

BOARD OF DIRECTORS ADVISORY COUNCIL

COMMITTEE MEMBERS

Dr. Linda Rudolph (Co-Chair), MD, Center for Climate Change and Health
Dr. Gina Solomon (Co-Chair), MD, University of California San Francisco
Dr. Danny Cullenward, PhD, JD, CarbonPlan
Dr. Adrienne L. Hollis, PhD, JD, Hollis Environmental Consulting, LLC
Dr. Michael Kleinman, PhD, University of California Irvine
Dr. Pallavi Phartiyal, PhD, Rainforest Action Network
Garima Raheja, PhD candidate, Columbia University
David Haubert, Air District Board of Directors Liasion

THIS MEETING WILL BE CONDUCTED UNDER PROCEDURES AUTHORIZED BY ASSEMBLY BILL 361 (RIVAS 2021) ALLOWING REMOTE MEETINGS. THIS MEETING WILL BE ACCESSIBLE VIA WEBCAST, TELECONFERENCE, AND ZOOM. A ZOOM PANELIST LINK WILL BE SENT SEPARATELY TO COUNCIL MEMBERS

• THE PUBLIC MAY OBSERVE THIS MEETING THROUGH THE WEBCAST BY CLICKING THE LINK AVAILABLE ON THE AIR DISTRICT'S AGENDA WEBPAGE AT

www.baaqmd.gov/about-the-air-district/advisory-council/agendasreports

• THE PUBLIC MAY PARTICIPATE REMOTELY VIA ZOOM AT THE FOLLOWING LINK OR BY PHONE

https://bayareametro.zoom.us/j/85161162973

(669) 900-6833 or (408) 638-0968

WEBINAR ID: 851 6116 2973

• THOSE PARTICIPATING BY PHONE WHO WOULD LIKE TO MAKE A COMMENT CAN USE THE "RAISE HAND" FEATURE BY DIALING "*9". IN ORDER TO RECEIVE THE FULL ZOOM EXPERIENCE, PLEASE MAKE SURE YOUR APPLICATION IS UP TO DATE

ADVISORY COUNCIL MEETING AGENDA

MONDAY, JULY 11, 2022 8:30 AM

1. Call to Order - Roll Call

2. **Public Meeting Procedure**

The Council Chair shall call the meeting to order and the Clerk of the Boards shall take roll of the Council members.

Public Comment on Agenda Items: The public may comment on each item on the agenda as the item is taken up. Members of the public who wish to speak on matters on the agenda for the meeting, will have three minutes each to address the Council. No speaker who has already spoken on that item will be entitled to speak to that item again.

REGULAR AGENDA

3. Approval of the Minutes of April 11, 2022

The Council will consider approving the attached draft minutes of the Advisory Council meeting of April 11, 2022.

PRESENTATION(S)

4. Particulate Matter Modeling: Context, Products and Progress

This is an informational item only and will be presented by Greg Nudd, Deputy Air Pollution Control Officer.

5. Fine Particulate Matter Local Risk Methodology: Update and Key Questions

This is an informational item only and will be presented by David Holstius, Senior Advanced Projects Advisor.

OTHER BUSINESS

6. Report of the Interim Executive Officer/APCO

7. Public Comment on Non-Agenda Matters

Pursuant to Government Code Section 54954.3

Members of the public who wish to speak on matters not on the agenda for the meeting, will have three minutes each to address the Council.

8. Council Member Comments / Other Business

Council members may make a brief announcement, provide a reference to staff about factual information, or ask questions about subsequent meetings.

9. Time and Place of Next Meeting

At the Call of the Chair.

10. Adjournment

The Council meeting shall be adjourned by the Chair.

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

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

• Any writing relating to an open session item on this Agenda that is distributed to all, or a majority of all, members of the body to which this Agenda relates shall be made available at the Air District's offices at 375 Beale Street, Suite 600, San Francisco, CA 94105, at the time such writing is made available to all, or a majority of all, members of that body.

Accessibility and Non-Discrimination Policy

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

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

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

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

Questions regarding this Policy should be directed to the Air District's Non-Discrimination Coordinator, Suma Peesapati, at (415) 749-4967 or by email at speesapati@baaqmd.gov.

BAY AREA AIR QUALITY MANAGEMENT DISTRICT 375 BEALE STREET, SAN FRANCISCO, CA 94105 FOR QUESTIONS PLEASE CALL (415) 749-4941

EXECUTIVE OFFICE:MONTHLY CALENDAR OF AIR DISTRICT MEETINGS

JULY 2022

TYPE OF MEETING	<u>DAY</u>	DATE	TIME	<u>ROOM</u>
Board of Directors Community Equity, Health and Justice Committee	Thursday	7	9:30 a.m.	Webcast only pursuant to Assembly Bill 361
Advisory Council Meeting	Monday	11	8:30 a.m.	Webcast only pursuant to Assembly Bill 361
Board of Directors Legislative Committee	Monday	11	1:00 p.m.	Webcast only pursuant to Assembly Bill 361
Board of Directors Stationary Source and Climate Impacts Committee - CANCELLED	Monday	18	9:00 a.m.	Webcast only pursuant to Assembly Bill 361
Path to Clean Air Community Emissions Reduction Plan Steering Committee	Monday	18	5:30 p.m.	Webcast only pursuant to Assembly Bill 361
Board of Directors Meeting	Wednesday	20	9:00 a.m.	1 st Floor, Board Room (In person option available) and REMOTE pursuant to Assembly Bill 361
Board of Directors Administration Committee	Wednesday	20	11:00 a.m.	1st Floor, Board Room (In person option available) and REMOTE pursuant to Assembly Bill 361
Board of Directors Budget and Finance Committee - CANCELLED	Wednesday	27	9:30 a.m.	Webcast only pursuant to Assembly Bill 361
Board of Directors Mobile Source and Climate Impacts Committee	Thursday	28	9:30 a.m.	Webcast only pursuant to Assembly Bill 361

AUGUST 2022

NO MEETINGS SCHEDULED

HL 7/6/22 – 12:35 p.m. G/Board/Executive Office/Moncal

AGENDA: 3.

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairpersons Linda Rudolph and Gina Solomon, and Members

of the Advisory Council

From: Sharon L. Landers

Interim Executive Officer/APCO

Date: July 11, 2022

Re: Approval of the Minutes of April 11, 2022

RECOMMENDED ACTION

Approve the attached draft minutes of the Advisory Council (Council) meeting of April 11, 2022.

BACKGROUND

None.

DISCUSSION

Attached for your review and approval are the draft minutes of the Advisory Council meeting of April 11, 2022.

BUDGET CONSIDERATION/FINANCIAL IMPACT

None.

Respectfully submitted,

Sharon L. Landers

Interim Executive Officer/APCO

Prepared by: <u>Marcy Hiratzka</u>
Reviewed by: <u>Vanessa Johnson</u>

$\underline{\text{ATTACHMENTS:}}$

1. Draft Minutes of the Advisory Council Meeting of April 11, 2022

Bay Area Air Quality Management District 375 Beale Street, Suite 600 San Francisco, CA 94105 (415) 749-5073

> Advisory Council Meeting Monday, April 11, 2022

DRAFT MINUTES

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

This meeting was conducted under procedures in accordance with Assembly Bill 361. Members of the Committee participated by teleconference.

1. CALL TO ORDER - ROLL CALL

Opening Comments: Advisory Council Co-Chairperson Dr. Gina Solomon, called the meeting to order at 8:33 a.m.

Roll Call:

Present: Co-Chairperson Dr. Linda Rudolph; Co-Chairperson Dr. Gina Solomon; Vice

Chairperson Dr. Michael Kleinman; Board Liaison David Haubert; and Council members

Dr. Adrienne Hollis, Garima Raheja, and Dr. Pallavi Phartiyal.

Absent: Dr. Danny Cullenward.

2. PUBLIC MEETING PROCEDURE

REGULAR AGENDA (Items 3 - 7)

3. APPROVAL OF THE MINUTES OF FEBRUARY 14, 2022

Co-Chairperson Rudolph made a motion, seconded by Board Liaison Haubert, to **approve** the minutes of February 14,2022, and the motion **carried** by the following vote of the Advisory Council:

AYES: Haubert, Hollis, Kleinman, Phartiyal, Raheja, Rudolph, Solomon.

NOES: None ABSTAIN: None

ABSENT: Cullenward.

4. BUILDING APPLIANCE RULES: EXPOSURE AND EQUITY ASSESSMENT

Greg Nudd, Deputy Air Pollution Control Officer (APCO) of Policy, introduced Dr. David Holstius, Senior Advanced Project Advisor, who gave the staff presentation *Building Appliance Rules: Exposure and Equity Assessment*, including: outcome; overview; recap: modeled outdoor Particulate Matter (PM) 2.5; modeled PM 2.5 exposure; primary vs. secondary PM 2.5; race/ethnicity vs. Total PM 2.5; within counties, a different pattern; population distribution; "per capita" is population-weighted; and summary.

Public Comments

Public comments were given by Jed Holtzman, San Francisco resident.

Council Comments

The Council and staff discussed whether the Air District is monitoring variation in proportion of PM risk attributable to various sources in different Bay Area counties and subregions; whether contrasting results between health impacts experienced by different races are due to differences in home appliances; appliance limitations experienced by renters; the number of different racial groups in the Bay Area; how design values differ from modeled values, and how protective they should be; the origins of the presented health data and their comparison to the design value; whether gas appliances should be banned, and why they are still permitted; the implications of the Air District's analysis for regulatory strategies for reducing emissions in the home; and the request for data regarding health impacts based on gender in the Bay Area.

Council Action

None; receive and file.

5. FINE PARTICULATE MATTER LOCAL RISK METHODOLOGY: KEY QUESTIONS

Dr. Phil Martien, Director of Assessment, Inventory, & Modeling, gave the staff presentation *Fine Particulate Matter Local Risk Methodology: Key Questions*, including: overview; gaps in the regulatory framework; community-scale modeling reveals localized impacts of PM 2.5; gaps in the regulatory framework; how to reduce the gap for PM 2.5?; Draft PM 2.5 Local Risk Approach; toxics framework example: benzene and cancer; PM 2.5 and premature mortality; envisioned applications; envisioned source types; staged approach for permitting; key questions; reasons to be simple; ways to be less simple; ways to more simple; rollout and communication; and next steps.

Pubic Comments

Public comments were given by Jed Holtzman, San Francisco resident, and Charles Davidson, Hercules resident.

Council Comments

The Council and staff discussed how population death rates can affect estimated health impacts; whether the Air District should utilize the approach of looking at cancer risk uncertainty factors used by the Office of Environmental Health Hazzard Assessment; the differences between adopting a margin of safety and developing uncertainty factors; and how the Air District plans to refine regional mortality data.

Council Action

None; receive and file.

6. COMBUSTION ANALYSIS REPORT PROPOSAL

Mr. Nudd gave the staff presentation *Combustion Analysis Proposal*, including: overview; concept; purpose; methodology; more about Intervention Model for Air Pollution (InMap); InMap sample results; PM Reduction Strategy Nexus; and next steps.

Public Comments

No requests received.

Council Comments

The Council and staff discussed the status of the Air District's combustion strategy, and whether Assembly Bill (AB) 398 impacted that development; the accuracy of InMap; the plan for uncertainty factors compared to the regional models; the definition of combustion emissions; a Council member's concern about new information on health impacts of combustion and combustion sources, whether the Air District will prioritize aggressively reducing exposure and how long that would take; and whether a utility exists that would separate rural and urban components (of combustion sources).

Council Action

None; receive and file.

7. IMPLEMENTATION OF ADVISORY COUNCIL PARTICULATE MATTER RECOMMENDATIONS

Mr. Nudd gave the staff presentation *PM Strategy Progress Report*, including: outline; background; approach; challenges; highlights; priority actions; measuring progress; targets; impacted communities; wildfires; regional PM; and next steps;

Public Comments

Public comments were given by Christine Wolfe, California Council for Environmental and Economic Balance.

Council Comments

The Council and staff discussed prioritizing strategies that would be quickest to implement; the dangers of wood burning; the suggestion of attaching socioeconomic analyses to the Air District's whitepapers; whether the Air District monitors how long permit applications must wait to be considered for approval; a Council member's concern that the Air District should provide a more enhanced process to engage the public regarding Air District programs and initiatives; the best strategy for communicating benefits, versus risk, (quantify missed work and school days) to the public; whether the Air District's Board is looking at mobile source incentives and community building incentives; and the Air District's role in

mobile source incentives.

Council Action

None; receive and file.

OTHER BUSINESS

8. REPORT OF THE EXECUTIVE OFFICER/APCO

Alexander "Sandy" Crockett, Assistant Counsel, announced that he was appointed by the Board to be Interim Executive Officer/APCO, due to the departure of Jack Broadbent. Mr. Crockett reported that the Board will be appointing a long-term Interim APCO, and will also be recruiting for a permanent successor. In addition, Mr. Crockett announced that the Air & Waste Management Association's 115th Annual Conference will be held in San Francisco for June 27-30, and any Council members who wish to attend (three slots only) must tell Vanessa Johnson of their desire to attend by April 29, 2022. Regarding the recruitment for a new APCO, the Council expressed interest in participating in the recruitment.

9. PUBLIC COMMENT ON NON-AGENDA MATTERS

No requests received.

10. COUNCIL MEMBER COMMENTS / OTHER BUSINESS

Dr. Rudolph reported that she and Dr. Solomon attended the Air District's March 30, 2022 Community Advisory Council meeting, and observed that there is much more public engagement.

11. TIME AND PLACE OF NEXT MEETING

At the end of the meeting, the date of the next Advisory Council meeting was tentatively scheduled for Monday, June 13, 2022. After the meeting adjourned, the next meeting was scheduled for Monday, July 11, 2022, at 8:30 a.m., via webcast, teleconference, or Zoom, pursuant to procedures in accordance with AB 361 (Rivas 2021.)

12. ADJOURNMENT

The meeting adjourned at 11:26 a.m.

Luis Espino Acting Clerk of the Boards

AGENDA: 4.

BAY AREA AIR OUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairpersons Linda Rudolph and Gina Solomon, and Members

of the Advisory Council

From: Sharon L. Landers

Interim Executive Officer/APCO

Date: July 11, 2022

Re: Particulate Matter Modeling: Context, Products and Progress

RECOMMENDED ACTION

None; receive and file.

BACKGROUND

At the April 11, 2022 Advisory Council meeting, Air District staff presented four topics related to particulate matter. Three of the four presentations focused on PM modeling, while one focused on the status of implementing recommendations in the Advisory Council's *PM Strategy Reduction Report* and next steps, which were predominately about upcoming modeling work. This report presents the larger context for the Air District's PM modeling work, demonstrates their connections, and summarizes modeling outcomes and timelines.

DISCUSSION

The Air District presented four topics for discussion at the April 11, 2022 Advisory Council meeting: Building Appliance Rules: Exposure and Equity Assessment; Fine Particulate Matter Local Risk Methodology: Key Questions; Combustion Analysis Proposal; and the PM Reduction Strategy Progress Report. The common thread among these various reports was the PM modeling work, which was the core reason for these items to be presented to the Advisory Council.

Building Appliances Rules Exposure and Equity Assessment

Staff presented the model-based evaluation of the impacts of natural gas combustion from residential and commercial space and water heating appliances. The modeling analysis supports the development of draft amendments to Regulation 9, Rule 4: Nitrogen Oxides from Fan Type Residential Central Furnaces ("Rule 9-4") and Regulation 9, Rule 6: Nitrogen Oxides Emissions from Natural Gas-Fired Boilers and Water Heaters ("Rule 9-6").

Fine Particulate Matter Local Risk Methodology

The PM_{2.5} Local Risk Methodology was presented to demonstrate its broader regulatory framework, the gap the risk method is intended to fill, to offer examples of source types likely to be covered, and application. Key questions about the PM_{2.5} local risk methodology were discussed, including trade-offs between simplicity and complexity.

Combustion Analysis

Staff presented the idea of doing analyses of all combustion sources in the Bay Area. Analyses would explore health, equity, and possibly climate impacts of combustion. The analyses would also track particulate matter concentrations back to individual source categories of PM. Staff proposed using different, yet compatible, models: the Intervention Model for Air Pollution (InMAP), the Air District's traditional, regulatory-grade, full-chemistry model and US EPA's Benefits Mapping and Analysis Program (BenMAP) to evaluate concentrations and health impacts from selected source categories.

PM Reduction Strategy Update

Staff presented the status of various Air District PM-related work efforts, as they relate to the Advisory Council's *PM Reduction Strategy*. Next steps were also provided, including the evaluation of PM sources identified in the emissions inventory and as key community concern, source prioritization and changes to PM permitting rules, each of which require a better understanding of PM, which PM modeling provides.

The Connections and Larger Context

The common thread amongst each of these presentations is the PM modeling work. In short, two major modeling efforts are underway to inform regional and community strategies and prioritization: the PM_{2.5} Local Risk Methodology and the Combustion Analysis. Each of the presentations summarized above were in reference to one or both efforts. Two of the presentations focused on the individual modeling efforts. The presentation on building appliances rule exposure and equity analysis was an early example of the work that can be done via the Combustion Analysis, while work summarized as "next steps" in the *PM Reduction Strategy Report* update was largely work related to both the combustion analysis and the local risk method, as each will inform strategies and prioritization.

The PM_{2.5} Risk Method, as stated above, is a method to evaluate localized PM_{2.5} health impacts via local-scale modeling of PM_{2.5} concentrations and exposures using a new method. Such evaluations allow for consideration of local PM_{2.5} health impacts in new permitting and CEQA thresholds. The combustion analysis is an assessment of health and equity impacts of PM_{2.5} at regional and local scales. This work will be done via an analysis of individual and combined PM sources, including combustion, using traditional models and the reduced complexity InMap model. The combustion analysis will help us to better understand combustion sources, which will inform rules, such as building appliance Rules 6-4 and 6-5, prioritization, community impacts and emission reduction strategies.

The larger context can be viewed through the lens of the overall objective for PM, and broadly how to achieve it. The overall objective is to reduce PM exposure where it matters most. To

accomplish this objective, the Air District must first identify and adopt policies and/or strategies that effectively reduce particulate matter, i.e., where it matters most. Modeling helps us to determine which policies will be most impactful, or to better understand the health and equity implications of actions we take to reduce particulate matter emissions and exposure. Once effective policies are identified, the Air District takes action via the various tools in its "toolbox." Tools include rules, permitting, enforcement, incentives, CEQA thresholds and guidance, advocacy and legislation. Lastly, we ought to assess our progress in meeting the greater objective, another area for which modeling may be helpful.

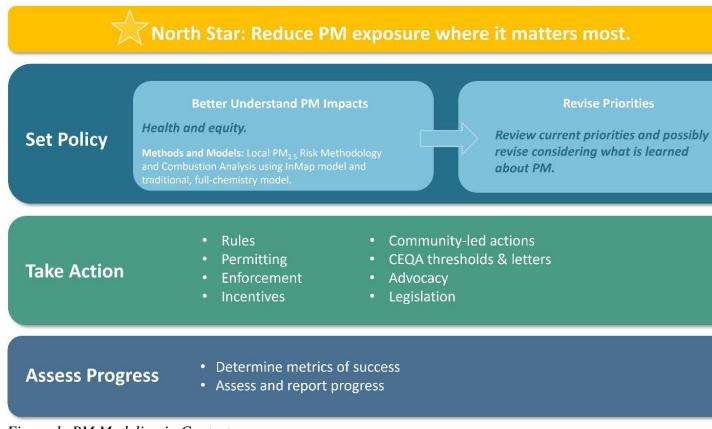


Figure 1: PM Modeling in Context

Modeling Products and Timeline

Over the next year and into 2023, staff will produce three products with the $PM_{2.5}$ Risk Method, and four via the Combustion Analysis.

Local Risk Method

- White paper summarizing evaluation of localized health impacts of PM_{2.5}. (Dec 2022)
- Rule amendments that consider local PM health impacts. (Beginning 2023)
- Updated CEQA guidelines reflecting new information on local PM health impacts. (Beginning 2023)

Combustion Analysis

- Appendices in staff reports for residential wood burning (Sept 2022) and building appliance (Oct 2022) rules.
- All-source assessment report on health and equity impacts of PM_{2.5}. (Winter 2022)
- \bullet Richmond-North Richmond-San Pablo community-wide source apportionment and individual. source impacts of PM_{2.5} and toxics. (Winter 2022)
- East Oakland community-wide source apportionment and individual source impacts of PM_{2.5} and toxics. (Winter 2023)

Modeling Progress/Update

Staff has made progress on both the PM_{2.5} Risk Method and the Combustion Analysis. Current work related to the PM_{2.5} Risk Method is presented in a separate memo for the July 11, 2022 Advisory Council meeting. Regarding the Combustion Analysis, staff has made progress on both the analysis of building appliances for Rules 9-4 and 9-6, and on the all-source assessment.

Building Appliances

Staff is currently modeling the health impacts of emissions from power plants, as there is some concern that there may be an increase in the use of electricity, due to the passage of the rules. Staff is incorporating consultant work on potential additional electrical power demand. This work is nearly complete. The draft rules, along with the health and equity analysis, will be presented to the Air District Board in October of this year.

All-Source Assessment

Staff is partnering with researchers at the University of Washington and UC Berkeley to build the Intervention Model for Air Pollution (InMAP) for the Bay Area. The model will link PM exposures to sources of PM and PM precursors. Current major outstanding tasks include data format translation and Air District regional modeling to InMAP. This work is approximately 30 percent complete, with more progress expected this summer.

Next Steps

Local Risk Method

- Update the Advisory Council on progress and key questions since April. (July 2022)
- Finalize draft whitepaper with updates and circulate for comments. (September 2022)
- Summarize and address comments received. (November 2022)

Combustion Analysis

- Report to Advisory Council on wood burning impacts and on updates to building appliance rule assessments. (November 2022)
- Report to Advisory Council on all-source assessment report on health and equity impacts of PM_{2.5}. (December 2022)

BUDGET CONSIDERATION/FINANCIAL IMPACT

None.

Respectfully submitted,

Sharon L. Landers Interim Executive Officer/APCO

Prepared by: <u>Christy Riviere</u>

Reviewed by: Phil Martien and Greg Nudd

ATTACHMENTS:

None

AGENDA: 5.

BAY AREA AIR OUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairpersons Linda Rudolph and Gina Solomon, and Members

of the Advisory Council

From: Sharon L. Landers

Interim Executive Officer/APCO

Date: July 11, 2022

Re: Fine Particulate Matter Local Risk Methodology: Update and Key Questions

RECOMMENDED ACTION

None; receive and file.

BACKGROUND

A regional regulatory framework has been successful in reducing PM2.5 exposures for the Bay Area population overall, but an expanded toolset is warranted to accelerate exposure reductions for the most impacted communities and populations. Responding to the Advisory Council's 2020 Particulate Matter Reduction Strategy Report PM Reduction Strategy Report, staff have assembled a draft methodology for use in managing health risks posed by specific sources of PM2.5 at a local level.

At the Advisory Council Meeting on April 11, 2022, Agenda Item 5 ("Fine Particulate Matter Local Risk Methodology: Key Questions") discussed the draft methodology and considerations related to its implementation. This agenda item continues that earlier discussion, provides a review and update on Air District staff's work related to this effort, and poses additional key questions to the Advisory Council.

DISCUSSION

Staff will present updates to the methodology that are responsive to Advisory Council feedback. Specifically, these respond to feedback concerning: (1) the significance of morbidity endpoints and (2) consideration of at-risk populations. At previous meetings, staff presented results only for the annual risk of mortality for a statistically average Bay Area adult.

Staff will present a revised approach that aligns closely with that of traditional health risk assessments (HRAs) conducted by the Air District. Facility-specific or other source-specific risk metrics are calculated using modeled impacts corresponding to maximally exposed individual (MEI) receptors. The approach assumes a multi-year exposure window that maximizes age sensitivity for the modeled population and health endpoint. Draft results will illustrate its

application to the risk of premature mortality for working-age adults and seniors, as well as to the risk of asthma onset in children.

Staff will present information from current scientific literature concerning selected dimensions of variation, other than age-sensitivity, in estimated effect sizes for $PM_{2.5}$ and adult mortality. These dimensions include: (1) individual data on socioeconomic status (SES) and race/ethnicity, (2) group-level indicators of SES, and (3) lower annual average baseline concentrations of $PM_{2.5}$. Key questions for the Council will concern the applicability of safety/uncertainty factors that take available evidence into account.

BUDGET CONSIDERATION/FINANCIAL IMPACT

None.

Respectfully submitted,

Sharon L. Landers Interim Executive Officer/APCO

Prepared by: <u>David Holstius</u>

Reviewed by: Phil Martien and Greg Nudd

ATTACHMENTS:

None