



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

*PM Health Protection Symposium
(Advisory Council Meeting of
October 28, 2019)*

*Presentation to BAAQMD Board of
Directors*

*By BAAQMD Advisory Council
November 20, 2019*



PM Focus: Context

- Following three years of **intense wildfire smoke**, 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 science-affirming way
- **Assist Air District** to identify those further PM measures that would most move public health needle, especially in most impacted communities



PM Symposia: Overview

- Convened by Advisory Council as **series of meetings**
- Engage **nationally-recognized experts**, including leading experts previously engaged at the Federal level
- **Support Air District** in identifying health-focused “target” guidelines based on latest science, beyond standards already in effect
- Facilitate **Advisory Council feedback** on Air District planning
- Include **local stakeholders**
- Provide **national leadership**

Key Points

- The National Ambient Air Quality Standard (NAAQS) Science Review Process Worked Well Until 2017
- EPA Administrators Pruitt and Wheeler Have **Broken the Process**
- Particulate Matter Science Review By the EPA Clean Air Scientific Advisory Committee (CASAC) is Highly Deficient: **Appropriate to Look Elsewhere**
- Disbanded CASAC PM Review Panel Reconvened Itself
- Key Findings of the Independent Particulate Matter Review Panel



Particulate Matter: Spotlight on Health Protection



BAY AREA AIR QUALITY
MANAGEMENT DISTRICT

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

Agenda 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
- 2 panels
 - PM Health Effects
 - PM Exposure & Risk
- 9 leading experts

Gina McCarthy

- **Former EPA Administrator**
- Finalized the Clean Power Plan and the Clean Water Rule
- Professor of the Practice of Public Health in the Department of Environmental Health at Harvard T.H. Chan School of Public Health
- Director of the Center for Climate, Health, and the Global Environmental
- Member of the Board of Directors of the Energy Foundation and Ceres
- M.Sc. in Environmental Health Engineering, Planning and Policy from Tuft's University





Jason Sacks, M.P.H.

- Senior Epidemiologist in the Center for Public Health & Environmental Assessment within U.S. EPA's Office of Research and Development
- **Assessment lead for the Particulate Matter Integrated Science Assessment (Draft PM ISA)**
- Key leadership roles in synthesizing the health effects evidence of air pollution for various National Ambient Air Quality Standards reviews
- International training on U.S. EPA's Environmental Benefits Mapping and Analysis Program – Community Edition
- M.P.H. from Johns Hopkins University in 2003



Michael Kleinman, Ph.D.

- UC Irvine Professor of Environmental Toxicology
- Co-Director of the Air Pollution Health Effects Laboratory in the Department of Community and Environmental Medicine
- Adjunct Professor in College of Medicine
- **Serves on the Air District Advisory Council**
- Ph.D. in Environmental Health Sciences from New York University
- **CA Scientific Review Panel on Toxic Air Contaminants; CA Air Quality Advisory Committee**



John R. Balmes, M.D.

- Professor of Medicine at UC San Francisco
- Professor of Environmental Health Sciences in the School of Public Health at UC Berkeley
- Director of the Northern California Center for Occupational and Environmental Health
- Authored over 300 papers on occupational and environmental health-related topics
- **Physician Member of the California Air Resources Board**



H. Christopher Frey, Ph.D., F. A&WMA, F. SRA

- Glenn E. Futrell Distinguished University Professor of Environmental Engineering in the Department of Civil, Construction, and Environmental Engineering at North Carolina State University
- Adjunct professor in the Division of the Environment and Sustainability at the Hong Kong University of Science and Technology
- Fellow of the Air & Waste Management Association and of the Society for Risk Analysis
- Ph.D. in Engineering and Public Policy from Carnegie Mellon
- **Former Chair/Member, EPA Clean Air Scientific Advisory Committee (CASAC)**
- **Former Chair/Member, 10 different CASAC NAAQS Review Panels**
- **Chair, Independent PM Review Panel**



Lauren Zeise, Ph.D.

- **Appointed by Gov. Brown as Director of the California Office of Environmental Health Hazard Assessment in December 2016**
- Former Chief of the cancer unit at the California Department of Health Services
- Leading role in OEHHA's development of CalEnviroScreen
- Co-led the team that developed the hazard trait regulation for California's Safer Consumer Products program
- Member, fellow, former editor, and former councilor of the Society for Risk Analysis
- 2008 recipient of the Society's Outstanding Risk Practitioner Award
- Ph.D. from Harvard University



Julian Marshall, Ph.D.

- **Kiely Endowed Professor of Environmental Engineering at University of Washington with a focus on air quality management**
- Founded and runs the Grand Challenges Impact Lab, a UW study abroad program in Bangalore, India
- Associate Editor for Environmental Health Perspectives and Development Engineering
- Published over 100 peer-reviewed journal articles
- Ph.D. in Energy and Resources from UC Berkeley



Scott Jenkins, Ph.D.

- Senior Environmental Health Scientist in EPA's Office of Air Quality Planning and Standards (OAQPS)
- **Currently leading EPA's review of the National Ambient Air Quality Standards (NAAQS) for Particulate Matter (PM)**
- Howard Hughes Postdoctoral Research Fellow in the Department of Cell Biology at Duke University
- Ph.D. in Behavioral Neuroscience from the University of Alabama at Birmingham



Phil Martien, Ph.D.

- **Director of the Assessment, Inventory, & Modeling Division at the Bay Area Air Quality Management District**
- Leading role in the Technical Assessment of AB617's West Oakland Community Action Plan
- Leading role in the Technical Assessment of the Air District's 2017 Clean Air Plan: Spare the Air, Cool the Climate
- Leading role in the Air District's Community Air Risk Evaluation Program
- Ph.D. from UC Berkeley



**PM Health Effects
Panel**



**PM Exposure & Risk
Panel**

Advisory Council Discussion with Experts

BAAQMD's Questions

Example Response

- Are current PM standards sufficiently protective? **Emphatic NO – definitely not for PM_{2.5}.**
- How has the PM health evidence been strengthened? **Better “exposure” models, much larger study populations at much lower levels than before.**
- What new health effects are now recognized? **Strengthening of some causality determinations, but largely the focus is still premature mortality, respiratory morbidity, and cardiovascular morbidity.**
- New endpoints like cancer and central nervous system effects? **Opinions differ.**
- New sensitive groups, like children and lower socioeconomic status, SES, populations? **Growing recognition of “at risk” groups.**
- Are all types of PM equal? **Probably not.** Or, are some more dangerous than others? **Probably. But, more work needed. No components are as yet ‘exonerated.’**
- How severe are PM health risks? **Premature mortality is severe.**
- What additional health benefits can be achieved by further reducing PM to below current standards? **Difficult to quantify with certainty but on the order of tens of thousands of deaths nationally.**

Discussion Questions (EXAMPLE, DO NOT CITE)

Are current PM standards sufficiently health protective?

NOT PROTECTIVE, STANDARDS SHOULD BE LOWERED

Are some species of PM more dangerous than others?

QUITE POSSIBLY BUT NOT ENOUGH INFORMATION, NO PM COMPONENTS “EXONERATED”

What is role of ultrafine particles (UFPs)?

NOT YET CLEAR, TOX STUDIES OF CONCERN, NEED UFP FEDERAL REFERENCE METHOD, MORE MONITORING, EPI STUDIES

Should PM “target” expand to account for more than just mass?

IN RESEARCH ABSOLUTELY, IN REGULATION TOO SOON, UNLESS HIGHLY RISK-AVERSE

How should we include draft PM ISA’s new “likely-causal” health endpoints (nervous system effects, cancer) and new more sensitive populations (children, lower socio-economic status)?

NEW HEALTH EFFECTS AND GROWING RECOGNITION OF “AT RISK” GROUPS IMPORTANT (SUCH AS CHILDREN AND LOW SES), NEED TO CONSIDER

What are health impacts of high-concentration acute events (e.g., wildfires)? How should we compare them to day-to-day PM impacts?

NOT WELL-KNOWN SCIENTIFICALLY BUT OF CONCERN, DATA ON SUB-DAILY EXPOSURES TOO LIMITED AS YET, POTENTIALLY SERIOUS EFFECTS IN EARLY STUDIES, OTHER STUDIES ONGOING, MORE RESEARCH NEEDED



Advisory Council: Initial Deliberation

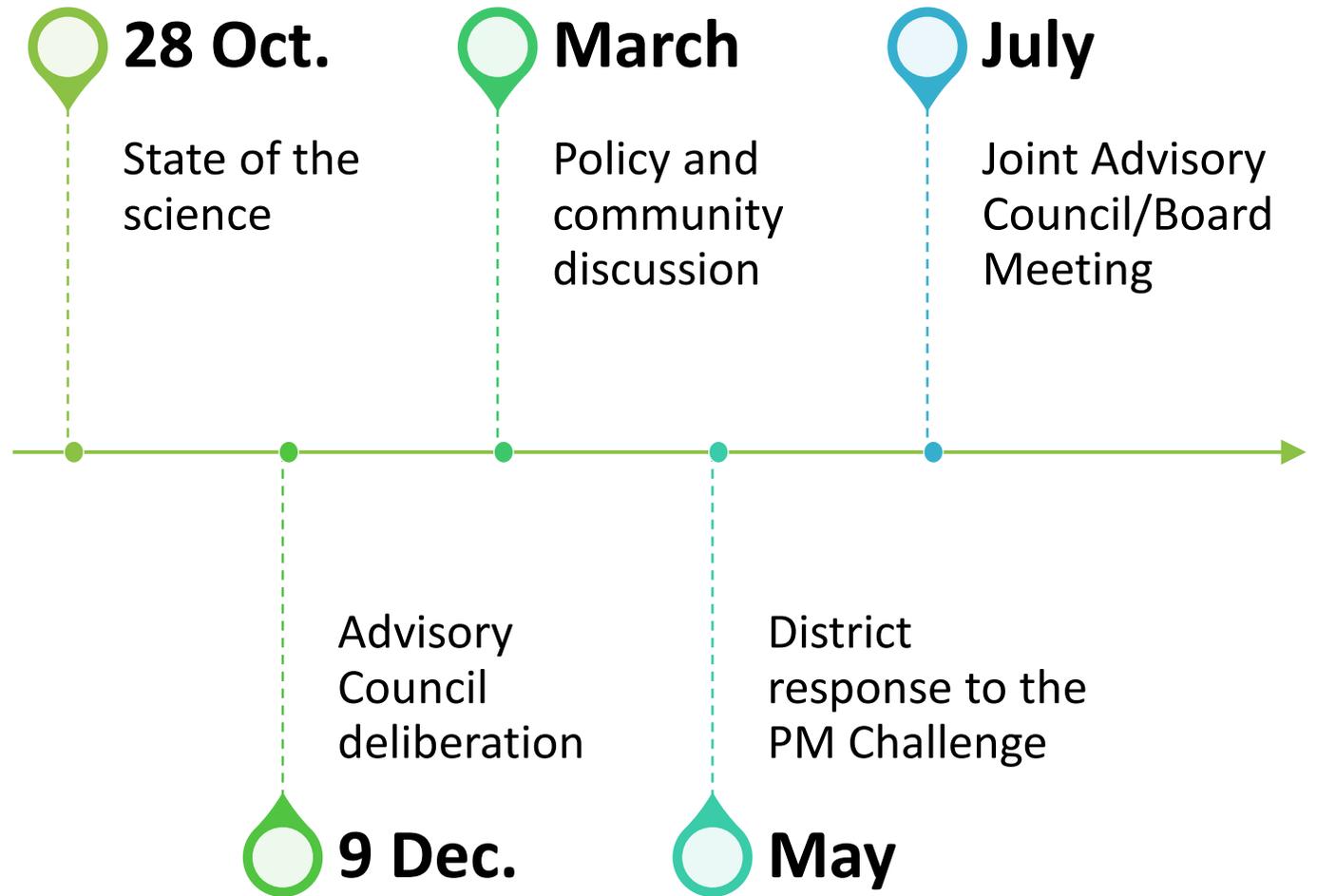
Sense of the Council

- The current standards are *not adequately health protective*.
- Further reductions in PM will realize significant *additional health benefits*.
- We need *more science, and we should act now*.

Further Exploration

- Treating PM as an *air toxic*
- Expanded monitoring of *UFP*
- Health effects of *acute PM exposures*, e.g., wildfire smoke
- Identifying *PM species* that are particularly dangerous
- Assisting District in identifying strategies having *“highest bang for buck”* for health protection
- Pursuing strategies that have *climate and other co-benefits*

PM Symposium Series



Fiscal Year Ending (FYE) 2020
Staffing Augmentation



Board of Directors Meeting
November 20, 2019

Jack P. Broadbent, Executive Officer/APCO



FYE 2020 Staffing Augmentation



Assembly Bill (AB) 617 Support



Restore and maintain our core programs



Management Reorganization



+ 10 Additional Staff



FYE 2020 Staffing Augmentation

Work Unit	Number of Staff	Funding Source	Budget Impact
Enforcement	2	Fee Recoverable	\$366,000
Engineering	2	Fee Recoverable	\$366,000
Executive Office	1	General Fund	\$183,000
Rules	1	Fee Recoverable	\$183,000
Planning	2	AB 617	\$366,000
Communities	2	AB 617	\$366,000
	10		\$1,830,000



AB 617 Staffing at Largest Air Districts

AQMD	Number of Additional Staff	Total Number of Total Staff
BAAQMD	10	415
South Coast	89	944
San Joaquin	38*	355
Sacramento	6	100
San Diego	6	159

*added in 2018



FYE 2020 Staffing Augmentation

- 2.4% of total FYE 2020 Staffing Budget
- 1.5% of FYE 2020 General Fund Budget
- Will require continuance of Cost Recovery Policy

AGENDA: 23

Public Hearing

on

Proposed Amendments

Regulation 5: Open Burning

Regulation 6, Rule 3: Wood-Burning Devices

**Board of Directors Meeting
November 20, 2019**

**Patrick Wenzinger
Supervising Air Quality Specialist**



**BAY AREA
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DISTRICT**

Bay Area Wildfire Review

- The smoke impact in the Bay Area reached unprecedented unhealthy levels.
 - October 2017 – North Bay fires
 - November 2018 – Camp Fire
 - October 2019 – Kincadee and Suisun Marsh fires
- Recurring and unprecedented wildfires throughout California have prompted a discussion on the Air District's role in wildfires.
- Staff has been developing an Air District program for wildfire preparation, prevention, and response.



Sonoma/Napa Fires



Camp Fire



Kincade Fire





Wildfires – *A State of Emergency*

Cal Fire – *Top 20 Most Destructive Wildfires in CA*

Year	Fire Name	County	Acres	Structures	Deaths
November 2018	Camp Fire	Butte County	153,336	18,804	85
November 2018	Woolsey	Ventura	96,949	1,643	3
July 2018	Carr	Shasta County, Trinity County	229,651	1,614	8
December 2017	Thomas	Ventura & Santa Barbara	281,893	1,063	2
October 2017	Tubbs	Napa & Sonoma	36,807	5,636	22
October 2017	Nuns	Sonoma	54,382	1,355	3
October 2017	Atlas	Napa & Solano	51,624	783	6
October 2017	Redwood Valley	Mendocino	36,523	546	9
September 2015	Valley	Lake, Napa & Sonoma	76,067	1,955	4
November 2008	Sayre	Los Angeles	11,262	604	0
October 2007	Witch	San Diego	197,990	1,650	2
October 2007	Harris	San Diego	90,440	548	8
October 2003	Cedar	San Diego	273,246	2,820	15
October 2003	Old	San Bernardino	91,281	1,003	6
October 1999	Jones	Shasta	26,200	954	1
August 1992	Fountain	Shasta	63,960	636	0
October 1991	Tunnel - Oakland Hills	Alameda	1,600	2,900	25
June 1990	Paint	Santa Barbara	4,900	641	1
September 1923	City of Berkeley	Alameda	130	584	0

Wildfire Air Quality Response Program Strategy

Program intended to prepare, prevent, and respond to future wildfire smoke, and ensure health-protective measures and strategies are in place

- Promote Clean Air Shelters
- Partnerships and Regional Alliance
- Enhance Information Access
- Grant Programs and Incentives
- Other Program Coordination Efforts
- **Target Regulatory Efforts and Actions**
 - New regulation to establish notification and advisory procedures
 - **Regulation 5: Open Burning**
 - **Regulation 6, Rule 3: Wood-Burning Devices**

Overview

- California Wildfires - A State of Emergency
 - Local and Regional Impacts
 - Wildfire Smoke Composition and Health Effects
- Goals of Proposed Rule Amendments
- **Regulation 5: Open Burning**
- **Rule 6-3: Wood-Burning Devices**
- Rule Development Process
 - Summary of Public Comments
 - California Environmental Quality Act (CEQA) & Socioeconomic Analyses
- Recommended Actions

California Wildfires

Wildfires – The “New Normal”

- North Bay Fires 2017
- Camp Fire 2018
- Kincadee Fire 2019

Wildfire State of Emergency

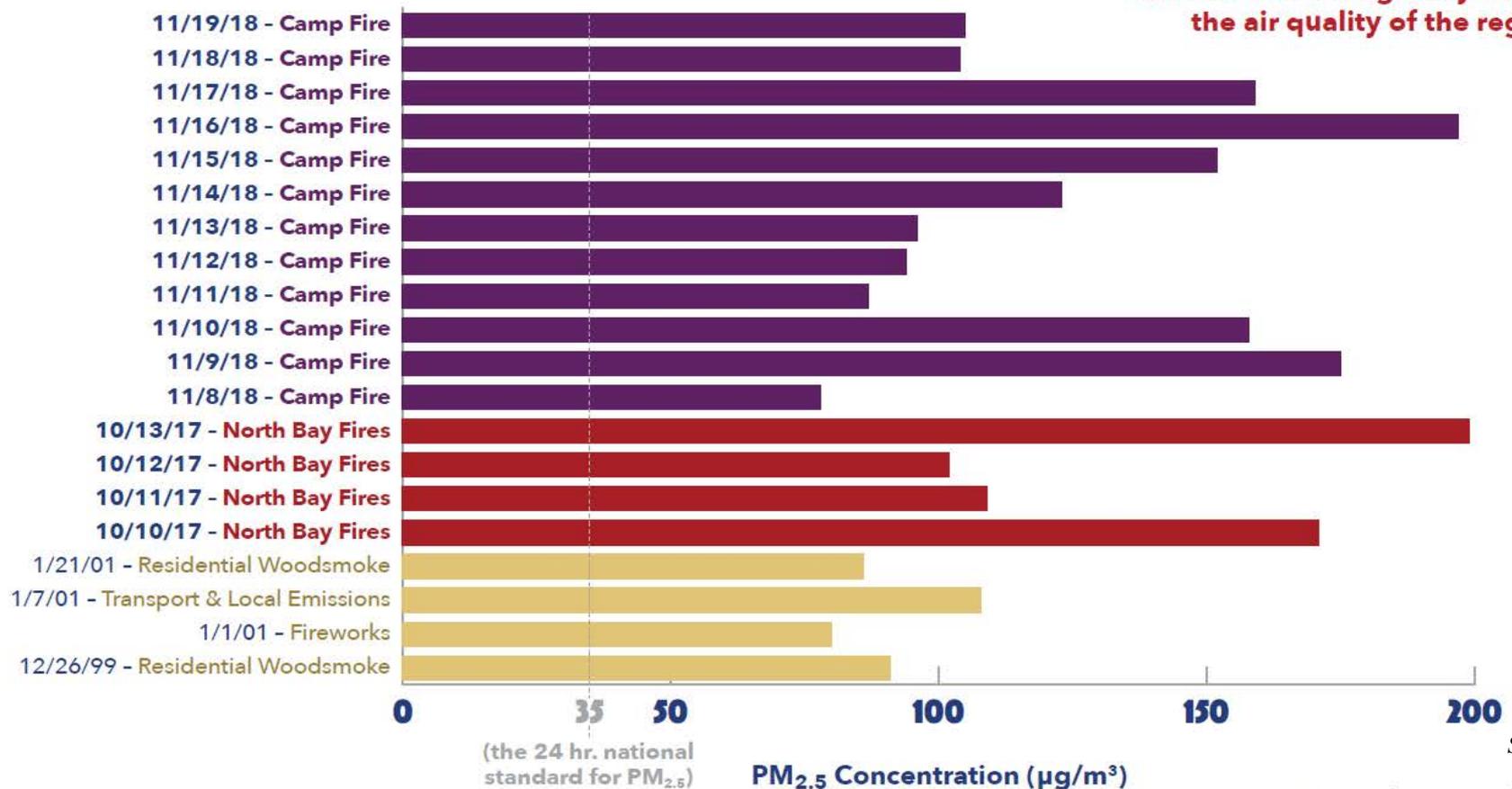
- Increasing fire risk due to climate change
- Imminent threat to air quality and public health



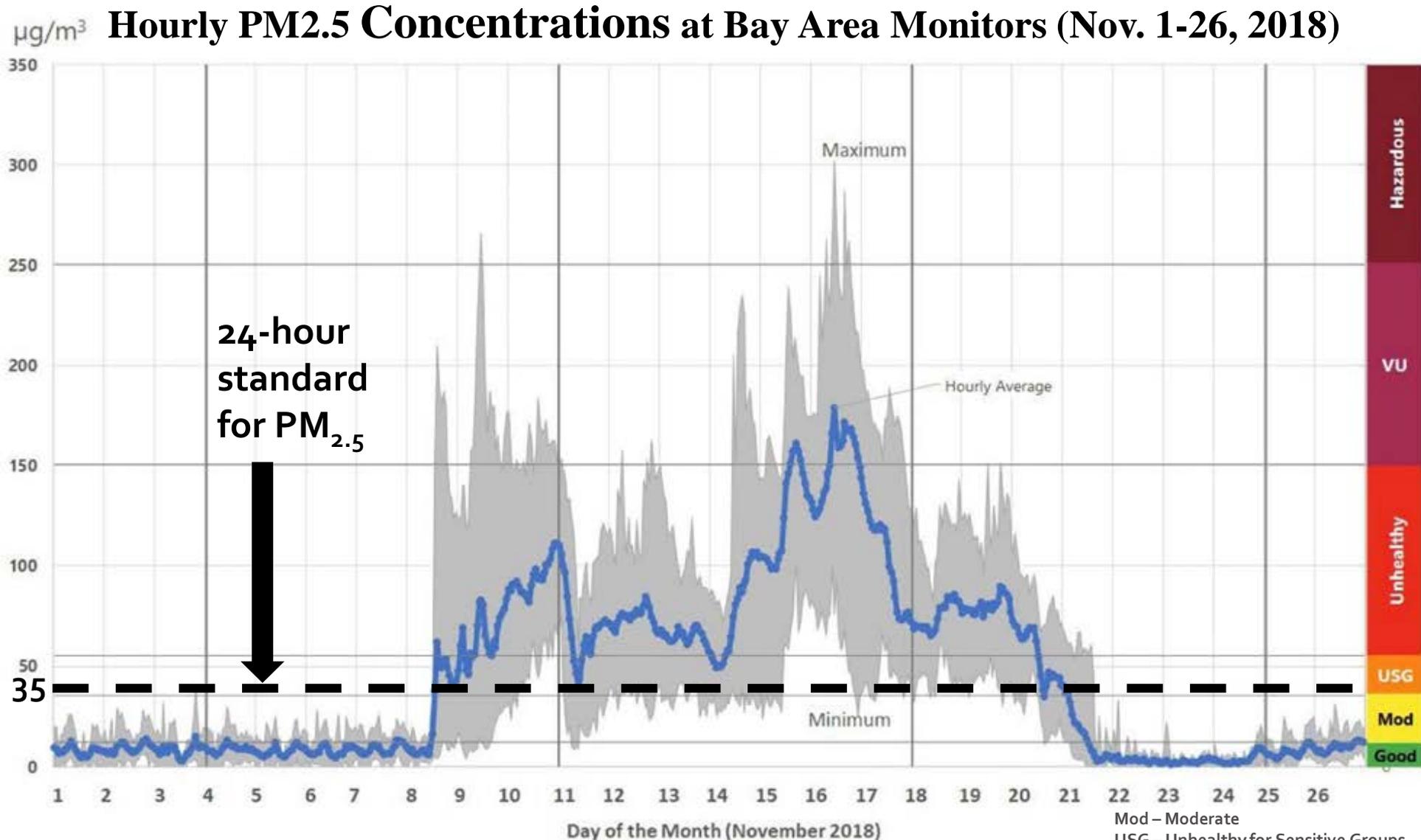
Local and Regional Particulate Matter (PM)_{2.5} Impacts

20 HIGHEST BAY AREA PARTICULATE POLLUTION DAYS SINCE 1999

WILDFIRES
are increasingly devastating for our communities and greatly impact the air quality of the region.



Wildfire Smoke Impacts from Camp Fire



Impacts on Daily 24-Hour Average Air Quality Index (AQI)

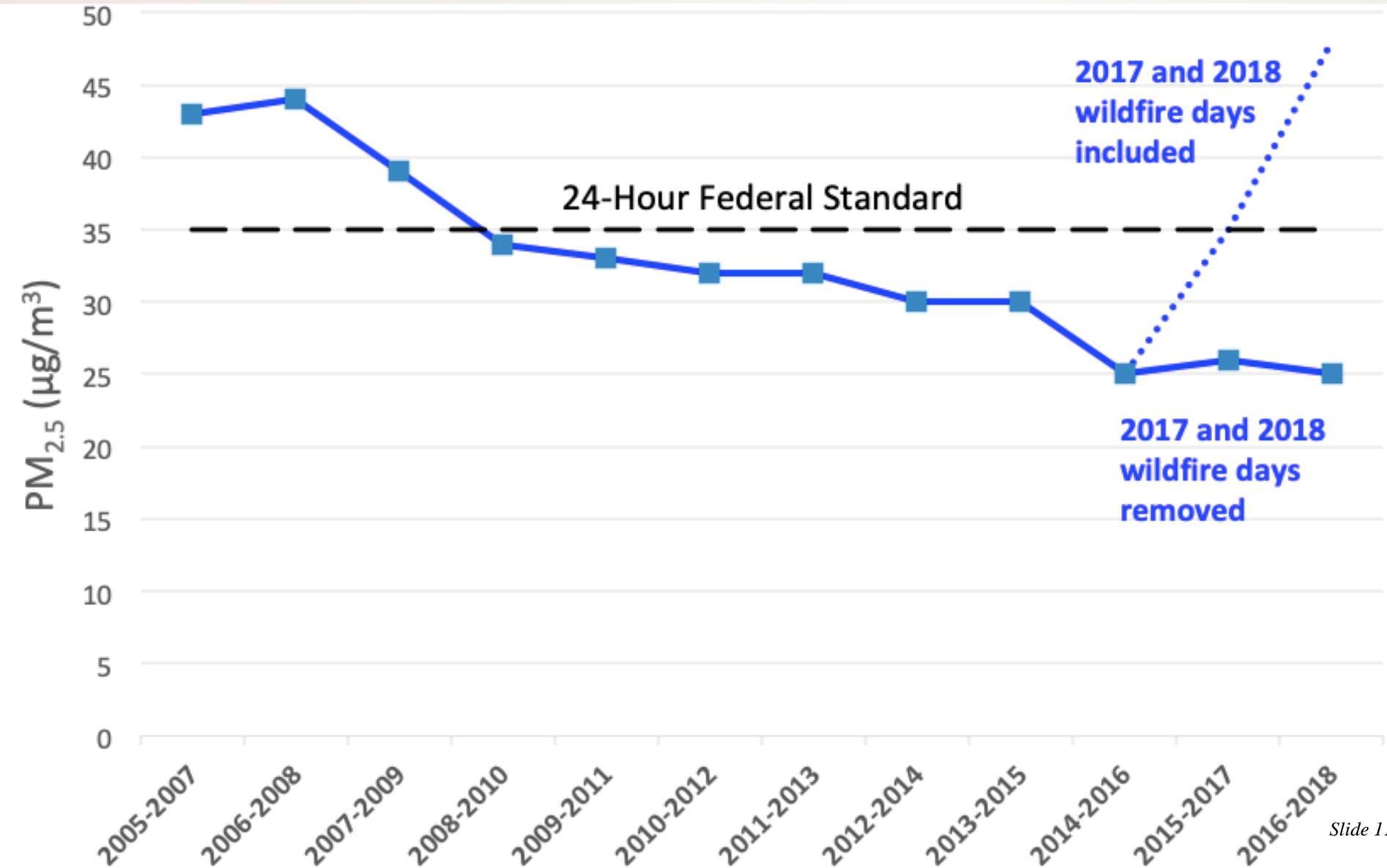
AQI values during Camp Fire

AQI Key

Air Quality Index (AQI) Values	Levels of Health Concern
0-50	Good
51-100	Moderate
101-150	Unhealthy for Sensitive Groups
151-200	Unhealthy
201-300	Very Unhealthy
301-500	Hazardous

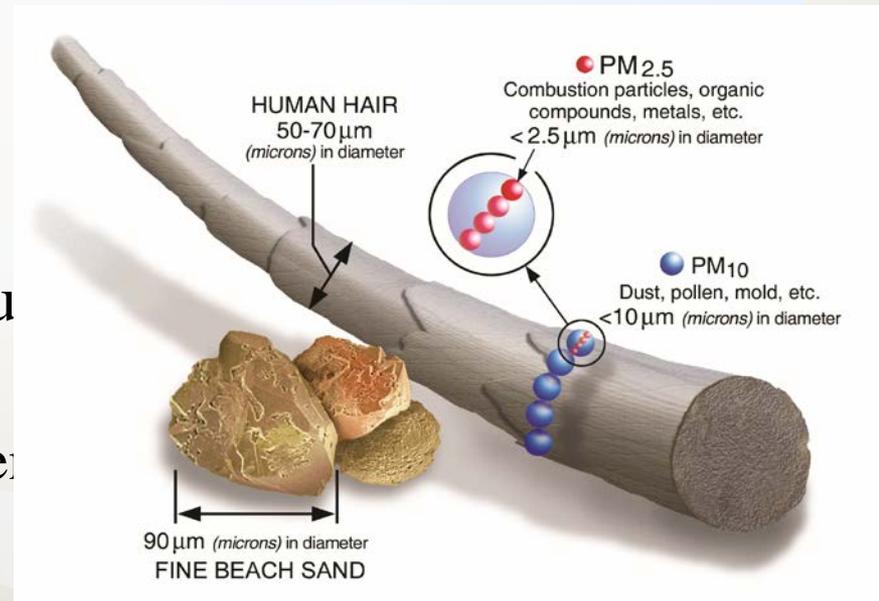
	Nov. 11	Nov. 12	Nov. 13	Nov. 14	Nov. 15	Nov. 16	Nov. 17
Northern Zone	165	171	172	166	186	247	186
Coast & Central Bay	167	167	164	173	203	245	184
Eastern Zone	159	162	151	186	193	223	210
South Central Bay	152	159	142	157	185	183	159
Santa Clara Valley	153	155	153	164	191	190	169

Bay Area PM2.5 Trend (2005 -2018)



Wildfire Smoke Composition

- Fine particulates
- Mixture of various organic and inorganic gases
- Products of combustion from vegetation
- Chemicals from burning structures and vehicles
 - Metals – lead, chromium, arsenic, copper, mercury
 - Plastics - Polycyclic aromatic hydrocarbons
 - Insulation – Asbestos, Fiberglass

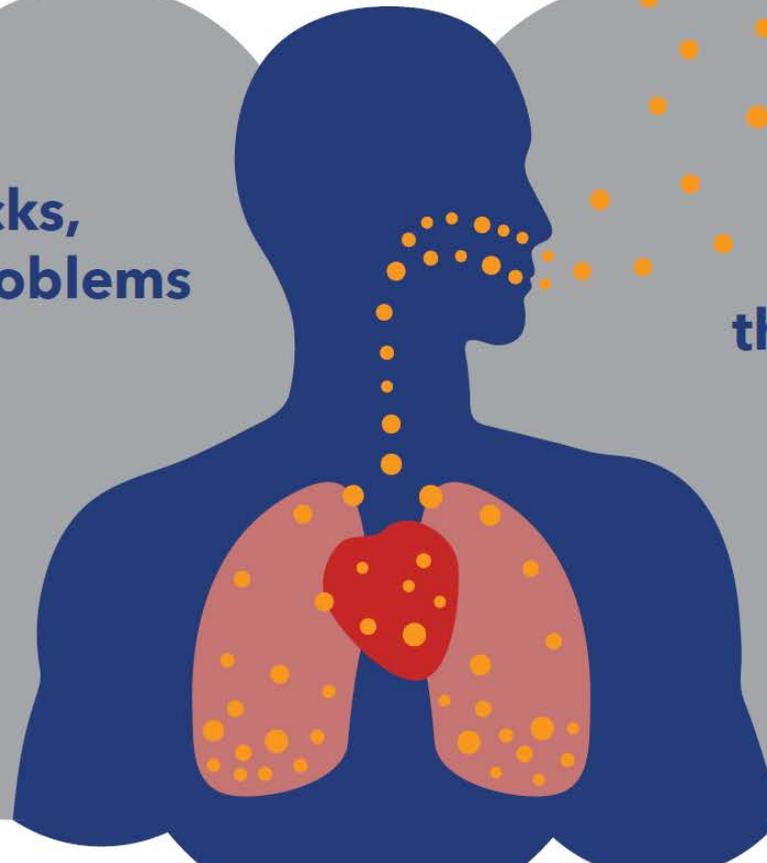


Health Effects of PM2.5

WILDFIRE POLLUTION **HARMS HEALTH**

**Asthma attacks,
breathing problems**

**Premature
death**



**Eye, lung,
throat irritation**

**Heart disease
effects
worsened**

Goals of Proposed Rule Amendments

- Protect public health and air quality when wildfire smoke affects air quality in the Bay Area
- Align with statewide efforts to prevent destructive wildfires through fuels reduction projects

The background features a light beige gradient with several wavy, horizontal bands in shades of light blue and cream. On the left side, there are diagonal stripes in dark grey, orange, and dark red. The text is centered in a bold, black, serif font with a slight drop shadow.

Regulation 5: Open Burning

Regulation 5: Open Burning (Current Rule)

- Limits outdoor burning to 17 Allowable Fires
- Burning allowed on designated permissive burn days when meteorological conditions are favorable for smoke dispersion
- Fees required to burn

Regulation 5: Open Burning

Prescribed Burning



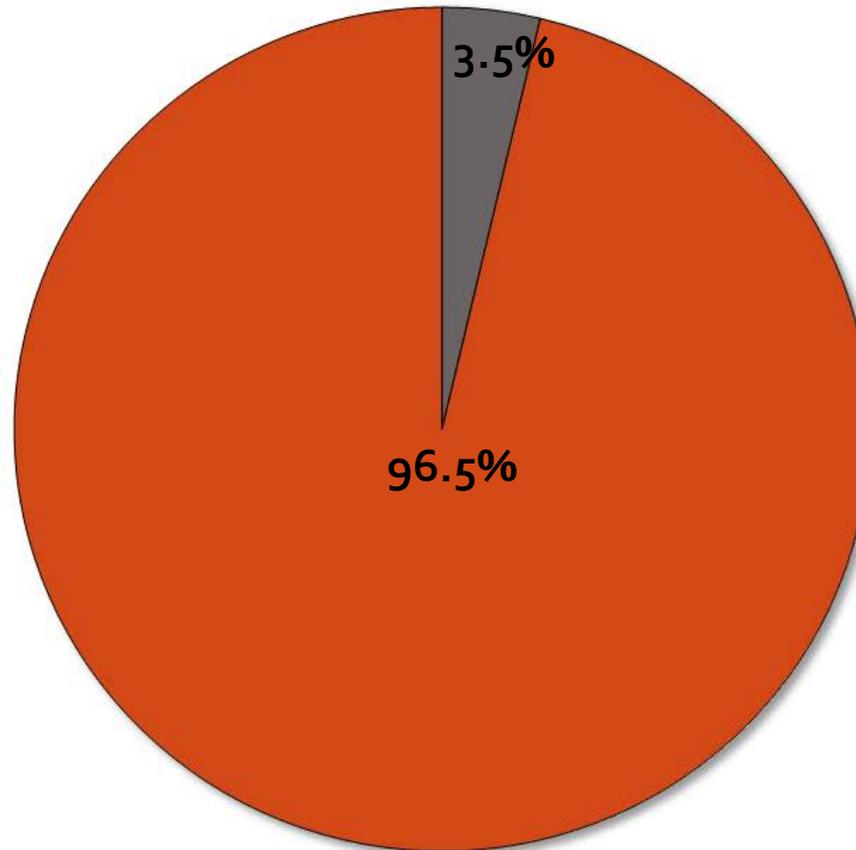
- Planned, controlled burning of vegetation to achieve natural resource management goals
- Designed to burn less intensely than wildfires and are lit under controlled conditions to minimize potential smoke impacts
- Necessary to promote ecosystem health and lower the likelihood that severe wildfires will occur

2017 Open Burning PM2.5 Emissions

Prescribed Burning vs. All Other Allowable Fires

Allowable Fires

1. Disease & Pest
2. Crop Replacement
3. Orchard Pruning & Attrition
4. Double Cropping Stubble
5. Stubble
6. Hazardous Material
7. Fire Training
8. Flood Debris
9. Irrigation Ditches
10. Flood Control
11. Range Management
12. Forest Management
13. Marsh Management
14. Contraband
- 15. Prescribed Burning**
16. Filmmaking
17. Public Exhibition



**Open Burning
accounts for
approx.
175 tons PM2.5
per year**

■ Prescribed Burning ■ Other Allowable Fires

Plans and Acreage Burned 2008-2018

Registered Prescribed Burn Plans and Acreage Burned 2008-2018



Regulation 5 Proposed Amendments

Limited Exemption: Public Agency Wildfire Prevention (Section 113)

- Any public agency conducting a prescribed burn for the purpose of wildfire prevention is exempt from the Open Burn Fees

Public Agency (Section 225)

- Any agency, political subdivision, or unit of local, state or federal government

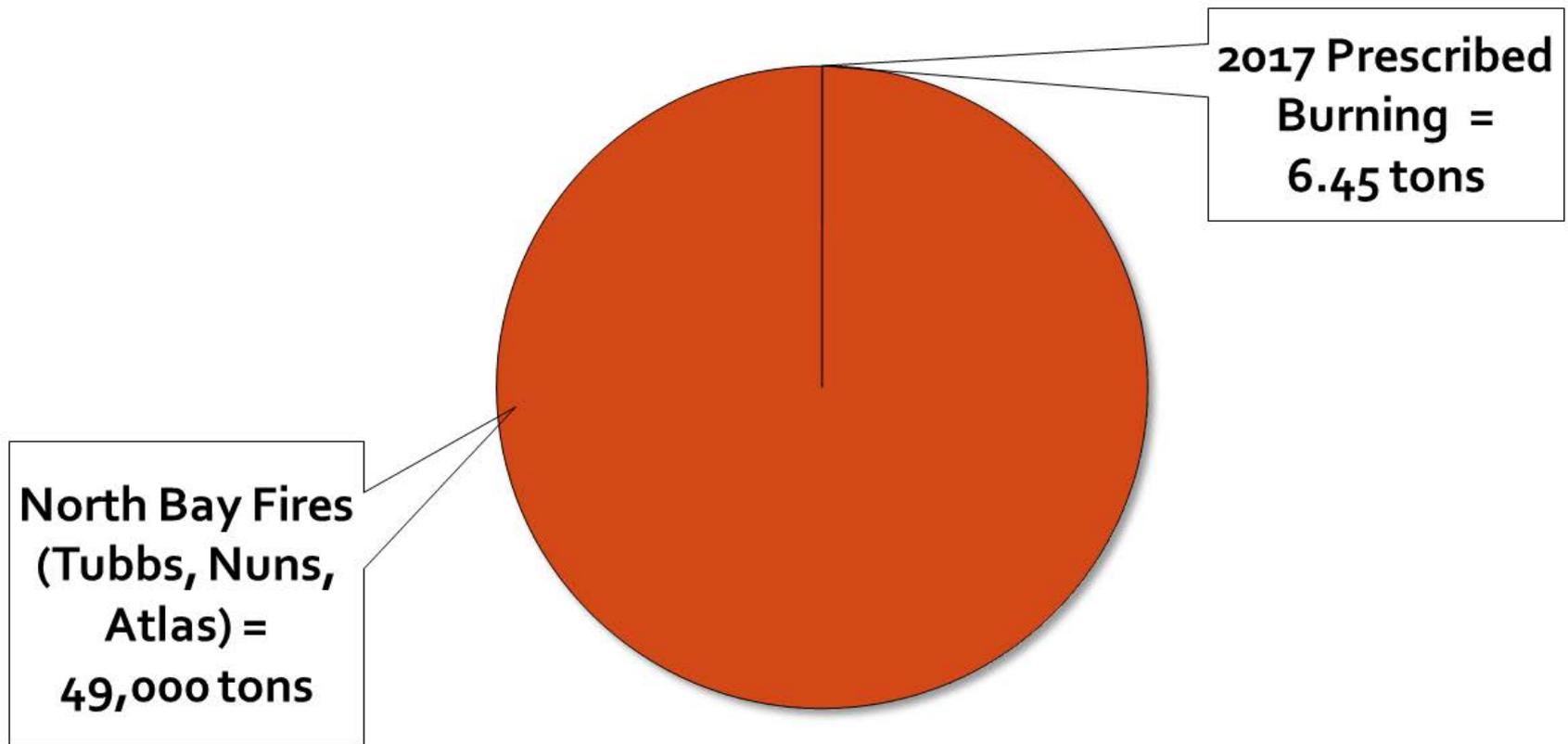
Regulation 5 Proposed Amendments (Cont'd)

Allowable Fires: Crop Replacement (Section 401.2), Hazardous Material (Section 401.6), Range Management (Section 401.11), Forest Management (Section 401.12)

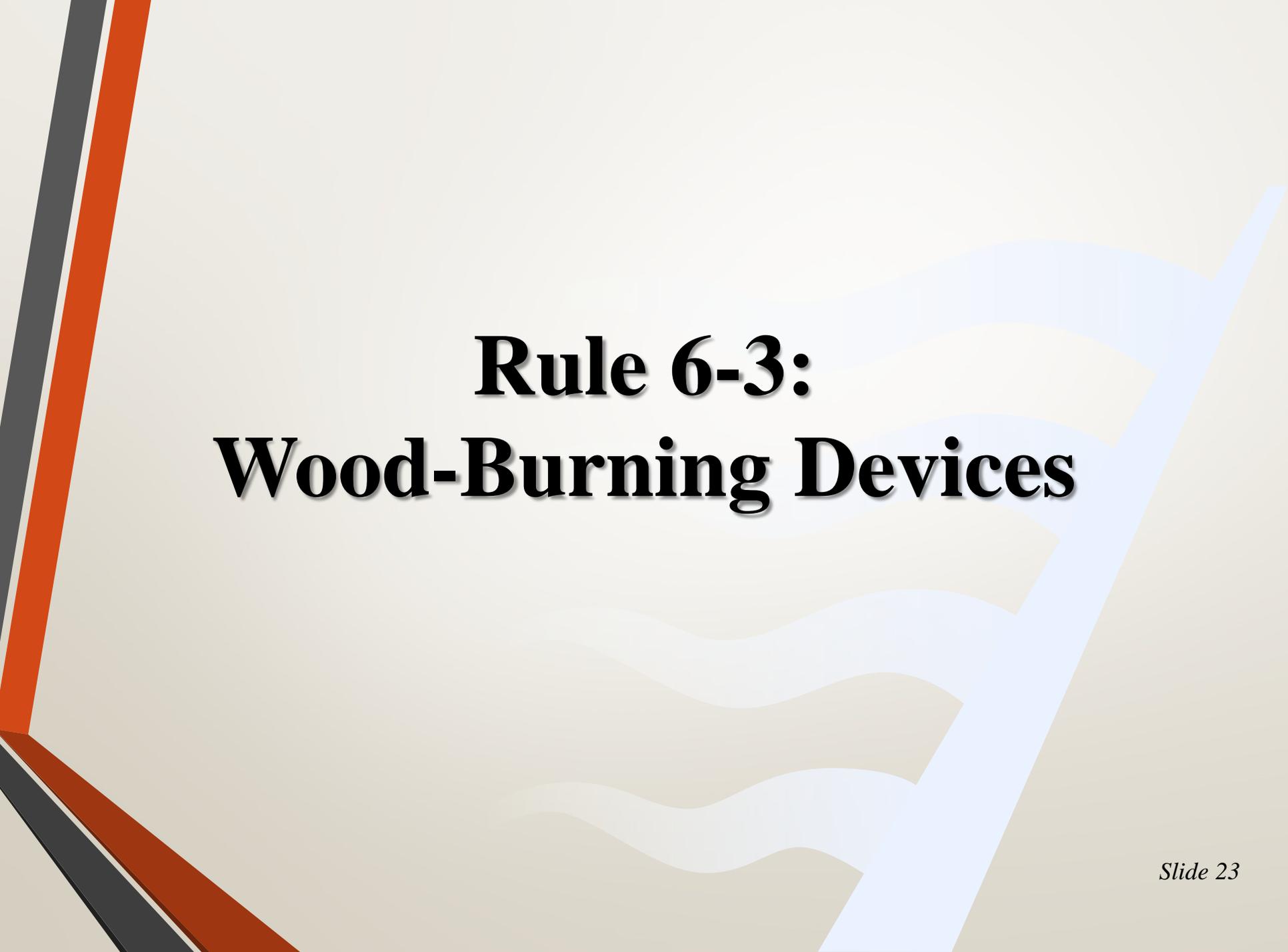
- Clarify that specific fire types are regulated as Prescribed Burning when fires are larger than 10 acres

Regulation 5 PM_{2.5} Emissions Estimates

2017 Prescribed Burning vs. North Bay Fires (Tubbs, Nuns, Atlas)



■ 2017 Prescribed Burning ■ North Bay Fires (Tubbs, Nuns, Atlas)

The background features a light beige gradient with several wavy, horizontal bands in shades of light blue and cream. On the left side, there are diagonal stripes in dark grey, orange, and dark red.

Rule 6-3: Wood-Burning Devices

Rule 6-3: Wood-Burning Devices (Current Rule)

- Limits emissions of particulate matter and visible emissions from wood-burning devices used for primary heat, supplemental heat or ambiance
- November through February
- Issue a “Winter Spare the Air Alert”
- Prohibits wood burning when air quality is forecasted to exceed $35 \mu\text{g}/\text{m}^3$

Rule 6-3 Proposed Amendments

Burning Prohibited During Mandatory Burn Ban (Section 301)

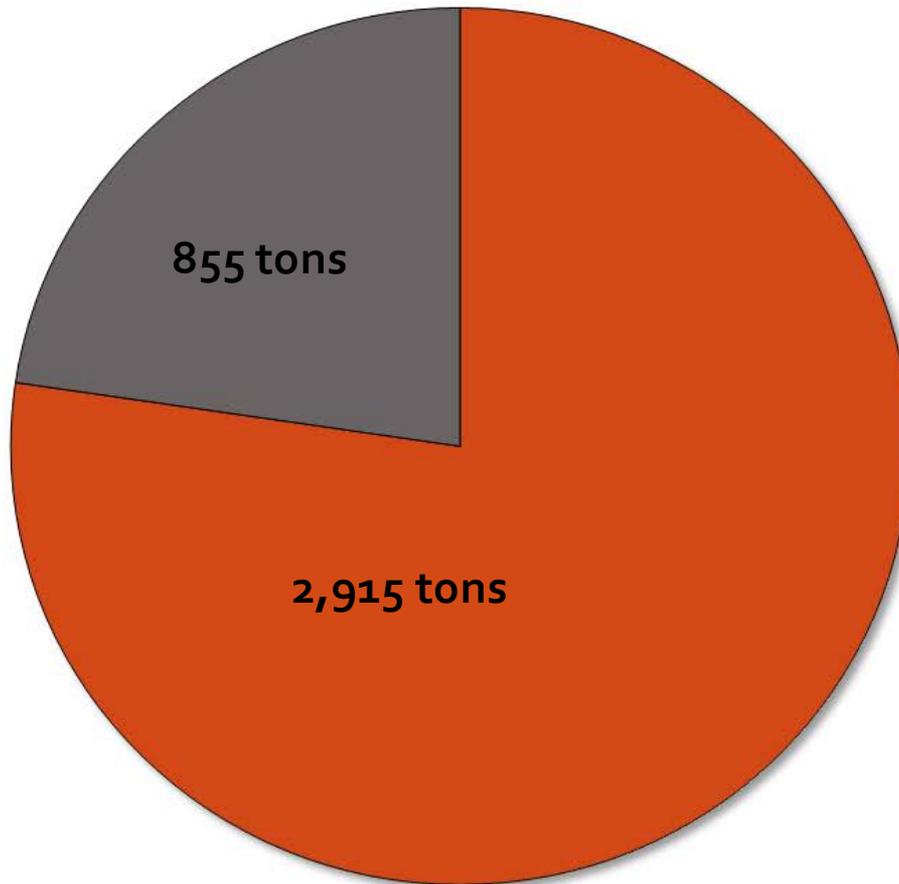
- Prohibit wood burning when air quality is forecasted to exceed $35 \mu\text{g}/\text{m}^3$
- Applicable year-round
- *No changes to the existing Limited Exemptions*

Bay Area PM_{2.5} Exceedances 2015-2019

Year	Days >35 $\mu\text{g}/\text{m}^3$ due to Wildfires (PM _{2.5})	Days >35 $\mu\text{g}/\text{m}^3$ due to Wintertime Wood Burning (PM _{2.5})	Total Days >35 $\mu\text{g}/\text{m}^3$ (PM _{2.5})
2015	3	6	9
2016	0	0	0
2017	14	4	18
2018	16	4	20
2019	1	0	1

Rule 6-3 PM_{2.5} Emissions Reductions Estimates

2018 PM_{2.5} Emissions from Wood-Burning Devices



■ November-February (Winter Season)

■ March-October

	Estimated Emissions Reductions
Average Day (Mar – Oct)	~3.5 tons per day
Projected 5 days of wildfires per year	~17.5 tons per year

Rule Development Process

- Outreach to Public and Interested Stakeholders
- Public Workshop July 24, 2019
- Interim Public Comment Period
(July 1, 2019 – August 12, 2019)
- 30-Day Public Comment Period
(September 23, 2019 – October 23, 2019)
 - Proposed Rules
 - Staff Report
 - CEQA & Socioeconomic Analyses

Summary of 30 Day Public Comments

Regulation 5

- Support for exempting fees for public agencies
- Consider PM2.5 impacts from open burning
- Consider exempting fees for non-public agencies

Rule 6-3

- Support for year-round Mandatory Burn Ban
- Support for additional rule amendment efforts in near future to continue to transition Bay Area to cleaner heating devices

Socioeconomic Analysis

Conducted by Bay Area Economics

Regulation 5

- Proposed amendments are not expected to have any impact
- Fee exemption is beneficial to public agencies

Rule 6-3

- Proposed amendments are not expected to have a potential for significant impacts on businesses

Regulation 5

- Determined to be exempt
 - Necessary to prevent or mitigate wildfire-related emergencies
 - Modification of fees

Rule 6-3

- Determined to be exempt
 - Necessary to prevent or mitigate wildfire-related emergencies
- Rule 6-3 Environmental Impact Report (EIR) (certified by the Board in 2008)
 - No significant adverse environmental impacts from prohibiting wood burning

Recommended Actions

- Adopt proposed amendments to Regulation 5: Open Burning;
- Adopt proposed amendments to Regulation 6: Particulate Matter and Visible Emissions, Rule 3: Wood Burning Devices; and
- Approve filing a Notice of Exemption / Determination pursuant to CEQA.



BAY AREA
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Air District Incident Response Role and Report on Recent Incident Response Events

Board of Directors Meeting
November 20, 2019

Wayne Kino
Deputy Air Pollution Control Officer



Overview

- Air District Role in an Incident
- Air District Discovery/Notification
- Air District Response Objectives
- NuStar Incident
- Wildfires
- Summary



Air District Role

The Air District's primary role in an incident is to provide support for emergency first responders to help minimize the impact of the incident on the public.



Discovery/Notification

- Observation of an accidental release
- Citizen complaints
- Emergency response agencies
- Media reports
- Facility notification
- Community Awareness & Emergency Response (CAER) program (Contra Costa County only)



Response Objectives

- Support first responders:
 - Identify Source(s)
 - Provide Air Quality/Meteorology Information
- Gather information identifying emissions, community impacts, and equipment involved
- Document Air Quality Violations
- Determine additional Air District resources to be deployed
- Coordinate effort with other relevant agencies



NuStar Energy LP

October 15, 2019 Incident



6:31

KTVU.COM

PALO ALTO

8AM FOG 52° NOON 68° 5PM 70°

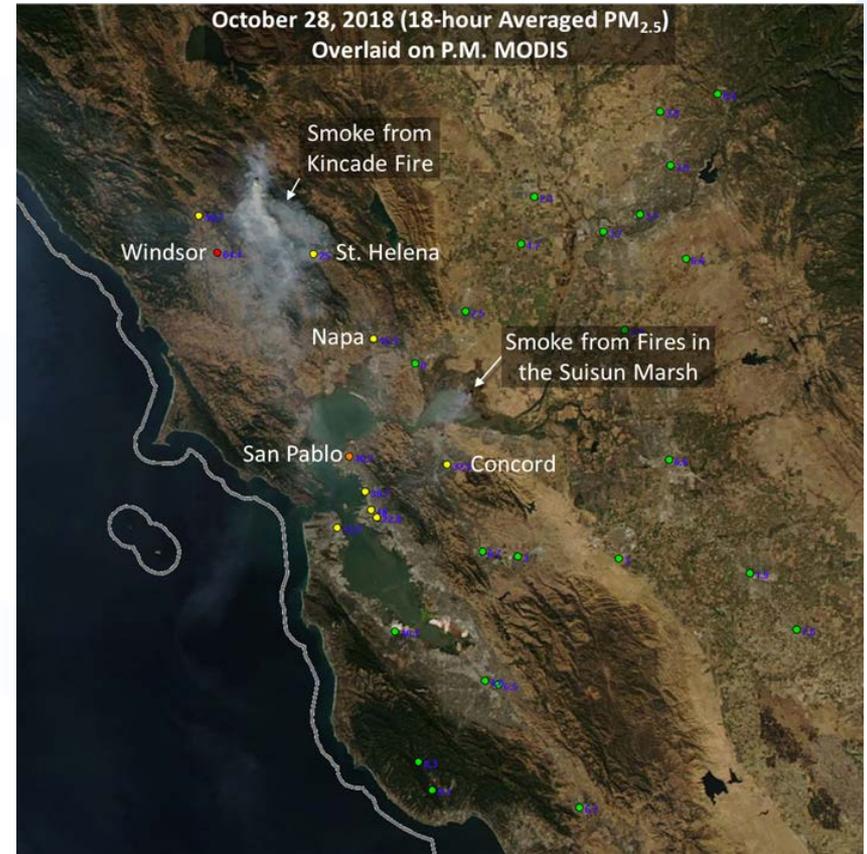
CROCKETT

I-80 E

NUSTAR ENERGY FACILITY FIRE

bing

California Map of Fires





Questions?



Assembly Bill (AB) 617 Implementation: Update and Next Steps

Board of Directors Meeting
November 20, 2019

Elizabeth Yura
Community Engagement & Strategic Policy

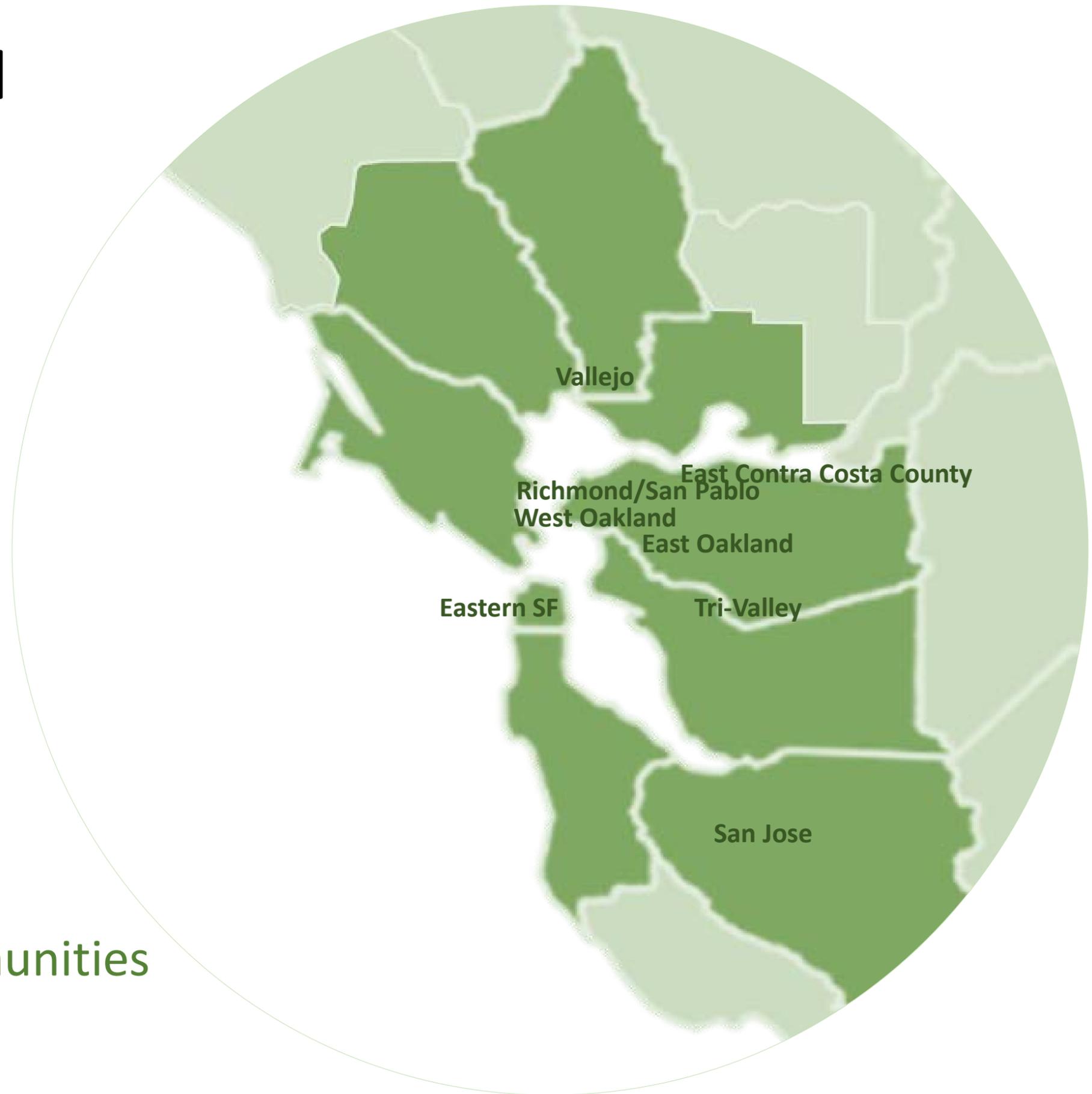
2019 Accomplishments

- Completed West Oakland Community Action Plan
- Working towards draft Richmond-San Pablo Monitoring Plan
- Began initial screening monitoring
- Distributed \$350 thousand for building capacity to high priority AB 617 communities
- Distributed \$59 million in mobile incentives since 2017



AB 617 2020: Regional

- Environmental Justice Working Group
- Rulemaking
- Criteria & Toxics Rule Reporting
- Inter-Governmental Coordination
- Regional Modeling and Monitoring
- Incentives to AB 617 communities



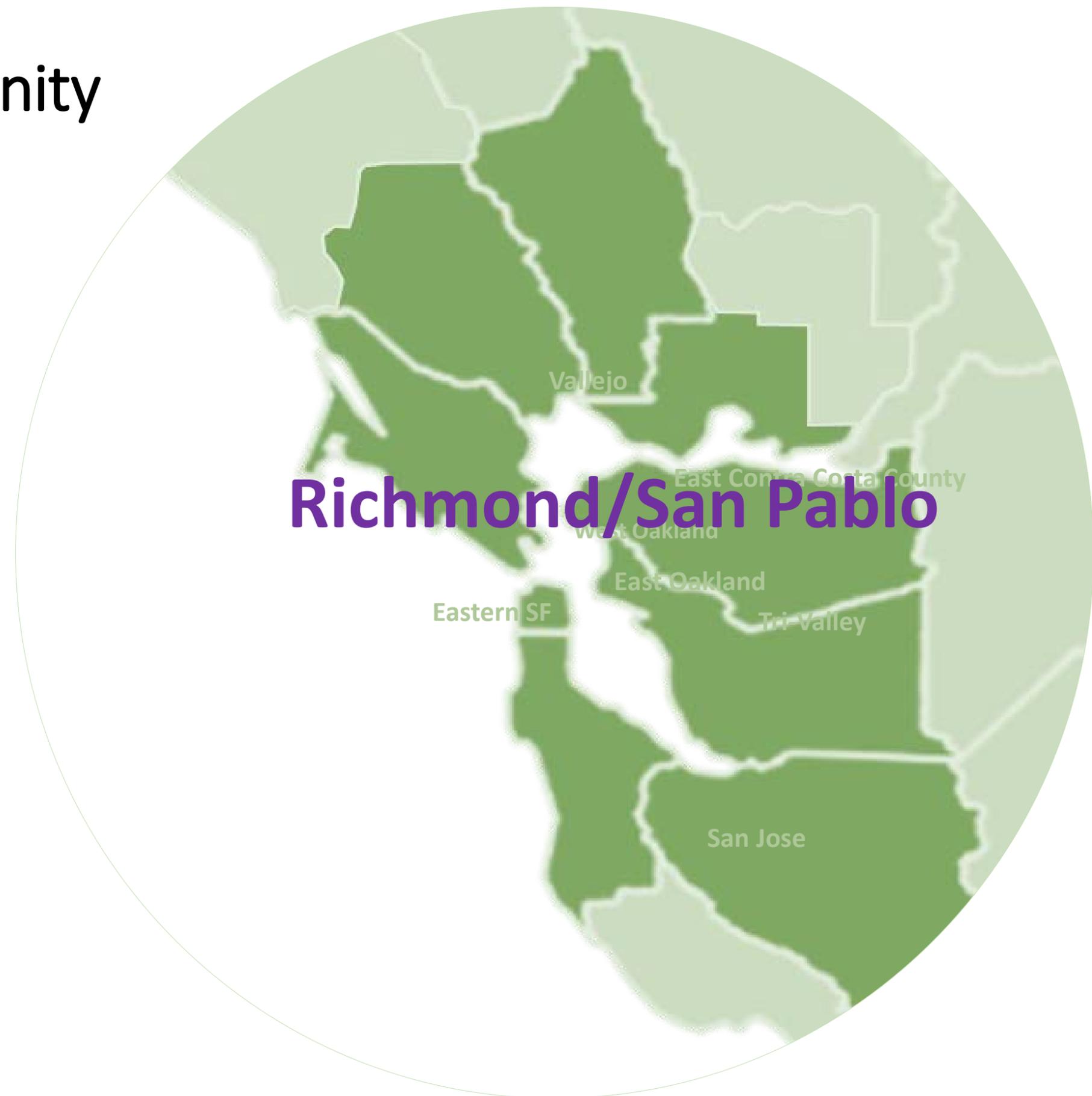
AB 617 2020: Community

- Implement Plan
- Collaborate with Port
- Track progress
- Update local emissions
- Track health indicators



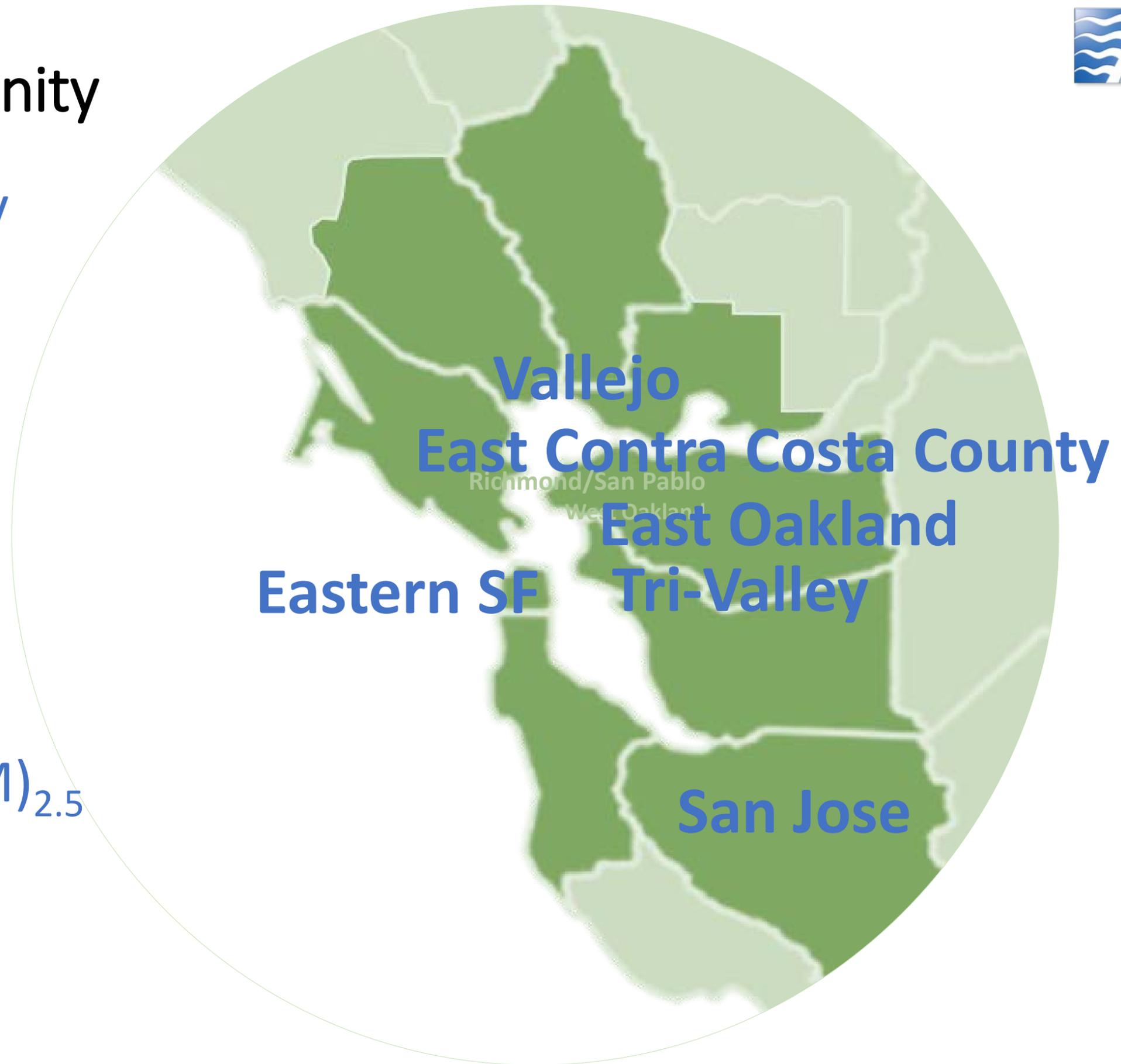
AB 617 2020: Community

- Develop and implement Monitoring Plan
- Evaluate new monitoring data
- Act on immediate strategies
- Pre-selection Community Emission Reduction Program (CERP) work
- Verify and validate emissions
- Review land use data
- Gather and track health data



AB 617 2020: Community

- Implement community grants
- Build relationships
- Complete needs assessments
- Estimate drivers of particulate matter (PM)_{2.5} exposure
- Review land use data



Next Steps in Program Management

- Develop workplan for AB 617 Program
- Adjust staffing levels as needed
- Determine the level of effort possible with existing state funding
- Incorporate workplan into planning for next budget cycle
- Determine funding request for next Legislative session

