



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

Particulate Matter (PM) Symposium Overview

Advisory Council Meeting May 12, 2020

Jeff McKay
Chief Financial Officer

PM Symposium Timeline





28 October

State of the Science: Health Impacts and Exposure and Risk



27 February

Community PM Discussion



TBD

Air District response to PM challenge

Air District update on PM activities and Advisory Council Deliberation



9 December

Community presentation and Technical/Policy Discussion



Joint Board/Advisory Council meeting



TBD



AGENDA: 4A

Community Reflections from Feb. 27 Community Summit on PM

Jed Holtzman, MEM Senior Policy Analyst



on behalf of the BAAQMD Network



Intro/Context

The federal government is moving backwards on PM regulation.

California must lead the nation—and as usual, we here must lead the state—in reducing PM emissions to protect both public health and public coffers.

The current coronavirus pandemic highlights the necessity to prioritize steep PM reductions—particularly in frontline, overburdened, and disadvantaged communities, and those that have experienced environmental injustice and racism.

Intro/Context

Communities' excess exposure to PM makes them significantly more vulnerable to the impacts of SARS-CoV-2 and the other health and environmental challenges that will be expected with ongoing climate warming.

We request that the Advisory Council make the strongest possible statement to the Board on the need for aggressive Air District action to reduce PM to the maximum extent feasible, in order to protect public health.

We need BAAQMD action on all cylinders, we need robust rulemaking, and we need it yesterday. Delay translates directly into death and suffering of Bay Area residents, at the rate of thousands per year.

Regional/Local

To even hope to meet a health-protective PM target, we need to attack it from both directions, using both regional AND local approaches.

Regional Approach

There is no safe level of PM exposure, the concentration-response curve is linear, and we could keep saving lives by further reducing PM emissions.

The Air District should set the lowest PM standard available to protect public health given the overwhelming data. If this requires coordinating with ARB and the legislature to take leadership, it won't be the first time.

Setting a truly health-protective PM standard in the Bay Area will provide the impetus for an effective PM Reduction Plan, with all feasible measures needed to achieve attainment of the standard.

Local Approach

For locally significant sources of PM, staff is proposing to employ a toxic health risk approach.

Given the incredible failure with the implementation of Rule 11-18 on toxic risk reduction, how does the District think it is going to lean this approach to handle all needed PM reductions from local stationary and magnet sources as well?

And how will those reductions come at a relevant time scale, given thousands of deaths per year of delay?

Local Approach

How can we identify problematic local sources and deal with them faster? We can't wait until all burdened communities get AB 617 designation, which is all the more unlikely now in the postpandemic budgetary environment.

The status quo Air District process on toxics is not working and will not work on the timescale in which we need to see reductions.

So do you ramp up the HRA staff and workflow at the District by more than 10x? Or do you come up with an alternate regulatory strategy? Something must change.

Regional/Local

Whether locally or regionally, our common concerns are the strength and breadth of regulations and the speed and robustness of their implementation.

Paying to Pollute

Penalties for violations of Air District rules with any primary or secondary PM emissions impacts must be increased substantially to reflect the true costs to the Air District and public health.

Both greater penalties for violations and an augmented enforcement regime at facilities are needed to incentivize compliance and provide serious disincentives for multi-billion dollar companies to pollute.

In-plant or in-community reductions of PM should be required instead of allowing trading in PM credits, and a very large (e.g., 20-to-1) offset rate could be employed for out-of-community offsets to ensure reductions stay local.

Permitting

Currently, AD staff is looking at reforming your permit program to take into account cumulative impact of emissions sources, rather than looking at each new permit as taking place on a clean slate.

We need to see other reforms in the permitting system at the Air District—for example:

- To close loopholes—for example, the piecemealing of larger projects into small components to remain under legal and regulatory thresholds and minimize the appearance of project impacts.
- To change calculation methodologies that have resulted in overpermitting facilities (e.g., the 6th refinery problem).

Cost-Benefit Analyses

Air District cost-benefit analyses need to take into account a broader portfolio of monetized health damages beyond the limited subset currently employed.

AD staff is pursuing updating the PM health values used in these analyses, which will make the comparison between costs to a facility and costs to public health less imbalanced and more accurate. We support this critical work, which the state should have moved on many years ago.

This does not replace the need to include the many health benefits/averted health costs that a regulation could achieve when engaging in socioeconomic analyses.

Authority & Measurement

There are so many places where the Air District doesn't have authority and can't ensure emissions will come down as needed to protect—so where you do have authority, you need to take maximal action.

PM counters that at least provide ballpark figures would be superior to subjective opacity determinations.

Conclusions

PM pollution is every bit as injurious and deadly as it was when you met in October and December, but now we are all moving forward trying to address this difficult challenge in a more trying environment.

In this environment, it is even more important than ever to identify and prioritize major sources of PM with a rapid timeline of control.

The most important thing we have learned from this crisis can be summarized in the old Boy Scout motto: BE PREPARED. The Air District can help prepare us for the next health crisis by greatly reducing PM emissions and improving our baseline health and safety.

Thanks!

jed@350bayarea.org



Bay O Vista Rodeo, CA 10/15/19



Low Income
Bay O Vista
Housing Units
Rodeo, CA
10/15/19







SOUTH VALLEJO CARQUINEZ BRIDGE 10/27/19





SOUTH VALLEJO CARQUINEZ BRIDGE HWY 80 10/27/19



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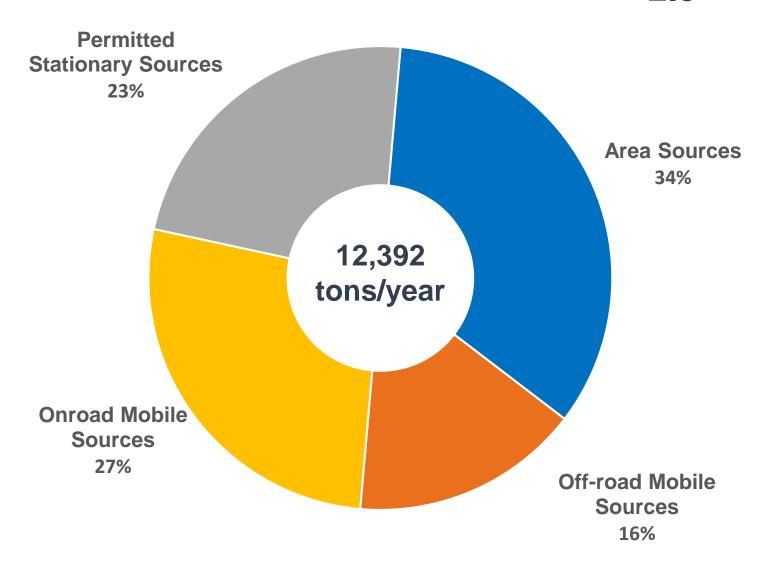
AGENDA: 5

Update on Air District Particulate Matter (PM) Potential Policy Strategies

Advisory Council Meeting
May 12, 2020
Greg Nudd
Deputy Air Pollution Control Officer

Major Sources of PM_{2.5} in the Bay Area

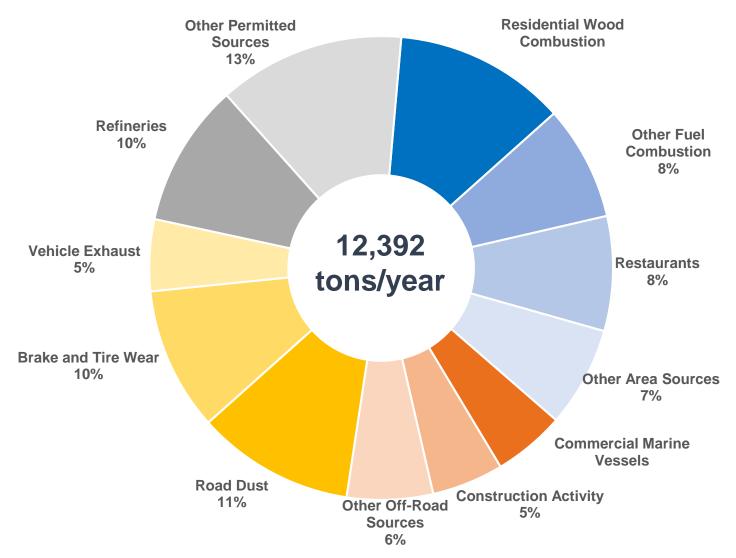




2016 annual average, directly emitted PM_{2.5} emissions

Major Sources of PM_{2.5} in the Bay Area



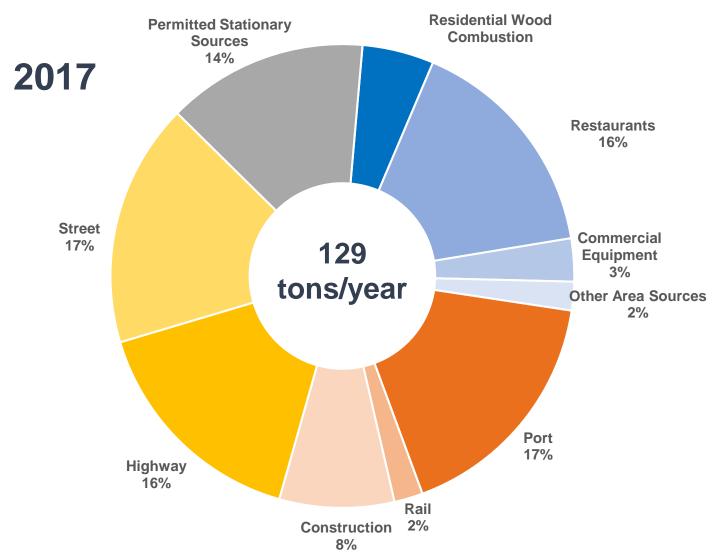


2016 annual average, directly emitted PM_{2.5} emissions

Advisory Council Meeting May 12, 2020

Major Sources of PM_{2.5} in West Oakland

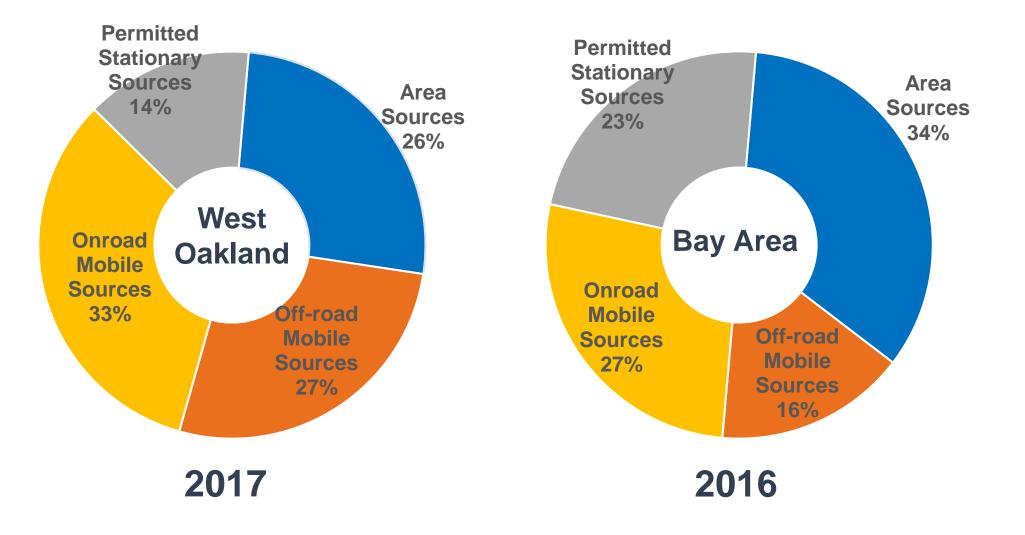




2017 annual average, directly emitted PM_{2.5} emissions

PM_{2.5} in West Oakland vs Bay Area





Current and Potential Actions



Mobile Sources

Permitted Stationary Sources

Area Sources

Magnet Sources

Current and Potential Actions



On Road Mobile Sources

Regulatory Authority: California Air Resources Board (CARB)

Existing programs:

- Diesel Free by '33
- Spare the Air
- Incentives for trip reduction (shuttles, bicycles)
- Vehicle Buy-backs
- Commuter benefits rule
- Air District Incentives Programs

Potential new programs:

- Encourage telework
- Assist local programs to control road dust



Off Road Mobile Sources

Regulatory Authority: CARB

Existing Programs:

- Diesel Free by '33
- Robust incentive programs for ships, trains, construction equipment
- Potential New Programs:
 - Push for stricter rules from CARB
 - Seek federal funding for electrification infrastructure



Area Sources

Regulatory Authority: Air District

• Existing Programs:

- Restrictions on wood burning devices
- Winter Spare the Air Program
- Rule limiting charbroiler emissions

Potential New Programs:

- Require disabling of wood burning devices upon sale
- Use regulatory authority to encourage electric space and water heating
- Incentives for restaurant emission controls



Permitted Stationary Sources

Regulatory Authority: Air District

• Existing Programs:

- Multiple current regulations to reduce PM from refineries, metal foundries, coke calcining, materials handling
- New requirements under development to limit condensable PM from refineries and the cement kiln
- Permitting rules cap PM and precursors region-wide

Potential New Programs:

- New rule to limit site-wide health risk from PM
- Modify permitting regulations to address localized health risks



Magnet Sources

Regulatory Authority: ?

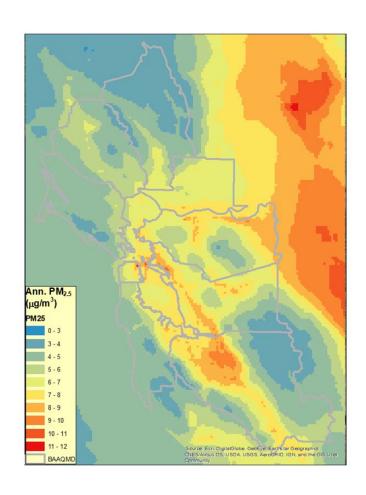
Magnet Source Rule(s)

Businesses that attract mobile sources: Examples: US Post Office facilities, port warehouses, and distribution centers

Rule Development status: seeking changes to Air District authority at the state level

Gaps in Authority to Regulate PM





- Fine PM as Toxic Pollutant
- Establish Air Quality Standards for PM
- Magnet Sources of all forms of PM

Reducing Health Impacts of Fine PM



Air District Next Steps

- Considerations of health impacts
 - Community-level health exposure assessments
 - Health-benefit analyses
- Establish "Goals" for PM reductions
- Additional Rule Development Efforts



Questions?