Bay Area Regional Collaborative (BARC) Work Plan Update

Allison Brooks Executive Director, BARC October 21, 2020



BARC Work Plan Updates

- 1. Remote Work Study
- 2. AB 617 Implementation in West Oakland
- 3. Building Electrification- Title 24



Remote Work (Telework) Study

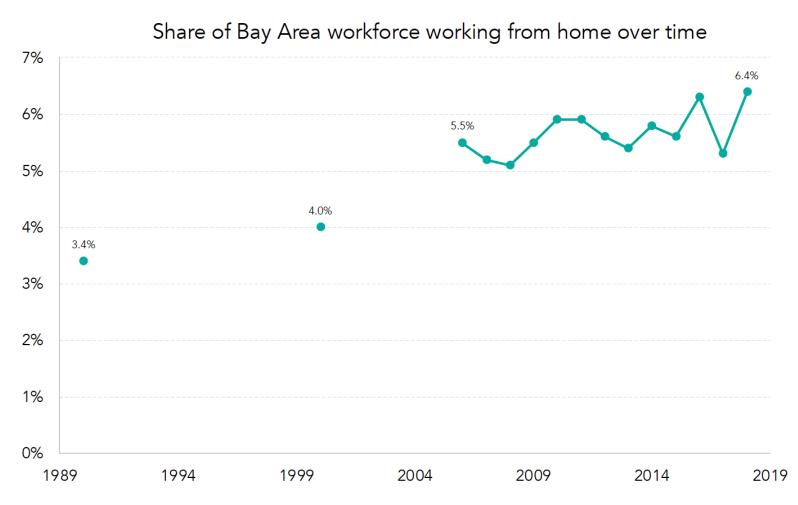
- BARC is contracting with Bay Area Council Economic Institute to perform an 8-week study; final report at end of October
- Input from cross-agency Advisory Committee
- Study focuses on:
 - Potential for remote work across Bay Area sectors, looking county by county
 - Demographic analysis & potential impacts based on income, race, gender
 - Potential impacts on transportation system, economy



Remote Work Trends pre-COVID-19

Data: MTC Vital Signs

The share of the workforce working from home full-time in the Bay Area nearly doubled between 1990 (3.4 percent) and 2018 (6.4 percent)



Remote Work Study: Initial Findings

- 45% of Bay Area work force (1.8m workers) are "remote work eligible"
- San Francisco and Santa Clara Counties have the highest share of remote-eligible occupations (51%)
 - San Francisco: 57% of remote eligible workers commute via transit, bike or walk
 - Santa Clara: 74% of remote eligible workers drive alone



Remote Work Study: Initial Findings

- Inequities based on income level: as income rises, the share of workers who can work remotely rises.
 - Earning <\$40,000 annually: ~6% are remote-eligible
 - Earning >\$100,000 annually: ~76% are remote-eligible
- Significant inequities based on race:
 - 51% of White workers are remote-eligible
 - 33% of Black workers are remote-eligible
 - 30% of Hispanic/Latino workers are remote-eligible



AB617 Implementation: West Oakland

- In partnership with BAAQMD, BARC is supporting City of Oakland in seeking funding for AB617 emissions reduction projects in West Oakland
- CARB STEP program
 - Applied for \$8m for truck management, urban greening and transit improvements
- SB1 Active Transportation Program (ATP)
 - Applied for \$14m for transit improvements and urban greening along 7th St. Corridor connecting West Oakland BART to downtown Oakland.

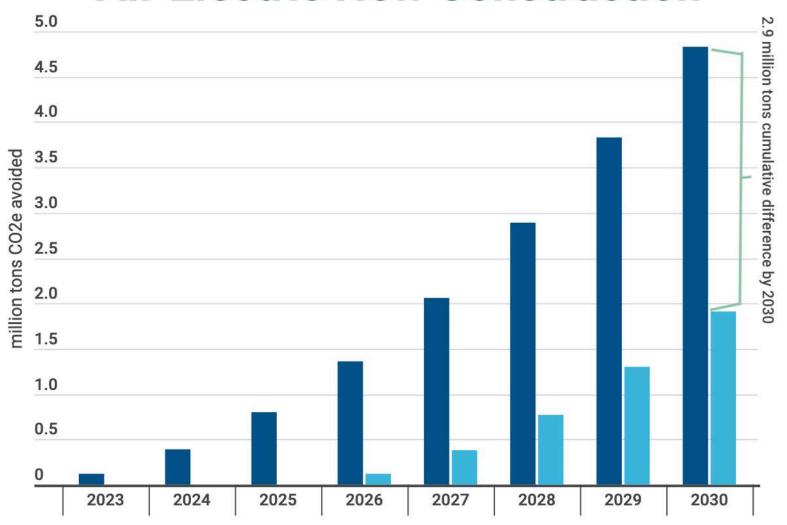


Building Electrification

- BARC is advocating for stronger state action on building electrification:
 - CEC Title 24 Building Efficiency Standards: applies to new construction and renovations to residential and commercial buildings
 - Coalition of mayors, environmental justice, and environmental groups urging Executive Order
 - Rocky Mountain Institute: Delaying electrification until next cycle (2025) will result in 3 million additional tons of carbon emissions, or equivalent to 650,000 cars on the road for a year.



Cumulative Emissions Savings from All-Electric New Construction





Thank You! Allison Brooks **Executive Director, BARC**







Particulate Matter (PM) Strategy: Status Update

BAY AREA

AIR QUALITY

MANAGEMENT

DISTRICT

Presentation to Executive Committee, BAAQMD Board of Directors By BAAQMD Advisory Council October 21, 2020





- Following now four years of intense wildfire smoke, Air District's focus on reducing diesel PM emissions, and conclusion that PM is overwhelming health risk driver in Bay Area air
- Air District asked Advisory Council to focus on PM
- Provide Advisory Council's take on latest and best science, in scienceaffirming way
- Assist Air District to identify those further PM measures that would most move public health needle, especially in most impacted communities, above and beyond what the Air District is already doing, above and beyond clean air standards









Date: Oct. 28, 2019 Time: 9:00 am - 4:45pm Advisory Council Chair: Mr. Stan Hayes Facilitator: Jeff McKay

| Agenda | Itoms |
|--------|-------|
| Agenua | Items |

| 8:30 AM | Registration/Coffee and light breakfast | Atrium |
|----------|--|-------------|
| 9:00 AM | Welcome | Board Room |
| 9:25 AM | PM Health Effects Panel | Board Room |
| 11:05 AM | Break | Atrium |
| 11:15 AM | Joint Discussion: Health Effects Panel | Board Room |
| 12:00 PM | Lunch with Keynote Speaker - Former EPA Administrator Gina McCarthy | Yerba Buena |
| 1:15 PM | PM Exposure & Risk Panel | Board Room |
| 2:55 PM | Break | Atrium |
| 3:10 PM | Joint Discussion: Exposure & Risk Panel | Board Room |
| 4:00 PM | Advisory Council Deliberation | Board Room |

Additional information

This is a meeting of the BAAQMD Advisory Council.

Public comment will take place during welcome remarks.

For ADA related assistance, please contact Areana Flores at aflores@baaqmd.gov.

375 Beale Street, Suite 600, San Francisco, California 94105 • 415.749.5000 • baaqmd.gov



Particulate Matter: Spotlight on Health Protection

- ~160 registrants
- ~Hundreds online
- 2 panels
 - PM Health Effects
 - PM Exposure & Risk
- 9 leading experts



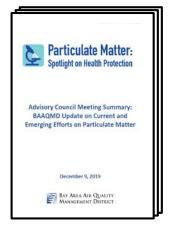


October



- State of Science: PM health effects, exposures, risk
- 9 national experts

December



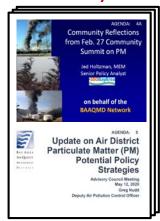
- Council deliberations
- Air District update on emerging PM efforts

February



- Community PM discussion
- Air District staff, ~30 community members, ~16 organizations

May



- Community AC presentations
- Air District update on PM potential policy strategies

June



- Panel Session
- A&WMA Virtual Annual Meeting

July



- Regulated industry AC presentations
- CCEEB, WSPA speakers





- Assembled more than 50 potential findings & recommendations
 - ✓ Based on outside experts, District staff, council expertise
- Organized them into three groups:
 - ✓ PM Reduction Statement
 - ✓ Framework for Evaluating PM Reduction Strategies
 - ✓ Recommended Actions





Findings (DRAFT, For Discussion Only)

| PM REDUC | CTION STATEMENT (Draft) | |
|----------|--|--|
| ID | PARTICULATE MATTER REDUCTION STATEMENT | NOTES |
| PMRS1 | PM is the health risk driver in Bay Area air, both PM2.5 as a criteria pollutant and diesel PM as a toxic air contaminant. | Agree [REORDERED] |
| PMRS2 | The current PM national ambient air quality standards (NAAQS) are not sufficiently health protective. | Agree [REORDERED] |
| PMRS3 | More stringent standards are needed, and, if met, would save thousands of liven in the U.S. and many Bay Area lives each year. | Agree [REORDERED] |
| PMRS4 | There is no known safe level of exposure to PM2.5, thus it follows that additional PM reductions beyond the current standards will achieve additional public health benefits. | Agree [REORDERED] REVISE |
| PMRS5 | The Bay Area has made substantial progress at reducing regional PM2.5 levels to meet current PM2.5 standards, however, 1) exposures vary substantially across communities; 2) wildfire smoke increases exposures substantially above standards; and 3) more stringent standards would be more health protective. | Revise (refer to Bay Area as a region) [REORDERED; REWORDED; AD COMMENTS] REVISE |
| PMRS6 | With additional PM emission reductions, the Bay Area region could also make progress toward more stringent standards providing an additional public health benefit to communities. | Revise (include 8 ug/m3 standard) [REORDERED; REWORDED; AD COMMENTS] REVISE |
| PMRS7 | Allowance should be made for year-to-year variability in meteorological and other weather-related factors that cause PM concentrations to vary, even if emissions and other conditions were to remain unchanged. | [NEWLY ADDED] REVISE |
| PMRS8 | An Air District guideline "target" below the current PM2.5 NAAQS may be warranted; if the Air District were to set that target at an annual average of 10 ug/m3 to as low as 8 ug/m3, national data supports that it would save additional lives. | Revise (include 8 ug/m3 standard) [REORDERED; REWORDED; AD COMMENTS] REVISE (explain basis for 10 and 8 ug/m3) |
| PMRS9 | Although a large fraction of PM2.5 is regionally contributed, substantially elevated PM2.5 exposures can occur in locations adjacent to local PM sources. | Agree [REORDERED; REWORDED; AD COMMENTS] |
| PMRS10 | Wildfire PM is a serious contributor to PM health effects; early health studies are of concern; more research on acute and sub-chronic effects is ongoing and urgently needed. Wildfire PM exposure is projected to increase in duration and intensity, due to climate change. | [REORDERED; ASSUME AGREEMENT, NOT SPECIFICALLY DISCUSSED IN 7/31 AC MEETING] |

PM Reduction Statement





Findings (DRAFT, For Discussion Only)

|) | FRAMEWORK FOR EVALUATING PARTICULATE MATTER REDUCTION STRATEGIES | NOTES |
|----|---|----------------------------------|
| 1 | Where the Air District has authority, move quickly to take maximal feasible action. | Revise (General agreement) AGREE |
| -2 | The most effective exposure reduction measures may differ across communities, due to varying source mix and size, ambient PM concentration levels, physical circumstances (e.g., meteorology, terrain), and other relevant factors. | Agree [AD COMMENTS] RE-ORDER |
| F3 | The Air District should focus PM reduction in areas with increased exposure, health vulnerability, and those areas with increased impacts and sensitive populations (e.g., US EPA identifies children, non-white, low socioeconomic status, elderly). | Agree |
| F4 | PM reduction strategies should consider regional (Bay Area-wide), local (community-level), and localized hot-spot (block-level) sources. | Agree |
| F5 | PM reduction strategies should consider emission reduction measures for both primary PM and secondary PM formed in the air (e.g., emissions of precursor ROG, NOx, NH3, and SO2). | Agree |
| F6 | PM reduction strategies will need to address multiple source categories. | Agree |
| F7 | PM reduction strategies should prioritize those measures that are most effective in reducing exposure and improving public health and health equity in the most impacted areas. | [NEWLY ADDED] RE-ORDER (#2) |

 Framework for Evaluating PM Reduction Strategies



Findings (DRAFT, For Discussion Only)

| RECOMMENDED ACTIONS (Draft) | | | |
|-----------------------------|---|-------------|--|
| ID | RECOMMENDED ACTIONS | CATEGORY | NOTES |
| RA1 | Continue working to make air quality data more accessible and timely. | Monitoring | AGREE |
| RA2 | Some species of PM may be more dangerous than others; as yet, no PM species can be exonerated. Make current PM speciation data more available. Advocate for the US EPA national monitoring guidance and requirements to increase PM speciation. | Monitoring | AGREE |
| RA3 | Advocate for increased, broader, national monitoring and studies of UFP; support further national studies on the health impacts of UFP. | Monitoring | AGREE |
| RA4 | Advocate appropriate federal and state agencies to set improved UFP filtration requirements for on-road vehicles. | Technology | AGREE |
| RA5 | Strengthen implementation and enforcement of programs and rule intended to reduce exposures to PM2.5 (including diesel PM) and seek sufficient resources to do so. | Enforcement | AGREE |
| RA6 | | Enforcement | REMOVE |
| RA7 | | Enforcement | REMOVE |
| RA8 | Advocate for improved emission estimation and control methods for emerging source categories (e.g., tires & brakes, road dust). | Planning | AGREE |
| RA9 | Develop Air District PM strategic action plans for individual highly impacted communities with appropriate targets | Planning | AGREE; ADD SEPARATE RECOMMENDATION REGARDING STANDARD - Establish a PM2.5 target consistent with the findings above (e.g., from an annual average of 10 ug/m3 to as low as 8.) |
| RA10 | Further develop and implement a strategy of health protective measures and guidance for the community during wildfire episodes | Planning | AGREE |
| RA11 | Implement and encourage strategies to reduce vehicle miles traveled (e.g., active transportation, public transit, telework where possible, and land use planning.) | Planning | AGREE |
| RA12 | Expand community-level exposure and health impact assessments. | Planning | AGREE |
| RA13 | Evaluate improvements to existing rules limiting visible emissions and trackout of road dust to address communities that are overburdened. | Rules | AGREE |

 More than 30 Recommended Actions





Findings (DRAFT, For Discussion Only)

| ID | RECOMMENDED ACTIONS | CATEGORY | NOTES |
|------|---|------------|---------------------------|
| RA14 | Modify permitting regulations to address hyper-localized hotspot health risks. | Rules | AGREE |
| RA15 | Adopt rule requiring woodburning devices be disabled or replaced when properties are sold. | Rules | REVISE (gas replacements) |
| RA16 | Adopt rule to improve the efficiency of water heaters and space heaters. | Rules | REVISE (electrification) |
| RA17 | Expand the existing rule to reduce emissions from commercial cooking equipment such as charbroilers (Rule 6-2). | Rules | |
| RA18 | Update permitting regulations for gas stations and dry cleaners (Regulation 2). | Rules | |
| RA19 | Adopt amendments to Rule 9-1 to limit sulfur dioxide emissions from refineries. | Rules | |
| RA20 | Adopt a new rule to limit site-wide health risk from PM. | Rules | |
| RA21 | Take into account cumulative impact in permitting. | Permitting | |
| RA22 | Close loopholes that allow piecemealing of larger projects into small components. | Permitting | |
| RA23 | Assist local programs to control road dust (e.g., analyze road dust emission rates for local streets). | Funding | |
| RA24 | Seek federal funding for electrification infrastructure. | Funding | |
| RA25 | Work to leverage Senate Bill 1 funding to replace switcher engines in East Bay to reduce other off-road sources. | Funding | |
| RA26 | Seek additional funding to improve transit, bicycles, and pedestrian facilities, and to reduce VMT to reduce road dust, brake & tire wear, and vehicle exhaust. | Funding | |
| RA27 | Seek changes at state level to Air District authority for magnet sources. | Authority | |
| RA28 | Authorize the Air District to regulate fine PM as toxic air contaminant. | Authority | |
| RA29 | Seek authority for the Air District to establish air quality standards for PM. | Authority | |
| RA30 | Support CARB efforts to electrify trucks and other vehicles. | Authority | |
| RA31 | Seek stricter offroad mobile source rules from CARB. | Authority | |

 More than 30 Recommended Actions





Findings (DRAFT, For Discussion Only)

| ID | RECOMMENDED ACTIONS | CATEGORY | NOTES |
|------|--|-----------|-------------------|
| RA32 | Seek authorization from CARB for stronger at-berth regulations to control emissions from ships that dock at ports and refineries. | Authority | |
| RA33 | PM action plans should include all available "technically feasible" methods of reducing PM emissions and exposures for stationary, area, mobile, and indirect sources of PM. | | AD recommendation |
| RA34 | Legislative approaches to secure additional authority to regulate PM emissions should be considered, e.g., indirect source rule (ISR) or indoor air quality. | | AD recommendation |
| RA35 | OEHHA and ARB should be petitioned to identify PM as a toxic air contaminant in light of the available health data. | | AD recommendation |
| RA36 | A comprehensive study of indoor air quality should be conducted to better understand the pathways of PM exposure and how people can reduce that exposure through changes in habits. | | AD recommendation |
| RA37 | PM action plans should include non-traditional partners and approaches such as county health officials, health care providers, and methods of improving indoor air quality. (This could provide added protection during episodic events such as wildfires and facility incidents.) | | AD recommendation |

 More than 30 Recommended Actions

Particulate Matter Strategy Report



Final Report

- Executive Officer Statement
- Introduction and Background
- Advisory Council PM Reduction Statement, Framework, and Recommended Actions

Particulate Matter Strategy Report



Appendix A: Supplemental Information

- Summary of Advisory Council Deliberations
- Supplemental information to support PM Reduction Statement and Framework

Particulate Matter Strategy Report

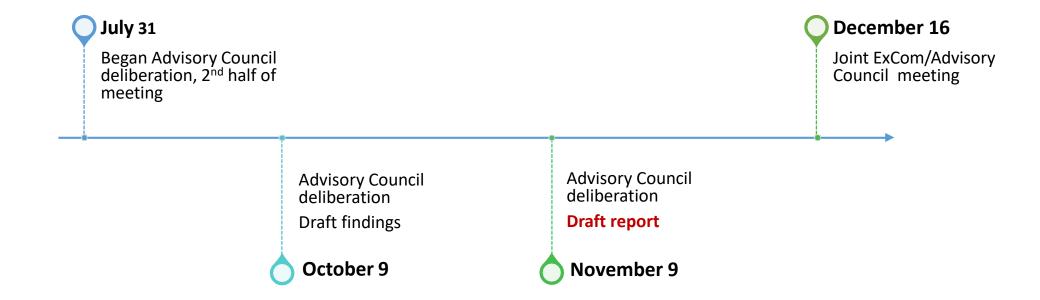


Appendix B:
Symposium
Summaries,
Presentations &
Additional Info

- October 2019 Report and Panel Presentations
- December 2019 Report and Panel Presentations
- February Community PM Discussion Summary
- May Community and Air District Presentations
- July Industry Presentations
- Links to Advisory Council webpage and webcasts
- Biographies of Advisory Council members









- Continue compilation and analysis of options
- Further deliberation on findings & recommendations
- Review and comment on draft report
- Present to Board and Staff







Status Update for the Production System Office

Executive Committee Meeting October 21, 2020

Blair L. Adams Information Systems Officer

Anja Page Online Services Assistant Manager

My Air Online: Key Objectives



- 1) Legacy System Deprecation
 - Permitting and Compliance
 - o Business Process Reengineering
 - In-Sourced Support Model
- 2) Public Web Presence
 - Secure, Reliable Information (Pull)
 - Proactive Digital Notifications (Push)
 - o Equity (i.e. 508, Languages, Data Access)
- 3) Unified Digital Payments
 - Grow Online Payment Adoption
 - Payment Reconciliation Governance
 - Expand to both Inbound and Outbound

Permitting and Compliance System: Current Features In Production



Agricultural Graphic Combustion Asbestos Smoke

Abatement Orders

Permitting and Compliance System: Recent Accomplishments



Application Programming Interiace Decoupled Legacy Systems No Net Increase (Web / Reports)

Payment Reconciliation

Notice of Violation

Notice to Comply

Renewal Fee Calculations

Factor Based Calculations

Emission Trains Online Complaints

Compliance Verification

Remaining Legacy Features: Permitting System



Databank

Material
Balance
Calculations

No Net Increase (Administrative Interface)

Startups / Shutdowns

Source Modifications

Application Fees

Authority to Construct

Offline Calculations

Application Interface Enhancements

Facility Manager

Conditions Manager

Validations

Health Risk
Assessments
& Toxics

Continuous Emission Monitoring Application Interface (Major Facilities)

Remaining Legacy Features: Enforcement & Compliance



Ingres Relational Information System (IRIS)

Reports*

Invoice Automation JDE Integration Permit Automation

Radio Telephone Operators (Dispatch)

Area Assignment

Mutual Settlement

Reportable Compliance Activities (Episodes)

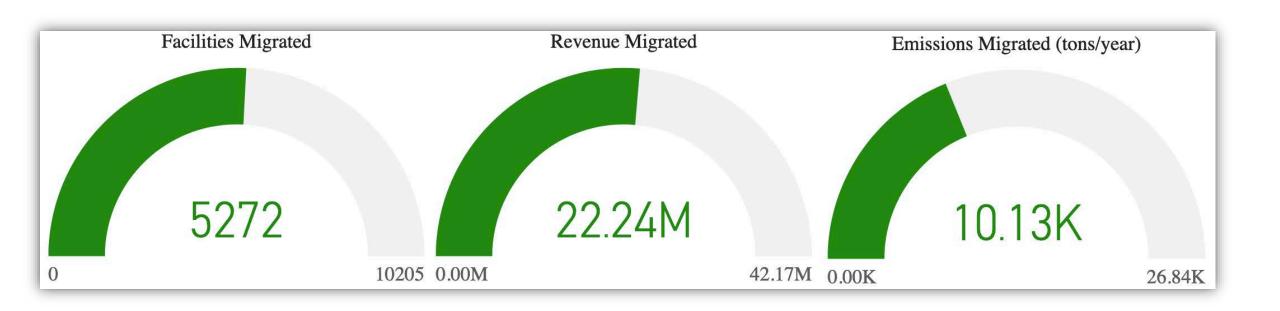
Permit Applications

Transfer of Ownership

Hearing Board Complaint Investigation

Triple Bottom Line: People, Profit, Pollution





Website: Recent Accomplishments



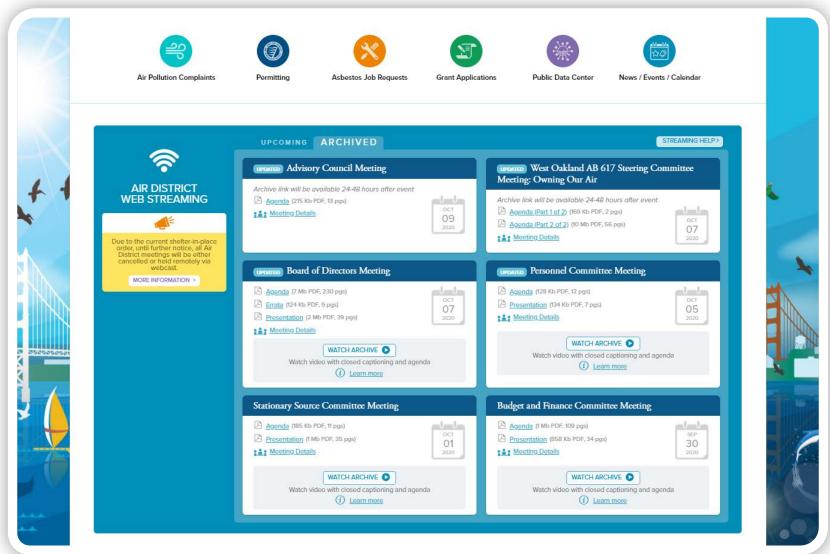
Pubic Data Center District Redesign Small Boiler Registration Health Risk Assessments

Annual Report Cut the Commute

Web Streaming Enhancements







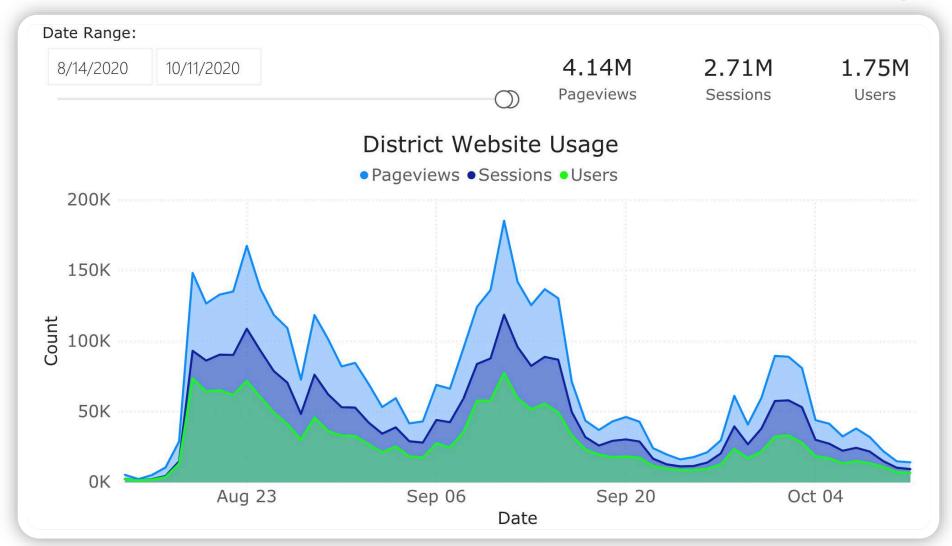


Cut the Commute



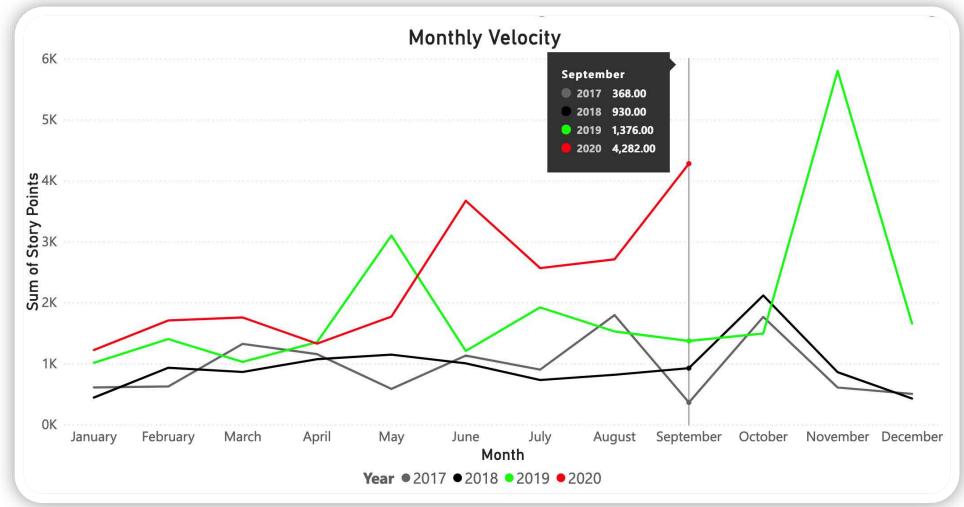
Website Usage





Team Velocity





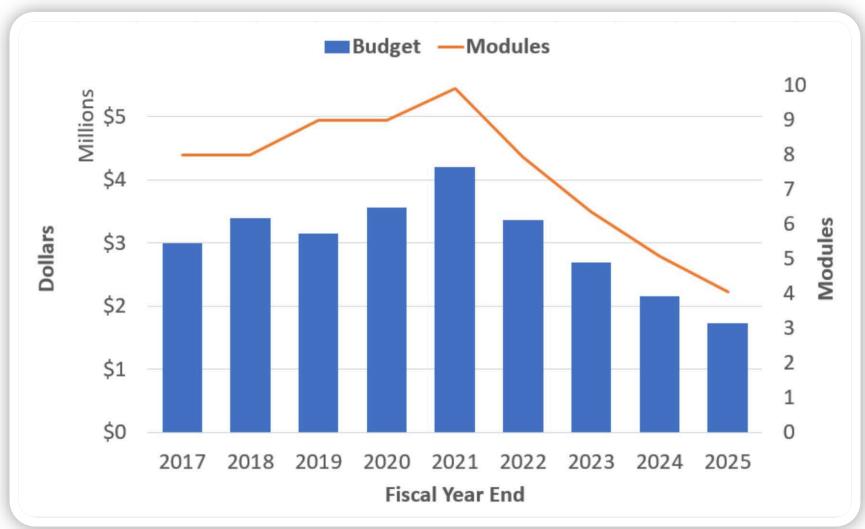
Legacy Transition Roadmap Summary



| Description | 2020 | 2021 | 2022 | 2023 |
|---|------|------|------|------|
| Factor and material-usage based emission calculations | • | | | |
| Semi cutover all facilities | 0 | • | | |
| Complex facility user interface | | | • | |
| Retirement party for legacy systems | | | 0 | • |

Budget: Past Actuals and Future Estimated







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Questions?



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AGENDA:

Request to Amend the Fiscal Year Ending (FYE) 2021 Budget to Increase Staffing

Executive Committee Meeting October 21, 2020

Jack P. Broadbent Executive Officer

Background



- On December 4, 2019, the Board of Directors (Board) approved the Personnel Committee recommendation to authorize 10 additional staff (from 405 to 415)
- The additional positions were needed to backfill Engineering, Enforcement and M & M resources diverted to cover Assembly Bill (AB) 617 work
- Due to COVID-19, increases were postponed, and the approved FYE 2021 budget included funding for only 405 positions
- Staff advised the Board that there could be a mid-year request to reconsider funding for some of the positions

Five Positions



 Positions needed to support monitoring and modeling work associated with the AB 617 Program

| *FTE Count | <u>Position</u> | Division/Office/Section | |
|------------|-----------------------------|-------------------------|--|
| 1 | Advanced Projects Advisor | AIM | |
| 4 | Manager (1), Specialist (3) | Enforcement and M&M | |

^{*}FTE = Full-Time Equivalent

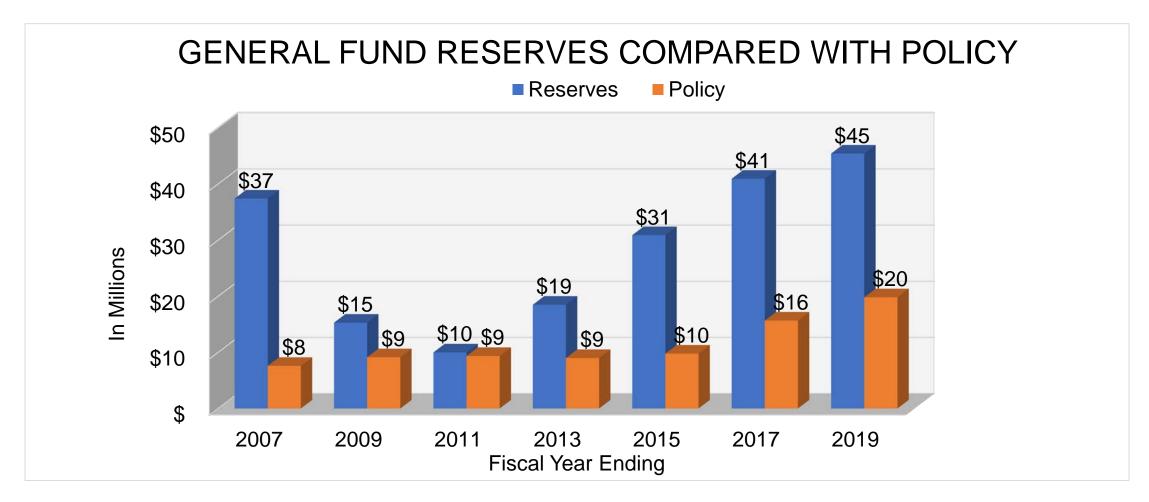
FYE 2021 Approved Budget Overview



- \$106 M General Fund Budget, decrease of \$16 M
- Includes Use of Reserves of \$5 M
- No Amendment to Existing Fee Schedules
- New Fee Schedule (AB 617) \$1 M / year
- Budget 405 of the previously approved 415 FTE
- No Increase in Services & Supplies
- Addresses Retirement Liabilities
- Includes 3.1% Cost of Living Adjustment (COLA)

Actual Reserves & Policy (Excludes Building Proceeds)





Funding Requirements: Fees Cost Recovery



- Five additional staff add approximately \$800,000 to the annual budget
- Maintenance of staffing in the range of 405 to 410 FTE requires either a reinstatement of the Cost Recovery Policy or a reduction in Service and Supply expenditures

Reserves Projections





ASSUMPTIONS

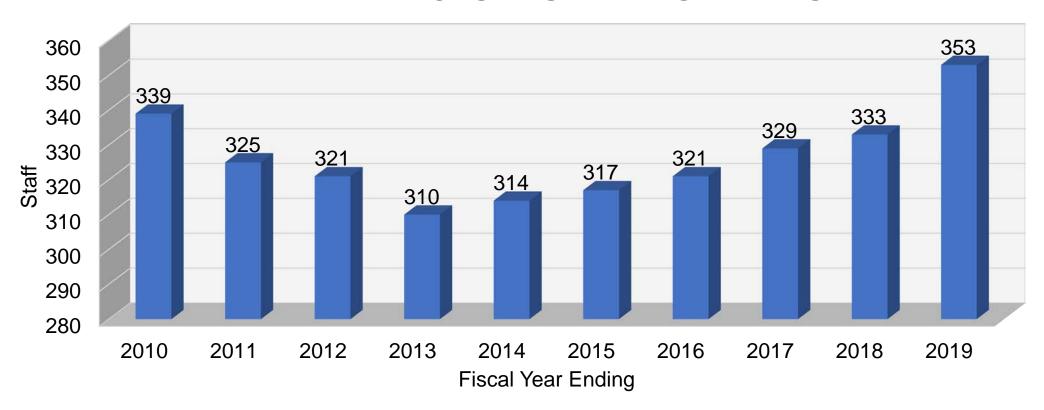
- Reserves Include already allocated to Pension and TIO Loans
- 405 Filled Seats
- · Property Tax Unaffected
- FYE 2021 Service & Supply Expense = FYE 2020
- FYE 2021 Fee Revenue = 85% of FYE 2020 Fee Revenue...
- ..except FYE 2021 Asbestos Fee = 50% FYE 2020 Asbestos
- \$1M AB617 Fee FYE 2021
- \$1.5 Transfer from Grants persists
- Full New Fees would = \$3.7 M (AB617 + CTR)
- No Richmond work except \$1.5 M Seismic
- COLA for PersonnelCosts in FYE 2021
- Recurring COLA for:
 - Revenue
 - Expenditure

Staffing Trend-Filled Positions



In November 2019, staff requested an additional 10 positions, bringing total approved to 415 FTE

ACTUAL STAFFING LEVELS



Recommendation



Recommend the Committee recommend the full Board:

 Approve the addition of five positions to the FYE 2021 budget, bringing the total FTE to 410







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Wildfire Air Quality Response Program Update

Executive Committee Meeting October 21, 2020

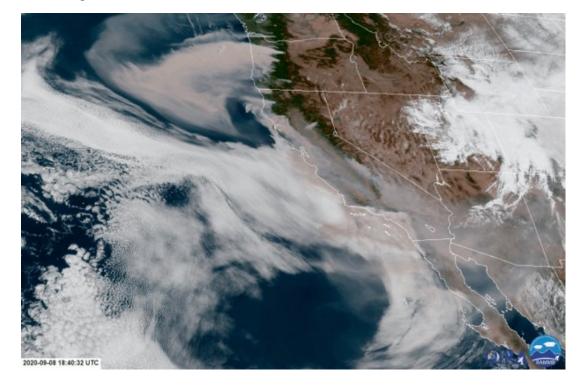
Wayne Kino Deputy Air Pollution Control Officer

Overview



- Starting August 15, 2020, lightning strikes (over 14,000) ignited fires throughout California.
- To date, California has experienced over 900 wildfires burning over 4 million acres.

September 8, 2020 – Western United States



Overview (cont.)



- 2017 2020 wildfires have had major air quality impacts in the Bay Area
- Bay Area experienced unprecedented unhealthy air quality
- 2018: Recurring and unprecedented wildfires throughout California prompted Air District program for wildfire preparation, prevention, and response
- Wildfire Air Quality Response Program designed to be continuously improved as the Bay Area experiences smoke impacts from wildfires.

Comparisons



- Yearly Spare the Air Alert Comparison (STA):
 - o Through October 11, 2020, there were 49 STA issued this year (highest on record)
 - oThe 2nd highest STA occurred in 2017 with 46 days
- Spare the Air Alerts due to wildfires since 2016:
 - o Through October 11, 2020: 49 days
 - o2019: 7 days
 - o2018: 21 days
 - o2017: 15 days
 - o2016: 10 days





Executive Committee Meeting October 21, 2020

Wildfire Events





Wildfire Air Quality Response Program



Purpose: Develop a comprehensive, multi-faceted Wildfire Air Quality Response Program intended to prepare, prevent and respond to future wildfires, and to ensure health-protective measures and strategies are in place during air pollution emergencies.



Program Strategy



- Promote Clean Air Shelters Across Bay Area Region
- Target Regulatory Efforts and Actions
- Enhance Information Access to Community Resources
- Advance Air District Grant Opportunities
- Other Program Coordination Efforts

Proposed New Program Measure



- An evaluation of the Wildfire Air Quality Response Program has identified the program has provided regional and local community protection
- The evaluation identified a gap exists for the protection of people in individual homes especially during COVID-19 where congregating people in clean air shelters is problematic
- To address this need, staff is proposing an additional program measure that will provide filtration to individual homes through a high efficiency particulate air (HEPA) filtration program

Program Element Concepts



The initial evaluation has yielded the following concepts:

- Program should include situations where high efficiency filtration is needed to increase funding options
- Develop partnerships with filtration companies and limit filtration to a single clean room to lower unit costs
- Partner with healthcare organizations and/or utilize existing state or federal low-income programs to determine eligibility priorities
- Seek legislative changes to require enhanced filtration in new construction, renovations, and rentals

Wildfire Air Quality Response Program



Questions, comments, and/or ideas?