Air District
Equity Program –
External and Internal Efforts

Board of Directors Special Meeting/Retreat
January 20, 2021

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Improved understanding of equity issues — both externally-facing, i.e., inequitable exposure to air pollution, and internally-facing, i.e., efforts to improve diversity, equity, and inclusion at the Air District
Presentation Outline

• **External Efforts**
  o Historical Context
  o Community Exposure
  o Health Impacts and Costs
  o Assembly Bill (AB) 617

• **Internal Efforts**
  o Demographics
  o Diversity, Equity & Inclusion (DE&I)
  o Employee Resource Teams
  o Employee Engagement Timeline
None, Informational Only
Historical Context

- History of Redlining
- Overlap with AB 617 and CARE communities
Historical Context (cont.)

West Oakland

- History of environmental injustice and exposure
East San Francisco

are provided by the three playfields which adjoin the area. Light and heavy industrial districts completely surround the area, and stockyards and meat packing plants situated nearby are the source of unpleasant odors when the wind is from their direction, which, fortunately, is seldom. A railroad tunnel runs under part of the area. The best climatic conditions in San Francisco are said to exist in this area.

• History of environmental injustice and exposure
Particulate Matter (PM) from Chevron Refinery

Solid contours correspond to modeled contributions of +1.0, +0.9, ..., +0.1 µg/m³

Values depicted here are modeled contributions to total ambient PM$_{2.5}$

Total ambient PM$_{2.5}$ is 8–10 µg/m³ (8–13 µg/m³ if including 2017–18 wildfires)

- Different communities experience different levels of exposure

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Pollution Exposure by Race

- Different races experience different exposure levels

Each dot corresponds to 1 resident
Modeled 2020 population within the study area is 1 million residents
• Hispanic/Latino residents comprise 28% of the population in the study area and 35% of exposure burden
• Afr-Amer/Black: 12% vs 16%
• White: 37% vs 28%
• Asian/Pac. Isl.: 22% vs 21%
• On average, Hispanic/Latino and African American/Black residents are exposed to more PM$_{2.5}$ from Chevron

• Sources other than the FCCU drive these disparities
## External: Health Impacts and Costs

<table>
<thead>
<tr>
<th>Estimated Baseline Health Impact from Modeled Sources (Annual)</th>
<th>Valuation$^1$ (Annual)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cardiovascular</strong></td>
<td></td>
</tr>
<tr>
<td>0.5–4.3 heart attacks</td>
<td>$63k–600k</td>
</tr>
<tr>
<td>1.0 hospital admissions</td>
<td>$47k</td>
</tr>
<tr>
<td><strong>Restricted Activity</strong></td>
<td></td>
</tr>
<tr>
<td>4,800 days</td>
<td>$360k</td>
</tr>
<tr>
<td><strong>Lost Work</strong></td>
<td></td>
</tr>
<tr>
<td>820 days</td>
<td>$190k</td>
</tr>
<tr>
<td><strong>Asthma</strong></td>
<td></td>
</tr>
<tr>
<td>200 exacerbations$^3$</td>
<td>$12k</td>
</tr>
<tr>
<td>4 emergency room visits</td>
<td>$2k</td>
</tr>
<tr>
<td>0.1 hospital admissions</td>
<td>$1k</td>
</tr>
<tr>
<td><strong>Respiratory Illness$^2</strong></td>
<td></td>
</tr>
<tr>
<td>140 upper tract$^3$</td>
<td>$5k</td>
</tr>
<tr>
<td>100 lower tract$^3$</td>
<td>$2k</td>
</tr>
<tr>
<td>8 bronchitis$^3$</td>
<td>$4k</td>
</tr>
<tr>
<td>0.2 chronic lung disease</td>
<td>$5k</td>
</tr>
<tr>
<td><strong>Mortality</strong></td>
<td></td>
</tr>
<tr>
<td>5.1–11.6 deaths$^4$</td>
<td>$52.5M–118M</td>
</tr>
</tbody>
</table>

$^1$ Conventional EPA valuations, in 2015 US dollars

$^2$ Other than asthma

$^3$ Subset of pediatric ($\leq$18 years)

$^4$ Including infant mortality
External: About AB 617

- Requires local districts to work with communities to select all areas in the region that have a “high cumulative exposure burden”
- Areas are then prioritized for community monitoring and/or actions plans
External: About AB 617 (cont.)

- Originated in negotiations of Cap-and-Trade Program
- Responds to ongoing high levels of air pollution in most impacted communities
- Focuses on long-standing environmental justice in communities
External: About AB 617 (cont.)

How Communities Selected

- Community readiness
- High air pollution and high health burdens
- Historical and on-going community and other monitoring/exposure
- Concentration of stationary sources
- Community input
- Socio-economic factors and other public health data available via statewide screening tools
External: Equity in Community

West Oakland
• Center equity in implementation
• Partner with City of Oakland Department of Race and Equity
• Train, support Steering Committee and subcommittees in assessing equity

Richmond-North Richmond-San Pablo
• Move at the speed of trust
• Train staff and Steering Committee on broad equity topics
• Condemn racism and affirm equity, access and inclusion in Charter
• Intentional youth engagement
Next Community Selection

• Candidate communities: East Oakland, Eastern San Francisco, Vallejo, San Jose

• Develop selection process and criteria; community input throughout

Work in All AB 617 Communities

• Complete hyper-local (Aclima) monitoring

• Build partnerships with community-based organizations and local governments

• Complete early source apportionment and modeling
Internal: Demographics by Race/Ethnicity

Bay Area

All Employees

ACS 5 Yr. Ave (Ages 18-64)*

*American Community Survey (ACS) Census Bureau

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Bay Area Air Quality Management District
Internal: Demographics by Gender

Bay Area Demographics
ACS 5 Yr. Ave (Ages 18-64)*

50% Female

50% Male

Bay Area Demographics

All Employees

2016: 63% Female, 37% Male
2017: 61% Female, 39% Male
2018: 59% Female, 41% Male
2019: 58% Female, 42% Male
2020: 57% Female, 43% Male

*American Community Survey (ACS) Census Bureau
Board of Directors’ Ad Hoc Committee on Equity, Access, and Inclusion
- Development of Committee Work Plan
- Establish Community Advisory Council
- Continue Regional, State, and National Partnerships

Development of Equity Action Plan
- Alignment of Tools, Direction, and Measure
- Agency-wide Planning

Human Resources Practices and Processes
- Adopting Best Practices in Recruitment and Retention Processes, including Promotional Opportunities
- Co-lead with Human Resources on Employee Engagement and Cultural Assessment
Operationalize Cross Divisional Equity Initiatives
• Launch Equity Resource Team Q1
• Divisional alignment on equity strategies in programs, processes, and initiatives

Continue internal capacity-building of all staff on anti-racism content and advancing equity throughout the agency

District-Wide Implicit Bias and Mitigation Training
January 21, 2021 and February 2, 2021
Internal: Employee Engagement

Timeline of Activities

May 2020
- PROJECT KICK-OFF

June/July 2020
- INTERVIEWS and FOCUS GROUPS

August 2020
- SURVEY LAUNCH

Q3/Q4 2020
- ANALYZE RESULTS

Q1-Q3 2021
- PLAN ACTIONS
Employee Resource Teams are centered on intentionally finding solutions to furthering greater equity and inclusion throughout the agency.

- Equity Resource Team
- African American Resource Team (AART)
- Cultural Advisory Team (CAT)
- Remote Work Taskforce
- Innovations Team
- Cultural Heritage Month Teams (Asian American/Pacific Islander, Hispanic/Latinx, Women, and LGBTQ Pride)
Internal: Diversity, Equity & Inclusion

1. Normalize
   - Speaker Series
   - If Beale St Could Talk Series
   - Cultural Events
   - Newsletter Content

2. Organize
   - Community Equity (AB 617 Work)
   - Board of Directors Resolution #2020-8 Condemning Racism and Racial Injustice
   - Internal Equity Assessment
   - Virtual Diversity Career Fairs
   - DE&I Training
   - Demographic Analysis

3. Operationalize
   - Ad Hoc Committee on Equity, Access, and Inclusion
   - Employee Resource Teams
   - Employee Engagement
Rulemaking Initiatives

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Presentation Outcome

Improved understanding of key policy actions expected to be before the Board in 2021
Presentation Outline

- Particulate Matter (PM) policy response
  - Advisory Council recommendations
  - Near-term actions
  - Planning for future action

- Rulemaking
  - 2021 rule actions
  - Other high-priority issues
  - New and modified facilities in impacted communities
Presentation Requested Action

None, Informational Only
PM Strategy – Advisory Council Findings

- PM is most important health risk driver in Bay Area air quality
- Current PM standards not health protective
- More stringent standards urgently needed; could save many lives in U.S. and Bay Area each year
- No known threshold for harmful PM$_{2.5}$ health effects; so, further PM$_{2.5}$ reductions will have public health benefits
- Air District guideline “target” below current PM$_{2.5}$ standards warranted to protect public health
PM Strategy – Advisory Council Recommendations

• Move as quickly as possible to take maximal feasible action
• Prioritize those methods that are most effective in **reducing exposure and improving public health and health equity** in most impacted areas
• Focus PM reduction in areas with **elevated exposures, health vulnerability, increased impacts, and sensitive populations**
• Address multiple source categories with wide range of emission reduction measures; **no single universal solution**
2018 Bay Area Emissions (tons per day)

<table>
<thead>
<tr>
<th>Sector</th>
<th>NOX</th>
<th>PM2.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permitted Stationary Sources</td>
<td>23.0</td>
<td>9.4</td>
</tr>
<tr>
<td>Refineries</td>
<td>9.7</td>
<td>4.2</td>
</tr>
<tr>
<td>Refineries (FCCUs)</td>
<td>1.7</td>
<td>2.2</td>
</tr>
<tr>
<td>Other permitted sources</td>
<td>13.3</td>
<td>5.2</td>
</tr>
<tr>
<td>Other Stationary Sources</td>
<td>20.4</td>
<td>13.4</td>
</tr>
<tr>
<td>Residential wood combustion</td>
<td>0.3</td>
<td>3.8</td>
</tr>
<tr>
<td>Residential natural gas combustion</td>
<td>10.9</td>
<td>1.1</td>
</tr>
<tr>
<td>Commercial natural gas combustion</td>
<td>2.5</td>
<td>0.6</td>
</tr>
<tr>
<td>Commercial cooking</td>
<td>&lt;0.01</td>
<td>2.8</td>
</tr>
<tr>
<td>Construction dust</td>
<td>--</td>
<td>1.3</td>
</tr>
<tr>
<td>Other (e.g., agricultural, small industry)</td>
<td>6.7</td>
<td>3.9</td>
</tr>
<tr>
<td>Offroad Mobile</td>
<td>69.3</td>
<td>2.8</td>
</tr>
<tr>
<td>Onroad Mobile</td>
<td>82.6</td>
<td>8.6</td>
</tr>
<tr>
<td>TOTAL</td>
<td>195.4</td>
<td>34.2</td>
</tr>
</tbody>
</table>
Air District Response – PM Actions

Immediate Actions
- Rulemaking for refineries (fluidized catalytic cracking units)
- Rulemaking on residential water heaters and furnaces
- Dust in impacted communities

Near-term, High Priority Issues
- Wood smoke
- Commercial cooking

Future Planning
- What sources are most impactful (regional and community scale)
- Are they feasible to control and within our authority?
- What rules would provide the most equity and health benefits?
Rules for Board Consideration in 2021

Rules to Be Amended:

• Rule 6-5: Particulate Emissions from Petroleum Refinery Fluidized Catalytic Cracking Units (FCCUs)
• Rule 8-5: Storage of Organic Liquids
• Rule 9-4: Oxides of Nitrogen from Residential Furnaces
• Rule 9-6: Oxides of Nitrogen from Residential Water Heaters
• Rule 9-7: Oxides of Nitrogen from Industrial Boilers and Heaters
Priority Sources for 2021

- Diesel Particulate Matter / Data Centers
- Advisory Council Particulate Matter Priorities
  - Expanded community exposure assessments
  - Strengthened implementation and enforcement
  - Cumulative PM impacts in permitting
- Methane from Hydrogen Plants
- Methane and other air pollutants from landfills and composting
Sources in Impacted Communities

• Development and coordination of Community Emission Reduction Plans
• Permitting of new or modified sources
  • Impacted Communities: no increase in pollution sources
  • Air District response: considering having stricter permitting thresholds for air toxics in impacted communities
• Land use decisions and CEQA guideline updates
• Construction and other particulate matter generation in impacted communities
Overview and Update of Air Quality Legislative Initiatives
Presentation Outline

- State Budget 2021 - 22
- State Legislation
- Federal Legislation
None, Informational Only
State Budget 2021 - 22

Governor’s Budget Proposal Released January 8, 2021

• Assembly Bill (AB) 617 Incentives and Implementation
• Clean Transportation Program and Equity Programs (Clean Cars for All)
• Additional Carl Moyer Program Funding
• Proposal to Extend Moyer/AB 923/AB 118 Programs to 2045
• Securitization of up to $1 Billion in AB 118 Funding to Expedite Electric Vehicle and Hydrogen Infrastructure
State Legislation

Legislative Session 2021/2022

• Air District-Sponsored Bills
  – Magnet Source and School Siting Bills
• Wildfire Response
• Public Safety Power Shutoff (PSPS) and Emergency Backup Generation
• Moyer Reauthorization
• Climate Change
Federal Legislation

- Clean Corridors Act (DeSaulnier – CA)
- Smoke Planning and Research Act (Eshoo – CA)
- Energy Resilient Communities Act (Barragan – CA)