



BAY AREA  
AIR QUALITY  
MANAGEMENT  
DISTRICT

BOARD OF DIRECTORS  
EXECUTIVE COMMITTEE MEETING

COMMITTEE MEMBERS

MARK ROSS – CHAIR  
PAMELA TORLIATT - SECRETARY  
SCOTT HAGGERTY  
TIM SMITH  
BRAD WAGENKNECHT

JERRY HILL – VICE CHAIRPERSON  
CHRIS DALY  
PATRICK KWOK  
GAYLE B. UILKEMA

WEDNESDAY  
May 30, 2007  
9:30 A.M.

7TH FLOOR BOARD ROOM

AGENDA

1. **CALL TO ORDER – ROLL CALL**
2. **PUBLIC COMMENT PERIOD** (*Public Comment on Non-Agenda Items Pursuant to Government Code § 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 Committee's subject matter jurisdiction. Speakers will be limited to three (3) minutes each.
3. **APPROVAL OF MINUTES OF APRIL 26, 2007**
4. **REPORT OF THE ADVISORY COUNCIL: JANUARY 2007 – APRIL 2007**  
F. Glueck/5127  
[plarec@aol.com](mailto:plarec@aol.com)
5. **QUARTERLY REPORT OF THE HEARING BOARD – JANUARY 2007 – MARCH 2007**  
T. Dailey/4965  
[tom.dailey@kp.org](mailto:tom.dailey@kp.org)
6. **PRODUCTION SYSTEM PROJECT UPDATE**  
J. McKay/4629  
[jmckay@baaqmd.gov](mailto:jmckay@baaqmd.gov)  
*The Committee will receive an update on the Production System project.*
7. **STATUS OF AFFIRMATIVE ACTION PLAN UPDATE**  
M. Rich /5029  
[mrich@baaqmd.gov](mailto:mrich@baaqmd.gov)  
*The Committee will receive a status report on the Air District's Affirmative Action Plan Update.*
8. **CLOSED SESSION – AUDIT BY BUREAU OF STATE AUDITS TO DISCUSS AIR DISTRICT'S RESPONSE**  
*Pursuant to Government Code Section 54956.75, a need exists to meet in closed session to discuss the Air District's response to audit findings.*

9. **CONSIDERATION OF PROPOSED COMPREHENSIVE INTERNAL SYSTEMS REVIEW**

J. McKay/4629

[jmckay@baaqmd.gov](mailto:jmckay@baaqmd.gov)

*This Committee will consider staff recommendation to conduct a comprehensive internal systems review of the agency and authorize the transfer of \$300,000 from the General Reserve and adjust the Air District's proposed fiscal year 2007/2008 budget for this purpose.*

10. **CONSIDERATION OF AMENDMENTS TO THE SMART-GROWTH PREAMBLE AND POLICIES**

H. Hilken/4642

[hhilken@baaqmd.gov](mailto:hhilken@baaqmd.gov)

*The Committee will consider staff recommendations on amendments to the Smart- Growth preamble and policies.*

11. **JOINT POLICY COMMITTEE UPDATE**

J. Roggenkamp/4646

[jroggenkamp@baaqmd.gov](mailto:jroggenkamp@baaqmd.gov)

*Ted Droettbomm will provide an update on the activities of the Joint Policy Committee.*

12. **COMMITTEE MEMBER COMMENTS/OTHER BUSINESS**

*Any member of the Committee, 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).*

13. **TIME AND PLACE OF NEXT MEETING: AT THE CALL OF THE CHAIR**

14. **ADJOURNMENT**

**CONTACT CLERK OF THE BOARDS - 939 ELLIS STREET  
SAN FRANCISCO, CA 94109**

**(415) 749-4965**

**FAX: (415) 928-8560**

**BAAQMD homepage:**

[www.baaqmd.gov](http://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 three working days prior to the date of the meeting so that arrangements can be made accordingly.

**BAY AREA AIR QUALITY MANAGEMENT DISTRICT**  
**939 ELLIS STREET, SAN FRANCISCO, CALIFORNIA 94109**  
**(415) 771-6000**

**EXECUTIVE OFFICE:**  
**MONTHLY CALENDAR OF DISTRICT MEETINGS**

**MAY 2007**

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
<b>Board of Directors Budget &amp; Finance Committee</b> <i>(Meets 4<sup>th</sup> Wednesday of each Month)</i> - CANCELLED	Wednesday	23	9:30 a.m.	Board Room
<b>Board of Directors Mobile Source Committee</b> <i>(Meets 4<sup>th</sup> Thursday of each Month)</i> - CANCELLED	Thursday	24	9:30 a.m.	Board Room

**Board of Directors Executive Committee**      Wednesday      30      9:30 a.m.      Board Room  
*– (At the Call of the Chair)*

**JUNE 2007**

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
<b>Board of Directors Regular Meeting</b> <i>(Meets 1<sup>st</sup> &amp; 3<sup>rd</sup> Wednesday of each Month)</i>	Wednesday	6	9:45 a.m.	Board Room
<b>Board of Directors Climate Protection Committee</b> <i>(Meets 3<sup>rd</sup> Thursday every other Month)</i>	Thursday	7	9:30 a.m.	Board Room
<b>Advisory Council Technical Committee</b> <i>(Meets 2<sup>nd</sup> Monday of each even Month)</i>	Monday	11	9:00 a.m.	Board Room
<b>Advisory Council Air Quality Planning Committee</b> <i>(Meets 2<sup>nd</sup> Wednesday of each even Month)</i>	Wednesday	13	9:30 a.m.	Board Room
<b>Advisory Council Public Health Committee</b> <i>(Meets 2<sup>nd</sup> Wednesday of each even Month)</i>	Wednesday	13	1:30 p.m.	Board Room
<b>Board of Directors Stationary Source Committee</b> <i>– (Meets 3<sup>rd</sup> Monday quarterly)</i>	Friday	15	9:30 a.m.	4 <sup>th</sup> Floor Conf. Room
<b>Board of Directors Regular Meeting</b> <i>(Meets 1<sup>st</sup> &amp; 3<sup>rd</sup> Wednesday of each Month)</i>	Wednesday	20	9:45 a.m.	Board Room
<b>Board of Directors Ad Hoc Cme. on Port Emissions</b> - <i>(At the Call of the Chair)</i> - CANCELLED	Thursday	21	9:30 a.m.	4th Floor Conf. Room

**Board of Directors Legislative Committee**      Monday      25      9:30 a.m.      4<sup>th</sup> Floor Conf. Room  
*(Meets 4<sup>th</sup> Monday of every Month)*

## JUNE 2007

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
<b>Board of Directors Budget &amp; Finance Committee</b> <i>(Meets 4<sup>th</sup> Wednesday of each Month)</i> - CANCELLED	Wednesday	27	9:30.m.	4 <sup>th</sup> Floor Conf. Room
<b>Board of Directors Mobile Source Committee</b> <i>– (Meets 4<sup>th</sup> Thursday of each Month)</i> - CANCELLED	Thursday	28	9:30 a.m.	4 <sup>th</sup> Floor Conf. Room

## JULY 2007

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
<b>Board of Directors Regular Meeting</b> <i>(Meets 1<sup>st</sup> &amp; 3<sup>rd</sup> Wednesday of each Month)</i>	Wednesday	4	9:45 a.m.	Board Room
<b>Advisory Council Executive Committee</b>	Wednesday	11	9:00 a.m.	Room 716
<b>Advisory Council Regular Meeting</b>	Wednesday	11	10:00 a.m.	Board Room
<b>Board of Directors Regular Meeting</b> <i>(Meets 1<sup>st</sup> &amp; 3<sup>rd</sup> Wednesday of each Month)</i>	Wednesday	18	9:45 a.m.	Board Room
<b>Board of Directors Climate Protection Committee</b> <i>(Meets 3<sup>rd</sup> Thursday every other Month)</i>	Thursday	19	9:30 a.m.	4 <sup>th</sup> Floor Conf. Room
<b>Joint Policy Committee</b>	Friday	20	10:00 a.m. – 12:00 p.m.	Metro Center Auditorium 101 – 8 <sup>th</sup> Street Oakland, CA 94607
<b>Board of Directors Legislative Committee</b> <i>(Meets 4<sup>th</sup> Monday of every Month)</i>	Monday	23	9:30 a.m.	4 <sup>th</sup> Floor Conf. Room
<b>Board of Directors Budget &amp; Finance Committee</b> <i>(Meets 4<sup>th</sup> Wednesday of each Month)</i>	Wednesday	25	9:30 a.m.	4 <sup>th</sup> Floor Conf. Room
<b>Board of Directors Mobile Source Committee</b> <i>– (Meets 4<sup>th</sup> Thursday of each Month)</i>	Thursday	26	9:30 a.m.	4 <sup>th</sup> Floor Conf. Room

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**Bay Area Air Quality Management District  
939 ELLIS STREET  
SAN FRANCISCO, CALIFORNIA 94109  
(415) 749-5000**

**DRAFT MINUTES**

Summary of Board of Directors  
Executive Committee Meeting  
Thursday, April 26, 2007

1. **Call to Order - Roll Call:** Chairperson Mark Ross called the meeting to order at 9:38 a.m.  
**Present:** Mark Ross, Chairperson, Scott Haggerty, Patrick Kwok, Pamela Torliatt, Gayle B. Uilkema, Brad Wagenknecht, Chris Daly (arrived at 9:50 a.m.)  
**Absent:** Jerry Hill and Tim Smith.
2. **Public Comment Period:** There were no public comments.
3. **Approval of Minutes of March 26, 2007:** Director Haggerty moved approval of the minutes; seconded by Director Kwok; carried unanimously without objection.
4. **Closed Session** - The Committee convened to Closed Session at 9:40 a.m.  
**Open Session** - The Committee reconvened to open session at 10:32 a.m.  
Brian Bunger, Legal Counsel, reported that the Committee met in closed session, received a report from Counsel and the Committee provided general direction on these matters.
5. **Committee Member Comments/Other Business:** There were none.
6. **Time and Place of Next Meeting:** At the Call of the Chair.
7. **Adjournment.** The meeting was adjourned at 10:34 a.m.

Vanessa Johnson  
Acting Clerk of the Boards

BAY AREA AIR QUALITY MANAGEMENT DISTRICT  
Memorandum

To: Chairperson, Mark Ross and Members  
of the Board of Executive Committee

From: Fred Glueck, Chairperson Advisory Council

Date: May 21, 2007

Re: Report of the Advisory Council: February 14 – April 16, 2007

RECOMMENDATIONS:

Receive and file the attached minutes.

DISCUSSION:

Presented below are summaries of the key issues discussed at meeting of the Advisory Council's Standing Committees during the above reporting period.

- A) Air Quality Planning Committee Meeting of February 14, 2007: The Air Quality Planning Committee reviewed and discussed topics and priorities assigned to the Committee at the January 10, 2007 retreat and discussed their Carbon Offset.
- B) Public Health Committee Meeting of February 14, 2007: The Public Health Committee presented continued discussions on Indoor Air Quality (IAQ) and Asthma.
- C) Technical Committee Meeting of February 28, 2007: The Technical Committee received an update from Jean Ospital, Dr. PH., on the South Coast Air District's Multiple Air Toxics Exposure Study (MATES) program and received an update from Air District staff on the District's Climate Protection Program.
- D) Advisory Council Executive Committee Meeting of March 14, 2007: The Committee reviewed its Standing Committee reports and received an overview from Chairperson Glueck on his presentation to the Board of Directors' Executive Committee on February 9, 2007. The Committee also discussed a proposed revision to the Advisory Council's Code of Conduct: Article II.
- E) Advisory Council Regular Meeting of March 14, 2007: The Council reviewed its Standing Committee reports. The Council received a staff presentation on the Air District's Spare the Air Programs for 2007, approved an amendment to the Advisory Council's Code of Conduct and received a report from the Executive Officer/APCO.

- F) Air Quality Planning Committee Meeting of April 11, 2007: The Air Quality Planning Committee received a presentation from Ted Droettboom, on Focused Smart Growth for the Bay Area and John Holtzclaw, Ph. D. gave a presentation on Smart Growth and Climate Change Emissions.
- G) Technical Committee Meeting of April 16, 2007: The Technical Committee discussed the South Coast Air Quality Management District's MATES III program and the Air District's Community Air Risk Evaluation Program and created a matrix comparing the two programs. The Committee also received a presentation from Dr. Bart Ostro, Ph.D., on The Effects of Fine Particle Species on Daily Mortality and Morbidity in California.

The minutes of the above referenced meetings are attached.

Respectfully submitted,

Fred Glueck  
Advisory Council Chairperson

Prepared by: Chioma Dimude  
Reviewed by: Mary Ann Goodley

FORWARDED: \_\_\_\_\_

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

APPROVED MINUTES

Air Quality Planning Committee  
9:30 a.m., Wednesday, February 14, 2007

1. **Call to Order:** Chairperson Ken Blonski called the meeting to order at 9:41 a.m.

**Roll Call:** Ken Blonski, Chairperson, Irvin Dawid, Emily Drennen, William Hanna, John Holtzclaw, Ph.D.

**Absent:** Harold Brazil, Kraig Kurucz, Ed Proctor.

2. **Public Comment Period.** There were no public comments.

3. **Approval of Minutes of December 14, 2006:** Ms. Drennen moved approval of the minutes; seconded by Dr. Holtzclaw.

Mr. Dawid commented on the discussion of wood burning and requested that he receive copies of the packet of items provided to the Committee. Mr. Dawid inquired about Bay Area cities and counties that have adopted wood smoke ordinances and the difference between mandatory and voluntary. Henry Hilken, Director of Planning, Rules and Research, stated that it is possible that some of the model ordinances are structured in such a way that it is a voluntary prohibition locally at a certain point and then becomes mandatory later. The motion then carried by acclamation with Messrs. Dawid and Hanna abstaining.

4. **Review of the Mission Statement of the Air Quality Planning Committee:** *The Committee reviewed its Mission Statement.*

Chairperson Blonski read the Mission Statement and asked for comments. Mr. Hanna stated that due to the global warming issue, the Committee may want to broaden the Statement. The consensus of the Committee was to maintain the Mission Statement as stated.

5. **Review and Discussion of the Topics and Priorities Assigned to the Committee at the January 10, 2007 Retreat.** *The Committee reviewed and discussed the topics and priorities assigned to the Committee at the Advisory Council's Retreat.*

Chairperson Blonski reviewed the priorities set for the Committee at the Council's January 10, 2007 Retreat.

1. Climate Protection and discussion of carbon footprint.  
Staff will provide information on carbon offsets today. Chairperson Blonski indicated there should be closure on the 2006 carbon footprint today after the staff presentation.



The relationship to the current District programs – how does climate protection figure into the current Air District programs. The Committee will ask staff for a report on this issue.

Mr. Dawid inquired how this item relates to the workshop held at the Metropolitan Transportation Commission (MTC) on Friday. Mr. Hilken stated that it is the Joint Policy Committee (JPC) that met on Friday and it is comprised of Board members from the Air District, Association of Bay Area Governments (ABAG), and MTC. There have recently been efforts to bring in the Bay Conservation and Development Commission (BCDC). The JPC has looked at various regional planning issues and recently has been asked to take a few months to look at ways the JPC may be able to coordinate the activities of the various agencies working on climate protection. This may have been prompted by the work that this Air District has taken on regarding climate protection.

This was a public workshop to get input from members of the public and advocacy groups on things the regional agencies can do for to help advance climate efforts in the Bay Area. Eventually there will be a report back to the JPC with recommendations from that workshop and the research they are doing.

2. Wood burning and Spare the Air Tonight

Chairperson Blonski stated that staff from Outreach and Incentives will speak to the Committee on how it can help develop strategies and better support from the public. In addition, speakers will be invited to talk to the Committee.

Mr. Dawid asked if any municipalities have any prohibitions on wood burning on particular days in the Bay Area. Peter Hess, Deputy APCO, stated that he was not aware of any municipalities that have this requirement. They may have incorporated it into their model ordinance, but it may not be being enforced right now. Mr. Dawid noted that the City of Belmont wrote a letter to Jack Broadbent, Executive Officer/APCO in support of wood burning bans and is seeking a no-burn rule.

Mr. Hess stated that the ordinance program is still moving forward as part of the Wood Burning Strategy that the Council considered and recommended to the Board. The most successful portion of the program as seen in other areas of the country is the Seattle program and the Air District will model after that program.

Continuing, Mr. Hess stated that at the Board of Director's Retreat in January one of the items discussed was a wood burning strategy as a follow-up to what the Council brought to the Board's Executive Committee. In March, the National Hearth Products Association will have a conference in Reno, Nevada. The Air District has been invited to make presentations at the conference, in conjunction with other air districts and municipalities throughout the nation who are looking at similar programs.

3. Spare the Air and discussion of different mitigation measures and mobile sources

Chairperson Blonski noted that today's agenda includes a presentation on mobile sources.

4. Indirect sources

Chairperson Blonski stated that the Committee will schedule some speakers to discuss land use patterns and how it relates to mobile sources, and discuss ways to mitigate

impacts. Chairperson Blonski noted that in the *West Contra Costa Times* there was an article/commentary on sprawl in general.

**6. Discussion of Carbon Offsets:** *Staff presented information to the Committee on carbon offsets.*

Mr. Hilken introduced the item and stated that a lot of thought went in to making the Climate Protection Summit a carbon neutral event. This led to thinking more broadly about what the Air District or individuals can do to reduce the carbon footprint.

Ana Sandoval, Principal Environmental Planner, presented the information and stated that, for the Climate Protection Summit, the District tried to reduce greenhouse gas (GHG) emissions to the extent possible. Offsets were purchased for those emissions that could not be eliminated. The Summit was hosted in a location that was near transit, a requirement for catering was a reduction of waste by compositing and recycling, and the event was mostly paperless.

There were only two hand-outs at the event. A post-consumer recycled bag was used, the bag had a message on it, and the food came from the Bay Area or Northern California. For those emissions that remained, the District staff looked at options available for offsets and determined to use carbonfund.org. Ms. Sandoval noted that carbonfund.org has an “event” offset category and provided a brief overview of the web site Ecobusinesslinks.com Carbon Offset Survey. Ms. Sandoval reported that the Air District would send money to carbonfund.org and they will hold it until they can determine the best cost purchase for a renewable project.

The Air District collected data, such as miles driven, air travel, and facility use, to name a few. The data was sent to carbonfund.org and they did the calculations. The Air District is now listed on their web site and a certificate was presented to the District by carbonfund.org for its reduction of GHG emissions.

Dr. Holtzclaw opined that it was good that the District thought about eliminating as many emissions as possible. Dr. Holtzclaw inquired if it was better to send the money to an agency, such as Native Energy, that has a project now, such as replacing old equipment on wind farm, than to hold the money and wait for a project to come along. Ms. Sandoval stated that carbonfund.org does have a series of projects written up and that the money will go towards the project that is completed first. Carbonfund.org is also considering wind farms.

In response to a question from Mr. Dawid on the carbon offset program, Ms. Sandoval stated that it is good that carbon offsets are available as an option, but that the first option should be to minimize emissions first. Mr. Dawid opined that carbon trading is a more accountable way of handing the funds. In response to Ms. Drennen’s question regarding a one-page information sheet on how to put on a “clean” event, Ms. Sandoval stated that other organizations have also been discussing this. Chairperson Blonski discussed using incentives and that people may be receptive to that. Dr. Holtzclaw noted that one of the disbenefits of carbon trading is that people believe they do not have to participate because companies such as P.G. and E. are participating. With carbon offsets, a person needs to think about what they are going to do.

In response to Chairperson Blonski, Ms. Sandoval stated that the District did not look at audits or administrative costs of the offset providers. Staff relied on the reputation they had with other events that the provider sponsored. The major portion of funding for the projects is coming from grants and other donations.

Mr. Dawid commented that the farmers in Iowa receive payments through the Chicago Climate Exchange (CCX) as a “greenhouse gas credit” for having non-tillable land. It has been determined that if the land is not tilled it will absorb carbon dioxide. The farmers receive an additional credit when they plant grass. Mr. Dawid inquired if the Air District was a member of the Chicago Climate Exchange and Ms. Sandoval stated that the Air District is a member of the California Climate Action Registry.

**Committee Action:** Mr. Dawid moved that the monies collected from the Advisory Council to offset carbon emissions be sent to the carbonfund.org; seconded by Mr. Hanna; carried unanimously without objection.

Chairperson Blonski indicated he would advise Council Chair Glueck of the Committee’s decision and Ms. Drennen requested that Mr. Hayes also be updated on the outcome.

**7. Overview of Mobile Source Programs:** *Staff presented a report to the Committee on Mobile Source Programs.*

Michael Murphy, Advanced Projects Advisor, presented a broad overview of mobile source measures. The presentation should assist the Committee in looking at some of the mobile sources that are contributing emissions, such as toxic air contaminants, diesel particulate, or road dust that contributes to heightened particulate levels. The intent is to discuss the mobile source emissions in the Bay Area; and the state programs, primarily from the Air Resources Board (ARB), and the Air District programs, to reduce emissions.

In California there are a lot of state-wide regulations that the rest of the country does not have. Generally the different regulations adopted by California have a good benefit and more states pick them up, using some of the flexibility under the Federal Clean Air Act. It is expected that this year the Federal Environmental Protection Agency (EPA) will promulgate new regulations on locomotive emissions. With advances in engine technology, the EPA should come out with an aggressive control limit on the diesel engines that are in locomotives. EPA is, at the same time, addressing the propulsion engines that are in large ocean-going vessels. The Air District feels that this regulation will not be as stringent due to international pressure.

Local EPA Region XI is emphasizing voluntary programs and this is being replicated across the country. The West Coast Diesel Collaborative is providing a forum and mechanism for people who are trying to get emissions reductions, primarily from diesel sources, but also from other sources of emissions, and trying to get them to talk to each other about what strategies would work, or opportunities for joint action. There is an effort between organizations in Washington, Oregon and California to discuss issues surrounding interstate highway 5.

Chairperson Blonski opined that since the railroad diesels go between a number of states, how can the District affect the railroads to change out their equipment to be less polluting?

Mr. Murphy stated that there are cleaner locomotives being deployed and they are primarily put into service that runs to and from the state. There are a few voluntary memorandums of understandings (MOU) between the state and the railroads. One focuses primarily on the South Coast air basin, which gets voluntary commitments from the railroad companies to use their cleanest locomotives to haul the goods in and out of the Los Angeles basin. Current estimates are about 40% of the international trade that the United States does is going via the ports of Los Angeles and Long Beach. Some of these locomotives might end up in the Bay Area on a rotational basis, therefore the Bay Area gets some benefit also.

The second MOU was on a state-wide basis. The main benefit for the Bay Area of that MOU, which is only in its first year of implementation, is a commitment from the railroads to accelerate the installation of anti-idling devices (start/stop) that shut down locomotives after they have been idling about 15 minutes. As the next generation of locomotives becomes available, there should be a similar commitment to bring the cleanest locomotives into California. Mr. Murphy stated that there are some additional requirements for locomotives that are called a “captive” fleet. The two major railroads have a number of locomotives that just stay in California and they have agreed to start using ultra-low sulfur diesel on those locomotives. They have also committed to some research programs for additional abatement devices, like a particulate filter. One of the test locomotives is currently on a switch engine that is stationed in Oakland for a year.

Mr. Murphy confirmed that the only diesel fuel sold in California as of June is ultra-low sulfur. Fifteen ppm is the standard sulfur level for diesel fuel number two and locomotives use diesel fuel number two. Ultra-low sulfur diesel removes a lot of particulate, but inefficient combustion or mismatched combustion for the load will still result in visible exhaust. It is important to get particulate filters installed, or some other type of abatement systems.

Mr. Murphy reviewed the sources of emissions – Summer 2005. The figures are taken from the Air District’s current inventory. These are the categories that are currently used for the Clean Air Plan, and other planning documents. Nitrogen oxides (NOx), Reactive Organic Gases (ROG) and PM10 are the primary focus. The focus today will be on air craft, off-road motor vehicles, and on-road motor vehicles. The ship emissions are included in the off-road motor vehicle category.

A large amount of NOx emissions come from on-road motor vehicles, most of which are passenger vehicles. There is a high percentage of ROG, which also comes from passenger vehicles and less from trucks. There are a lot of NOx emissions from off-road motor vehicles and the major component is construction equipment. ARB is promulgating new regulations to try to control the emissions from construction equipment. Consumer products and miscellaneous sources are the major portion of the PM10 emissions (70+%). Re-entrained and wind-blown road dust is the bulk of the percentage for PM10.

Continuing, Mr. Murphy stated that mobile sources are a big part of the Air District’s inventory and, as a result, is a big part of where emission reductions need to come from to meet the health standards in the area. In response to Chairperson Blonski, Mr. Murphy stated that some of the strategies to mitigate this include any program that the Air District engages in to reduce motor vehicle emissions. Other strategies include anything that ARB does to reduce emissions and what local cities might do around smart growth to reduce vehicle

usage. These strategies all contribute to lowering the emissions. There is an aggressive program in this region to reduce the amount of run-off that goes into the storm drains.

Mr. Dawid commented that San Francisco has adopted an ordinance regarding clean construction and noted that the Committee should follow its progress. In response to a question from Mr. Dawid, Mr. Hess stated that about 33% of PM comes from wood burning in home appliances and from 30-40% is from on-road and off-road mobile sources.

Mr. Murphy stated that the best way to reduce emissions from engines and other mobile sources is by taking the oldest engines out of service. The Air District's grant programs results in the largest emission reductions through replacement of old engines with a cleaner piece of equipment. Mr. Murphy noted that the Air District has an on-going program to work with the Port of Oakland, the residents of Western Oakland, and city government in Oakland to reduce emissions.

Chairperson Blonski asked if there was incentive in the private sector to shift to more rail and less truck traffic. Mr. Murphy replied that there are air quality efficiencies and benefits for near rail operations but not necessarily for economic efficiencies. It would be beneficial if the agricultural products from the Central Valley that are being shipped out through the Port of Oakland were put on rail cars and brought in. For the major rail companies, this is not a market that they see as lucrative. There is an effort for the Port of Oakland to try to get a rail link started. Another area the Port is looking at is putting trucks on barges and tug boats or specialty ships would bring them from the ports in Stockton and Sacramento into the Port of Oakland for trans-shipment.

Mr. Hess added to his earlier statement and noted that 33% of the PM contribution on the PM excess days in the winter time is wood smoke, 7% from cooking, 23% on-road, 20% off-road, 7% petroleum refining, 3% power plants, 3% air craft, 1% marine, and 3% from other/miscellaneous.

Mr. Murphy explained that there may be a source of emissions that in the large inventory is small, but because of where it is located and who is being exposed to the emissions, there may be an element of toxic risk from diesel particulate.

Continuing, Mr. Murphy reviewed the clean alternatives, such as garbage trucks fueled by natural gas, experimental efforts like fuel cell vehicles, and smart growth. Smart growth, bicycle promotion, and pedestrian promotion are areas that need more effort. The Air District has worked on smart growth and there is a recent publication from MTC regarding smart growth strategies and things that had been implemented at various rail stations and new neighborhoods. These are important strategies to focus on with the Spare the Air Program and other programs to reduce emissions from motor vehicles. Strategies for indirect source review should also be looked at.

The CARB regulatory efforts were reviewed. The diesel particulate filter is now a standard component on all new on-road trucks; EPA worked cooperatively with ARB to come up with one nation-wide emission standards that came into effect in 2007 to control particulate and NOx emissions from on-road, heavy-duty truck engines. In 2010, there will be a new, more aggressive standard that will regulate NOx for these same types of engines.

Ms. Drennen inquired about data from pedestrian and bike programs. Mr. Murphy stated that the main way the Air District gathers data is through the grant programs. Staff has also looked into the research done by universities and advocacy groups. As the Committee looks at this in more detail, the staff can identify experts outside the District and have them come in and give presentations.

There was discussion on CNG being used for the garbage trucks. Some of the garbage trucks use LNG and they are primarily located in Oakland and San Leandro through Waste Management, which has a corporate policy to look at LNG. There was further discussion on LNG trucks and how costly it is to have an LNG truck custom built. The CNG garbage trucks are built new on an assembly line.

Mr. Dawid requested that the Committee follow the issue of CNG and LNG trucks.

Mr. Murphy stated that LNG would not be a major part of the truck usage at the Port of Oakland. It would be mostly diesel trucks that have diesel particulate filters installed, or brand new diesel trucks.

Mr. Murphy reviewed the CARB regulatory efforts as follows:

- Progressively lower emission limits on new engines/vehicles
- Specifications for clean fuels
  - Reformulated gasoline
  - Ultra low sulfur diesel (15 ppm); including all harbor craft and ferries
- Diesel Risk Reduction Program
- Adopted regulations
  - Transit buses
  - Garbage trucks
  - Public fleet vehicles
  - Idling limits from school buses and trucks; enforcement needs to be monitored
  - Transportation refrigeration units
  - Stricter controls on stationary engines
  - Low-sulfur fuel for auxiliary engines in ocean going vessels
  - Cargo handling equipment
  - Statewide locomotive MOU
- Goods Movement Emission Reduction Plan

Mr. Murphy reviewed the pending regulations and/or actions:

- Review of zero emission vehicle regulations
- Greenhouse gas requirements under AB 32 and other legislation
- Air toxic control measures
  - Commercial trucking
  - Port trucking
  - Shore power for ocean going vessels
  - Low-sulfur fuels for propulsion engines in ocean going vessels
  - Construction and other off-road equipment
  - Harbor craft
- Allocation of \$1 billion in bond revenue
- Ethanol and other biofuels

- Hydrogen highway

The Air District and local efforts include the following:

- The Air District incentive funding, which focuses on mobile sources
- Spare the Air voluntary programs
- Further Study Measure on indirect source control/review
- Exploring regulatory options for maritime activities
- Vehicle buy back
- Enforcement of idling regulations
- Enforcement of statewide locomotive MOU
- Smart growth strategies
- Risk assessments – the Community Air Risk Evaluation (CARE) Program

In response to a question from Mr. Dawid, Mr. Murphy stated that the Air District has the authority to enforce the idling regulation at the Port of Oakland and that some notices of violation have been issued. In response to Dr. Holtzclaw, Mr. Murphy stated that ARB is looking at future regulations that would require all new truck engines come equipped with idle-off systems, but they have not yet promulgated the regulation yet.

Mr. Murphy provided web links that the Committee can refer to. Chairperson Blonski requested that staff keep the Committee posted on any developments that may be of interest to the Committee. Mr. Murphy stated that staff can identify speakers for areas that the Committee might want further information on.

Ms. Drennen offered as a potential agenda topic the idea of shifting passenger car usage to transit use, walking and bicycling. A presentation on what the best measures are in terms of effectiveness and efficiency, both in terms of pounds of diesel per dollar as well as the amount of behavior change.

In conclusion, Mr. Murphy stated that LNG fuel will remain a “nitch” fuel. The Port of Oakland has a lot of trucks, two rail yards and they want to build a third. The rail yards are separate from the marine terminals, but every container that either comes off a ship, or goes on a ship, and is coming in or out of the Bay Area by rail, have to be moved by a truck. They are moved primarily by large, over-powered, trucks. These trucks drive a mile or less to pick up the containers and stay within the Port of Oakland.

**8. Committee Member Comments/Other Business.** There were none.

**9. Time and Place of Next Meeting.** 9:30 a.m., Wednesday, April 11, 2007 – 939 Ellis Street, San Francisco, CA 94109.

**10. Adjournment.** 11:43 a.m.

Mary Romaidis  
Clerk of the Boards

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

DRAFT MINUTES

Advisory Council Public Health Committee Meeting  
1:30 p.m., Wednesday, February 14, 2007

1. **Call to Order – Roll Call.** Chairperson Bramlett called the meeting to order at 1:36 p.m.  
Present: Jeffrey Bramlett, Chairperson, Cassandra Adams, Janice Kim, M.D., Steven Kmucha, M.D., Linda Weiner.  
Absent: Karen Licavoli-Farnkopf, MPH, Brian Zamora.  
Other: Robert Bornstein, Ph.D., resigned from the Committee prior to the meeting.
2. **Public Comment Period.** There were no public comments.
3. **Approval of Minutes of December 12, 2006.** Dr. Kim requested that on Page No. 3, under Item No. 5, “Informa Healthcare” be changed to “Inhalation Toxicology”. Dr. Kmucha moved approval of the minutes, as corrected; seconded by Ms. Adams; carried unanimously.
4. **Continued Discussion on Indoor Air Quality (IAQ) and Asthma:** *Staff presented number and types of inquiries it receives about IAQ & Asthma and how they are being handled.*

*The Committee developed a plan for identifying a list of various health coalitions addressing the issue of IAQ & Asthma.*

*The Committee to develop a plan for next steps to engage City & County Public Health Officers regarding IAQ & Asthma. Since Mr. Zamora was absent, the Committee agreed that this item be discussed at its next meeting since he would be the key person to provide the necessary information required for the development of a plan.*

Peter Hess, Deputy Air Pollution Control Officer, stated that the Air District staff is looking at what type of coordination is needed, or how staff should be moving towards interfacing with the health community in the areas of IAQ and asthma. The District has requested the Committee to provide it with recommendations on how it might interface with the public, county health officers and non-governmental organizations (NGOs), and what the District’s role might be on the issue of asthma as it relates to outdoor air quality and IAQ. Mr. Hess further stated that the staff frequently receives calls from people who are concerned about odors and air pollution and their impact on causing asthma attacks. Currently, the District staff handles such inquiries by recommending they seek medical advice and to contact their county health officer.

Mr. Hess stated that the District is seeking input from the Committee regarding the direction it should take with respect to IAQ, whether it should be pursuing a different direction or would it be sufficient to distribute information to the public based on what has already been prepared by the California Air Resources Board (CARB). Mr. Hess also addressed the issue of whether the



District should publish a pamphlet similar to CARB's booklet, for the District's own use in the Bay Area. The District has been proactive in addressing several issues related to air quality, such as wood smoke, greenhouse gases, emission violation's etc., but presently it does not have a viable program for IAQ.

Jack Colbourn, Director, Outreach & Incentives Division, stated that the Public Information Office receives calls regularly on indoor air. Since the District currently does not have an IAQ program, the Public Information Officers are instructed to refer such calls to the county health officers and to the CARB. Mr. Colbourn referred to CARB's recent booklet on IAQ which is very informative and useful. Mr. Colbourn also reiterated that the District is seeking advice from the Committee for guidance and appropriate recommendations on a more viable IAQ program that it can take to the Board of Directors for adoption.

Ms. Adams stated that, as an architect, she is well aware that IAQ is often worse than outdoor air quality. From her perspective it makes sense for IAQ to be a part of the District's overall air quality program.

Dr. Kmucha commented that, as a practicing physician, he notices, on a regular basis, that there are people who believe they have asthma and yet who have not formally been diagnosed with the disease. There is enough information available these days through the press to make people aware that there has been an increase in asthma over the last several years, and that certain geographic regions and locations are more prone to asthma. The most important factor to consider is that the people, who complain about having asthma, but have not yet been diagnosed, should first be encouraged to contact their physician to determine their diagnosis for asthma accurately. There are many other symptoms that can masquerade as asthma when it really is not asthma, and some of those diagnoses are worse than asthma. There are several medical management and environmental controls these days that can be implemented to reduce the patient's problems.

Dr. Kmucha suggested the following:

1. If people have access to a healthcare system, they should be encouraged to use it by contacting their physician to obtain an accurate diagnosis on asthma.
2. The Committee should continue to pursue attempts in trying to interact with the City & County Public Health Officers. This will be helpful in compiling the required information on resources that are available to the internal public health officers. Once the information is available to the District, the staff can provide the correct contact information to the public, for their respective counties, when they call in.
3. Since many school systems now have health nurses available in the schools, it has become more reasonable for children who have asthma to use their medication at school. Working with the school systems in disseminating information on IAQ and asthma might be a viable resource.
4. Staff could provide the callers with a list of references, reading materials and resources, acknowledging the fact that some people may not have access to healthcare services, may not have any health insurance or sufficient finances. They may also not have any internet access. The District could mail out the reference materials but this might be costly in postage; and the District may not have sufficient staffing to answer phone inquiries all day.
5. The message that when the air quality is poor, one can have an exacerbation of respiratory and cardiac problems, could be included as an educational piece in every announcement the

District makes through the media. There are many triggers that exacerbate asthma and, that on any day when a person has an exacerbation, it is due to days or even weeks of accumulating effects that causes them to have an exacerbation.

Dr. Kim suggested the following:

1. Scientifically, it is important to make sure that when people call in and complain about their asthma as it relates to IAQ and outdoor air quality, that their health provider is involved and that their diagnoses is accurate. Dr. Kim agreed with Dr. Kmucha's suggestion that medical management is very important. It has been increasingly recognized that controlling the triggers in the environment are an important part of the medical management aspect of asthma. The District can encourage callers to look into and work with their physician in terms of trying to identify what the true triggers might be for their particular situation. The District is not a health agency and certainly not in a position to make any diagnoses and provide medical recommendations to the callers. Therefore, it is important to have callers work with their physician but also provide them with a broader medical knowledge that they might be able to bring back to their physician and/or to their health departments to address their particular concerns.
2. The District must understand the background of sciences relative to the relationship between IAQ or outdoor air pollution and asthma. Asthma is a chronic disease; some people are more concerned that they have developed asthma as a result of being exposed to outdoor air than to someone who has asthma exacerbations and does not know what actually triggered them.
3. The District could develop a fact sheet and a web page that links to well respected organizations such as the American Lung Association (ALA), and the National Heart/Lung Association which has developed new guidelines on clinical practices for asthma.

Ms. Adams suggested that in order to save postage costs, packets of reference materials could be distributed to the public through the county public health officers, and the libraries. In addition to the reference materials discussed above, Ms. Adams suggested that with respect to IAQ it would be useful to distribute copies of those regulations that pertain to limiting volatile organic compounds (VOCs) emissions in various indoor products, so that this information is more readily available to the public.

Ms. Weiner commented that there are several asthma coalitions in every county and that the District should tap into existing coalitions and work in partnership with them in being a resource to the public. Ms. Weiner agreed to identify a list of the various health coalitions for the District and provide their contact information to Mr. Hess.

After listening to the Committee's comments and suggestions, Mr. Hess summarized the following suggestions that were made by the Committee:

1. The medical management aspect of asthma is very important. When inquiries are received by the District, callers should be encouraged to contact their physician to seek medical attention in order to obtain an accurate diagnosis of asthma.
2. The District should provide information to the callers or to the people whom it contacts. The District should develop a message to disseminate to the public in a variety of forms – brochures and a fact sheet with the District's logo on them, website that links to other organizations such as the ALA, etc. The fact sheet could also identify a list of things people

can do at home to minimize the exposure to indoor air contaminants. All the materials that are developed for the website must also be available as mailers since everyone may not have access to the internet. The Public Information Officers could also be given a script to use when contacting people. The CARB's booklet on IAQ could also be disseminated as part of the District's packet of reference materials.

Mr. Colbourn stated that since the District is at a no-growth level this year, he does not have sufficient staff resources available to devote to the IAQ initiative, and that the District is looking to the Committee to provide a more formal recommendation to the full Advisory Council for its consideration, and thereafter to the Board of Directors on this issue. This would provide an opportunity for the Outreach & Incentives Division to move forward on developing the reference materials, suggested by the Committee, by contracting with an outside firm to develop them. Mr. Colbourn also mentioned that, at a recent conference he attended on IAQ, he found that other air pollution control agencies throughout the country identified doctors' offices as the main avenue for distributing reference materials on IAQ since the doctors carry more credibility on medical issues and the sciences.

In response to Chairperson Bramlett's suggestion to have a list of those outdoor items that trigger asthma, Mr. Colbourn explained that the District stays away from suggesting that asthma may be caused by any one particular source. The District does not have the science or medical experience to state that any one source causes asthma. The statistics mentioned in the Community Air Risk Evaluation (CARE) Program regarding how the asthma population for children under the age of 14 years are being viewed as a risk group, were obtained from the county public health offices and seem to be on the higher side.

In response to Mr. Colbourn's request that the Committee provide some long-term recommendations on IAQ to the District, Dr. Kmucha inquired as to how the District would potentially measure IAQ as part of its overall program. Mr. Colbourn stated that in the near future the District would want to undertake a more formalized program on IAQ. As an air agency, the District is obligated to look ahead and do something on IAQ since this is an air pollution control issue. Ms. Weiner suggested that since there are several outdoor air quality issues currently that the District is focused on and has a mandate to do, that it would be best for the Committee, at this point in time, to provide educational guidelines as it is presently doing, and make incremental recommendations rather than any long-term ones, with the eventual goal for the District to become regulatory in the area of IAQ.

In cases where the District's inspectors visit with individuals at their residences, Chairperson Bramlett inquired if the District receives requests to conduct air monitoring outside a problematic facility. Mr. Hess cited a recent example of the people living in West Berkeley who are very concerned about what they are breathing in by living close to a particular facility that, in their opinion, is causing health problems. In this situation, the District has required the facility to prepare a health risk assessment. The District has also installed a mobile air monitoring station at the facility. This will measure the air quality and compare it to the air quality standards for the toxics. The necessary information will be provided to the residents in that area so that they know what the air quality impacts could be. Mr. Hess also mentioned that the District is working with the CARE Program to be able to eventually provide information to cities, counties and land use planners for planning future housing developments in areas where the air is cleaner.

**Committee Action:** The Committee agreed to wait until its next meeting when Mr. Zamora could be present to discuss further steps to engage City & County Public Health Officers regarding IAQ and asthma. The Committee will then make a complete recommendation, based on suggestions made at today's meeting, to the full Advisory Council, and thereafter to the Board of Directors, on the issue of IAQ and asthma.

**5. Committee Member Comments/Other Business.**

a) Regarding the Spare the Air Tonight program, Dr. Kim wanted to know how much information is disseminated by the District about any messages or advisories to the local weather channels because she has noticed that when a Spare the Air night is announced, nothing is mentioned about what actions the public might take to reduce emissions.

Mr. Colbourn explained that because of the new particulate matter (PM) standards issued by the Environmental Protection Agency (EPA), the District cut its threshold in half and, as a result, there were 30 Spare the Air Tonight advisories during the period of the program, versus none last year. The District cannot control what the TV stations announce. If the District gets involved in the interviews, then it always provides some tips or advice to the public. The District has received a lot of publicity for the Spare the Air Tonight program which is relatively inexpensive compared to the Spare the Air Day program. Approximately 54% of the public are aware of the Spare the Air Tonight program and know what actions they could take to mitigate. The District also conducts a survey of the program, and 13% of the people surveyed to date, showed that they take an action – which is either not to burn wood or to drive less. Most of the questions received from the press relate to why there are so many Spare the Air advisories. The District does not want to give the message that the air is dirtier, but that there are stricter standards and that the District is clamping down by enforcing stricter regulations.

Mr. Colbourn stated that the staff is compiling data on the Spare the Air Tonight program which ends on February 16, 2007, and that this data could be made available to the Committee at its next meeting. The Spare the Air campaign has made some inroads this winter; it is announced on the news frequently and the public is more educated about it.

For the next fiscal year's budget, Mr. Colbourn stated that he is proposing some incentives for change-outs. The staff is also working with the Hearth Products Association (HPA) to discuss how best the District might help them to get their products out and capitalize on obtaining incentives for change-outs.

b) Ms. Weiner mentioned that through the American Lung Association, she is involved in reinvigorating an organization called Health Network for Clean Air that is organizing doctors and nurses throughout the State to not only help in State legislation but to act as spokespeople. There are currently two interesting bills – the Off-Road Regulations Statewide bill, and the Clean Investment Port bill which was originally focused on Long Beach and Los Angeles but now includes Oakland.

c) Ms. Weiner informed the Committee that she will not be able to attend the next meeting scheduled for Wednesday, April 11, 2007 due to a conflict on that date.

**6. Time and Place of Next Meeting.** 1:30 p.m., Wednesday, April 11, 2007, 939 Ellis Street, San Francisco, CA 94109.

**7. Adjournment.** The meeting adjourned at 2:40 p.m.

Neel Advani  
Deputy Clerk of the Boards

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

APPROVED MINUTES

Advisory Council Technical Committee  
9:00 a.m., Wednesday, February 28, 2007

1. **Call to Order – Roll Call.** Chairperson Sam Altshuler, P.E., called the meeting to order at 9:15 a.m. Present: Sam Altshuler, P.E., Chairperson, Louise Bedsworth, Ph.D., John Holtzclaw, Ph.D., (9:35 a.m.), Kraig Kurucz.  
Absent: Robert Bornstein, Ph.D., William Hanna.
2. **Public Comment Period.** There were no public comments.
3. **Approval of Minutes of August 9, 2006.** The approval of the minutes was deferred until a quorum was present.
4. **Update on the South Coast Air District's Multiple Air Toxics Exposure Study (MATES) Program:** *Jean Ospital, Dr.P.H., Health Effects Officer, South Coast Air Quality Management District (SCAQMD), provided the Committee with an update on the SCAQMD's MATES Program. The Committee and Staff discussed differences between the MATES and the Community Air Risk Evaluation (CARE) Program.*

Chairperson Altshuler introduced Dr. Jean Ospital, Health Effects Officer, South Coast Air Quality Management District (SCAQMD) and thanked him for coming to the Bay Area for making the presentation to the Committee. Dr. Ospital's presentation included the following topics:

- Structure of the SCAQMD
- Smog Formation
- Southern California Air Quality
- Public Health Issues
- Toxic Air Contaminants
- Sources of Toxics
- Background of MATES Study
- MATES-II Monitoring
- Average Air Toxics Cancer Risks
- Model Estimated Risk from MATES-II
- MATES-III Goals, Components and Enhancements
- Substances Measured
- MATES-III Progress
- MATES-III Monitory Sites & Microscale Sites
- Selected Organic Toxic Substances; their annual averages and trends
- Next Steps

Dr. Ospital provided a brief overview of the SCAQMD and its governing structure. The basic issues of concern of the SCAQMD are similar to those in the Bay Area – smog, ozone and particulate matter (PM). Other issues are risk from toxics such as additional risk of cancer from particulate toxic compounds, children’s health and environmental justice. Dr. Ospital further stated that toxic air contaminants do not have air quality standards but they do have some toxicity; they may be carcinogens, may lead to adverse reproductive outcomes and can pose a threat to public health. Toxics come from a number of sources; however, pesticides and herbicides are not measured by the SCAQMD. Another view from Southern California is based on an article that was published in the *Los Angeles Times* a year ago, which noted a report that was published on the Environmental Protection Agency (EPA)’s assessment of national air toxics, that California was rated as No. 2 on the study and that New York had the highest risk. The report also stated that San Francisco was rated as the highest point of risk in California.

Dr. Ospital provided an overview of the Multiple Air Toxics Exposure Study (MATES) Program and explained that it comprises of a series of studies. MATES-I was conducted in 1987 to monitor the levels of air toxics. Most of the toxics measured were in the gas phase. MATES-II was conducted in 1998-1999. It was a more comprehensive study when many more sites were taken for measurements; and more chemicals and substances were measured. A newly listed toxic during the time period was diesel exhaust particulate. Results showed that there was a downward trend for certain air toxics; that the bulk of air toxic risk came from mobile sources and that diesel exhaust accounted for 71% of cancer risks from air toxics.

There were two separate monitoring components to MATES-II: (1) a network of 10 fixed sites which monitored for toxic air contaminants once every six days for an entire year; and (2) a microscale study which utilized three mobile platforms to sample at 14 additional communities. The microscale study specifically targeted residential areas. The sampling platforms were situated in a community for a one-month period. For both the fixed and microscale sites, over 30 air pollutants were measured. These included both gases and particulates.

The key results of the MATES-II study were as follows:

1. The carcinogenic risk in the South Coast Air Basin is about 1,400 per million people. This is based on the average of the pollutant concentration measured at the fixed monitoring sites. Mobile sources represent the greatest contributor. About 71% of all risk is attributed to diesel particulate emissions; 20% to other toxics associated with mobile sources (including benzene, butadiene and formaldehyde); and 11% of all risk is attributed to stationary sources.
2. In addition to the monitoring portion, MATES-II also included a computer modeling exercise where emissions of toxics were estimated throughout the region and apportioned to a 2 km x 2 km grid scale. The model that was used estimated what the annual average concentrations were from those emissions. It showed that the higher risk levels occurred in the harbor area where the ports are located, the south-central Los Angeles area and near the freeways, with diesel being the predominant source of that risk.

For the MATES-III study, an update on the previous study and an assessment of the current air toxics levels were done; the gradients between community levels by using several microscale sites were determined; and an update on the risk characterization was done. Also included in the study is an update of the emissions inventory and the modeling exercise and ambient monitoring. There are some enhancements between MATES-II and MATES-III. An additional substance, naphthalene, was added. The substance was in the process of being evaluated by Cal EPA and the California Air Resources Board (CARB) and it was found that they did adopt a toxic potency factor on it for cancer. Analyses for “markers” of diesel and other PM sources were also done. A more frequent sampling of once every three days was undertaken, and the study was extended from one year to two.

A myriad of major substances, such as several volatile organic hydrocarbons, toxic metals, polycyclic aromatic hydrocarbons (PAHs) and diesel PM, were determined as a result of the analyses for risk and for source apportionment. For the PM apportionment addition, a multiple organic tracer approach is being taken by combining the PM<sub>2.5</sub> filters on a monthly basis at each fixed site, and compiling the data for organics, EC, OC and metals. The chemical mass balance (CMB) model is being used to conduct the PM source apportionment.

Dr. Ospital described the slides on the various monitoring and microscale sites for MATES-III.

Dr. John Holtzclaw arrived at 9:35 a.m and a quorum was present.

The progress to date on the MATES-III study is as follows: it was started in April, 2004; the air toxics sampling was done for two years at 10 fixed and six microscale sites and is completed. The laboratory analyses are also completed as of two weeks ago, and all the data are presently undergoing the QA/QC reviews. An initial “look” at the toxics shows a downward trend from when MATES-II was undertaken. Five volatile organic toxic substances were selected for presentation of initial results: benzene, 1, 3 butadiene, formaldehyde, acetaldehyde and perc.

The value for benzene at the 10 fixed sites, over the two-year period, shows that the highest levels are in the fall and winter months, and that the highest site is the Compton site. The monitoring data between the sites varied on a monthly and seasonal basis. There was a dramatic reduction across all the sites in annual benzene levels. The annual trend shows that the benzene levels decreased; it was compared to the trends from the ARB for monitoring sites in Southern California. The MATES-II and III studies are consistent with ARB’s findings that there has been a reduction through 2005.

Regarding formaldehyde, there was not much difference between the MATES-II and MATES-III studies. The annual trend showed an increase in 1995-96 that was likely due to a change in the methodology rather than a real change in levels. There is no obvious trend over time on formaldehyde. For acetaldehyde, the annual averages were the same for the MATES-II and MATES-III studies. Regarding perc, it is being phased out in the use of dry cleaners and as a solvent, and there was a substantial reduction in the averages between the two studies. The annual trend also shows a gradual decrease.



The study also estimated the lifetime 70-year exposure risk for the five substances discussed above. There was a reduction greater than 50% in the risk factor, with the aldehydes remaining at the same levels.

Currently, staff is completing the sample analyses, including the PM source “markers”; the toxics emissions inventory is being updated; modeling will be used to estimate levels over the region during the middle of this year; and the PM source apportionment calculations will be applied to the monitoring data.

In reply to Committee members’ questions, Dr. Ospital responded as follows:

- 1) Wood smoke is an issue and it is one of the sources that will be looked at in the source apportionment model. In terms of its contribution to particulate matter, it is a much larger issue in Northern California. However, wood smoke is currently an issue for the SCAQMD since there is a ruling on fireplaces that is coming up for the Board of Directors’ consideration. The current draft of the proposed rule would require new buildings to have EPA-approved fireplace inserts. It is a very controversial rule and there is limited data available on the contribution of wood smoke to PM<sub>2.5</sub>. If a fireplace has an insert, it would need to be upgraded to one that is currently EPA-certified when a house is sold; and if it does not have an insert currently, then it would be exempt. All new houses would be required to have EPA-certified devices installed. The in-house, brick hearth open burning fireplace is not included in the proposed rule language. (Altshuler)
- 2) Lube oil is not specifically being looked at but some of the “markers” for vehicles are lube oil-driven. It cannot be determined if lube oil comes from a car or a truck since it has similar components. It has been suggested that the ratio of certain PAHs are different in gasoline vehicles compared to diesel. (Altshuler)
- 3) With regard to ultra fine sizing for particulate matter, it is not part of the MATES study. However, there is a port monitoring study that will be starting at six sites near and around the ports. Part of this study will be toxics, criteria pollutants and particle counts. In the near future, there will be information available on ultra fine particles. There is also a study that is currently underway at the Santa Monica and Van Nuys municipal airports in which particle counts are being measured at both ends of the runways, for a six month period, at each airport.
- 4) In the slide presented earlier during the meeting for the Model Estimated Risk from MATES-II, which showed the intensity of the various areas in the Los Angeles area, Mr. Kurucz inquired if the two freeways leaving the area were truly measured and found to be low risk, or whether they were outside the scope of the study geography. Dr. Ospital explained that there are differences in the traffic intensity on the San Diego freeway (the one going north-to-south). At the time of the study it was traveled predominantly by light duty vehicles. In the area nearer the ports is the 710 freeway which has about 20% heavy duty diesel traffic. All the freeways have heavy traffic; however, the types of traffic are different. The ARB had a report commissioned on traffic volumes in California which quantified the light duty vs. the heavy duty traffic on the different major roadways; the 710 freeway showed that it had more heavy duty diesel traffic on it.

- 5) Mr. Kurucz inquired if the decrease in the annual trends for benzene and 1,3 butadiene agreed with the predicted models. Dr. Ospital explained that for the MATES-II modeling, the modeling results were very close to the monitoring results. In terms of MATES-III, the updated emissions inventory or modeling has not been done as yet. Staff will address the question of whether it fits with what is being measured at a later date.
- 6) There are two sources for formaldehyde: one from tailpipe emissions and the other from formation in the atmosphere. The SCAQMD staff has not done a lot of study on formaldehyde emissions. It is unknown whether the precursors are still present or if it is because of the emissions. The emissions inventory update will need to be reviewed to see how that tracks the inventory for MATES-II. The ARB is revising their emissions model and there have been several reiterations of the current version; the latest information is currently being plugged into the SCAQMD's emissions inventory. (Altshuler)
- 7) Mr. Althsuler inquired how many natural gas heavy duty vehicles are operating without catalysts versus the newer ones which are equipped with catalysts. Dr. Ospital commented that within the last three years most of the gas fueled transit buses in the South Coast were purchased with catalysts, and that the heavy duty fleet of natural gas vehicles is very low.
- 8) For the first year of the MATES-III study, the cost was estimated at \$2 million; this included staff time and purchase of new equipment and monitoring devices. The second year of the study may cost less than \$2 million. Part of the cost is the routine analyses of the organics, particulates, PAHs and naphthalene which were outsourced. (Altshuler)
- 9) With regard to PM apportionment for MATES-II, diesel was designated as a toxic air contaminant during the study and the SCAQMD used elemental carbon as a surrogate for diesel; there was a conversion factor of 1.04 based on the emissions inventory. A factor of 1.04 was chosen to convert elemental carbon to diesel PM. The Technical Advisory Group felt that for MATES-III this method was a very uncertain way to measure diesel particulate. Therefore, the staff is now using the chemical mass balance (CMB) approach for looking at the source apportionment for diesel as well as for gasoline. Source profiles that have been published from those sources could be put into a correlation equation for apportioning the emissions to different sources using the different chemical tracers, for example, cholesterol used as a tracer for meat cooking and other compounds are a signature for wood smoke; diesel and gasoline have several overlaps in terms of the PAHs and the lube oil-derived chemicals. There is some evidence that there may be differences in ratios of the PAHs. In 1990 there was an apportionment for diesel, wood smoke, cooking, etc; and the apportionment to diesel was found to be very close to what the MATES study estimated. (Bedsworth)
- 10) The Model Estimated Risk from MATES-II shows that there were estimates of risk up to 1,400 per million people; and the chart on the 70-Year Risk shows lower estimates of greater than a hundred. Mr. Altshuler inquired if the difference was due to the fact that diesel was not included. Dr. Ospital explained that the Risk Charts that he had shown during his presentation were for the five substances that had been selected, and that they did not include diesel or any other toxics. In MATES-II, the diesel risk was about 1,000 in a million, which accounted for the bulk of the risk.

11) Wild land fires and grass fires would be apportioned into the wood smoke-type category. Usually in Southern California when there are fires, they are very large and there are very little data available on contributions on a few days but it is not very significant to an annual average. If the PM apportionment is done correctly, they should not affect risk at all in terms of the particulates since for cancer risk there are no risk factors adopted for wood or vegetation burning derived PM. It would affect risk in terms of PM components exposure or volatile organics that are emitted. Typically, in a fire, no or a little blip is seen in the 24-hour monitoring filters. In the areas where there is a heavy concentration of smoke the stations often go down when the electricity goes out because of the fires; hence, no data are available in such situations. The SCAQMD sponsored a couple of studies after the 2003 fall fire, and commissioned the investigators to look at (a) children's health and (b) hospital admission data and mortality data, during the fires. Some estimates were done based on the monitoring as well as satellite imaging on what the exposures were. By combining both sets of the data, it provided a more believable estimate of particulate levels. The study's findings showed correlations of symptoms in children and respiratory symptoms with reported smoke exposure. The hospital admissions and mortality studies were based on the State's data and there were also correlations on certain diseases that were mostly cardiovascular related. (Altshuler)

12) Mr. Altshuler inquired whether any focused study had been done for unique events, such as 9/11, strikes, fuel price spikes, or holidays, to see what impacts those limited events had on the air quality, if any. Dr. Ospital stated that no focused studies were done. However, there are data from the monitoring network that could provide information on recent events. There was a port shutdown a couple of years ago for a week or so, and researchers at the University of Southern California found some differences for that time period that were attributed to either more emissions from ships piling up, or lower emissions from less trucks on the road, depending on which component is being looked at.

13) Mr. Altshuler inquired if the SCAQMD had done any monitoring of emissions from ships. Dr. Ospital stated that the District will be using some profiles for ship emissions using bunker fuel as part of the source apportionment. The University of Riverside has been doing some measurements and if those analyses are available, the staff will use them. Nickel and Vanadium will also be used as potential tracers for bunker fuel.

In reply to the District staff's questions, Dr. Ospital commented as follows:

1) The SCAQMD's Advisory Committee is called the Technical Advisory Group and comprises of 20 members from academia, industry, local governments and community and environmental organizations. During the planning stages of the MATES-III study, the Group met about five times and during the analyses phase when routine monitoring and laboratory work is being conducted, the Group has not met for at least two years. It was not worthwhile to have the Group meet until staff had reasonable information for it to discuss. (Hess)

2) With regard to long-term non-cancer risk or acute risk, during the analyses or modeling stages for the MATES-II study, staff also looked at non-cancer risks in terms of how the levels compared to a long-term reference exposure level. There were no significant findings.

With regard to acrolein, it was not included in MATES-II and III studies. The Technical Advisory Group wanted staff to look at it; however, at the time there was no established

method being used either by CARB or by the EPA. Currently, there is a method that people are comfortable with. (Martien)

3) Gary Kendall, Director, Technical Services, commented that the Bay Area Air Quality Management District (BAAQMD) has very similar trends for benzene and 1,3 butadiene. With regard to formaldehyde, Mr. Kendall stated that diesel vehicles are significant aldehyde emitters. The SCAQMD completed a couple of studies in conjunction with the ARB and British Petroleum (BP)/ARCO to look at diesel and natural gas fuel buses. The study showed that very little formaldehyde came from the diesel vehicles, whereas the natural gas buses without catalysts emitted more comparatively. Based on this limited data, Dr. Ospital did not expect diesel to be a large contributor.

4) The compounds that will be included for the MATES-III modeling study will be most of the toxics that have significant risks such as benzene, butadiene, perchloroethylene, aldehydes, and metals such as cadmium, nickel, chromium VI, from both mobile and stationary sources, and they will be apportioned to the grid. The type of model to be used has not been decided. Staff is looking at the newer and better models to be consistent with the modeling done for the SCAQMD's Air Quality Management Plan. (Martien)

Phil Martien, Senior Advanced Project Advisor and CARE Program Manager, commented that the regional modeling is a grid-based model in which the emissions are estimated and then fed into the model, along with meteorological inputs. The District is not doing any interpolations except for validating and evaluating the model.

5) With regard to a communication strategy, the results of the MATES-III are being disseminated as follows: (a) keeping the Board of Directors apprised. The Mobile Source Committee also meets periodically and receives updates from staff; (b) once the modeling results and summary statistics are available, staff will present them to the Technical Advisory Group and request their feedback; (c) conducting community presentations in those communities where the monitoring is being done. In addition, town hall meetings will be held when the results will be presented and questions from the communities answered; (d) a report will eventually be published and distributed. (Hess)

6) Mr. Hess stated that the BAAQMD staff is considering doing some detailed funding of toxicity of some food markers and working with the University of Minnesota on some of their studies. Mr. Hess inquired if the SCAQMD is considering any changes to its MATES program and Dr. Ospital's thoughts on future research. Dr. Ospital opined that with regard to future research, he would look at the following: (a) developing monitoring methods that can be deployed on a mass basis so that the information is available widespread from a larger number of sites; (b) developing data on wild fires and their toxicity and their influence on exposure. More real time monitors are required rather than just the 24-hour samples which do not provide the necessary data; (c) installing the technologies and hardware that are required to be able to link to real time data remotely; (d) conducting more limited and longer-term monitoring, at fewer sites, on a continuous basis, so that better information is available on trends.

7) Mobile sampling could be helpful for backyard monitoring since they can easily identify hot spots; however the available technologies are different and they are not federally sanctioned for routine monitoring. (Martien)

8) In response to Mr. Altshuler’s inquiry, Mr. Martien stated that the BAAQMD’s CARE Program costs approximately \$1 million per year.

**3. Approval of Minutes of August 9, 2006.** With a quorum present, Chairperson Altshuler requested that on Page 2 of the minutes, in the third sentence, change the word “has” to “have”; on Page 2, second Paragraph, last sentence, change the word “has” to “have”; and on Page 2, third Paragraph, last sentence, change the word “is” to “are”. Dr. Holtzclaw moved approval of the minutes, as corrected; seconded by Dr. Bedsworth; carried unanimously.

**5. Update on the District’s Climate Protection Program:** *Staff provided an update on the Climate Protection Program. The Committee discussed climate protection issues and how to complement the District’s activities.*

Ana Sandoval, Principal Environmental Planner, provided an update on the District’s Climate Protection Program. The presentation included information on the different initiatives the District is currently working on, the progress made to date and plans for the future:

Why an Air District Climate Program?

- Regional leadership needed on critical environmental issue
- Higher temperatures increase emissions
- Continued warming could erode air quality improvements
- Fossil fuel combustion is main source of greenhouse gases (GHGs) and criteria, toxic air pollutants
- Co-benefits of control strategies
  - Energy efficiency
  - Transportation control measures
  - Smart growth
  - Low emission vehicles

District’s Early Steps

- Launched climate protection program June 2005
- Established Board of Directors Climate Protection Committee
- Integrated climate protection into all air quality programs
- Climate protection initiatives
  - Regional climate protection Summit
  - Bay Area GHG emission inventory
  - GHG mitigation study
  - In-house GHG emission reductions
  - Promotion of energy efficiency

Next Steps

- Regional Leadership Council
- Bay Area Climate Protection website
- Public Outreach Campaign
- Grant Program
- Continuation of Existing Initiatives

- GHG Technology Study
- Bay Area GHG Emission Inventory
- K-12 Climate Protection Education
- Integration with District Activities
- In-house GHG Emission Reductions

Grant Program Potential Project Types

- Renewable energy infrastructure, such as solar or wind energy
- Green technology development, such as more energy efficient products
- Green building projects
- Public involvement campaigns, such as educational messaging or emission reduction implementation programs

GHG Technology Study

- Identify opportunities for emission reductions at stationary sources subject to District regulations
- Identify benefits and disbenefits of reduction measures
- Independent study: URS hired as contractor
- Ongoing staff reviews of Phase I Draft Final Report
- Phase II Study to evaluate most promising reduction measures

Further Integration with District Activities

- Transportation Fund for Clean Air (TFCA) grants evaluation criteria now include GHG reduction benefit
- CEQA comment letters now include consideration of GHG emissions
- Air Quality Element General Plan Guidelines will include section on Climate Protection
- Updated CEQA Guidelines will address GHG emissions analysis and mitigation strategies
- Staff will report on GHG emissions in rule development
- Smart Growth – Focusing Our Vision process

The Committee offered the following suggestions on the Climate Protection initiatives:

- 1) Dr. Holtzclaw commented that the Focusing Our Vision process was oriented with local governments and focused on saving space and using the transportation systems more efficiently. The process did not include any calculation of the global warming gas emission differences. He suggested that as the District comes up with various alternatives, if an analysis could be done to compare the different alternatives, this might be an excellent addition to that process.
- 2) Mr. Kurucz suggested that since the State is developing an environmental K-12 curriculum, the District's K-12 curriculum on climate change should be integrated with the State's efforts.
- 3) Chairperson Altshuler commented that he is pleased to see that some of the scoring criteria may be altered for the TFCA and Carl Moyer programs. He suggested that

Environmental Impact Reports (EIRs) would be another aspect that is very important.

4) Chairperson Altshuler suggested installation of compact fluorescent light bulbs for efficiency at the District since they are very low on GHG emissions.

5) Chairperson Altshuler commented that there will be some unique challenges regarding issues related to wood smoke and banning wood combustion, etc. It could be debated that when wood is burned, it is a renewable fuel which is good for the environment from a carbon dioxide perspective. Some of the issues would need to be balanced carefully.

6) Dr. Bedsworth inquired if any efforts are being made to train people to conduct outreach programs on this topic. It was suggested that staff and community members could be trained to reach out to other air districts around the State.

Ms. Sandoval explained that the District does not have an initiative currently to develop a formal training program; however, staff is in touch with other air districts through the California Air Pollution Control Officers Association (CAPCOA) which has formed a Climate Protection Committee to act as a forum for exchange of information. Dr. Bedsworth also suggested that the District form a pool of speakers and make it available on its website as a resource.

7) Dr. Holtzclaw suggested educating the media, particularly newspapers, TV and radio, about the various ways of handling global warming. For example, John King, an architectural critic with the *San Francisco Chronicle*, wrote an article about the new federal building in San Francisco. He described the efforts that were made to make the building more toxic free and to reduce the amount of global warming gases emitted during its construction and operations. Dr. Holtzclaw stated that it was an excellent article and that the District could play a major role in this aspect.

8) With regard to “branding”, Dr. Holtzclaw commented that one poll states what Americans think the consequences of global warming are in places such as the poles. Dr. Holtzclaw suggested that the “branding” or any other publicity on climate change should emphasize the potential local impacts of global warming so that people begin to think of it as something happening locally rather than something happening at the poles.

9) Chairperson Altshuler commented that cans or packages of food sold in stores have a label on them that indicates the calorie count for each food, and suggested that products should have a similar label on them that indicates the amount of BTUs and GHG emissions that are respectively used and emitted during their production. Similarly, new cars should have labels indicating the amount of greenhouse gases that are emitted during their production.

Chairperson Altshuler mentioned that he would like to find out from the District as to what role the Advisory Council could play to complement the staff and the Board of Directors in its initiatives on climate change. The Committee discussed the possibility of recommending one or two members of the Technical Committee to participate in the Board’s Public Outreach and Climate Protection Committees. A lengthy discussion followed. Chairperson Altshuler stated that he would convey the Committee’s comments to the Management staff and discuss it with them.

Mr. Kurucz mentioned that the District staff has incorporated GHG elements in not only planning but in some selected new rule developments. Dan Belik, Manager, Rule Development, responded to questions regarding the boiler rules and described the process for developing criteria for GHG impacts during the rule making process.

6. **Committee Member Comments/Other Business.** Chairperson Althshuler stated that Bart Ostro, Chief, Office of Health Hazard Assessment, will make a presentation to the Committee at its next meeting. In May 2007, Tom Cahill, Professor Emeritus, University of California at Davis, will be presenting to the full Advisory Council, and Chairperson Althshuler will be contacting Mark Jacobsen, Professor, Stanford University, to make a presentation on elemental carbon issues to the Advisory Council at a future meeting.

The Committee thanked Dr. Ospital and staff for their presentations.

7. **Time and Place of Next Meeting.** 9:00 a.m., Monday, April 16, 2007, 939 Ellis Street, San Francisco, CA 94109.
8. **Adjournment.** 11:50 a.m.

Neel Advani  
Deputy Clerk of the Boards



Bay Area Air Quality Management District  
939 Ellis Street  
San Francisco, California 94109  
(415) 749-5000

APPROVED MINUTES

Advisory Council Executive Committee  
9:00 a.m., Wednesday, March 14, 2007

1. **Call to Order – Roll Call.** Chairperson Glueck called the meeting to order at 9:05 a.m.

**Present:** Fred Glueck, Chairperson, Sam Altshuler, Ken Blonski, Jeffrey Bramlett, Harold Brazil, Kraig Kurucz (9:17 a.m.).

**Absent:** Louise Bedsworth, Ph.D.

2. **Public Comment Period:** There were no public comments.

3. **Approval of Minutes of November 8, 2006:** Mr. Bramlett moved approval of the minutes; seconded by Mr. Blonski; carried unanimously without objection.

4. **Committee Reports:**

a) Air Quality Planning Committee Meeting of February 14, 2007: Mr. Blonski presented the report and stated that the Committee reviewed its Mission Statement and the topics and priorities assigned to the Committee at the January 10, 2007 Council Retreat. Two presentations were made to the Committee: 1) Ana Sandoval presented information on carbon offsets and 2) Michael Murphy provided an overview of mobile source programs. The next meeting is scheduled for April 11<sup>th</sup> and the Committee is working on obtaining a speaker from U.C. Santa Cruz, Manuel Pastor, or one of his associates. In addition, John Holtzclaw, Ph.D. will present a paper that he gave at the 2005 Air & Waste Management Association Convention.

There was general discussion about speakers for other Committees (Tom Cahill from UC Davis and Bart Ostro from the Office of Environmental Health Hazard Assessment) regarding rail yards and ports. Chair Glueck recommended that all the Committees review and discuss Dr. Pastor's report and a general discussion would take place at the May Council meeting. Dr. Pastor would be invited to attend the July Council meeting for his presentation.

Councilmember Kraig Kurucz arrived at 9:17 a.m.

b) Public Health Committee Meeting of February 14, 2007: Mr. Bramlett stated that the Committee continued discussions on indoor air quality (IAQ) and asthma; and the relationship between IAQ and outdoor air quality. The Committee briefly discussed the Air District's Spare the Air Program. The Committee is looking at what role the Air District should take regarding IAQ. The Committee discussed how to interface with the public, health officers and non-government organizations, and the importance of people working with their health care

providers to quantify their concerns. In summary, the Committee suggested that the role of the District would predominantly be one of facilitating existing information; the California Air Resources Board (CARB) was discussed; a fact sheet, web, and media presence would be the basis for speaking points.

Mr. Zamora will provide information on how the health officer aspects are going and the Committee should have some written recommendations drafted for a future meeting; there will be more discussion on the science interface before the recommendation is finalized. The next meeting of the Committee is April 11, 2007.

c) Technical Committee Meeting of February 28, 2007: Mr. Altschuler reported that Dr. Jean Ospital from the South Coast AQMD (SCAQMD) provided the Committee with an update on the MATES Program, which is a parallel to this Air District's CARE Program. The goal is to produce a matrix or table that compares the two programs. There was also a presentation from District staff about the Board activities on climate change and greenhouse gases (GHG). The Committee discussed what the role of the Advisory Council could be and one suggestion was to offer the Council's expertise to staff or the Board on climate change in a more formal way; possibly having several members of the Technical Committee attend the Board Public Outreach and Climate Protection Committee meetings.

Peter Hess, Deputy APCO, stated that the Board now has Standing Committee on Climate Protection that meets on a regular basis. The Committee is looking at the issue of a Foundation, the climate programs at the Air District, and would take into account the advice provided by the Council as a whole.

Mr. Altschuler stated that the next meeting of the Committee is scheduled for April 16<sup>th</sup> and Bart Ostro from the Office of Environmental Health Hazard Assessment (OEHHA) will give a presentation. There was discussion on making this a joint meeting with the Public Health Committee.

##### **5. Overview of Chairperson Glueck's Report to the Board of Directors' Executive**

**Committee Meeting of February 9, 2007:** *Chairperson Glueck gave an overview of his report to the Board of Directors' Executive Committee.*

Mr. Glueck noted that there would be a presentation today from the Outreach and Incentives Division and that it relates to the APCO's discussion from the Council's Retreat. The Spare the Air Program is going through some changes, which will be part of today's presentation. The Council should be aware of how the Council can assist or facilitate the promulgation of education and information to the public with regard to the Air District's policies. The policies include the CARE Program, the particulate matter discussion with CARE, indoor air quality, and climate protection. The charge to the Council's Committees is to see how the information can be best relegated to the public through Outreach and Incentives and how the Council can be of assistance with the Spare the Air campaign. Spare the Air is going to be a behavioral change and the Council can help educate the general public.

Jack Colbourn, Director of Outreach and Incentives, provided a brief overview of the presentation to be given to the full Council. The Spare the Air Program will migrate to Spare the Air/Clean Air Choices. The District will push the public to make clean air choices with the new campaign. The message built into the summer program is "what are you going to do?"

The Metropolitan Transportation Commission (MTC) is providing \$7.5 million and the District's contribution is about \$2 million for the free ride program, which will continue this year. The District is seeking funding from larger companies to help sponsor the free rides program, or other aspects of the campaign.

The District is developing a brochure on clean air choices and 50 things you can do now. Mr. Colbourn reviewed changes in the free rides component of the summer campaign. In response to a comment from Chair Glueck, Mr. Colbourn stated that 2000 employers are signed up to receive the Spare the Air alerts, which they then disseminate to their employees and encourage them to car pool, telecommute, or do other things. There is also an educational component, the "Clean Air Challenge," which goes to teachers. In conclusion, Mr. Colbourn stated that it will take a few years to get the Clean Air Choices message out and that spare the air is every day.

**6. Committee Discussion Regarding Proposed Revision to the Advisory Council's Code of Conduct: Article 2:** *The Committee considered a proposed revision to the Advisory Council's Code of Conduct: Article 2.*

Chair Glueck stated that a request had been made to change one of the gender references in Article 2 of the Code of Conduct and a Council vote will be taken to add the word "her" to paragraph 1.

**7. Committee Member Comments/Other Business:** Chairperson Glueck announced that he would introduce the new Council member at today's Regular meeting.

**8. Time and Place of Next Meeting:** 9:00 a.m., Wednesday, May 9, 2007, 939 Ellis Street, San Francisco, CA 94109.

**9. Adjournment:** The meeting adjourned at 9:56 a.m.

Mary Romaidis  
Clerk of the Boards

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

APPROVED MINUTES

Advisory Council Regular Meeting  
10:00 a.m., Wednesday, March 14, 2007

**CALL TO ORDER**

Opening Comments: Chairperson Glueck called the meeting to order at 10:06 a.m.

Chair Glueck introduced new Advisory Council member Robert T.P. Huang, Ph.D.

Roll Call: Present: Fred Glueck, Chair, Cassandra Adams (10:28 a.m.), Sam Altshuler, P.E., Ken Blonski, Jeffrey Bramlett, Harold Brazil, Irvin Dawid, Emily Drennen, MPH, William Hanna, John Holtzclaw, Ph.D., Robert T.P. Huang, Ph.D., Janice Kim, M.D., Ph.D., Steven Kmucha, M.D., Kraig Kurucz, Karen Licavoli-Farnkopf, MPH, Ed Proctor, Linda Weiner (10:53 a.m.), Brian Zamora.

Absent: Louise Bedsworth, Ph.D., Robert Bornstein, Ph.D.

**PUBLIC COMMENT PERIOD:** There were none.

**CONSENT CALENDAR:**

**1. Approval of Minutes of January 10, 2007:** Dr. Holtzclaw moved approval of the minutes; seconded by Mr. Hanna. Mr. Altshuler requested that “in lieu of” on page 4 be changed to read “to complement.” Ms. Drennen requested Ms. Bedsworth’s first name be corrected on page 2 and on page 5, paragraph 7 the word “promoting” be added before the word “walking.” Mr. Altshuler moved approval of the minutes as corrected; seconded by Mr. Bramlett; carried unanimously without objection.

**COMMITTEE REPORTS**

**2. Air Quality Planning Committee Meeting of February 14, 2007:** Mr. Blonski stated that the Committee reviewed its Mission Statement and priorities set at the Retreat. There were two speakers from staff: Ana Sandoval presented information on carbon offsets and Michael Murphy discussed the Air District’s Mobile Source programs. The plan for the April meeting is to discuss, with staff, the work done by Professor Manuel Pastor of UC Santa Cruz. Professor Pastor would be invited to give a presentation at a future meeting.

3. **Public Health Committee Meeting of February 14, 2007:** Mr. Bramlett stated that the Committee discussed the Spare the Air program and indoor air quality (IAQ) and asthma. The Committee is looking at what role the Air District should take regarding IAQ and asthma and how to interface with the public, health officers, and non-governmental organizations. The discussion also looked at several other areas, such as people working with their health care providers if they have asthma, the scientific relationship between indoor/outdoor air and asthma and where the focus should be, and a coordinated message that represents the Air District's position. The next meeting of the Committee will be on April 11<sup>th</sup> and will focus on any responses from the health officers and a recommendation will then be developed to present to the Council.
  
4. **Technical Committee Meeting of February 28, 2007:** Mr. Altshuler stated that the Committee heard from Dr. Jean Ospital on the South Coast AQMD MATES Program. The MATES Program is similar to the Air District's CARE Program. It is anticipated that a table will be produced comparing the two programs and would be presented to the full Council. A second speaker was from staff, Ana Sandoval, who gave a presentation on the climate protection activities at the Board level. The Committee also discussed how the Council, or the Technical Committee, could complement activities going on at the Board level.

The next meeting of the Committee is scheduled for April 16<sup>th</sup> and Bart Ostro from the Office of Environmental Health Hazard Assessment (OEHHA) will give a presentation on monitoring issues focusing on measurements at the Port of Oakland. Members of the Public Health Committee are invited to attend this meeting. After discussion, it was determined a joint meeting of the Committees would not be feasible.

### **Presentation**

5. **Presentation on Air District's Spare the Air Program for 2007:** *Air District staff presented an overview of the Air District's Spare the Air Programs.*

Chairperson Glueck stated that the presentation is based on the APCO's discussion with the Council during the Retreat and the changes that are taking place in the Spare the Air program. One aspect is how the Advisory Council can help develop ideas or efforts to assist in outreach with public information and public participation.

Jack Colbourn, Director of Outreach and Incentives, stated that the Spare the Air program started in 1991 and the free rides program is about four years old. This year, the District is making some changes to promote a Clean Air Choice program and that it is really 365 day a year effort. There will still be components, such as the free ride program and wood stove change outs. The idea is to get people to take responsibility on what they can do to clean the air. There will be outreach to the public on ways they can clean the air, such as a "tip card," that will focus on climate issues and diesel.

Mr. Colbourn noted that some changes have been made in the free ride program this year. There are four days of free rides, which will be for morning commutes only on the ferries, trains and BART; the buses will operate on a full day.

Councilmember Cassandra Adams arrived at 10:28 a.m.

Mr. Colbourn stated that the District is doing long-term surveys and measurements to see what kind of behavior changes there are. The three major priorities this year are climate, wood smoke, and port/diesel emissions and the Spare the Air/Clean Air Choices campaign will focus on these priorities.

The Council had a general discussion on the campaign and how the Council members can carry the message back to the organizations they represent. The Council provided comments and suggestions to staff on several aspects of the campaign.

Councilmember Linda Weiner arrived at 10:53 a.m.

Karen Schkolnick, Air Quality Program Manager, stated that the 2006/2007 Spare the Air Tonight season has just been completed and ran from November 20, 2006 to February 16, 2007. There were 30 advisories called this year, which was a result of the more stringent PM 2.5 standard. The US EPA adopted a more stringent PM 2.5 standard in September 2006, which is more protective of public health (from  $65 \mu\text{g}/\text{m}^3$  to  $35 \mu\text{g}/\text{m}^3$ ). The focus of the Spare the Air Tonight campaign was to reduce particulate matter through reduction of wood burning emissions and reduction of driving.

Ms. Schkolnick reviewed the PM 2.5 exceedances and reported that there were 30 advisories issued by the Air District and the national 24-hour  $35 \mu\text{g}/\text{m}^3$  standard was exceeded 27 times. There is no equivalent state 24-hour standard. The outreach strategy included the following:

- Community events;
- Mailings to the employer network and about 100 asthma clinics;
- The Spare the Air website was updated on a regular basis;
- Continuation of the Santa Clara Woodstove Rebate Program, which is coming to a close; and
- Advertising and collateral materials included:
  - Video commercial featuring the Executive Officer
  - Radio and television advertising
  - Bookmark about particulate matter
  - Tip card about wood burning
  - Handbook about wood burning and particulate matter

Each time the Air District issued an advisory, the public was alerted that the air quality was forecast to be unhealthful and that sensitive individuals should take measures to protect their health. Additional messages to the public to encourage them to make clean air choices were “Don’t burn wood,” “switch to natural gas or EPA certified insert,” and “drive less.” Ms. Schkolnick noted that there was extensive media coverage and reviewed the number of print, television and radio stories resulting from the campaign. There have been 1,945 woodstove change-outs through the Santa Clara County woodstove rebate program; this program will conclude soon. Ms. Schkolnick reported that an expanded telephone survey was conducted that had very positive results. Nine hundred eighty-eight surveys were conducted. Ms. Schkolnick summarized program awareness as a result of the survey.

Ms. Schkolnick provided an update on the Spare the Air summertime outreach program for 2007. The summertime program was created in 1991. There were 11 advisories issued in 2006. The 2007 Program elements include: advertising, public outreach, employers, media

outreach, free transit incentives, a youth outreach campaign, and a web page and *AirAlerts*. Program highlights include free transit on four full-days for regional bus systems and partial-days on BART, CalTrain, and the ferries to alleviate operation service and security issues. The focus of the campaign will be towards positive, long-term behavior changes by promoting clean air choices.

There will be expanded public surveys and on-board measurement to start the process of estimating long-term behavior change and assessing attitude changes regarding clean air choices. The Air District will continue its effort to secure private partners and funding for the 2007 Spare the Air program. Ms. Schkolnick provided examples of what some of the private partners will be doing during the campaign.

Discussion on the campaign included the free transit and making sure it was fair and equitable to people in all areas; how air alerts are sent; linking health and wellness to climate change; and parking charges at BART parking lots on the free transit days (there will still be a charge for parking). The Council discussed ideas for the campaign and provided input to Mr. Colbourn and Ms. Schkolnick.

Chair Glueck commented that all of the programs the Air District is running are interrelated. He thanked Ms. Schkolnick and Mr. Colbourn for their presentations.

### **Council Discussions**

#### **6. Consideration and Approval of an Amendment to the Advisory Council's Code of Conduct:** *The Council considered approval of a revision to its Code of Conduct.*

Chair Glueck stated that a request had been made to change Article 2, Section 1 regarding the gender references. The change would add the word "her" to paragraph 1.

**Council Action:** Dr. Holtzclaw moved to accept the change to Article 2, Section 1 of the Code of Conduct as stated above; seconded by Mr. Bramlett.

Ms. Drennen suggested that the District make all documents gender neutral. The motion then carried unanimously without objection.

### **Air District Overview**

#### **7. Report of the Executive Officer/APCO:** Peter Hess, Deputy APCO, reported on the following:

1. There is CARE Program meeting taking place now and Advisory Council members are invited to attend if they wish.
2. The budget has been prepared and will be submitted to the Board of Directors. The revenue from the county funding has increased; a permit fee increase is being proposed; and the hearings on the budget will take place in June 2007.
3. The District will embark on a technology-enforcing strategy on emissions from food preparation. This will address some of the fine particulate emissions from under-fired grills and chain driven grills. The South Coast AQMD promulgated a rule about eight years ago; the Bay Area District rule includes more sources.

4. Amendments to the internal combustion engine rule will come before the Board of Directors for approval within the next few months.
5. The District is moving forward on the transition from the wintertime to the summertime Spare the Air Program.
6. Mr. Hess announced his retirement from the Air District on July 18, 2007.

## **OTHER BUSINESS**

### **8. Report of Advisory Council Chair:**

Chair Glueck reported that the Executive Committee discussed items brought to the full Council today. The other two items brought up were that the May 9<sup>th</sup> meeting will have Dr. Cahill make a presentation on a study he has done on particulate matter in the train yards in Roseville. For the July meeting, Dr. Pastor will give a presentation on his report "*Still Toxic After All These Years.*"

### **9. Council Member Comments/Other Business**

In response to a question from Mr. Dawid, Mr. Hess stated that there is no wireless access in the Board Room.

In response to a question from Mr. Altshuler, Chair Glueck stated that he will discuss with staff Advisory Council attendance at the Air & Waste Management Association annual conference.

Dr. Kmucha noted that a resolution has been submitted to the City of Belmont that would make their non-smoking ordinances some of the strictest in the country. Dr. Kmucha inquired if this is something the Council could consider supporting. Chair Glueck stated that it would be difficult to comment at this time. The Public Health Committee is addressing IAQ, but the Council, at this point, is not prepared to make any comment on the resolution being proposed in the City of Belmont. Ms. Drennen added that several members of the Council that know about this resolution and they could provide updates to the Council. Chair Glueck referred the item to the Public Health Committee.

Mr. Hanna stated that there seems to be a number of people arguing against the human causes of global warming. Mr. Dawid added that the IPCC report states that there is a 90% probability that it is human caused.

Mr. Dawid went to the Bureau of Automotive Repair testing facility with the Sierra Club Air Quality Committee and saw how the visual test is conducted (The Smoking Vehicle Law) and the ARB "pinch test," which deals with evaporative emissions from automobiles. By 2010, the largest cause of emissions is going to be evaporative, not through the tailpipe.

10. **Time and Place of Next Meeting:** 10:00 a.m., Wednesday, May 9, 2007, 929 Ellis Street, San Francisco, CA 94109.



11. **Adjournment:** The meeting was adjourned at 11:52 a.m.

Mary Romaidis  
Clerk of the Boards

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

DRAFT MINUTES

Air Quality Planning Committee  
9:30 a.m., Wednesday, April 11, 2007

1. **Call to Order:** Chairperson Ken Blonski called the meeting to order at 9:31 a.m.

**Roll Call:** Ken Blonski, Chairperson, Harold Brazil, Irvin Dawid, Emily Drennen, William Hanna, John Holtzclaw, Ph.D.; Robert Huang

**Absent:** Kraig Kurucz, Ed Proctor.

**Also Present:** Mr. Fred Glueck

2. **Public Comment Period.** There were no public comments.
3. **Approval of Minutes of February 14, 2007:** Mr. Dawid provided a number of minor revisions to the minutes that will be incorporated into the final version. Mr. Hanna moved approval of the minutes; seconded by Dr. Holtzclaw. Upon conclusion of the revisions of the minutes Chair Blonski called for approval and the draft minutes were approved unanimously.
4. **Discussion of Focused Growth for the Bay Area:** *Mr. Ted Droettboom presented information to the Committee on Focused Growth.*

Mr. Droettboom provided the Committee a brief overview of his background and his affiliation with the District, ABAG (Association of Bay Area Governments), and other organizations.

It was brought to the attention of the Committee that many individuals also refer to Focused Growth as Smart Growth. It is now being called Focused for two reasons: 1) many think the term Focused is a little less valuable than the term Smart; 2) because it implies that somebody else's growth is dumb.

Why Focused Growth? It is driven by the high housing prices in the region. The median housing prices in the Bay Area by County a few months ago have gone down slightly. High housing prices are driving a phenomenal in which we describe as "drive until you qualify." Residents are moving further and further out into the region and indeed beyond the region to find homes that they can afford.

The focus of sprawl eats up our land resources, these are numbers supplied by the Greenbelt Alliance, which identify about nine percent of our precious open space resources at risk. Three percent of those at high risk of being developed. Finally, in present context, Focus Growth can help us reduce greenhouse gas emissions. That is because principally 50% of the greenhouse emissions in this region are due to transportation sources. We drive an awful lot and in fact if only 85% of our transportation greenhouse gases are due to on road vehicles, which includes each of us and a few truck drivers on the roads. Aircrafts contribute about 7%, other mobile sources like locomotives and ships at sea, contribute about 8%. A big part of reducing greenhouse gas emissions in this region will in fact involve driving less or driving more efficiently.

The region is growing at about 1%, per year; which means in any one year 99% of the development is already here. To give you some indication of what we need to do in this region in the transportation sector to meet the 2020 targets, an analysis prepared by the Metropolitan Transportation Commission (MTC) was shown. The growth in percentage terms with 1990 as the base is called Vehicle Miles Traveled (VMT) on a daily basis. That is the number of miles that each driver collectively, drives on a daily basis and by 2020 that is projected at current trends in under a moderate focused growth scenario to grow by almost 60%.

If we turn over the current fleet, CO<sup>2</sup> associated with VMT will not grow quite as fast, maybe about 45% beyond the base.

Chairperson Blonski requested clarification on the term “turnover the fleet” does that mean newer vehicles? Mr. Droettboom’s response was yes, and that it also includes more efficient vehicles even under the current standards. Due to the fact people keep their vehicles for a fairly long time in this climate. As vehicles turnover and as we drive more, we will still be able to reduce CO<sup>2</sup>. The Pavley standards take us down to a lower level. Pavley is currently in court and is being challenged by all the major automobile manufacturers including the major manufacturer of hybrid vehicles. However, to meet the State standards for 2020 which is back to 1990 levels, we need to go down to a lower amount.

The State has identified a number of strategies to meet its 2020 target, the principle and most powerful standard; tons per metric, tons per year of course is vehicle standards. Their second most powerful strategy is smart land use and intelligent transportation. That is driving smarter and riding smarter. Mr. Dawid mentioned that the Climate Action Team indicated on their charts that Land Use and Transportation was noted as number one in 2010.

Mr. Dawid added to the 2010-2020 standards, noting that the afforestation/reforestation was referred as number two and that vehicle standards start in 2009, therefore, there would not be much savings by 2010, as well as noted that probably by 2020 that there still would not be much change. Mr. Dawid did point out that the focus should be the bio-mass plants, where they actually burn wood chips to a great extent, although this method is very controversial.

The vision of focused growth for the Bay Area was produced by a consortium of Bay Area agencies; and voluntary sector agency groups, which ended up being the Smart Growth Strategy Regional Livability Footprint Project. The vision at that time was a network of neighborhoods, which would be a much more compact development. The environmental benefits include, much less green field development, significant reduction in water consumption per household, gasoline consumption and of course CO<sup>2</sup> emissions relative to the trend. The significant problem with the consortium of folks that got together to produce the vision, did not spend enough time with the individuals that control land use at the region, which include local governments and many of the local governments felt excluded from the process.

The group has since spoken to local governments and getting voluntarily agreements to something called priority development areas. Those are designated with relatively simple criteria and are in existing communities, near fixed transit or comparable levels of bus service and near job concentrations.

Mr. Dawid recalled the meetings that Mr. Droettboom referenced and concurred with the conference and noted that he was able to attend two meetings in Santa Clara County and noted that while at the meeting in Mountain View, ABAG staff members were not aware that Palo Alto was in one county and Menlo Park in the other. Mr. Dawid was interested in knowing if Mr. Droettboom will be bringing in the CMA's and Mr. Droettboom noted that they are planning to bring them in and Mr. Dawid noted that the CMA's would be rather instrumental, especially since they do control so much of the local transportation funding.

Mr. Glueck questioned if the intent is to focus on housing and jobs together, to reduce transportation.

Mr. Droettboom referred to the CARB guidelines about locating residential development near freeways.

Dr. Holtzclaw noted that in reference to the Livability Footprint, prior to that time, individuals in all three regional agencies were concerned with regional growth and the continued expansion of freeways. He mentioned that ABAG took the leadership role as the land use agency in addressing this issue, and noted that if individuals from all regions participated in putting things together and MTC analyzed the trends, perhaps there would be attention by the City and County Governments to this need for implementation.

Chairperson Blonski questioned the quality of life. Mr. Droettboom responded that it has come up with regard to Marin City. In addition, Chairperson Blonski questioned the infrastructure with regard to costs and Mr. Droettboom noted that San Francisco could not escape the infrastructure costs which would eventually have to replace the urban structure truck synergy.

Chairperson Blonski raised issues with regard to peak use of the commute and Mr. Droettboom mentioned that perhaps the Bay Area could adopt a toll system that is currently being used in Southern California that in fact may play a part in global warming.

Ms. Drennan noted that she was a facilitator on a panel on Smart Growth projects and underscored that nothing happens at the regional level, issues/ideas to come from each of the counties, as a facilitator, it was so interesting to see how the plan was perceived.

Chairperson Blonski questioned if conservation areas played a role to help focused growth. Mr. Droettboom's response was that it does serve as a priority with the Open Space Council and East Bay Park Districts.

Mr. Hanna mentioned Marin County as the carrying capacity, global warming and water use per housing, and the water problems that currently exist. Mr. Droettboom's response was that it speaks to the Bay Area being a special region and its huge amount for growth with water resources.

Mr. Huang questioned the reference that environmentalist make when it come to the focus growth program. Mr. Droettboom mentioned that there are many discussions about CO<sup>2</sup> and climate change. Mr. Droettboom also noted that he is in the process of developing a Joint Climate Protection Strategy with four agencies, to be consistent with their messages. The regional transportation plan over its 25 year life is over \$100 Billion, if the allocation criteria were changed, it may make a difference in supporting growth in more desirable areas. The various regions decided where the monies would be spent, as incentives were provided.

Mr. Glueck mentioned behavioral modification, and that the District is approaching that with respect to the Spare the Air Program, making it more individualized and a 24/7 issue. In terms of getting all the local communities to buy into a regional approach or policy, other than just the financial incentives are there any other discussions in regionalizing the planning process overlaying the local cities, counties and government? How does the overall Bay Area buy into the regional programs and participate? Mr. Droettboom noted that about every decade in this region, there are discussions about regional governance, where bills are proposed in Sacramento and nothing happens.

Ms. Drennan questioned the buy-in of the infill conception of Smart Growth vs. Traditional model. Mr. Droettboom's responded by noting that MTC has put in place a transit oriented development policy. This policy only applies only to new extensions of the system, with most of the extensions are going to places where there is not a lot of present development, for example E-Bart System to East Contra Costa County. The policy affects 13% of the development over the next 30 years.

Ms. Drennan continued with the question of Warm Springs Bart extension and the political nature of funding some of these less than stellar transportation projects that are pretty investments on a regional scale. Lastly, one of the benefits by doing infield development is having less community upset due to moderate changes being made to the neighborhood portion of it and how is it being dealt with. Mr. Droettboom noted that the principle land use at Warm Springs is the NUMMI plant, with NUMMI not wanting additional residential development, due to the fact NUMMI is a polluter. Warm Springs makes sense in the long term and it may be okay, but over time.

Mr. Hess, Deputy Air Pollution Control Officer, congratulated Mr. Droettboom on his presentation and asked that the Committee carry this information forward to the next full council meeting.

Chairperson Blonski requested the Committee take a three minute break. The meeting reconvened at 11:05 a.m.

**5. How Does Smart Growth Impact Climate Change Emissions?:** *Dr. John Holtzclaw presented information to the Committee on Climate Change Emissions.*

Four communities were used during this presentation. Three from the Bay Area, and one out of state, each was similar with the exception of density and transit. Dr. Holtzclaw provided an overview of the density of residences per household. Sprawl normally consists of three households per residential acre, with the sprawl going about five households per residential acre.

A slide courtesy of Mr. Steve Price showed San Pablo Avenue in El Cerrito, CA transformation of the main street, placing light rail down the center, narrowing the lanes to may be one or two lanes of traffic in either direction. The sidewalks would widen, and the ground floor would utilize commercial space with about 60 households per residential acre. The Census Tract is currently at 9 households per residential acre and would increase the Census Tract to 15 households per residential acre. This would be without surface parking.

The comparison of four neighborhoods and one thing is when you increase density, we looked at the variables and density was the most important. Dr. Holtzclaw showed various comparisons with the use a detailed comparison slide showing Urban vs. Sprawl Auto Use in the following four areas, San Ramon, CA; Rockridge, Oakland, CA; North Beach, San Francisco; and Manhattan.

The summary of slides covered the following items:

- Community Transformation – San Pablo Ave. in El Cerrito, CA; 60 households per residential acre; with no parking, 30 households per residential acre; with surface parking;
- North Beach in San Francisco – 90 households per residential acre; with a backyard and no parking;
- Urban vs. Sprawl Auto Use - provides information on the autos per capita ranging from 0.79 in San Ramon, CA to a low of 0.12 in Manhattan;
- Larger households have the tendency to drive more than the smaller household;
- Costs of Urban Infill versus Suburban Sprawl – 5 times more pipe and wiring to build Village Homes in Davis versus an apartment house, located in Nob Hill, twice as much building materials, etc. with the homes being energy efficient houses and took as much as 5 times as much heating and cooling, since Davis is harsher climate.

What is being done about the financial impact? Dr. Holtzclaw suggested that in the more convenient areas there should be building.

Ms. Drennan noted by making relatively small changes in the suburban areas that you can impact driving and auto ownership and wondered are there other strategies that are more affective? Dr. Holtzclaw feels the development that we have in the next 50 years at low density, will indeed help the people that live there now and will help the people who live nearby and can shop there.

- 6. Committee Member Comments/Other Business.** Council members shared information regarding reports and emails with the Committee. Chairperson Blonski reminded individuals that Dr. Pastor or a representative will make a presentation at the next full Council meeting, regarding the study he co-authored “Still Toxic After All These Years – Air Quality and Environmental Justice in the San Francisco Bay Area.” Chairperson Blonski will not be able to attend the June 13, 2007 meeting and Ms. Drennan will chair in his absence.
- 7. Time and Place of Next Meeting.** 9:30 a.m., Wednesday, June 13, 2007 – 939 Ellis Street, San Francisco, CA 94109.
- 8. Adjournment.** 11:50 a.m.

Vanessa Johnson  
Executive Secretary

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

DRAFT MINUTES

Advisory Council Technical Committee  
 9:00 a.m., Monday, April 16, 2007

1. **Call to Order – Roll Call.** Chairperson Sam Altshuler called the meeting to order at 9:05 a.m. Present: Sam Altshuler, P.E., Chairperson, Louise Bedsworth, Ph.D, John Holtzclaw, Ph.D., Kraig Kurucz, William Hanna, (9:10 a.m.), Robert Bornstein Ph.D., (9:20 a.m.).
2. **Public Comment Period.** There were no public comments.
3. **Approval of Minutes of February 28, 2007.** The minutes were approved and carried unanimously.
4. **Overview of the South Coast Air Quality Management District’s (SCAQMD) MATES III Program and the Air District’s CARE program:** The Committee Members compared and contrasted the MATES III program and the CARE program. The following Matrix was developed. A draft of the matrix was sent to the SCAQMD for review.

Comparison of Programs

South Coast AQMD MATES Program	Bay Area AQMD CARE Program
MATES I 1987	CARE 2005
MATES II 1988-1999	Phase I 2006
MATES III 2004 - 2006	Phase II 2007
Population: 14? Million	Population: 7 million
Cost: \$2 Million Per Year	Cost: \$1 Million per Year
Focus: Marine Ports, Air Ports, Highways	Focus: Marine Ports, Region-wide, Freeways
Grid: 4/2 km	Grid: 2 km
20 Member Technical Advisory Group	15 Member Technical/Community Committee
Components Being Monitored: Metals, (Chromium VI, Nickel, Cd,) PAHs, VOC’s, (Benzene, Diesel PM, Formaldehyde, Acetaldehyde, Naphthalene, 1,3, Butadiene (Elemental Carbon), Acrolein-being considered	Components Being Monitored, (Chromium VI, Nickel, Cd,) PAHs, VOC’s, (Benzene, Formaldehyde, Acetaldehyde, Naphthalene, 1,3, Butadiene (Diesel PM, Elemental Carbon), Acrolein-begun
PM Sizing	No PM Sizing
Woodsmoke from Wild fires	Special Study Markers for Woodsmoke –



	residential woodburning, Carbon dating
Neither Program looking @ Lube oil	
10 Fixed Sites; 3 microscale Sites Temp. Monitoring Stations	23 Permanent Sites
3 Mobile Sites/temporary sites	No temporary sites
Results: 1998/1999 Cancer Risk 1400 per mil from air toxics	Results: 2000 - Cancer Risk 700 per mil from air toxics
Diesel PM causes 71% of cancer risk	Diesel PM Causes 80% of cancer risk measurement
20% of cancer risk from Benzene, formaldehyde, 1,3/ Butadiene	?
Benzene is decreasing in South Coast Area	Benzene is decreasing in Bay Area
Perc is decreasing in South Coast Area	Per is decreasing in Bay Area
Formaldehyde, and Acetaldehyde are remaining flat	?
Acrolene is flat?	Acrolene is flat
Modeling: Some Regional and Local scale plans to update	Modeling: Plan to conduct regional and local

**5. Presentation on “Health Effects of Fine PM Species in Daily Mortality and Morbidity in California”:** Dr. Bart Ostro Ph.D., Chief Air Pollution Epidemiology Unit, Office of Environmental Health Hazard Assessment (OEHHA), California Environmental Protection Agency (Cal EPA); delivered to the Committee a presentation on the “Health Effect of Fine PM Species on Daily Mortality and Morbidity in California” which he co-authored. Dr. Ostro’s presentation included the following topics:

- Introduction – Background on PM2.5
- Previous Epidemiologic results on PM2.5 and its components
- Mortality Study
- Findings on Susceptible Subgroups (prelim)
- Findings on Morbidity (prelim)
- Biologic Mechanisms
- Summary
- Future Work

Dr. Ostro stated he is with the California Office of Environmental Health Hazard Assessment (Cal OEHHA) which is part of Cal EPA. His official responsibility is to recommend state air quality status to the Air Resource Board (ARB). Dr. Ostro did a great deal of research with regards to issues relating to Criteria Air Quality; his presentation focused on the issues published a month or two ago on Mortality. The Committee heard the first public presentation on Morbidity. Dr. Ostro states that he has worked on sensitive populations to see which population is particularly sensitive to some of the elements of the study that will be enumerated later. Most of the morbidity epidemiology discussion is based on the conditions, respirations and data. Bio-monitoring; a medium with which to see chemical analysis in the body; it

captures chemical that people have in their bodies that are higher than the required standard helped achieve result in this study. At this point, Mr. Altshuler noted that Richard Jackson from CDC gave a presentation of the subject to the Advisory Council about a year ago. Dr. Ostro added that findings show that people have much chemical in their body; about 100 times the normal amount.

Dr. Ostro explained the components of PM<sub>2.5</sub> as a heterogeneous mixture of solid and liquid from multiple sources which can be gas to particle conversion or directly emitted particles. He added that to identify the components and sources of PM<sub>2.5</sub> could help target its control and strategy. Several epidemiology studies link PM<sub>2.5</sub> with mortality and these include:

1. Short Term exposure and daily mortality
  - Six United State cities (Schwartz et al. 1996, 2003)
  - Eight Canadian cities (Burnett et al. 2003)
  - Nine counties (Ostro et al. 2006)
2. Long term exposure and mortality
  - Dockery et al. 1993; Laden et al. 2006
  - Pope et al. 2006
  - Krewski et al 2000

Dr. Ostro noted a crucial question “what is the relative toxicity of PM<sub>2.5</sub> components?” he also stated that one criticism is of control strategy, we think about high cost and things that are toxic. With all PM<sub>2.5</sub> components; be it toxic or diesel, factory or restaurant, dwelling, the most important question is what kind of coefficient it has to health effect and what source it comes from. NAS and WHO recommended determining the toxicity of different particle characteristics and sources is a research priority because (1) Very few epidemiologic studies have examined components or sources; (2) this could help target pollution control and reduce overall abatement costs; (3) it could improve estimate of health impact assessment; and (4) it may help explain heterogeneity in multi-city studies.

Dr. Dave Fairley asked if any research has taken these multi-city studies and estimated the range to see the difference? In his response, Dr. Ostro said that John Hopkins and his group are looking into the variations to see the coefficient and what the specific elements are. Dr. Ostro also added that in some hypothesis, there are some generic responses due to the generic particles and generic depositors in different counties and countries. And the one for California is different due to the toxicity. The results and studies of components or sources on mortality include; (a) Mar et al. 2000 showed that EC/OC generated from motor vehicle exhaust related to mortality in Phoenix; (b) Laden et al. did studies in six US cities and showed that markers for motor vehicles and residual oil sulfates but not crusty materials relate to death; (c) Burnett et al. 2000 also did a study in Canada and found that sulfates, zinc, nickel and iron relate to death. However, NO<sub>3</sub>, EC, OC in relation to mortality were not measured.

In California, PM<sub>2.5</sub> studies are different from that typically studied; the source mix and chemistry are quite different with regards to PM<sub>2.5</sub> in California and Southern California in particular. The study shows that Nitrate are greater share of PM<sub>2.5</sub> but different in the east and many other parts of the world. Dr. Ostro also added that the winter concentration is

higher than summer. At this point, Dr. Bornstein asked the reason why the winter is higher. Dr. Ostro further explained that many pollutants come into play in different ways; the biomass, nature of gas constituent, adequate chemistry and other combination theory that change all the time. Dr. Ostro added that the data collected will depend on the country. Dr. Bornstein further clarified that ozone produces a lot of Nitrate particles in the summer and Nitrate is higher because it does not pull until it is colder and thus wood burning in winter along with the higher concentration of PM<sub>2.5</sub>. Other reasons why PM<sub>2.5</sub> in California is typically different according to Dr. Ostro's study is greater indoor penetration and people spending more time outdoors. In response to Dr. Bedsworth's question on outdoor penetration, Dr. Ostro noted that there are not enough data about outdoor models.

Methodologies in this study included

For methodology I, Time-series regression analysis used follows that of Ostro et al. (2006) linking PM<sub>2.5</sub> to mortality, and many others (HEI 2003). Daily counts of mortality that involve hospital admits modeled as Poisson, conditional on time-varying covariates of time, weather, and day of week were also used. The use of smoothing splines to control for time, temperature and humidity was also part of the methodology used. (Spline is non-linear data-driven functions that smooth the relation of mortality and time).

Dr. Ostro pointed out the All-cause mortality in Sacramento County for 2000-2003 and emphasized the differences between the Mortality and Time without Smooth versus the Mortality and Time with Smooth on the presentation. He noted that the smoothing made the control variation for seasonality more effective.

Methodology II, comprised formula for Log(Mt) as well as examining single-day pollutant lags of 0 to 4 confounders like Smoking, Occupational exposure, and Indoor pollution that were taken into consideration.

Methodology III involved the random effects meta-analysis used to combine individual county results. Sensitive analysis like varying degree of freedom for time and weather, penalized spline, treatment of missing data and seasonal-specifics of cool season being October to March were also used.

Results of the findings are as follows:

PM<sub>2.5</sub> in California Study of 2000-2003 showed that some counties have more concentration than others. The highest concentration is found in Riverside County with 27.1 followed by Orange County with 21.5 mean daily PM<sub>2.5</sub> per microgram. Los Angeles came third with 20.8, Kern had 19.5; Fresno was 17.5, Santa Clara equaled 13.9 while Contra Costa and Sacramento had 12.8 and 12.6 respectively and San Diego came with the least amount of concentration of 15.3 mean daily PM<sub>2.5</sub> per microgram.

The components of PM<sub>2.5</sub> studied in six California Counties where mean PM<sub>2.5</sub> =19.3 ug/m<sup>3</sup>; resulted in OC having the highest of 7.1 mass (ug/m<sup>3</sup>) followed by NO<sub>3</sub> with 5.5 mass (ug/m<sup>3</sup>); SO<sub>4</sub> came out with 1.9; EC resulted in 1.00; S was .5 while CU+Fe+Zn, K, Si

and Cl were at the barest minimum of a little above zero. However, some components noted as Other on the graph had the PM2.5 components of approximately 2.7 mass (ug/m3).

With regards to the Temporal Correlations of PM2.5 and Components, the presentation table showed the moderation of the chemicals overtime; with NO3 being the highest with 0.65 correlation. Also sulfate is seen to be higher in the summer.

The selective summary of meta-analytic associations for alternative lags is color-coded (red =  $p < 0.05$ ; green =  $p < 0.10$ ). Red denotes the most significant chemicals with health related problems. The chemicals that are most prominent in rate with cardiovascular health issues are PM2.5 (3), NO3 (3); denoted in green, SO4 (3), Zn (3), EC (2), Fe (2), K (2) also denoted in green. These chemicals; PM2.5, EC, OC, NO3, SO4, Cu, Fe, K, according to the findings do not show mortality caused by respiratory problem except for Zn that rate at 1 ( $p < 0.10$ ). Mortality at age above 65 (age > 65) is seen in PM2.5 (3), Zn (3), and EC (2) all denoted with green that is equivalent to  $p < 0.5$  while NO3 is (0) denoted in red. At this point, Phil Martien commented that it is surprising that not much respiratory death related issue existed in the findings.

The Cardiovascular Mortality 3 knots/year and 4 knots/year graph show the range of distribution possibilities of Excess Risk per Inter Quartile Range (IQR) and Species and Lag Days of 75<sup>th</sup> to 25<sup>th</sup> concentration risk of pollution per year differential. Knots were used to default the smoothing to see which is smoother. The graph shows which chemicals are at significant 5point level; these are PM2.5, SO4, and Zn while NO3 is at 10point level whereas above zero percent is the normal range.

Selective summary of meta-analytic associations for Winter showed the cardiovascular related mortality traced the following chemicals; PM2.5 (3), NO3 (3), SO4 (3), Zn (3), all denoted in red ( $p < 0.05$ ) and EC (2), Fe (2), K (2), Zn (2), denoted in green ( $P < 0.10$ ). Respiratory related mortality was SO4 (3). Chemical related to death at age above 65 were significant in PM2.5, Fe, K and Zn.

Excess risks per microgram (ug/m3) for Cardiovascular Mortality of pollutants were tabularized with corresponding lags and percent change per microgram. The pollutants (PM2.5, EC, OC, NO3, SO4, K, Fe, Zn,) all have lags of three (3). Fe has the highest percent per microgram of 8.38 followed by K with 7.51, EC has 2.38, SO4 has 1.22 while PM2.5, OC, NO3, have 0.18, 0.34 and 0.36 respectively. However, Zn has overwhelmingly 194.9 and Sam Altshuler commented if Zn lined very well; that is if Zn is actually 194.6 or 1.946. Dr. Ostro responded that these numbers are not to be taken seriously and that 2.2% is the low estimate considering difference in measurement error and problems of measurement.

The Effect Modification and Mortality was examined with regards to gender, race and education. Cardiovascular mortality by education showed that non-high school graduates is about 10% while high school graduates is 46% of mortality related to EC, OC, Nitrate, Zn and Iron. Dr Ostro added that education is a proxy for a whole bunch of lag but possibility includes exposure study shows that lower income, lack of medical care and lack of exercise and smoking may be prime factors.

Future Work for the study will be based on the following areas:

- 1) Repeat study with larger data set
  - 2) Develop Chemical Mass Balance models to estimate effect of sources
  - 3) Estimate independent effects of temperature on mortality and morbidity and determine susceptible subgroups
  - 4) GIS-based analysis to examine exposure misclassification.
- 
1. **Committee Member Comments/Other Business:** Chairperson Altshuler stated that Tom Cahill, Professor Emeritus, University of California Davis will be at the next meeting. The Committee thanked Dr. Ostro for his presentation and presented him with a token of appreciation from the Air District.
  2. **Time and Place of Next Meeting.** The next meeting will be at 9:00 a.m., June 11, 2007, 939 Ellis Street, San Francisco CA 94109.
  3. **Adjournment.** 12:11p.m.

Chioma Dimude  
Acting Executive Secretary

BAY AREA AIR QUALITY MANAGEMENT DISTRICT  
Memorandum

**TO:** Chairperson Mark Ross and Members of the Executive Committee

**FROM:** Chairperson Thomas M. Dailey, M.D., and Members of the Hearing Board

**DATE:** April 6, 2007

**RE:** Hearing Board Quarterly Report – JANUARY 2007 – MARCH 2007

**RECOMMENDED ACTION:**

This report is provided for information only.

**DISCUSSION:**

<u>COUNTY/CITY</u>	<u>PARTY/PROCEEDING</u>	<u>REGULATION(S)</u>	<u>STATUS</u>	<u>PERIOD OF VARIANCE</u>	<u>ESTIMATED EXCESS EMISSIONS</u>
Contra Costa/Martinez	<b>SHELL OIL PRODUCTS US, MARTINEZ REFINERY</b> (Variance – Docket No. 3528) – Variance from regulation requiring compliance with permit conditions; from regulation limiting the quantity of particulate matter in the atmosphere through establishment of limitations on emission rates, concentration, visible emissions and opacity; from regulation limiting emissions of nitrogen oxides and carbon monoxide from boilers, steam generators, and process heaters in petroleum refineries; from regulation for standards of performance for new stationary sources; and from regulation to reduce emissions of precursor organic compounds from miscellaneous operations	2-1-307 6-301 9-10-305 8-2-301 10-40CFR 60.102(a)(2) and 60.103; 63 CFR 1564(a)(1) and 1565(a)(1)	Withdrawn	===	(CO); (Hydrocarbon); Opacity
Contra Costa/Pittsburg	<b>LOS MEDANOS ENERGY CENTER, LLC</b> (Variance – Docket No. 3526) – Variance from regulation requiring compliance with permit conditions and from regulation limiting emissions of nitrogen oxides from stationary gas turbines (APCO not opposed.)	2-1-307 9-9-301.1.3	Withdrawn. No emissions violations occurred	===	===
Santa Clara/San Jose	<b>SFPP, L.P.</b> (Variance – Docket No. 3525) – Variance from regulation requiring compliance with permit conditions and from regulation limiting emissions of organic compounds from gasoline transfer operations at gasoline bulk terminals and delivery vehicles. (APCO not opposed.)	2-1-307 (Condition No. 7492, parts 6, 10 & 13) 8-33-301	Granted	11/22/06 to 2/19/07	5,007.60 # (VOC) 2.5 # (Naphthalene) 45.07 # (Benzene)
Solano/Fairfield	<b>CITY OF FAIRFIELD</b> (Variance – Docket No. 3527) – Variance from regulation requiring compliance with permit conditions (APCO opposed.)	2-1-307 (Condition ID # 20384, Items 1 through 9)	Withdrawn. Advised by District to apply for Permit to Construct application for alterations to engine	===	(NOx), (CO), (NH3), (POC)

**NOTE: During the first quarter of 2007, the Hearing Board dealt with one Docket on one hearing day.  
A total of \$7,552.56 was collected as excess emission fees during this quarter.**

**EXCESS EMISSION DETAILS**

<u>COMPANY NAME</u>	<u>DOCKET NO.</u>	<u>TOTAL EMISSIONS</u>	<u>TYPES OF EMISSIONS</u>	<u>PER UNIT COST</u>	<u>TOTAL AMT COLLECTED</u>
SFPP, L.P.	3525	5,007.60 lbs	VOC	\$ 1.44/lb	\$ 7,210.99
		2.5 lbs	Naphthalene	\$ 7.18/lb	\$ 17.98
		45.07 lbs	Benzene	\$ 7.18/lb	\$ 323.59
<b>TOTAL COLLECTED:</b>					<b><u>\$ 7,552.56</u></b>

Respectfully submitted,

Thomas M. Dailey, M.D.  
Chair, Hearing Board

Prepared by: Neel Advani  
Reviewed by: Mary Ann Goodley

FORWARDED: \_\_\_\_\_

NA:na (4/6/07HBEXQURT)

**BAY AREA AIR QUALITY MANGEMENT DISTRICT**

Memorandum

To: Chairperson Ross and Members  
of the Executive Committee

From: Jack P. Broadbent  
Executive Officer/APCO

Date: May 23, 2007

Re: Production System Project Update

RECOMMENDED ACTION:

Receive and File.

DISCUSSION:

In December of 2006 staff presented a plan for implementation of the new production system and replacement of IRIS and Databank. At that time, staff indicated that execution of the plan would be accompanied by detailed reports on the status of actual costs as compared to projected costs, and by detailed reports on the status of actual accomplishments as compared to projected accomplishments. Staff will present the current status for this multi-year project, and a brief description of the next milestone.

BUDGET CONSIDERATION/FINANCIAL IMPACT

No impact.

Respectfully submitted,

Jack P. Broadbent  
Executive Officer/APCO

Prepared by: Jeffrey McKay



**BAY AREA AIR QUALITY MANAGEMENT DISTRICT**

## Memorandum

To: Chairperson Ross and  
Members of the Executive Committee

From: Jack P. Broadbent  
Executive Officer/APCO

Date: May 21, 2007

Re: Status of Affirmative Action Plan Update

RECOMMENDATION

Receive and file.

BACKGROUND

At the Budget & Finance Committee meeting of April 25, 2007, the Committee requested information on whether there are any gender-based differences in compensation for Air District employees. This report responds to that request and provides an update on the Air District's Affirmative Action Plan.

With regard to the specific question concerning compensation, the District analyzes compensation relative to gender each year as part of the update to the Affirmative Action Plan (AAP). A summary of the compensation analysis results is included in the discussion section of this report, below.

The Human Resources Officer (HRO) reviewed the AAP upon his appointment in July of 2003 and determined that it had not been updated since 1995. This lapse was probably due to passage of Proposition 209. Since the passage of Proposition 209 California courts have affirmed the legality of affirmative action plans so long as the actions prescribed by the plans are narrowly and carefully tailored to remedy past discrimination while not creating quotas or an unfair advantage for minorities and females. Accordingly, the Air District contracted with an expert on affirmative action plan development, Biddle Consulting Group, to assist in preparing an updated, legally viable plan that fulfills the District's commitment to equal employment opportunities and affirmative action. Since then, the AAP has been updated each year and has included a compensation analysis.

DISCUSSION

The Affirmative Action Plan updates that have been conducted utilizing data for fiscal years 03/04, 04/05 and 05/06 have shown a difference in compensation for men and women that is not explained by seniority of the incumbents. The most recent update showed a difference in four out of eight job categories as follows: Administrative and Technical executives and managers (2 categories), Technicians, and Office and Clerical. Since incumbents within the same job classification are paid the same regardless of gender, and seniority does not explain the difference in compensation, the difference can be attributed to the number of male incumbents in higher paying job classifications within a category of job classifications. For example, the higher paying executive and manager job classifications have more male than female incumbents; the director-level positions are all

held by males, with females occupying three section-level manager positions, and one DAPCO position. The difference shown in the Office and Clerical job category has been determined to be a single year anomaly caused by the hiring of three males to temporarily backfill vacancies in higher paying clerical positions. The Office and Clerical jobs are dominated by female incumbents, who hold 42 out of 54 positions in that category.

The Air District is in the process of updating the Affirmative Action Plan with data from the current fiscal year. Copies of the updated plan will be available in July. A report summarizing the update will be placed on the consent calendar for the meeting of July 18, 2007. A preliminary analysis of the data and a review of Plan updates for the previous three years indicate that the racial and gender makeup of Air District staff has been fairly static, with the gender construct of the technical manager category being a notable exception. Specifically, the Air District has increased the number of female technical managers with the recent promotion of a female to the position of Air Quality Program Manager. In addition, a female was promoted recently to the position of Supervising Air Quality Engineer, which will provide the supervisory experience necessary to compete for future promotional opportunities in a technical manager category.

Staff will be making a brief presentation at the Executive Committee Meeting on May 30, 2007, to provide an overview of the results of the last three plan updates, as well as a preliminary analysis of the data for the current fiscal year.

#### BUDGET CONSIDERATION/FINANCIAL IMPACT

There is no fiscal impact beyond what has already been contemplated and approved in the current budget.

Respectfully submitted,

Jack P. Broadbent  
Executive Officer/APCO

Prepared by: Michael K. Rich

**BAY AREA AIR QUALITY MANGEMENT DISTRICT**

Memorandum

To: Chairperson Ross and Members  
of the Executive Committee

From: Jack P. Broadbent  
Executive Officer/APCO

Date: May 21, 2007

Re: Proposed Comprehensive Operations and Internal Systems Review

RECOMMENDED ACTION:

Authorize the Executive Officer/APCO to solicit bids and execute an agreement to perform comprehensive operations and internal systems audit and transfer \$300,000 from the General Reserve for this purpose and adjust the Air Districts' proposed FY 2007-08 budget accordingly.

DISCUSSION:

The District has benefited from a prior internal audit of its financial functions. The work clarified processes, implemented new controls, and reviewed compliance with state and federal guidelines. Such results are desirable in all business functions. Accordingly, staff intends to pursue a comprehensive audit of all Air District functions.

This comprehensive District-wide audit will include testing of actual versus documented processes, review of applicable federal and state guidelines, updated processes and implementation of controls.

Staff intends to initiate a Request for Proposal in the upcoming fiscal year.

BUDGET CONSIDERATION/FINANCIAL IMPACT

If approved, \$300,000 will be transferred from the General Reserve for this purpose and an adjustment of the Air Districts' proposed FY 2007/08 budget will be made accordingly. Funds for this work will be budgeted not to exceed \$300,000.

Respectfully submitted,

Jack P. Broadbent  
Executive Officer/APCO

Prepared by: Jeffrey McKay

**BAY AREA AIR QUALITY MANAGEMENT DISTRICT**

Memorandum

To: Chairperson Mark Ross and Members  
of the Executive Committee

From: Jack P. Broadbent  
Executive Officer/APCO

Date: May 22, 2007

Re: Amendments to the *Smart-Growth Preamble and Policies*

RECOMMENDED ACTION

Recommend Board of Directors adoption of the amendments to the *Smart-Growth Preamble and Policies*.

BACKGROUND

In February 2003, the Board of Directors endorsed the *Smart-Growth Preamble and Policies* of the Smart Growth Strategy/Regional Livability Footprint Project that was developed in collaboration with the Association of Bay Area Governments (ABAG), Metropolitan Transportation Commission (MTC), Bay Area Conservation and Development Commission (BCDC), the State Regional Water Quality Control Board and the Bay Area Alliance for Sustainable Communities.

DISCUSSION

As part of the *Focusing Our Vision* process, the Joint Policy Committee has endorsed a number of amendments to the *Smart-Growth Preamble and Policies* and is recommending that the member agencies adopt these amendments as outlined in the attached memorandum from JPC Regional Planning Program Director Ted Droettboom.

BUDGET CONSIDERATION/FINANCIAL IMPACT

None.

Respectfully submitted,

Jack P. Broadbent  
Executive Officer/APCO

Prepared by: Greg Tholen  
Reviewed by: Henry Hilken  
Attachment

Date: May 22, 2007

To: Chairperson Mark Ross and Members  
of the Executive Committee

From: Ted Droettboom, Regional Planning Program Director, JPC

Subject: Amendments to the *Smart-Growth Preamble and Policies*

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### Introduction and Background

In 2002 upon the completion of the *Smart Growth Strategy / Regional Livability Footprint Project* (the *Project*), four of the five Bay Area regional agencies (ABAG, BAAQMD, BCDC, and MTC) adopted the *Smart-Growth Preamble and Policies* (the *Policies*), as an official expression of regional policy relative to growth and development.

As part of the *Focusing Our Vision (FOCUS)* program, the ABAG-BAAQMD-MTC Joint Policy Committee (JPC) has reviewed the *Policies* and has endorsed a number of amendments which the JPC is recommending for adoption by its member agencies and by BCDC. This memo details those amendments and their rationale, and it recommends that the Bay Area Air Quality Management District adopt the *Smart-Growth Preamble and Policies* as amended and attached.

### Proposed Amendments

The JPC considered policy amendments at its September and November meetings in 2006 and at its January and March meetings this year. It has endorsed amendments under six topic headings.

#### 1. Health and Safety

In 2005, the California Air Resource Board (CARB) released its *Air Quality and Land-Use Handbook* and the JPC received a presentation from CARB staff. The *Handbook's* recommendations are consistent with concerns that have also been highlighted by the environmental-justice community and are the subject of BAAQMD's Community Air Risk Evaluation (CARE) program. All suggest that development needs to be carefully sited relative to local sources of air pollution, including highways and ports. The 100<sup>th</sup> anniversary of the San Francisco earthquake, increased worries about the stability of the region's levees, and the prospect of sea-level rise as the result of global warming have also reminded us that we live in region with significant environmental risks. To the extent, possible, we need to heed these risks when locating new development and population concentrations. The potential impact of development form on physical exercise and the onset of obesity also deserves some recognition. In recognition of these concerns, the JPC endorsed a new policy as follows:

### **Health and Safety**

Promote and protect public health and safety by locating and designing development with sensitivity to natural and man-made risks, by reducing these risks where appropriate and feasible, and by facilitating healthy and safe behaviors.

## 2. Economic Activity and Goods Distribution

The *Smart Growth Strategy / Regional Livability Footprint Project* was started at a time when the Bay Area economy was booming, and it is likely that the impact of the dot-com bust had not fully sunk in when the *Project* wound down in 2002. For whatever reason, economic development issues do not enjoy high standing in either the *Project's* final report or in the *Preamble and Policies*. Since 2002, the region's goods movement study and some local planning exercises have pointed to potential land-use competition between "smart" residential development and goods-distribution facilities. Our transit-oriented development work has also highlighted possible conflicts between proposed residential densities and established industrial activities; and there has been a general concern about residential development foreclosing opportunities for job generators. A policy sensitive to these economic concerns is appropriate, and the JPC endorsed the following:

### **Economic Activity and Goods Distribution**

Encourage planning and development that respects the public and private infrastructure required for the maintenance of a prosperous regional economy and for the efficient provision and distribution of goods and services.

## 3. Land for Future Urban Development

The *Project* and the resultant *Policies* emphasize infill development and re-development within existing cities and towns. This is appropriate and desirable. However, even with copious infill, future regional growth will likely require some totally new communities developed on greenfield. Planning these new communities to conserve natural resources, to reduce trip demand through mixed and multiple uses, and to achieve densities appropriate to transit service will be more difficult if the greenfield is prematurely subdivided and developed at low densities (so-called parcelization). It is in the region's interest to maintain a relatively un-subdivided and undeveloped "urban reserve" to facilitate the planning and development of new compact and complete communities in the future. The JPC endorsed this policy:

### **Future Urban Development**

Anticipate and prepare for future urban expansion by discouraging the premature subdivision of agricultural and vacant land for low-density

residential development which cannot be efficiently served by transit, which does not provide for the complete range of infrastructure, uses and services required to meet the daily needs of residents, which is located without regard to proximate employment opportunities, and which does not respect urban growth boundaries.

4. Conservation of aesthetic, historic and cultural resources

As the Bay Area matures, there is an increasing interest in protecting unique aspects of its cultural heritage in addition to its natural environment. Amending the policy relating to environmental conservation makes it clear that we may consider culturally significant resources in designating priority areas. The JPC endorsed an amendment to the policy on Environmental, Natural Resource, Open Space and Agricultural Preservation to add the following sentence at the end:

Protect scenic, historic, and cultural resources that contribute to the region's identity.

5. Schools and Educational Quality

Concerns about school infrastructure and the quality of public education are frequently noted as impediments to the community acceptance and successful marketing of infill development. While the existing policies contain reference to educational facilities, there are opportunities to strengthen the links between smart growth and schools. The JPC endorsed a number of amendments to existing policies.

Amend the policy on Social Justice and Equity to read as follows:

Improve conditions in disadvantaged neighborhoods, ensure environmental justice, and improve access to jobs, housing, ~~and~~ public services *and good schools* for all residents in the region.

(In this and following amendment proposals, deletions are indicated by ~~strikeouts~~ and additions by *italics*.)

Amend the policy on Infrastructure Investments to read as follows:

Improve and maintain existing infrastructure and support future investments that promote smart growth, including water and land recycling, brownfield clean-up and re-use, multi-use ~~and school~~ facilities, smart building codes, retention of historic character and resources, and ~~educational improvements~~ *provision of high-quality school capacity*.

Amend the policy on Cooperation on Smart Growth Policies as follows:

Encourage *the State*, local governments, *water and sewer districts*, *school districts*, stakeholders and other constituents in the Bay Area to cooperate in supporting actions consistent with the adopted Smart Growth policies. Forge cooperative relationships with governments and stakeholders in surrounding regions to support actions that will lead to inter-regional Smart Growth benefits.

(In addition to school districts, the JPC endorsed the addition of water and sewer districts as an explicitly named reference in this policy, as they—like school districts—have considerable influence over infrastructure capacity. The JPC also recognized the significant omission of the State role in the policy as previously worded. The State has a significant say in virtually all public investments, including school facilities.)

## 6. Sustainability and Green Building

One of the principal reasons for smart growth is sustainability. Nevertheless, the JPC believed it would be helpful to include explicit references to sustainability and specific implementation measures, like green buildings, within the policies. The JPC also thought some direct reference to climate change was timely. The JPC endorsed amendments to two existing policies.

Amend the policy on Environmental, Natural Resource, Open Space and Agricultural Preservation to read as follows:

Protect and enhance open space, agricultural lands, other valued lands, watersheds and ecosystems throughout the region. Promote development patterns *and building technologies* that protect and improve air quality, *conserve resources and reduce greenhouse gas emissions*. Protect and enhance the San Francisco Bay and Estuary. *Protect scenic, historic, and cultural resources that contribute to the region's identity*.

(Also incorporates amendments on scenic, historic and cultural resources endorse under topic 4)

Amend the policy on Infrastructure Investments to read as follows:

Improve and maintain existing infrastructure and support future investments that promote smart growth, including water and land recycling, brownfield clean-up and re-use, multi-use facilities, smart building codes, *green building principles*, retention of historic character and resources, and provision of high-quality school capacity.

(Incorporates earlier proposed school amendments without highlighting)

### Recommendation

The *Smart-Growth Preamble and Policies* are intended to be read and applied together as a whole, not separately and individually. Therefore, it is appropriate that the Bay Area



Air Quality Management District not simply approve amendments, but that it adopt the entire *Smart-Growth Preamble and Policies* as amended by the JPC endorsements. The Executive Officer/APCO, therefore, recommends:

THAT the Bay Area Air Quality Management District adopt the *Smart-Growth Preamble and Policies* as amended and dated March 2007 (attached).

# SMART-GROWTH PREAMBLE AND POLICIES

## Preamble

Current land-use patterns in the San Francisco Bay Area are putting intense pressure on the economic, environmental and social wellbeing of the Bay Area and of surrounding regions. The projected addition of over one million new residents and one million new jobs in the coming decades will further challenge our ability to sustain the high quality of life we enjoy today.

To help meet this challenge, the five regional agencies of the Bay Region—the Association of Bay Area Governments, Bay Area Air Quality Management District, Bay Conservation and Development Commission, Metropolitan Transportation Commission and the Regional Water Quality Control Board—along with the economy, environment and social equity caucuses of the Bay Area Alliance for Sustainable Communities, developed a set of Smart Growth policies.

The policies reflect the values articulated by workshop participants of the Smart Growth Strategy/Regional Livability Footprint Project and address Bay Area conditions. The policies are consistent with widely accepted notions of smart growth. They are meant to encourage meaningful participation from local governments, stakeholders and residents.

The policies provide a framework for decision-making on development patterns, housing, transportation, environment, infrastructure, governmental fiscal health and social equity that can lead us toward development of vibrant neighborhoods, preservation of open space, clean air and water, and enhanced mobility choices, while enhancing the Bay Area's relationship with surrounding regions.

## Policies

### Jobs/Housing Balance and Match

Improve the jobs/housing linkages through the development of housing in proximity to jobs, and both in proximity to public transportation. Increase the supply of affordable housing and support efforts to match job income and housing affordability levels.

### Housing and Displacement

Improve existing housing and develop sufficient new housing to provide for the housing needs of the Bay Area community. Support efforts to improve housing affordability and limit the displacement of existing residents and businesses.

### Social Justice and Equity

Improve conditions in disadvantaged neighborhoods, ensure environmental justice, and improve access to jobs, housing, public services and good schools for all residents in the region.

### Health and Safety

Promote and protect public health and safety by locating and designing development with sensitivity to natural and man-made risks, by reducing these risks where appropriate and feasible, and by facilitating healthy and safe behaviors.

**Environmental, Natural Resource, Open Space and Agricultural Preservation**

Protect and enhance open space, agricultural lands, other valued lands, watersheds and ecosystems throughout the region. Promote development patterns and building technologies that protect and improve air quality, conserve resources and reduce greenhouse gas emissions. Protect and enhance the San Francisco Bay and Estuary. Protect scenic, historic, and cultural resources that contribute to the region's identity.

**Future Urban Development**

Anticipate and prepare for future urban expansion by discouraging the premature subdivision of agricultural and vacant land for low-density residential development that cannot be efficiently served by transit, which does not provide for the complete range of infrastructure, uses and services required to meet the daily needs of residents and which is located without regard to proximate employment opportunities.

**Economic Activity and Goods Distribution**

Encourage planning and development that respects the public and private infrastructure required for the maintenance of a prosperous regional economy and for the efficient provision and distribution of goods and services.

**Mobility, Livability and Transit Support**

Enhance community livability by promoting infill, transit oriented and walkable communities, and compact development as appropriate. Develop multi-family housing, mixed-use development, and alternative transportation to improve opportunities for all members of the community.

**Local and Regional Transportation Efficiencies**

Promote opportunities for transit use and alternative modes of transportation including improved rail, bus, high occupancy (HOV) systems, and ferry services as well as enhanced walking and biking. Increase connectivity between and strengthen alternative modes of transportation, including improved rail, bus, ride share and ferry services as well as walking and biking. Promote investments that adequately maintain the existing transportation system and improve the efficiency of transportation infrastructure.

**Infrastructure Investments**

Improve and maintain existing infrastructure and support future investments that promote smart growth, including water and land recycling, brownfield clean-up and re-use, multi-use facilities, smart building codes, green building principles, retention of historic character and resources, and provision of high-quality school capacity.

**Local Government Fiscal Health**

Improve the fiscal health of local government by promoting stable and secure revenue sources, reduced service provision costs through smart growth targeted infrastructure improvement, and state and regional sponsored fiscal incentives. Support cooperative efforts among local jurisdictions to address housing and commercial development, infrastructure costs, and provision of services.

**Cooperation on Smart Growth Policies**

Encourage the State, local governments, water and sewer districts, school districts, stakeholders and other constituents in the Bay Area to cooperate in supporting actions consistent with the adopted Smart Growth policies. Forge cooperative relationships with governments and stakeholders in surrounding regions to support actions that will lead to inter-regional Smart-Growth benefits.

BAY AREA AIR QUALITY MANAGEMENT DISTRICT  
Memorandum

To: Chairperson Mark Ross and Members  
of the Executive Committee

From: Jack P. Broadbent  
Executive Officer/APCO

Date: May 21, 2007

Re: Joint Policy Committee Update

RECOMMENDED ACTION:

Receive and file.

DISCUSSION

At the May 30, 2007, meeting of the Executive Committee, Ted Droettboom will provide an update on the activities of the Joint Policy Committee.

BUDGET CONSIDERATION/FINANCIAL IMPACT

None.

Respectfully submitted,

Jack P. Broadbent  
Executive Officer/APCO