



South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

LOCAL GOVERNMENT & SMALL BUSINESS ASSISTANCE ADVISORY GROUP MEETING

Advisory Group Members

Council Member Ben Benoit, LGSBA Chairman (Board Member)
Supervisor V. Manuel Perez (Board Member)
Supervisor Janice Rutherford (Board Member)
Felipe Aguirre
Mayor Pro Tempore Rachele Arizmendi, City of Sierra Madre
Paul Avila, P.B.A. & Associates
Geoffrey Blake, Metal Finishers of Southern California
Todd Campbell, Clean Energy
LaVaughn Daniel, DancoEN
John DeWitt, JE DeWitt, Inc.
Bill LaMarr, California Small Business Alliance
Rita Loof, RadTech International
Eddie Marquez, Roofing Contractors Association
David Rothbart, Los Angeles County Sanitation Districts

Friday, June 12, 2020 ♦ 11:30 a.m.

Pursuant to Governor Newsom's Executive Orders N-25-20 (March 12, 2020) and N-29-20 (March 17, 2020), the South Coast AQMD Local Government & Small Business Advisory Group meeting will only be conducted via video conferencing and by telephone. Please follow the instructions below to join the meeting remotely.

INSTRUCTIONS FOR ELECTRONIC PARTICIPATION AT BOTTOM OF AGENDA

Join Zoom Webinar Meeting – from PC or Laptop

<https://scagmd.zoom.us/j/92459924491>

Zoom Webinar ID: 924 5992 4491 (applies to all)

Teleconference Dial In

+1 669 900 6833

One tap mobile

+16699006833, 92459924491#

Audience will be allowed to provide public comment through telephone or Zoom connection during public comment period.

PUBLIC COMMENT WILL STILL BE TAKEN

AGENDA

Members of the public may address this body concerning any agenda item before or during consideration of that item (Gov't. Code Section 54854.3(a)). Please provide a Request to Address the Committee card to the Committee Secretary if you wish to address the Committee on an agenda item. If no cards are available, please notify South Coast AQMD staff or a Board Member of your desire to speak. All agendas for regular meetings are posted at South Coast AQMD Headquarters, 21865 Copley Drive, Diamond Bar, California, at least 72 hours in advance of the regular meeting. Speakers may be limited to three (3) minutes each.

CALL TO ORDER

ACTION ITEMS (Items 1 through 3):

1. Call to Order/Opening Remarks
(No Motion Required)
*Council Member Ben Benoit
Committee Chair*
2. Approval of May 8, 2020 Meeting Minutes
(Motion Required)
[Attachment 1]
*Council Member Ben Benoit
Committee Chair*
3. Review of Follow-Up/Action Items
(No Motion Required)
Staff will review the follow-up/action items identified in the previous meeting.
*Derrick J. Alatorre
Deputy Executive Officer
Legislative, Public Affairs &
Media*

DISCUSSION ITEMS (Items 4 through 5):

4. Summary of Recent Studies of Air Pollution & Health Effects
Staff will provide a summary of key recent research studies of air pollution and health effects.
(No Motion Required)
[Attachment 2]
*Jo Kay Ghosh, Ph.D.
Health Effects Officer
Planning, Rule Development &
Area Sources*
5. FY 2020-21 General Fund Budget
Staff will provide an overview of the General Fund Budget detailing staffing levels, expenditures, and revenues required to maintain current program commitments.
(No Motion Required)
[Attachment 3]
*Sujata Jain
Chief Financial Officer
Finance*

WRITTEN REPORT:

6. Monthly Report on Small Business Assistance Activities
Summary of assistance and outreach activities conducted by South Coast AQMD's Small Business Assistance Office for May 2020.
(No Motion Required)
[Attachment 4]
All

OTHER MATTERS:

7. Other Business

Any member of this body, or its staff, on his or her own initiative or in response to questions posed by the public, may ask a question for clarification, may 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 may take action to direct staff to place a matter of business on a future agenda. (Govt. Code Section 54954.2)

8. Public Comment Period

At the end of the regular meeting agenda, an opportunity is provided for the public to speak on any subject within the Local Government and Small Business Assistance Committee's authority that is not on the agenda. Speakers may be limited to three (3) minutes each.

9. Next Meeting Date - Friday, August 14, 2020 at 11:30 a.m.

ADJOURNMENT

Document Availability

All documents (i) constituting non-exempt public records, (ii) relating to an item on an agenda for a regular meeting, and (iii) having been distributed to at least a majority of the Committee after the agenda is posted, are available by contacting Elaine Hills at (909) 396-2945 or send the request to ehills@aqmd.gov.

Americans with Disabilities Act and Language Accessibility

Disability and language-related accommodations can be requested to allow participation in the Local Government and Small Business Assistance Advisory Group meeting. The agenda will be made available, upon request, in appropriate alternative formats to assist persons with a disability (Gov't Code Section 54954.2(a)). In addition, other documents may be requested in alternative formats and languages. Any disability or language-related accommodation must be requested as soon as practicable. Requests will be accommodated unless providing the accommodation would result in a fundamental alteration or undue burden to the South Coast AQMD. Please contact Elaine Hills at (909) 396-2945 from 7:00 a.m. to 5:30 p.m., Tuesday through Friday, or send the request to ehills@aqmd.gov.

INSTRUCTIONS FOR ELECTRONIC PARTICIPATION

Instructions for Participating in a Virtual Meeting as an Attendee

As an attendee, you will have the opportunity to virtually raise your hand and provide public comment.

Before joining the call, please silence your other communication devices such as your cell or desk phone. This will prevent any feedback or interruptions during the meeting.

Please note: During the meeting, all participants will be placed on Mute by the host. You will not be able to mute or unmute your lines manually.

After each agenda item, the Chairman will announce public comment.

A countdown timer will be displayed on the screen for each public comment. If interpretation is needed, more time will be allotted.

Once you raise your hand to provide public comment, your name will be added to the speaker list. Your name will be called when it is your turn to comment. The host will then unmute your line.

Directions for Video ZOOM on a DESKTOP/LAPTOP:

- If you would like to make a public comment, please click on the “**Participants**” button on the bottom of the screen.
- A list of participants will appear on the right side of the screen. At the bottom of the list, please click on the grey “**Raise Hand**” button.
- This will signal to the host that you would like to provide a public comment and you will be added to the list.

Directions for Video Zoom on a SMARTPHONE:

- If you would like to make a public comment, please click on the “**Participants**” button on the bottom of your screen.
- A new screen will pop up with the list of participants. Look for the “**Raise Hand**” button on the screen and click the button.
- This will signal to the host that you would like to provide a public comment and you will be added to the list.

Directions for TELEPHONE line only:

- If you would like to make public comment, please **dial *9** on your keypad to signal that you would like to comment



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DRAFT

LOCAL GOVERNMENT & SMALL BUSINESS ASSISTANCE ADVISORY GROUP FRIDAY, MAY 8, 2020 MEETING MINUTES

MEMBERS PRESENT:

Council Member Ben Benoit, LGSBA Chairman (Board Member)
Supervisor Janice Rutherford (Board Member)
Felipe Aguirre
Mayor Pro Tempore Rachele Arizmendi, City of Sierra Madre
Paul Avila, P.B.A. & Associates
Todd Campbell, Clean Energy
LaVaughn Daniel, DancoEN
John DeWitt, JE DeWitt, Inc.
Bill LaMarr, California Small Business Alliance
Rita Loof, RadTech International
Eddie Marquez, Roofing Contractors Association
David Rothbart, Los Angeles County Sanitation District

MEMBERS ABSENT:

Supervisor V. Manuel Perez (Board Member)
Geoffrey Blake, Metal Finishers of Southern California

OTHERS PRESENT:

Mark Ambrowitz
Tom Gross, Board Member Consultant (*Benoit*)
Dan McGirney, SoCal Gas
Andy Silva, San Bernardino County
Patty Senecal
Mark Taylor, Board Member Consultant (*Rutherford*)

SCAQMD STAFF:

Jill Whynot, Chief Operating Officer
Derrick Alatorre, Deputy Executive Officer
Ron Moskowitz, Chief Information Officer
Sarah Rees, Assistant Deputy Executive Officer
Fabian Wesson, Assistant Deputy Executive Officer
Teresa Barrera, Principal Deputy District Counsel
Veera Tyagi, Principal Deputy District Counsel
Lisa Tanaka O'Malley, Senior Public Affairs Manager
Ian MacMillan, Planning & Rules Manager
Philip Crabbe III, Public Affairs Manager
Anthony Tang, Information Technology Supervisor

Van Doan, Air Quality Specialist
Elaine-Joy Hills, Air Quality Specialist
Paul Wright, Senior Information Technology Specialist
Jeanette Short, Senior Public Information Specialist
Stacy Day, Legislative Assistant

Agenda Item #1 - Call to Order/Opening Remarks

Chair Ben Benoit called the meeting to order at 11:30 a.m.

Mr. Derrick Alatorre provided guidelines and general instructions for participation in the remote meeting for the Local Government & Small Business Assistance Advisory Group (LGSBA) via Zoom webinar and teleconference.

Agenda Item #2 – Approval of February Meeting Minutes/Review of Follow-Up/Action Items

Chair Benoit called for approval of the February 14, 2020 meeting minutes. The minutes were approved unanimously.

Agenda Item #3 – Review of Follow Up/Action Items

Mr. Derrick Alatorre stated that there were no follow-up or action items.

Agenda Item #4 – Update on Proposed Rule 2305 – Facility-Based Mobile Source Measures

Mr. Ian MacMillan provided an update on the development of proposed Rule 2305 – Facility-Based Mobile Source Measures.

Chair Benoit stated it is interesting to see how this rule is shaping up and expressed appreciation for the hard work and effort put into this rule development. He further stated that meetings with stakeholders will continue despite changes resulted from the coronavirus disease 2019 (COVID-19) pandemic.

Mr. Bill LaMarr stated that cost assessments are typically conducted prior to determining if a rule is necessary. He further commented that the COVID-19 pandemic caused a reduction in global commerce, particularly the shipping industry, and asked if the warehouses are fully occupied. Mr. LaMarr stated that there have been emissions reductions at the ports, leading to emissions reductions in the Inland Empire (IE) and asked if South Coast Air Quality Management District (South Coast AQMD), California Air Resources Board (CARB), or anyone has recently completed an emissions inventory. Mr. MacMillan replied that different economic metrics are being monitored, showing container throughput decreased in March and increased in April. Mr. MacMillan stated that the economic shock to the system is impacting various industries in different ways; for example, grocery and cold storage space activities are increasing, whereas other industries are decreasing. Mr. MacMillan stated that there has been poor air quality in the IE in the last couple of weeks with high ozone levels, indicating there was continued goods-movement activities. There was some reduction in truck traffic and more reduction in car traffic; however, diesel fuel production level remained the same or increased, consistent with the increased demand for goods while people remained at home. What is happening now and within the next 6-12 months is likely temporary and things will eventually return to normal. This rule is not designed for a single, one-time action by warehouses. If this rule is approved by the Governing Board (GB) in the first quarter of next year, then the first compliance date will be a year after that and every year thereafter. The next working group meeting has been delayed as more information and input are needed from industry. The last several weeks demonstrated the air quality still needs significant improvement and proved that there is a long term need for this rule. Mr. LaMarr stated that businesses contribute to

climate change and affect the air quality in the IE; however, it is not a good use of a rule like this to have the businesses bear the financial burden during this time. Mr. LaMarr referenced slide #3 and suggested to establish a de minimis level for fee applicability and delay the responsibility for stationary sources. Mr. MacMillan stated that this rule is not targeting stationary sources and most warehouses are not required to be permitted by South Coast AQMD. Mr. MacMillan indicated that slide #3 referenced businesses with 100,000 ft² facilities, which are not considered small businesses. This rule is targeting larger operations, not small businesses. Mr. MacMillan mentioned that CARB is considering regulations on truck manufacturers and truck fleets and the Environmental Protection Agency (EPA) is also looking at truck manufacturers. The indirect source rule (ISR) targets the destination and how to set up an ecosystem of clean technology, including options for creating the infrastructure. Many businesses are taking steps to comply on their own; however, the challenge is to get others to help develop this ecosystem to improve the air quality.

Mr. David Rothbart stated that the purpose of this rule is to reach attainment as part of the Air Quality Management Plan (AQMP) and asked what the anticipated emissions reductions would be. Mr. Rothbart stated that attainment would not be achieved by 2023 and it is up to CARB and EPA to develop ways to control mobile sources to reach attainment. Mr. Rothbart further asked how ISR would fit into the overall ecosystem if a complex rule is implemented locally and included in the State Implementation Plan (SIP). Mr. MacMillan replied that ISR is not the only answer, but it is one piece of the toolkit that the South Coast AQMD could use to require emissions reductions from mobile sources. It could be used to focus on manufacturers, fleets, or destinations, while providing maximum flexibility for critical incentive programs. Mr. MacMillan stated the emissions reductions needed are substantial and with the attainment deadlines approaching, ISR is one of the few ways available to obtain such reductions. There is also a strong community voice expressing the desire to reduce emissions in the communities around the warehouses, indicating there is a wide variety of needs for a rule like this. Mr. Rothbart stated if EPA specifies alternative options to reach attainment, then South Coast AQMD might not want a rule that is not retractable because it is in the SIP. Mr. Rothbart suggested to include an option to remove the requirements when a certain emissions level is reached.

Mr. Todd Campbell referenced a study on heavy-duty vehicles emissions standards and actual emissions levels published by the International Council on Clean Transportation and stated that the actual emissions are 5-6 times above the standards. Mr. Campbell asked if there was a rule that addressed 34 tons of emissions per day. Mr. MacMillan replied the Regional Clean Air Incentives Market (RECLAIM) Program. Mr. Campbell stated if this rule gets adopted and requires emissions reductions from mobile sources, it could provide significant pressure relief to the stationary sources. Mr. MacMillan agreed that it would relieve pressure on stationary sources if there are more emissions reductions from mobile sources. Mr. Campbell stated that by 2023, federal sanctions would be placed if standards are not met and commented on the need to reduce emissions now. He asked if it would be better to reduce emissions now or in 20-30 years to which Mr. MacMillan replied that the agency is charged with meeting attainment as quickly as possible. Mr. Campbell stated that the point system does not reflect that as 126 points are given to zero-emission trucks and 55 to near-zero emission trucks, but the difference in emissions reduction is 1%. If those trucks are powered by renewable natural gas, then there would be better emissions and climate change. He commented on the need for a better point system and more cost-effective strategies for emissions reductions and expressed concern for the lack of near-zero emission yard tractors. Mr. MacMillan responded that a decision has not been made regarding the near-zero emission yard trucks and will consider the comments; however, many stakeholders asserted that only zero emission yard trucks should be included. As for the difference in point allocations for near-zero and zero emission on-road trucks, facilities typically select the cheapest method

to comply and possibly would obtain more near-zero emission trucks than zero emission trucks; therefore, the actions and points are not the only factors to consider, but the cost component is also important to include in the analysis. Mr. Campbell stated the point system does not reflect the current situation and cost-effectiveness should be considered, so the GB is unlikely to adopt the rule. Mr. MacMillan replied that discussion will continue in the next stage of the rulemaking process.

Ms. Rita Loof referenced slide #10 on Warehouse Actions and Investments to Reduce Emissions (WAIRE) menu items and asked if the filters are installed at the warehouses and if they are high-efficiency particulate air (HEPA) filters. Mr. MacMillan responded that the filters are not installed at the warehouses, but they are installed at nearby sensitive receptors, such as homes, schools, or daycare centers. Ms. Loof referenced slide #12 and asked if the cost of \$455k is to acquire one class 8 near-zero emission truck. Mr. MacMillan replied that the cost is for seven trucks. Ms. Loof asked for a brief explanation of the rule stringency level. Mr. MacMillan stated that the stringency level refers to the number of points each facility needs to earn. For example, a facility with more trucks would need to earn more points than a facility with less trucks; however, the actual levels have not been established and there will be an analysis of the economic condition, technological availability, air quality need, etcetera.

Agenda Item #5 – Update on 2019-20 State and Federal Legislation

Mr. Philip Crabbe III and Ms. Lisa Tanaka O'Malley provided an update on state and federal legislation.

Mr. Alatorre stated the Spot Bill 2241 did not go through because the deadline to introduce the bill was March 24, 2020, but the sessions were adjourned on March 19, 2020. However, there may be future opportunities for this bill to be introduced.

Mr. LaMarr asked for the status of Assembly Bill (AB) 2737 on Community Emissions Reduction Programs introduced by Assembly Member Cristina Garcia. Mr. Crabbe replied that staff has been in contact with Assembly Member Garcia's office and provided comments and confirmed that AB 2737 will not be moving forward this year.

Mr. Campbell indicated that the next senate stimulus package is being developed and asked if South Coast AQMD is seeking funding opportunities related to ports, truck drivers, and fleet operators, and have approached Senators Steven Bradford or Robert Hertzberg who represent the affected areas. Mr. Crabbe replied that South Coast AQMD is exploring different opportunities, such as funding for AB 617 implementation, green technology, and stimulus package and has been in contact with the Governor's office. Mr. Campbell stated that funding is needed for the SIP to work and encouraged staff to seek additional funding opportunities. Mr. Crabbe replied that South Coast AQMD has been aggressively seeking opportunities since January and continues to advocate for clean air, despite the pandemic. Studies have shown that there are disproportionate impacts of poor air quality on communities of color and that air pollution increases health risks, which puts people at great risk of serious illness from COVID-19.

Mr. Alatorre stated that South Coast AQMD staff spoke with the Chair of the Senate Budget and Fiscal Review Committee and found that state revenues are severely impacted in a negative sense due to lack of sales tax received. With an anticipated \$54 million deficit, it would be difficult to obtain additional funding, but staff will try their best given the current situation.

Mr. Campbell stated that South Coast AQMD has the direct link since air pollution could exacerbate COVID-19 effects. Mr. Campbell further stated that more money will be available and encouraged staff to keep trying.

Chair Benoit agreed with Mr. Campbell's comment and stated the next step is to convince the legislature.

Agenda Item #6 –Monthly Report on Small Business Assistance Activities

No comments.

Agenda Item #7 - Other Business

None.

Agenda Item #8- Public Comment

None.

Agenda Item #9 – Next Meeting Date

The next regular Local Government & Small Business Assistance Advisory Group meeting is scheduled for Friday, June 12, 2020 at 11:30 a.m.

Adjournment

The meeting adjourned at 1:09 p.m.



Update on Studies of Air Pollution & Health Effects

Summary of some key research studies

Jo Kay Ghosh, Ph.D.

Health Effects Officer

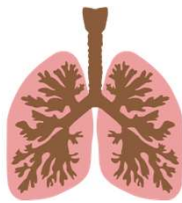
South Coast Air Quality Management District

LGSBA Advisory Group Meeting

June 12, 2020



Air pollution can affect health in many ways



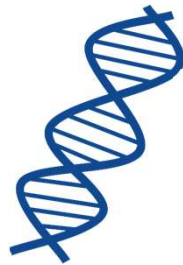
Respiratory:

- Asthma
- Bronchitis
- Lung function
- Irritation
- Premature death



Cardiovascular:

- Worsened heart disease
- Premature death



Cancers:

- Lung cancer



Reproductive:

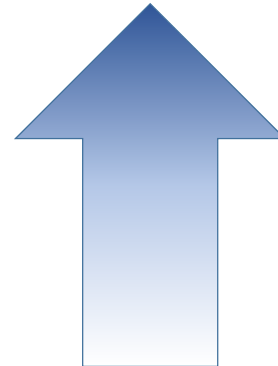
- Low birth weight



Hierarchy of Causality Determinations (U.S. EPA)

- Causal relationship
- Likely to be a causal relationship
- Suggestive of, but not sufficient to infer a causal relationship
- Inadequate to infer a causal relationship
- Not likely to be a causal relationship

More evidence



Less evidence



3

Existing knowledge, and newer areas of research



US EPA established as causal

- PM2.5
 - Cardiovascular
 - Mortality
- Ozone
 - Respiratory
- (many others)

Newer areas of research

- Neurological health
- Metabolic diseases
- Ultrafine particles
- Air Pollution and COVID-19?



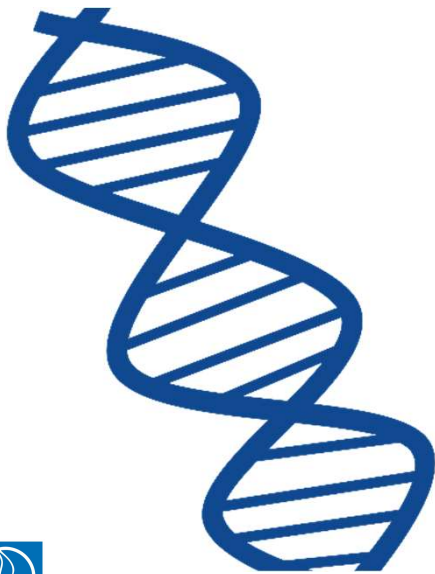
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Updates to Causality Determinations in the US EPA 2020 PM Integrated Science Assessment

Health Effect Type	Time Period of Exposure	2009 ISA	2020 ISA
Metabolic Effects	Long-Term	NA	PM2.5-Suggestive Coarse particles-Suggestive
Metabolic Effects	Short-Term	NA	PM2.5-Suggestive
Nervous System Effects	Long-Term	NA	PM2.5-Likely to be causal UFP-Suggestive Coarse particles-Suggestive
Nervous System Effects	Short-Term	UFP-Inadequate	UFP-Suggestive
Cancer	Long-Term	PM2.5-Suggestive Coarse particles-Inadequate	PM2.5-Likely to be causal Coarse particles-Suggestive
Mortality	Long-Term	Coarse particles-Inadequate	Coarse particles- Suggestive



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PM2.5 and Cancers

- Most evidence for increased risk of **lung cancer**
- Some evidence for increased risk of **bladder cancer**
- Additional evidence that PM2.5 could cause cancer:
 - DNA damage
 - Oxidative stress
 - Changes to gene expression
- Evidence from human and animal studies



6

The Association between Ambient Fine Particulate Air Pollution and Lung Cancer Incidence: Results from the AHSMOG-2 Study

Gharibvand et al. (2017) *Environmental Health Perspectives*

- Large cohort of 80,000+ Adventist Health Study participants
- Non-smokers, U.S. and Canadian men and women
- PM_{2.5} and Ozone levels

Key Findings:

- People living in areas with higher PM_{2.5} had about 40% **increased risk of developing lung cancer** for each 10 ug/m³ of PM_{2.5}.
- **Stronger effects of air pollution among never-smokers** compared to former and current smokers.



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PM_{2.5} and Nervous System Effects

- Neuroinflammation, which may lead to:
 - Alzheimer's disease (neurodegeneration)
 - Impaired learning and memory (cognitive effects)
 - Behavioral problems (neurodevelopment/ASD)
- Activation of the Sympathetic Nervous System
→ increased blood pressure
- Most evidence from animal toxicology studies
- Some human studies available



8

Particulate air pollutants, APOE alleles and their contributions to cognitive impairment in older women and to amyloidogenesis in experimental models

Cacciottolo, et al. (2017) *Translational Psychiatry*

- Included 3600+ Women's Health Initiative Memory Study (WHIMS) cohort participants
- U.S. women, aged 65-79 years at enrollment (1995-1999), mostly non-Hispanic white, with genetic information available (APOE genotype)
- Also included a toxicology study on mice

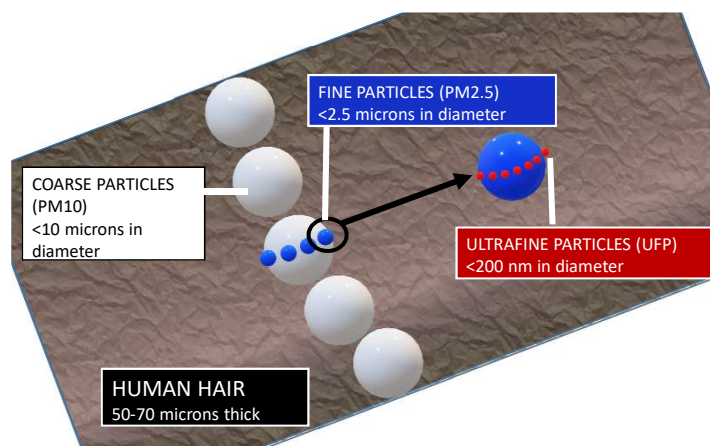
Key Findings:

- Women living in areas with **PM2.5 about the NAAQS (12 ug/m3)** were **almost twice as likely to develop cognitive decline and dementia**
- Women with a certain type of **APOE gene** were at **even higher risk** with high PM2.5 levels



9

Health Effects of Ultrafine Particles (UFPs)



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Why do we care about Ultrafine Particles?

- Smaller particles can go **deeper into lung tissues** and move to other parts of the body (e.g. **blood, liver, heart, and brain**)
- Large **number** of particles, with a lot of **surface area**

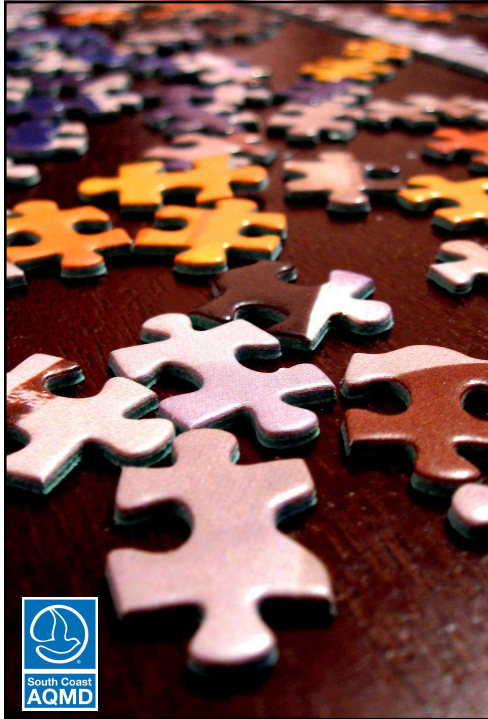


Where do Ultrafine Particles Come From?

Mainly **combustion** sources:

- Trucks, other vehicles
- Stationary source fuel use
- Other mobile sources
- Meat cooking
- Wood burning





Why are Ultrafine Particles difficult to study?

- No nationwide monitoring network
- Composition depends on source(s), season, time of day
- Levels vary sharply across a geographic area
 - Complex chemistry
 - A single monitor is not representative of community-wide levels of UFP
- No standardized measurement unit in health studies

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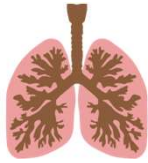


UFP and Cardiovascular Effects

UFP Exposure	Cardiovascular Effect	U.S. EPA 2020 ISA Causal Determination
Short-term	<ul style="list-style-type: none"> • ↑ Oxidative stress markers • Changes in heart rate variability (animal studies) 	Suggestive
Long-term	<ul style="list-style-type: none"> • Few animal studies (e.g. ↑ plaque size; mixed results for hematological, blood clotting indicators) 	Inadequate



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UFP and Respiratory Effects

UFP Exposure	Respiratory Effect	U.S. EPA 2020 ISA Causal Determination
Short-term	<ul style="list-style-type: none"> • Some evidence: respiratory symptoms, asthma hospitalizations • Small ↓ pulmonary function • Oxidative, inflammatory, allergic responses (animal studies) 	Suggestive
Long-term	<ul style="list-style-type: none"> • Oxidative, allergic responses (animal studies) 	Inadequate



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UFP and Nervous System Effects

UFP Exposure	Nervous System Effect	U.S. EPA 2020 ISA Causal Determination
Short-term	<ul style="list-style-type: none"> • Brain inflammation and oxidative stress (animal studies) • Limited evidence for Cognitive and Behavioral effects 	Suggestive
Long-term	<ul style="list-style-type: none"> • Brain inflammation and oxidative stress (animal studies) • Neurodevelopmental effects (animal studies) • Brain changes consistent with neurodegeneration/Alzheimer's (animal studies) 	Suggestive



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Particulate air pollutants, APOE alleles and their contributions to cognitive impairment in older women and to amyloidogenesis in experimental models

Cacciottolo, et al. (2017) *Translational Psychiatry*

- Toxicology study in mice carrying human APOE genes
- Mice exposed to PM0.2 subfraction of urban PM2.5 or filtered air, long-term exposure
- Looked at young mice and older mice

Key Findings:

- Mice exposed to PM0.2 showed **neurodegenerative changes** in the hippocampus
- Mice with certain type of APOE gene who were exposed to PM0.2 **developed more plaques in the brain** (a sign of Alzheimer's disease)
- Young and older mice exposed to PM0.2 had less exploratory behavior, but no changes in memory or object recognition



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SUMMARY

Health studies help expand our understanding of the effects of air pollution, including:

- Impacts on the brain, heart, and lungs
- Impacts based on the particle size
- Different impacts based on genetics



Recent assessments of the scientific evidence focused on:

Nervous system effects

Ultrafine Particles (UFPs)

Cancers (e.g. lung, breast, bladder)



18

FY 2020-21 South Coast AQMD Adopted Budget and Regulation III

LGSBA
June 12, 2020



1

Topics

- Revenue & Expenditure Uncertainties
- Staff Proposal in light of COVID-19
- General Fund Budget Summary
- 5 Year Projection
- Regulation III - Fees
- Recommended Actions

2

2

Revenue & Expenditure Uncertainties

- Economic Impact of COVID-19
- Retirement Cost Increases
- AB 617 Ongoing Funding
- Federal/State Funding
- Aging Headquarters Building

3

3

Staff Proposal in light of COVID-19

Modified Revenue Assumptions	(\$ in millions)
Decrease Stationary Source Revenues (5%)	\$5.1
Decrease Non-Stationary Source/Other Revenues	<u>1.3</u>
Total Decrease in FY 2020-21 Revenue	<u>\$6.4</u>

Reduce Expenditures	(\$ in millions)
Hiring Freeze (Currently 13% Vacancy Rate)	\$4.6
Reduce Non-Grant Funded Capital Outlays	0.8
Delay Emergency Response Expenditures	<u>1.0</u>
Total Decrease in FY 2020-21 Expenditures	<u>\$6.4</u>

4

4

General Fund Budget Summary

(\$ in Millions)	FY 2019-20			FY 2020-21	
	Budget	Amended *	Estimate	GB Workshop Proposal **	Adopted **
Staffing ***	939	947		946	946
Revenue	\$170.9	\$185.5	\$181.3	\$179.4	\$173.0
Program Cost	<u>\$170.9</u>	<u>\$191.8</u>	<u>\$184.4</u>	<u>\$179.4</u>	<u>\$173.0</u>
Change to Fund Balance	<u>\$0.0</u>	<u>-\$6.3</u>	<u>-\$3.1</u>	<u>\$0.0</u>	<u>\$0.0</u>

- * Board approved changes through April 2020.
- ** FY 2020-21 Adopted Revenue Budget **does not** include the CPI fee adjustment of 2.8%.
- *** FY 2020-21 staffing includes a recommended action to change the title of Science & Technology Advancements Deputy Executive Officer to Chief Technologist/Deputy Executive Officer with no fiscal impact.

5

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FY 2019-20 Estimate and 5 Year Projection with Modified Revenue Assumptions and Expenditure Reductions

(\$ in millions)	FY 19-20 Estimated	FY 20-21 Adopted	FY 21-22 Projected	FY 22-23 Projected	FY 23-24 Projected	FY 24-25 Projected
STAFFING	947	946	946	946	946	946
Salary Savings %	10%	13%	10%	8%	8%	8%
Revenues	\$181.3	\$173.0	\$177.8	\$177.7	\$179.0	\$183.5
Program Costs	\$184.4	\$173.0	\$182.9	\$187.4	\$187.6	\$184.5
Change in Fund Balance	(\$3.1)	\$(0.0)	\$(5.1)	\$(9.7)	\$(8.6)	\$(1.0)
Unreserved Fund Balance (at Year-End)	\$55.6	\$55.6	\$50.5	\$40.8	\$32.2	\$31.2
% of Revenue	31%	32%	28%	23%	18%	17%

- **REVENUES:** FY 20/21 Adopted Budget: no FY 20-21 revenue CPI increase & modified revenue assumptions due to COVID-19. CPI from FY 20/21 was restored at 2.8% in FY 21/22. CPI fees increases are projected as follows: FY 21/22 - 3.2%, FY 22/23 through FY 24/25 - 3.1%.
- **PROGRAM COSTS:** FY 20-21 includes an increase in Salary Savings to 13% (\$4.6M) and reductions to non-grant funded Capital Outlays (\$800K) and Emergency Response (\$1M). FY 21-22 through FY 24-25 includes: 1) projected retirement increases; 2) no transfers out for building infrastructure; & 3) 1995 POB payoff in FY 22-23 (\$3M) and 2004 POB payoff in FY24-25 (\$4.1M).

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Regulation III - Fees

- Six potential amendments to Reg. III and Rule 1480 proposed at March 13, 2020 Public Consultation Meeting
 - Two fee Increases + administrative changes

COVID-19



- Staff did not amend Reg. III or Rule 1480
- Pursuant to Rule 320, most fees are automatically adjusted based on the FY 2020-21 CPI of 2.8%. However, fee payer invoices will be credited for the same amount, resulting in a \$0 impact to the customer.

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QUESTIONS?

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Small Business Assistance Report on May 2020 Activities for LG&SBA Advisory Group Meeting of 6/12/2020

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Services Offered – May

■ Permit Application Assistance	249
■ Fee Review Committee Request	3
■ 1 Granted (Permit Correction & Reissue)	
■ 2 Denied (Reinstate Permit; Reduce Fee)	
■ Air Quality Permit Checklist Processed	65

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May 2020 Reports

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Permit Assistance – May

- 249 Activities Providing Help with Permit Applications. Examples include:
 - 37 *General Contractors/Consultants/Architects*
 - 25 *Manufacturing Facilities*
 - 24 *Retail Stores*
 - 23 *Warehouses (Storage/Distribution)*
 - 16 *Auto Body and Repair Shops*
 - 15 *Restaurants*
 - 10 *Dry Cleaners/Garment Cleaners*
 - 2 *Fuel Dispensing Facilities*

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May 2020 Reports

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Activities – May

- No on-site consultations conducted
- Event(s) Attended
 - No Events Attended

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May 2020 Reports

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Dry Cleaner Grants Issued (as of 5/2020)

■	Professional Wet Cleaning	160
■	CO ₂ Machines	4
■	Hydrocarbon (funds expended)	488

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May 2020 Reports

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Small Business Activity May 2019 – May 2020

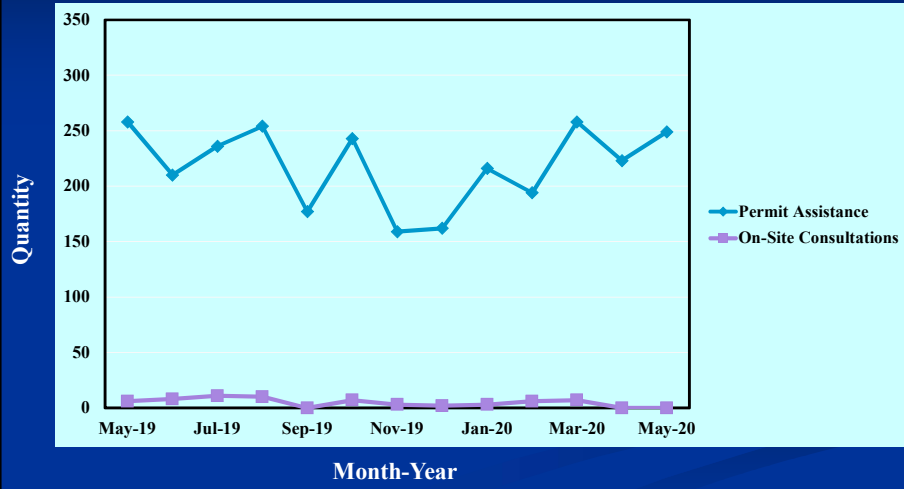
ACTIVITY	Permit Assistance	On-Site Consultations	Variance Assistance	Fee Review Requests	Air Quality Permit Checklists
May-2019	258	6	1	3	80
Jun-2019	210	8	0	2	60
Jul-2019	236	11	0	2	57
Aug-2019	254	10	0	6	55
Sep-2019	177	0	1	2	49
Oct-2019	243	7	0	4	72
Nov-2019	159	3	0	3	61
Dec-2019	162	2	0	2	81
Jan-2020	216	3	0	2	68
Feb-2020	194	6	0	3	63
Mar-2020	258	7	0	3	47
Apr-2020	223	0	0	3	49
May-2020	249	0	0	3	65
TOTAL	2839	63	2	38	807

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May 2020 Reports

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Small Business Activity May 2019 – May 2020



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May 2020 Reports