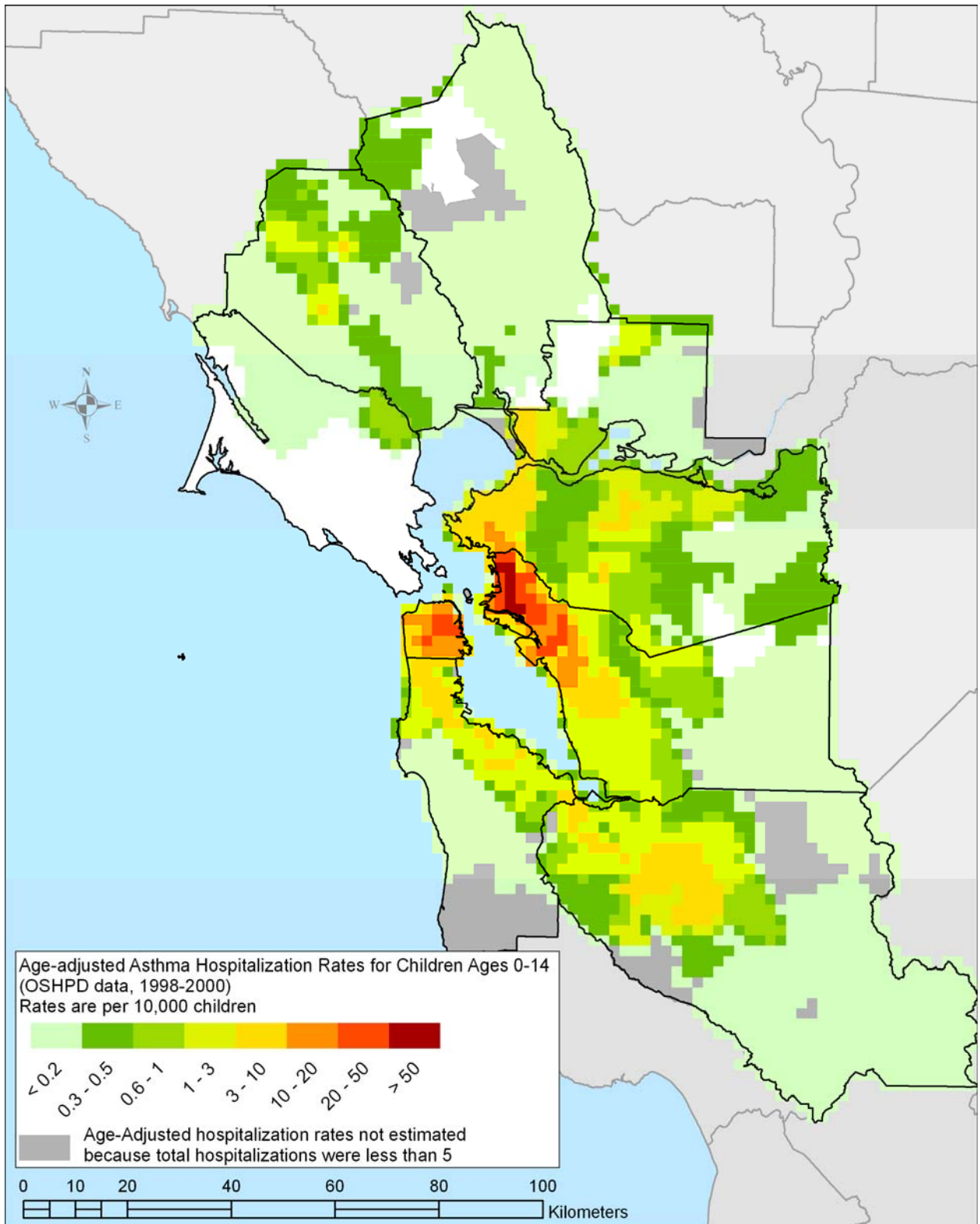


Figure 3d. Age-adjusted rates of hospitalization due to asthma in children 14 years of age and below. Note that white areas represent areas with no available data.

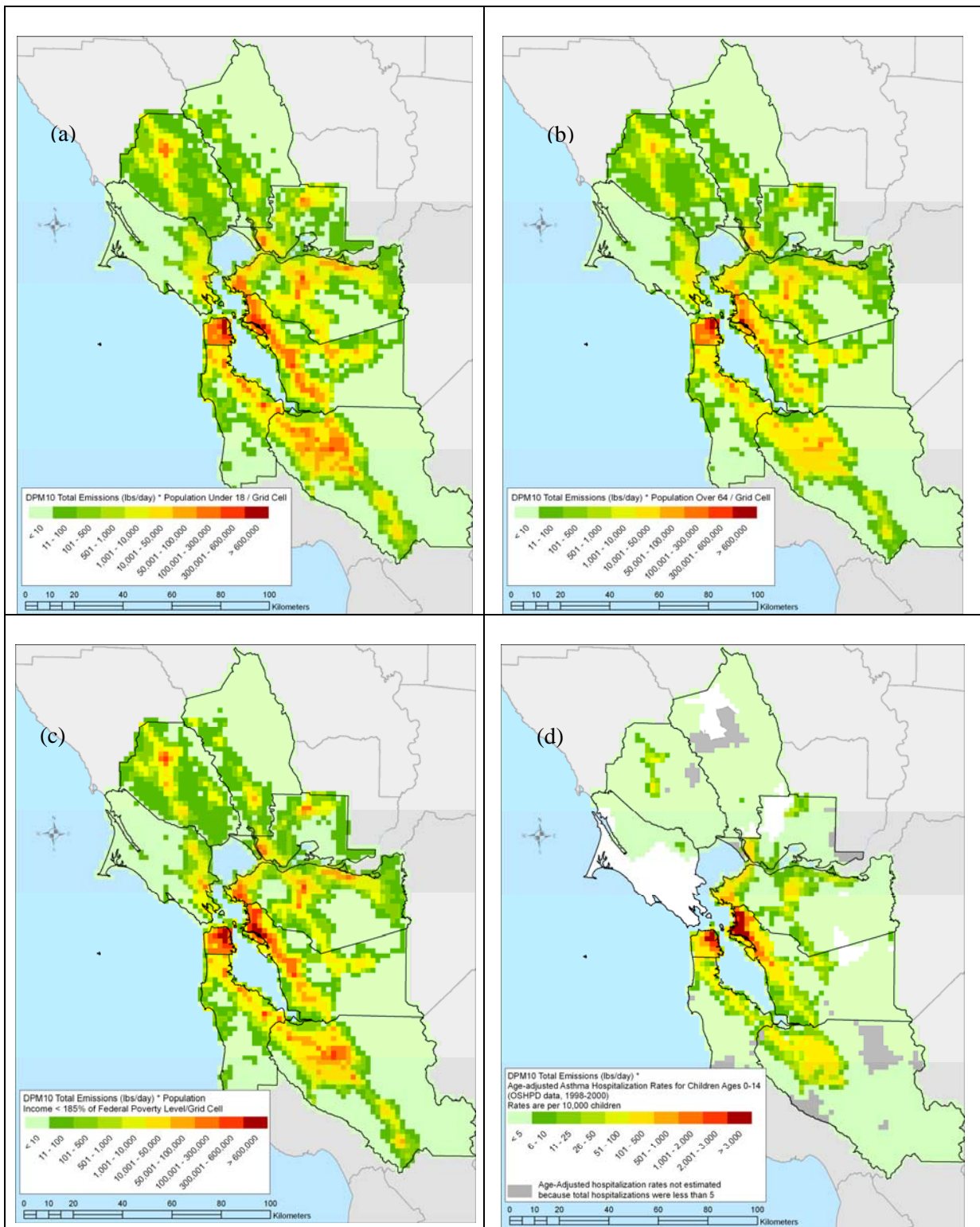


Figure 4. (a) Diesel particulate matter (PM) emissions weighted by population under 18; (b) diesel PM emissions weighted by population over 64; (c) diesel PM emissions weighted by population of low-income families (below 185% of the federal poverty level); (d) diesel PM emissions weighted by age-adjusted asthma rates for children 14 and under.

GLOSSARY

Air Quality Management District (AQMD) – Local agency charged with controlling air pollution and attaining air quality standards. The Bay Area Air Quality Management District is the regional AQMD that includes Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo and Santa Clara Counties and the southern halves of Solano and Sonoma Counties.

Area Sources – Sources of air pollutants that individually emit relatively small quantities of air pollutants, but which cumulatively may emit large quantities of emissions. Examples include water heaters, lawn maintenance equipment and consumer products.

California Air Resources Board (ARB) – The State of California agency responsible for air pollution control. Responsibilities include: establishing State ambient air quality standards, setting allowable emission levels for motor vehicles in California and oversight of local air quality management districts.

Cal/EPA – The California Environmental Protection Agency is an umbrella agency for the State's environmental Boards and Departments, including the California Air Resources Board.

Carbon 14 Analysis – A process for determining the age of carbon materials. Old carbon (fossil fuels) contains less carbon 14 than new carbon (wood and vegetation).

Carl Moyer Grant Program – A grant program funded by the State that provides funds to reduce exhaust emissions from heavy-duty diesel engines.

Criteria Air Pollutants – Air pollutants for which the federal or State government has established ambient air quality standards, or criteria, for outdoor concentration in order to protect public health. Criteria pollutants include: ozone, carbon monoxide, sulfur dioxide, particulate matter, nitrogen oxide, and lead.

Chemical Mass Balance Model – A receptor model that uses profiles of different source types, and using best-fit methods, determines likely source contributions to measured ambient concentrations.

Elemental Carbon (EC) – Elemental carbon is mostly soot.

Emissions Inventory – A list of air pollutants emitted into an area's atmosphere, in amounts (commonly tons) per day or year, by type of source.

Health Risk Assessment – An analysis where human exposure to toxic substances is estimated, and considered together with information regarding the toxic potency of the substances, to provide quantitative estimates of health risk.

Indirect Sources – Land-uses and facilities which attract or generate motor vehicle trips and thus result in air pollutant emissions, e.g., distribution centers, shopping centers, and office buildings.

Metropolitan Transportation Commission – The Metropolitan Transportation Commission is the transportation planning agency for the San Francisco Bay Area.

Mobile Source – Any vehicle that produces air pollution, such as cars, trucks and motorcycles (on road mobile sources) or ships, trains and construction equipment (off-road mobile sources).

Organic Carbon (OC) – A complex mixture of organic compounds, including hydrocarbons, that form particles. Sources of (OC) are combustion sources such as gasoline and diesel engines and wood or biomass burning.

Ozone – A pungent, colorless, toxic gas. A product of complex photochemical processes, usually in the presence of sunlight. Ozone in the lower atmosphere is a criteria air pollutant.

Particulate Matter – A particle of solid or liquid matter; soot, dust, aerosols, fumes and mists.

Point Source – A single stationary source, such as a smoke stack.

Port of Oakland – The port commissions owns and operates seaport facilities, Oakland International Airport, and commercial properties including Jack London Square.

Railroad MOU – A memorandum of understanding among the California Air Resources Board and the Union Pacific Rail Road and the BNSF Railway. It requires emissions reductions and health risk assessments for major rail yards.

Stationary Source – A fixed, non-mobile source of air pollution, usually at industrial or commercial facilities.

Toxic Air Contaminants – Air pollutants which cause illness or death in relatively small quantities. Non-criteria air contaminants that, upon exposure, ingestion, inhalation, or assimilation into organisms either directly from the environment or indirectly by ingestion through food chains, will cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions, or physical deformations in such organisms or their offspring.