



BOARD OF DIRECTORS
COMMUNITY EQUITY, HEALTH, AND JUSTICE COMMITTEE

May 8, 2024

BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

COMMITTEE MEMBERS

JOHN GIOIA – CHAIR
JOELLE GALLAGHER
SHAMANN WALTON

NOELIA CORZO – VICE-CHAIR
NATE MILEY

**MEETING LOCATION(S) FOR IN-PERSON ATTENDANCE BY
COMMITTEE MEMBERS AND MEMBERS OF THE PUBLIC**

**Bay Area Metro Center
1st Floor Temazcal Room
375 Beale Street
San Francisco, CA 94105**

**Office of Contra Costa County
Supervisor John Gioia
Conference Room
11780 San Pablo Ave., Suite D
El Cerrito, CA 94530**

THE FOLLOWING STREAMING OPTIONS WILL ALSO BE PROVIDED

These streaming options are provided for convenience only. In the event that streaming connections malfunction for any reason, the Community Equity, Health and Justice Committee reserves the right to conduct the meeting without remote webcast and/or Zoom access.

The public may observe this meeting through the webcast by clicking the link available on the air district's agenda webpage at www.baaqmd.gov/bodagendas.

Members of the public may participate remotely via Zoom at <https://bayareametro.zoom.us/j/84313544939>, or may join Zoom by phone by dialing (669) 900-6833 or (408) 638-0968. The Webinar ID for this meeting is: 843 1354 4939

Public Comment on Agenda Items: The public may comment on each item on the agenda as the item is taken up. Members of the public who wish to speak on a matter on the agenda will have two minutes each to address the Committee on that agenda item, unless a different time limit is established by the Chair. No speaker who has already spoken on an item will be entitled to speak to that item again.

The Committee welcomes comments, including criticism, about the policies, procedures, programs, or services of the District, or of the acts or omissions of the Committee. Speakers shall not use threatening, profane, or abusive language which disrupts, disturbs, or otherwise impedes the orderly conduct of a Committee meeting. The District is committed to maintaining a workplace free of unlawful harassment and is mindful that District staff regularly attend Committee meetings. Discriminatory statements or conduct that would potentially violate the Fair Employment and Housing Act – i.e., statements or conduct that is hostile, intimidating, oppressive, or abusive – is *per se* disruptive to a meeting and will not be tolerated.

COMMUNITY EQUITY, HEALTH, AND JUSTICE COMMITTEE MEETING AGENDA

**WEDNESDAY, MAY 8, 2024
1:00 PM**

Chairperson, John Gioia

1. Call to Order - Roll Call

The Committee Chair shall call the meeting to order and the Clerk of the Boards shall take roll of the Committee members.

2. Pledge of Allegiance

CONSENT CALENDAR (Item 3)

3. Approval of the Draft Minutes of the Community Equity, Health and Justice Committee Meeting of April 22, 2024

The Committee will consider approving the Draft Minutes of the Community Equity, Health and Justice Committee meeting of April 22, 2024.

INFORMATIONAL ITEM(S)

4. Marie Harrison Environmental Justice Scholarship Update

The Committee will receive a presentation from Arieann Harrison, Founder and Executive Director of the Marie Harrison Community Foundation and Daniel S. Madrigal, a Senior Staff Specialist in the Community Engagement Office, about the Air District supported Marie Harrison Environmental Justice Scholarship program. The scholarship program awarded seven scholarships to college students doing environmental justice work in 2023, its inaugural year. The scholarship committee is now accepting applications for the second year of the program until May 31, 2024.

5. Air Monitoring Data for Bay Area Communities

The Committee will receive a presentation on the various types of air monitoring data available to communities and ideas on how to better provide communities with tools and information to access, interpret and use available data. This item will be presented by Dr. Kate Hoag, Assistant Manager, Measurement & Meteorology.

OTHER BUSINESS

6. Public Comment on Non-Agenda Matters

Pursuant to Government Code Section 54954.3, members of the public who wish to speak on matters not on the agenda will be given an opportunity to address the Committee. Members of the public will have two minutes each to address the Committee, unless a different time limit is established by the Chair. The Committee welcomes comments, including criticism, about the policies, procedures, programs, or services of the District, or of the acts or omissions of the Committee. Speakers shall not use threatening, profane, or abusive language which disrupts, disturbs, or otherwise impedes the orderly conduct of a Committee meeting. The District is committed to maintaining a workplace free of unlawful harassment and is mindful that District staff regularly attend Committee meetings. Discriminatory statements or conduct that would potentially violate the Fair Employment and Housing Act – i.e., statements or conduct that is hostile, intimidating, oppressive, or abusive – is per se disruptive to a meeting and will not be tolerated.

7. Committee Member Comments

Any member of the Committee, or its staff, on his or her own initiative or in response to questions posed by the public, may: ask a question for clarification, 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 take action to direct staff to place a matter of business on a future agenda. (Gov't Code § 54954.2)

8. Report of the Deputy Executive Officer of Equity and Community Programs

9. Time and Place of Next Meeting

Wednesday, June 12, 2024, at 1:00 p.m. at 375 Beale Street, San Francisco, CA 94105. The meeting will be in-person for the Community Equity, Health and Justice Committee members and members of the public will be able to either join in-person or via webcast.

10. Adjournment

The Committee meeting shall be adjourned by the Chair.

CONTACT:

MANAGER, EXECUTIVE OPERATIONS
375 BEALE STREET, SAN FRANCISCO, CA 94105
vjohnson@baaqmd.gov

(415) 749-4941
FAX: (415) 928-8560
BAAQMD homepage:
www.baaqmd.gov

- Any writing relating to an open session item on this Agenda that is distributed to all, or a majority of all, members of the body to which this Agenda relates shall be made available at the Air District's offices at 375 Beale Street, Suite 600, San Francisco, CA 94105, at the time such writing is made available to all, or a majority of all, members of that body.

Accessibility and Non-Discrimination Policy

The Bay Area Air Quality Management District (Air District) does not discriminate on the basis of race, national origin, ethnic group identification, ancestry, religion, age, sex, sexual orientation, gender identity, gender expression, color, genetic information, medical condition, or mental or physical disability, or any other attribute or belief protected by law.

It is the Air District's policy to provide fair and equal access to the benefits of a program or activity administered by Air District. The Air District will not tolerate discrimination against any person(s) seeking to participate in, or receive the benefits of, any program or activity offered or conducted by the Air District. Members of the public who believe they or others were unlawfully denied full and equal access to an Air District program or activity may file a discrimination complaint under this policy. This non-discrimination policy also applies to other people or entities affiliated with Air District, including contractors or grantees that the Air District utilizes to provide benefits and services to members of the public.

Auxiliary aids and services including, for example, qualified interpreters and/or listening devices, to individuals who are deaf or hard of hearing, and to other individuals as necessary to ensure effective communication or an equal opportunity to participate fully in the benefits, activities, programs and services will be provided by the Air District in a timely manner and in such a way as to protect the privacy and independence of the individual. Please contact the Non-Discrimination Coordinator identified below at least three days in advance of a meeting so that arrangements can be made accordingly.

If you believe discrimination has occurred with respect to an Air District program or activity, you may contact the Non-Discrimination Coordinator identified below or visit our website at www.baaqmd.gov/accessibility to learn how and where to file a complaint of discrimination.

Questions regarding this Policy should be directed to the Air District's Non-Discrimination Coordinator, Suma Peesapati, at (415) 749-4967 or by email at speesapati@baaqmd.gov.

**BAY AREA AIR QUALITY MANAGEMENT DISTRICT
375 BEALE STREET, SAN FRANCISCO, CA 94105
FOR QUESTIONS PLEASE CALL (415) 749-4941**

**EXECUTIVE OFFICE:
MONTHLY CALENDAR OF AIR DISTRICT MEETINGS**

MAY 2024

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Board of Directors Stationary Source Committee	Wednesday	8	10:00 a.m.	1st Floor, Temazcal Room
Board of Directors Community Equity, Health and Justice Committee	Wednesday	8	1:00 p.m.	1st Floor, Temazcal Room
Board of Directors Finance and Administration Committee	Wednesday	15	10:00 a.m.	1st Floor Board Room
Board of Directors Policy, Grants and Technology Committee	Wednesday	15	1:00 p.m.	1st Floor Board Room
Board of Directors Community Advisory Council Meeting	Thursday	16	6:00 p.m.	California State University East Bay Oakland Professional & Conference Center Trans Pacific Center 1000 Broadway, Suite 109 Oakland, CA 94607

JUNE 2024

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Board of Directors Special Meeting as the Sole Member of the Bay Area Clean Air Foundation	Wednesday	5	9:45 a.m.	1st Floor Board Room
Board of Directors Meeting	Wednesday	5	10:00 a.m.	1st Floor Board Room
Board of Directors Stationary Source Committee	Wednesday	12	10:00 a.m.	1st Floor, Temazcal Room
Board of Directors Community Equity, Health and Justice Committee	Wednesday	12	1:00 p.m.	1st Floor, Temazcal Room
Board of Directors Finance and Administration Committee	Wednesday	26	10:00 a.m.	1st Floor, Temazcal Room

JULY 2024

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Board of Directors Meeting - CANCELLED	Wednesday	10	10:00 a.m.	1st Floor Board Room
Board of Directors Stationary Source Committee	Wednesday	17	10:00 a.m.	1st Floor, Temazcal Room
Board of Directors Community Equity, Health and Justice Committee	Wednesday	17	1:00 p.m.	1st Floor, Temazcal Room
Board of Directors Community Advisory Council Meeting	Thursday	18	6:00 p.m.	1st Floor Board Room
Board of Directors Policy, Grants, and Technology Committee	Wednesday	24	10:00 a.m.	1st Floor, Temazcal Room

HL 5/1/2024 – 2:15 p.m.

G/Board/Executive Office/Moncal

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson John Gioia and Members
of the Community Equity, Health and Justice Committee

From: Philip M. Fine
Executive Officer/APCO

Date: May 8, 2024

Re: Approval of the Draft Minutes of the Community Equity, Health and Justice
Committee Meeting of April 22, 2024

RECOMMENDED ACTION

Approve the attached Draft Minutes of the Community Equity, Health and Justice Committee meeting of April 22, 2024.

BACKGROUND

None.

DISCUSSION

Attached for your review and approval are the Draft Minutes of the Community Equity, Health and Justice Committee meeting of April 22, 2024.

BUDGET CONSIDERATION/FINANCIAL IMPACT

None.

Respectfully submitted,

Philip M. Fine
Executive Officer/APCO

Prepared by: Marcy Hiratzka
Reviewed by: Vanessa Johnson

ATTACHMENTS:

- 1. Draft Minutes of the Community Equity, Health and Justice Committee Meeting of April 22, 2024

Bay Area Air Quality Management District
City of San Pablo City Hall, Council Chambers
1000 Gateway Ave
San Pablo, CA 94806

Community Equity, Health & Justice Special Committee
Wednesday, April 22, 2024

DRAFT MINUTES

This meeting was webcast, and a video recording is available on the website of the Bay Area Air Quality Management District at www.baaqmd.gov/bodagendas

CALL TO ORDER

1. **Opening Comments:** Community Equity, Health & Justice Committee (Committee) Chairperson, John Gioia, called the meeting to order at 5:39 p.m.

Roll Call:

Note: For this meeting only, Board Chair Hurt appointed herself to replace Director Nate Miley (who is a member of this Committee, but could not be present) to establish a quorum.

Present, In-Person (City of San Pablo City Hall, Council Chambers, 1000 Gateway Ave, San Pablo, CA 94806): Committee Chairperson John Gioia; Board Chairperson Davina Hurt; and Director Shamann Walton.

Participated Remotely, via Zoom (remote presence does not count for quorum, but votes are counted for all action items): Committee Vice Chairperson Noelia Corzo (just cause.)

Absent: Director Joelle Gallagher.

2. **PLEDGE OF ALLEGIANCE**

OTHER BUSINESS (OUT OF ORDER)

3. **REPORT OF THE ACTING DEPUTY EXECUTIVE OFFICER OF EQUITY AND COMMUNITY PROGRAMS (ITEM 8)**

Committee Chair Gioia asked Dr. Philip M. Fine, Executive Officer / Air Pollution Control Officer, to move his report up in the meeting. Dr. Fine announced the following appointments:

- Tim Williams was appointed as the new Director of Diversity, Equity, and Inclusion, effective April 22, 2024.
- Arsenio Mataka was appointed as the new Deputy Executive Officer for Equity and Community Programs, effective June 2024.

Public Comments

Public comments were given by Ms. Margaret Gordon, West Oakland Environmental Indicators Project.

CONSENT CALENDAR

4. APPROVAL OF THE DRAFT MINUTES OF THE COMMUNITY EQUITY, HEALTH & JUSTICE COMMITTEE MEETING OF MARCH 13, 2024 (ITEM 3)

Public Comments

No requests received.

Committee Comments

None.

Committee Action

Director Walton made a motion, seconded by Board Chair Hurt, to **approve** the Minutes of the Community, Equity, Health & Justice Committee of March 13, 2024; and the motion **carried** by the following vote of the Committee:

AYES:	Corzo, Gioia, Hurt, Walton.
NOES:	None.
ABSTAIN:	None.
ABSENT:	Gallagher.

ACTION ITEM

5. COMMUNITY EMISSIONS REDUCTION PLAN FOR THE RICHMOND, NORTH RICHMOND, AND SAN PABLO PATH TO CLEAN AIR (PTCA) AREA (ITEM 4)

Diana Ruiz, Community Engagement Manager, and Dr. Wendy Goodfriend, Planning and Climate Protection Division Director, gave the presentation *Path to Clean Air Richmond-North Richmond-San Pablo Draft Final Community Emissions Reduction Plan*, including: outcome; outline; requested action; overview of the Path to Clean Air (PTCA); Community Steering Committee (CSC); PTCA Plan development process; PTCA plan goals; turning problems into solutions; fuel refining solutions; Example Fuel Refining Strategies the Air District Will Lead During Implementation; Fuel Refining Proposed Rules & Rule Related Actions; mobile source solutions; commercial and industrial solutions; Example C&I Strategies the Air District will Lead during Implementation; marine and rail solutions; public health solutions; Example Health Strategies the Air District Will Lead During Implementation; other proposed rules and rule related actions; Draft PTCA Plan public review; Community Steering Committee approval; compliance with California Environmental Quality Act (CEQA); Community Steering Committee Priorities and Insights; and recommended action.

Y’Anad Burrell, former Co-Chairperson of the Richmond, North Richmond, and San Pablo PTCA CSC, and Dr. Omoniyi Omotoso, M.D., a member of the aforementioned committee, gave additional comments on the proposed Draft Final Plan.

Public Comments

Public comments were given by Marilyn, Contra Costa County resident; Philip Rosenthal, Point Richmond Neighborhood Council; Willie Robinson, National Association for the Advancement of Colored People (NAACP) Richmond; Nancy Aguirre, PTCA CSC member; John; Jean Diller, San Pablo resident; Audrey Davidson, Richmond resident; Marisol Cantú, PTCA CSC member; Dr. Stephen Rosenblum, Palo Alto resident; Ms. Margaret Gordon, West Oakland Environmental Indicators Project; Maureen Brennan; Heidi Swillinger, PTCA CSC member; Jeff Kilbreth, PTCA CSC member; and Alfredo Angulo, PTCA CSC Co-Chair.

Committee Comments

The Committee and staff discussed the fact that this recommendation does not mark the end of a process, but the beginning; whether penalty funds allocated from the Air District Community Benefits Fund could fund the Final Plan’s implementation; CEQA exemptions; whether any of the proposed strategies address reducing flaring events; the definition of ‘just transition’ within the Draft Final Plan; the percentage of the proposed strategies within the Draft Final Plan that are truly within the AD’s control; whether there is a way to estimate implementation costs; anticipated metrics for progress and accountability; the desire to see a reduction in new public space and infrastructure; and appreciation for the time and experience of the PTCA CSC members and Air District staff who developed the Draft Final Plan.

Committee Action

Chair Gioia made a motion, seconded by Board Chair Hurt, to recommend the Board of Directors **adopt** the Draft Final Community Emissions Reduction Plan for the Richmond, North Richmond, and San Pablo Path to Clean Air Plan, and **approve** the determination that the adoption of the Draft Final Plan is exempt from the California Environmental Quality Act; and the motion **carried** by the following vote of the Committee:

AYES: Corzo, Gioia, Hurt, Walton.
NOES: None.
ABSTAIN: None.
ABSENT: Gallagher.

INFORMATIONAL ITEM

6. AIR DISTRICT RULE 6-5 SETTLEMENT AGREEMENT: COMMUNITY AIR QUALITY FUND (ITEM 5)

Gregory H. Nudd, Deputy Executive Officer, Science and Policy, gave the staff presentation *Air District Rule 6-5 Settlement Agreement: Community Air Quality Fund*, including: outcome; outline; information only; what is Air District Rule 6-5; Chevron fluid catalytic cracking unit (FCCU) Particulate Matter (PM) Impacts; refineries’ lawsuits; Chevron Settlement: Rule 6-5 Provisions; Community Air Quality Fund; examples of possible programs; and next steps.

Public Comments

The Committee solicited public input to develop a process to determine how the funds should be spent. Public comments were given by Cesar Zepeda, Richmond City Council; Nancy Aguirre, PTCA CSC member; Willie Robinson, NAACP Richmond Branch; Oscar Garcia, Iron Triangle Neighborhood Council; Philip Rosenthal, Point Richmond Neighborhood Council; Sandra Marquez; Heidi Swillinger, PTCA CSC member; and Ms. Margaret Gordon, West Oakland Environmental Indicators Project.

Committee Comments

The Committee and staff discussed reporting requirements; how ‘consulting’ is defined, and how consultants will be used in this process; the suggestion of highlighting health statistics/metrics that are in the PTCA Draft Final Plan to identify the highest cancer risk from PM; the belief that the initial payment of \$20M for the Community Air Quality Fund should be billions instead of millions; the anticipation of many eligible project applicants competing for this funding, and the best way to organize their input so that they all feel heard; the fact that the unhoused population in the vicinity of Richmond need attention as well; how to integrate Richmond neighborhood councils into the funding allocation process; and whether there should be a parallel process for penalty fund allocations and settlement agreement allocations simultaneously to combine the efforts.

Committee Action

None; receive and file.

OTHER BUSINESS

7. PUBLIC COMMENT ON NON-AGENDA MATTERS (ITEM 6)

No requests received.

8. COMMITTEE MEMBER COMMENTS (ITEM 7)

The Committee thanked all who worked on Item 4, including the refinery workers’ experiences that were voiced.

9. TIME AND PLACE OF NEXT MEETING

Wednesday, May 8, 2024, at 1:00 p.m., at 375 Beale Street, San Francisco, CA 94105. The meeting will be in-person for the Community Equity, Health, and Justice Committee members and members of the public will be able to either join in-person or via webcast.

10. ADJOURNMENT

The meeting was adjourned at 8:17 p.m.

Marcy Hiratzka
Clerk of the Boards

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson John Goia and Members
of the Community Equity, Health and Justice Committee

From: Philip M. Fine
Executive Officer/APCO

Date: May 8, 2024

Re: Marie Harrison Environmental Justice Scholarship Update

RECOMMENDED ACTION

None; receive and file.

BACKGROUND

The scholarship program honors the life, work, and legacy of Marie Harrison, an environmental justice leader from Bayview Hunters Point in San Francisco. Ms. Marie Harrison spent decades working to bring environmental, health and social justice to the Bayview Hunters Point community in San Francisco. For twenty of those years, she worked with Greenaction for Health and Environmental Justice. She then served on Greenaction’s Board of Directors until she passed away in May 2019. Her actions inspired environmental justice communities throughout the Bay Area and California.

From 2022 to 2023 the Air District supported the development of the scholarship program, administration and the first year of awards for \$85,000. In 2023, seven scholarships were awarded for \$35,000. The eighth scholarship award was not accepted and will be carried over to 2024.

In 2024, the Air District continues its support of the Marie Harrison Environmental Justice Scholarship program, including administration of the program and scholarship awards, in the amount of \$60,000. In 2024, nine scholarships will be awarded totaling \$45,000, including the eight budgeted and one remaining from last year.

DISCUSSION

The Marie Harrison Environmental Justice Scholarship program provides scholarships of \$5,000 to college students who demonstrate a passion for improving environmental health and air quality in overburdened, frontline communities of the Bay Area and who have experience doing environmental justice work.

Staff, together with Arieann Harrison, Founder and Executive Director of the Marie Harrison Community Foundation, will provide a brief overview on developing the program, an update from the first-year awardees, and a review of the application process and outreach for the second year of the program.

BUDGET CONSIDERATION/FINANCIAL IMPACT

None. Funds for this contract were already approved in Program 302 for \$60,000 in FY 2023-2024.

Respectfully submitted,

Philip M. Fine
Executive Officer/APCO

Prepared by: Daniel Madrigal

Reviewed by: Suma Peesapati

ATTACHMENTS:

1. Marie Harrison Environmental Justice Scholarship Presentation



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

AGENDA: 4

Marie Harrison Environmental Justice Scholarship Update

Community Equity, Health, and Justice Committee
May 8, 2024

Arieann Harrison, Executive Director
Marie Harrison Community Foundation
a.harrison@sfmhcf.org

Daniel Madrigal, Senior Staff Specialist
dmadrigal@baaqmd.gov

Presentation Outcome



The Committee will receive a presentation on the Air District Marie Harrison Environmental Justice Scholarship Program, which awarded seven scholarships to college students in 2023, its inaugural year, and is currently accepting applications for the second year of the program until May 31, 2024.

Outline



- Introduce Marie Harrison Community Foundation
- Overview of Marie Harrison Environmental Justice Scholarship
- Report on first year of the scholarship
- Share plans for second year of the scholarship

Presentation for Informational Only



No action requested, informational only.



Marie Harrison Community Foundation



Marie Harrison Environmental Justice Scholarship



Images from the Marie Harrison Community Foundation website: canwelve.org



MARIE HARRISON, MOTHER OF THE MOVEMENT FOR ENVIRONMENTAL JUSTICE.

Scholarship Goals



- Honor the life of Marie Harrison, an environmental justice leader and supporter of impacted youth, who worked to bring environmental, health and social justice to the Bayview Hunters Point community in San Francisco and the Bay Area.
- Support college students who demonstrate a passion for improving environmental health and air quality in the overburdened frontline communities of the Bay Area.
- Support Air District's values of excellence, leadership, collaboration, and equity.

Year One Scholarship Review



- \$85,000 provided by the Air District for year one (May 2022)
- Conducted focus groups and key informant interviews to support design of scholarship
- Developed application and outreach strategies
- Reviewed applications and selected awardees
 - Eleven applications received; seven scholarships of \$5,000 distributed to awardees for a total of \$35,000
- Followed-up with awardees to support educational goals
- Scholarship administered through Kaleidoscope platform for \$15,000 a year

Year One Scholarship Recipients



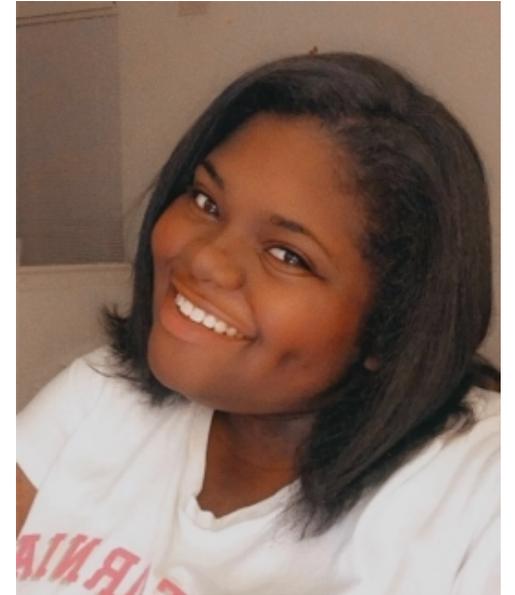
Kevin G. Ruano
Hernandez



Jaheim
Smith



Jaiyah-Shalon
Gordon



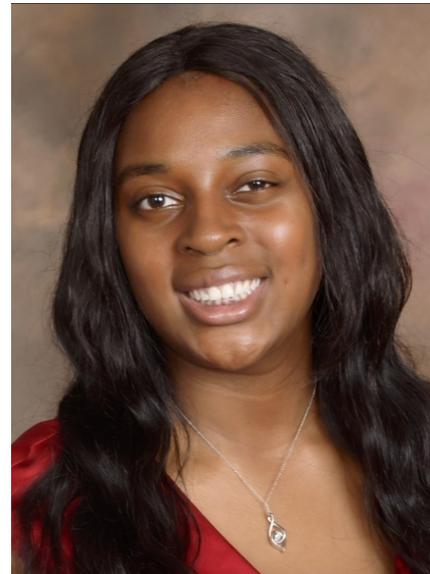
Lorrene
Fudge

Images submitted by scholarship recipients

Year One Scholarship Recipients (cont.)



Ryan Feng



Toddiana Jasper



Yolanda Harris

Images submitted by scholarship recipients

Marie Harrison Environmental Justice Scholarship Year Two



- Scholarship application is open until May 31, 2024: bit.ly/MHEJ2024
- Next steps:
 - o Outreach across the Bay Area to notify eligible students at schools, after school programs, youth leadership programs, Assembly Bill 617 sites, and to James Cary Smith Grantees
 - o Review applications, select awardees, and distribute funds
 - o Mentor and support scholarship recipients
 - o Distribute nine scholarships of \$5,000 for a total of \$45,000
 - o Scholarship administered through Kaleidoscope for \$15,000 a year

Feedback Requested



Beyond the outreach strategies described, who else can we outreach to about year two of the Marie Harrison Environmental Justice Scholarship?

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chairperson John Gioia and Members
of the Community Equity, Health and Justice Committee

From: Philip M. Fine
Executive Officer/APCO

Date: May 8, 2024

Re: Air Monitoring Data for Bay Area Communities

RECOMMENDED ACTION

None; receive and file.

BACKGROUND

Publicly available air monitoring data is a powerful resource that helps provide critical information to people about aspects of their environment that affect their health. As the amount of data has grown and become more accessible, community members are interested in leveraging this resource to inform their day-to-day decisions about their activities, and to desire and advocate for air quality improvements. Air monitoring data is collected by many entities including air quality management agencies like the Air District, other government or city agencies, facilities, community-based organizations, academic researchers, and individuals. These efforts all produce data that provide information about air quality, but there are differences in how the monitoring is conducted that make some datasets better suited for some applications than others. Increasing and widespread use of more affordable air sensing technologies has not only significantly increased the amount of monitoring data available, but also increased the number of websites where the data can be viewed or downloaded. However, it can be challenging to use or compare data from various sources as it can be presented in different ways, or at times without much context about how the air monitoring data were collected and handled. This presentation will provide an overview of different types of air monitoring in the Bay Area, how community members can access air monitoring data to assess air quality and examples of using air monitoring data for different purposes.

DISCUSSION

Staff have used air monitoring data from many sources for different purposes from determining compliance with health-based standards and tracking progress to supporting community concerns to inform emission and exposure reductions. Specific examples that will be shared in this presentation include analyzing compiled existing air sensor datasets to identify areas with higher fine particulate levels, using real-time air sensor data in combination with other information to investigate impacts from facility incidents and wildfires, evaluating impacts from community

pollution sources, and using mobile air monitoring data to survey large areas to find places with higher levels of certain pollutants.

With the vast amount of air monitoring data available, it is challenging for the public to determine which air monitoring datasets to use and what the data mean. To improve transparency of our work with air monitoring data, and to provide more useful information to our overburdened communities, staff will share ideas about how to better provide communities with tools and information to access, interpret and use available data.

BUDGET CONSIDERATION/FINANCIAL IMPACT

None.

Respectfully submitted,

Philip M. Fine
Executive Officer/APCO

Prepared by: Daniel Alrick, Josephine Fong, Kate Hoag
Reviewed by: Ranyee Chiang

ATTACHMENTS:

1. Air Monitoring Data for Bay Area Communities Presentation



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

AGENDA: 5

Air Monitoring Data for Bay Area Communities

**Community Equity, Health and Justice Committee
May 8, 2024**

**Kate Hoag, Ph.D.
Assistant Manager
Meteorology & Measurement
khoag@baaqmd.gov**

Presentation Outcome



Provide an overview of air monitoring data available for communities and ongoing efforts to work with communities to improve data accessibility and use.

Presentation Outline



- Types of air monitoring
- Potential data accessibility improvements
- Using air monitoring data for different purposes

Presentation for Information Only

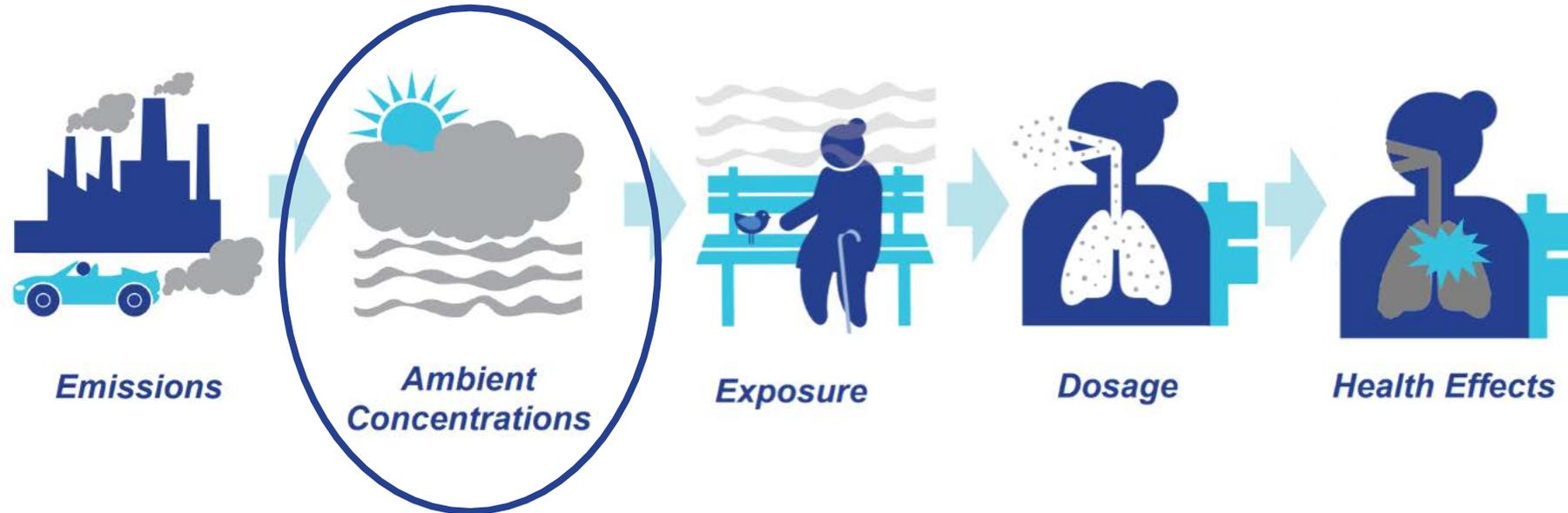


- No action required.

Air Pollution



Emissions to Health Effects



Types of Air Monitoring



- Many ways to collect air monitoring including:
 - Regulatory air monitoring
 - Source-oriented air monitoring (fenceline monitoring)
 - Targeted short-term air monitoring projects
 - Long-term air sensor networks
 - Publicly deployed air sensors
- Characterizes the total amount of an air pollutant in ambient air from all contributing sources
- Usefulness of data to answer a question depends on the sensor or monitor deployment (e.g. is it the right pollutant, with the right accuracy, in the right place, with the right averaging time)

Monitoring Approach Needs to Match Goal



- Are we measuring **emissions** or **ambient air concentrations**?
- Do we need **real-time preliminary data** or **reporting of final data**?
- There are still limitations on **what pollutants** can be measured well.
- **Sensitivity and range**: how low concentrations can you reliably report, do we want accurate data at low and very high levels?



Monitoring Approach Needs to Match Goal (cont.)



- **Selectivity:** Are we measuring specific compounds (e.g. naphthalene) or families of compounds, Polycyclic aromatic hydrocarbons (PAHs), are there possible interferences from other air pollutants or environmental conditions?
- **Deployment characteristics:** moving or stationary, outdoor conditions, logistics constraints (power, security, safety)



Regulatory Ambient Air Monitoring



Long-term air monitoring stations operated by air agencies according to Environmental Protection Agency (EPA) requirements

Use data to:

- Determine attainment with health-based National Ambient Air Quality Standards (NAAQS)
- Evaluate air quality trends over long time periods



Regulatory Ambient Air Monitoring (cont.)



- Provide real-time data on air pollution levels in overburdened communities and throughout jurisdiction
- Provide high quality anchor to air measurements in overburdened communities



Source-Oriented Air Monitoring



Long-term tracking of ambient air quality at the facility fenceline or in nearby communities

Operated by facilities, Air District, or community and non-profit organizations

Use data to:

- Characterize impacts of uncertain or fugitive emissions on nearby communities over time
- Demonstrate the effectiveness of emission limits in rules
- Inform emissions and exposure reduction strategies, including rule development and compliance investigations



Targeted Air Monitoring Projects



Short-duration air monitoring studies designed to answer specific questions

Use data to:

- Report snapshots of air pollution levels
- Identify local-scale differences in air quality
- Identify unknown emissions and potential impacts on nearby communities
- Inform emissions and exposure reduction strategies, including rule development and compliance investigations



Longer-Term Air Sensor Networks



Dense networks of air sensors

Use data to:

- Provide real-time data for overburdened communities
- Evaluate air quality trends in time, after emissions reductions, or other changes in conditions
- Identify local-scale differences in air quality
- Inform emissions and exposure reduction strategies, including rule development and compliance investigations



Publicly Available Air Sensor Data

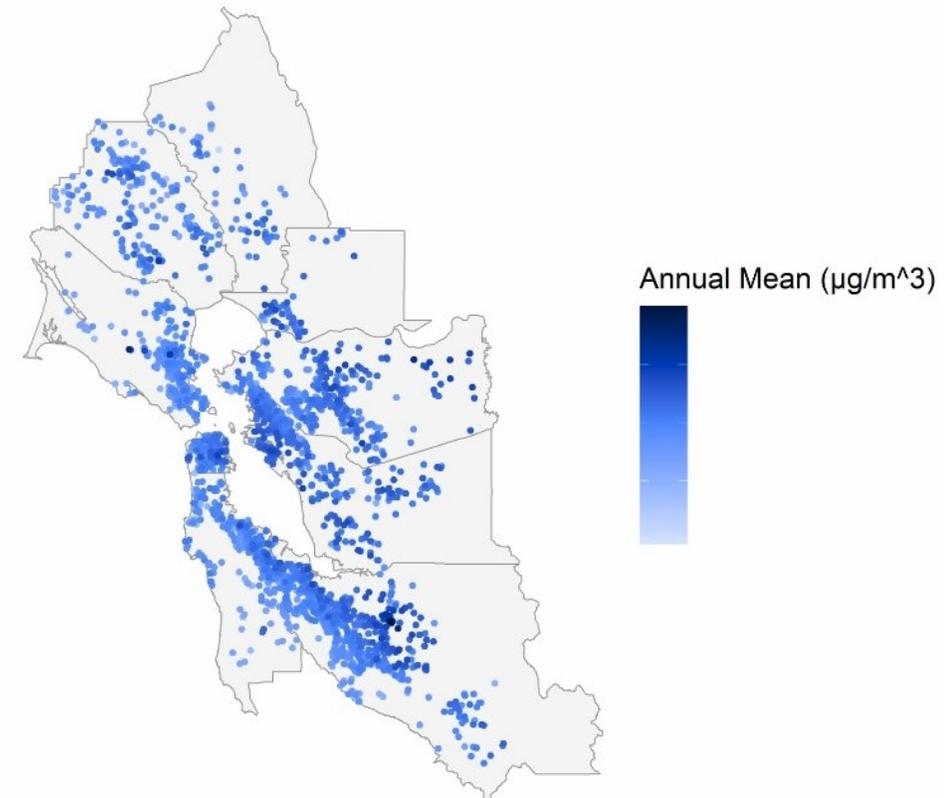


Air sensors deployed by public individuals;
data displayed on websites

Use data to:

- Provide real-time data on air pollution levels
- Evaluate air quality trends in time, after emissions reductions, or other changes in conditions (wildfires)
- Identify local-scale differences in air quality
- Inform emissions and exposure reduction strategies, including rule development and compliance investigations

Public Purple Air Sensors (PM_{2.5})



Improving Data Accessibility



Work with community partners to develop a plan to improve data accessibility, including:

- Identify and consolidate existing air monitoring data, where possible
- Develop resources to help communities access and use air monitoring data for their objectives
- Identify gaps where new data collection, analysis, or consolidation is needed

Example: Air Monitoring Data Inventory



Develop inventories of existing air monitoring data so that community members can find and use existing data to support their work.

The Path to Clean Air Community Air Monitoring Plan (PTCA CAMP) included such a list of air and emissions monitoring efforts including information on who is conducting the monitoring, what pollutants are being measured and where, and a brief description of where the data can be viewed, downloaded, or requested.

Ambient Air Monitoring Reference Guide for the Richmond-North Richmond-San Pablo Area

This table provides information about different ambient air monitoring programs and projects. Air monitoring efforts are performed by different organizations, and datasets include different pollutants and have different purposes and uses. Ambient data refers to data collected in-community where people live and work, representing the outdoor air we normally breathe.

	Air Monitoring Program or Project	Data Description	Monitoring Locations	Pollutants or parameters measured	Links to data and information
Air District	Air District-operated long-term sites	Regulatory ambient data; required for Air District, CARB, and U.S. EPA programs; some data available in real-time	San Pablo (Rumrill Blvd.)	O ₃ , CO, NO, NO ₂ , SO ₂ , PM ₁₀ , PM _{2.5} , gas air toxics	Real-time data (except PM ₁₀ and air toxics)
			Richmond (7th Street)	SO ₂ , H ₂ S, gas air toxics	Historical data on EPA's AirData page
			Point Richmond	H ₂ S	Air District Monitoring Network Information
	Air District-operated mobile monitoring	Short-term monitoring project focused on gas air toxics; project selected by the AB 617 Monitoring Plan Steering Committee	Targeted areas in Richmond-North-Richmond-San Pablo	Selected gas air toxics such as BTEX and 1,3-butadiene	StoryMap with project information and findings
Chevron	Chevron-operated Community Monitoring Stations	Non-regulatory ambient data, required by the City of Richmond and not subject to Air District regulations; data available in real-time	Atchison Village North Richmond Point Richmond	Black Carbon, PM _{2.5} , H ₂ S, BTEX and other gas air toxics, meteorology	Chevron real-time monitoring data page
Sensor Networks	PSE Healthy Energy & APEN	CARB AB 617 grantee; network of Aeroqual sensors; additional short-term monitoring for black carbon and volatile organic compounds	50 sensors installed across the area	PM _{2.5} , NO ₂ , O ₃ , temperature, relative humidity, and dew point	Project information page
	Groundwork Richmond & Ramboll	CARB AB 617 grantee; network of Clarity sensors with real-time data; additional short-term monitoring for black carbon and PM metals	52 sensors installed across the area	PM _{2.5} , NO ₂	Air Rangers Project Information Clarity Open Map (real-time data)
	BEACO ₂ N	School-based sensor network with real-time data, operated by UC Berkeley	15+ schools across the area	CO ₂ , CO, NO, NO _x , O ₃ , PM	Data, map, and information page
	PurpleAir	Public-operated sensors with real-time data	20+ locations across the area	PM _{2.5} , PM ₁₀	Real-time data page
Additional Projects and Datasets	Aclima	Mobile monitoring conducted August-October 2019 – quarterly average concentrations	Throughout the Richmond-North Richmond-San Pablo area	PM _{2.5} , NO ₂ , O ₃ , CO, CO ₂	Aclima Insights Website
		Annual baseline monitoring (data for Contra Costa County collected November 2019-October 2020)	Throughout the Bay Area	PM _{2.5} , NO ₂ , O ₃ , CO, CO ₂	Aclima Air Health Website
	Assessment of Coal Air Pollution Project	Short-term project focused on particulate matter from coal and petroleum coke operations; CARB AB 617 grantee	Around Levin Terminal and adjacent railways	Particulate matter	Project background and status provided in Update on Air Monitoring Projects, Fall 2021
	AirNow Fire and Smoke Map	Real-time, interactive map for displaying data from government agency monitors and Purple Air sensors, designed for use during wildfire events	Data available from across the U.S.	PM _{2.5}	AirNow Fire and Smoke Map Website

<https://www.baaqmd.gov/~/media/files/ab617-community-health/richmond/quarterly-report-documents/ptca-monitoring-data-inventory-pdf.pdf?rev=035218b4e730422fa5bee32b9259850b>

Example – Resource Guide for Data Websites



Publicly available air monitoring data are displayed on many websites

Developed a guide describing how air monitoring data is displayed, what it is useful for, and provide links.

RESOURCE GUIDE FOR AIR QUALITY MONITORING DATA WEBSITES

There are many sources for air quality data, providing data from a range of monitoring instrumentation and operated by different organizations. This resource guide provides an overview of websites with air quality data, including information about the data sources, suggested data use, and links to additional information.

Data from the Bay Area Air Quality Management District (Air District) fixed-site monitoring network are validated according to rigorous quality control and quality assurance requirements [from the FDA](#) to ensure that the air quality data are consistent and accurate, and to determine if the Bay Area is meeting air quality standards. Criteria pollutant data from Air District sites serve as the official data source for EPA's reporting of the Air Quality Index (AQI) Nowcast and are comparable to EPA's health-based air quality standards.

A dense network of low-cost sensors can provide helpful information as well even though data from them is not as accurate as from Air District monitoring sites. In areas where there is not a nearby Air District monitoring network, neighborhood sensors provide information about relative air quality on a neighborhood by neighborhood basis. Neighborhood sensors often report data on time scales shorter than an hour, and therefore can provide information about changes in air quality, which can be useful in certain cases, like during wildfire smoke episodes.

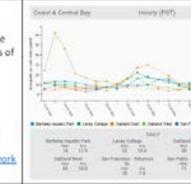
Each data source and monitoring network can tell you something different about air quality in your area. It is recommended using the official AQI Nowcast calculated from Air District monitoring data when assessing air quality in your area is safe. [AQI](#) also using low-cost sensor data to inform you whether air quality is getting better or worse than the nearest regulatory monitoring site. Using these data sources together can provide a better understanding of when and where poor air quality conditions may be occurring.

Air District Network (Current Air Quality Website)

Data Source: Air District Monitoring Sites
Pollutants: Fine Particulate Matter (PM_{2.5}), Ozone (O₃), Black Carbon, Carbon Monoxide (CO), Hydrogen Sulfide (H₂S), Nitric Oxide (NO), Nitrogen Dioxide (NO₂), Oxides of Nitrogen (NO_x) and Sulfur Dioxide (SO₂) available for visualization
Data Type: AQI Nowcast and concentration data
Averaging Time: 1-hour (begin hour)
Uses:

- Real-time reporting of AQI and concentration data

Additional Information: [Air District's Monitoring Network Plan](#)



AirNow (AirNow Homepage)

Data Source: Air District Monitoring Sites
Pollutants: PM_{2.5}, Coarse Particulate Matter (PM₁₀), O₃
Data Type: AQI Nowcast and concentration data
Averaging Time: 1-hour (end hour)
Uses:

- Official real-time reporting of the AQI

Additional Information: [AQI Basics](#)

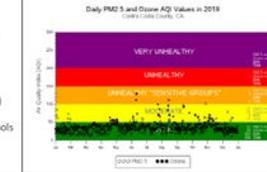


EPA Air Data (Air Data Website)

Data Source: Air District Monitoring Sites
Pollutants: PM_{2.5}, PM₁₀, O₃, CO, NO_x, and SO₂ for visualization; additional pollutants (such as air toxics) available for download
Data Type: AQI and concentration data
Averaging Time: Pollutant dependent
Uses:

- Official reporting of the Air Quality Index (AQI)
- Compliance with health-based standards
- Create graphical displays using visualization tools
- Download air quality data to a file
- Output air quality data into summary reports

Additional Information: [Air Data FAQ Webpage](#)



Aclima (Aclima Insights Website for Richmond-San Pablo)

Data Source: Aclima mobile monitoring and PSE/APEN Aeroqual sensor network
Pollutants:

- Aclima: PM_{2.5}, O₃, CO, CO₂, NO, NO₂
- PSE: PM_{2.5}, O₃, and NO₂

Data Type: Map of pollutant concentration data
Averaging Time:

- Aclima: Three-month average (Aug-Oct 2019)
- PSE/APEN: current conditions or average for previous 24 hours, week, month, or 90 days

Uses:

- Visualize relative differences in air quality across Richmond-San Pablo
- Enter an address to create a customized air quality report for that location



Chevron Monitoring (Chevron Richmond Air Measurements Website)

Data Source: Chevron refinery fence-line and community monitoring stations
Pollutants:

- Fence-line: SO₂, H₂S, and 11 selected gas air toxics
- Community Stations: PM_{2.5}, Black Carbon, H₂S, 14 selected gas air toxics, and meteorology

Data Type: Real-time
Averaging Time: 5-min, 1-hour
Uses:

- Visualize data on map and graphically
- View measurements for pollutants that pass through the fence-line monitoring system

Notes:

- Fence-line monitoring system is designed for compliance with Air District Rule 12-15
- Some pollutants may often be displayed as "<MDL", meaning concentrations are below the minimum detection level of the monitor



<https://www.baaqmd.gov/~media/files/ab617-community-health/richmond/quarterly-report-documents/guide-to-air-quality-data-websites-pdf.pdf?rev=739ed95f8c0a438a80f7458e85193b52>

Example: Bay Air Center Resource Library



BAY AIR CENTER

Home Services Resources About

Q CONTACT US

Working Together for Clean Air

Bay Air Center supports communities with technical guidance, training, and relevant resources.

Discover More

A New Community Resource

- Resource Library includes links to websites and documents on many topics
- Air Pollution Foundations
 - Designing a Community Scale Air Monitoring Project
 - Understanding Air Quality Data
 - Educational and Training Materials

<https://bayaircenter.org/>

Using Air Monitoring Data



Examples of using all types of existing air monitoring data to help

- Analysis of community sensor network data to identify locations with higher Particulate Matter (PM_{2.5})
- Use real-time data to assess air quality impacts during a facility incident

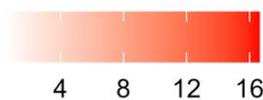
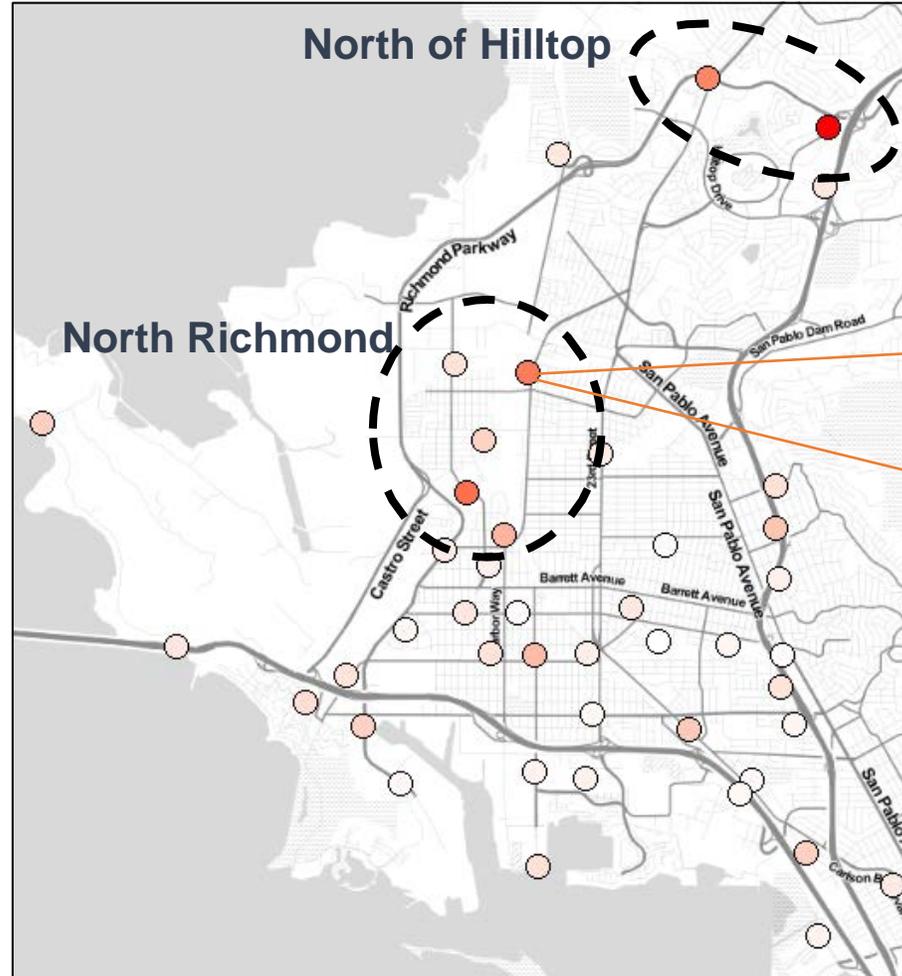
Example: Community PM_{2.5} Sensor Network



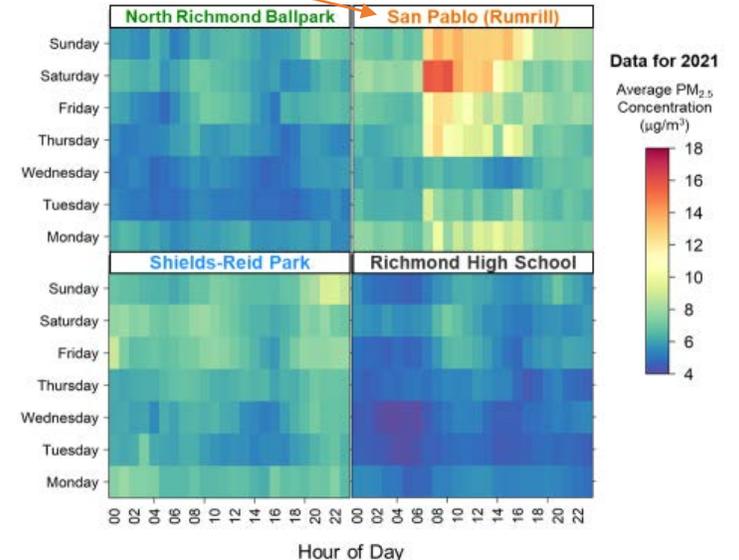
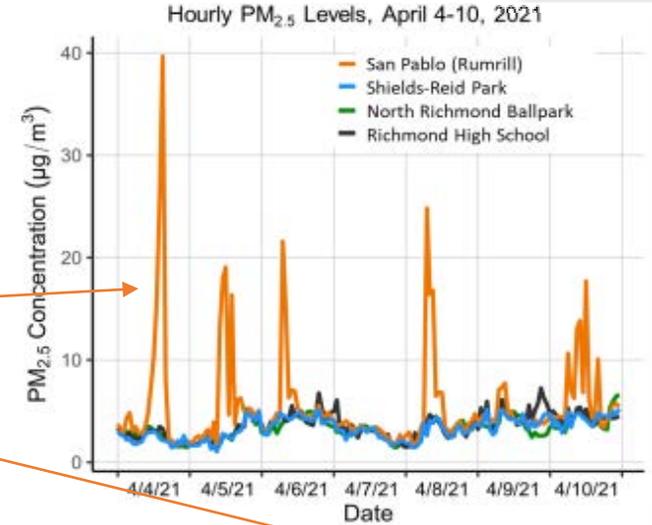
Identify areas with higher hourly PM_{2.5} levels

Continue to provide community-scale assessments of air quality like this

<https://www.baaqmd.gov/community-health/community-health-protection-program/richmond-area-community-health-protection-program/community-air-monitoring>



Percent of Hours at least 5 µg/m³ Above Sensor Network Average, 2020-2021

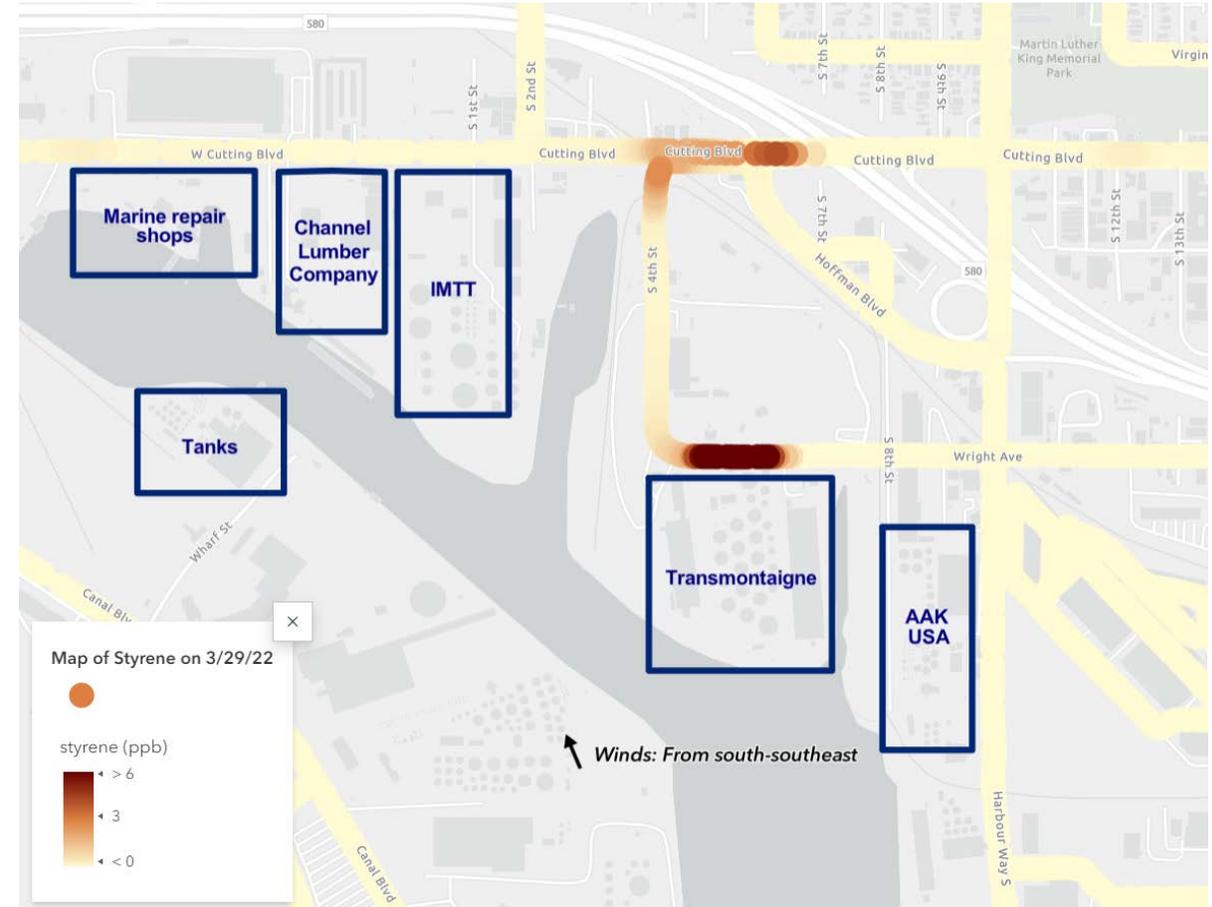


Example: StoryMap for PTCA CAMP



Air toxics monitoring project

- Air District air monitoring van surveyed target areas for certain air toxics
- Higher levels of different air toxics were detected in near specific facilities and operations in the study area
- Key findings were summarized and displayed in an interactive Geographic Information System (GIS)-based StoryMap

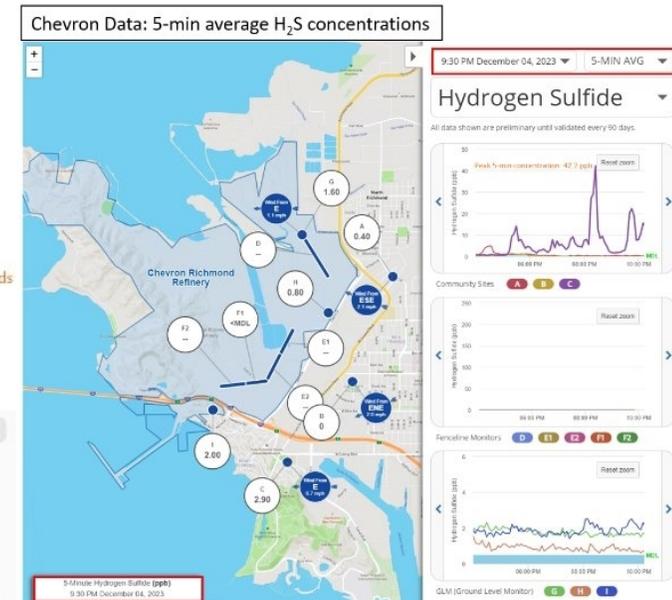
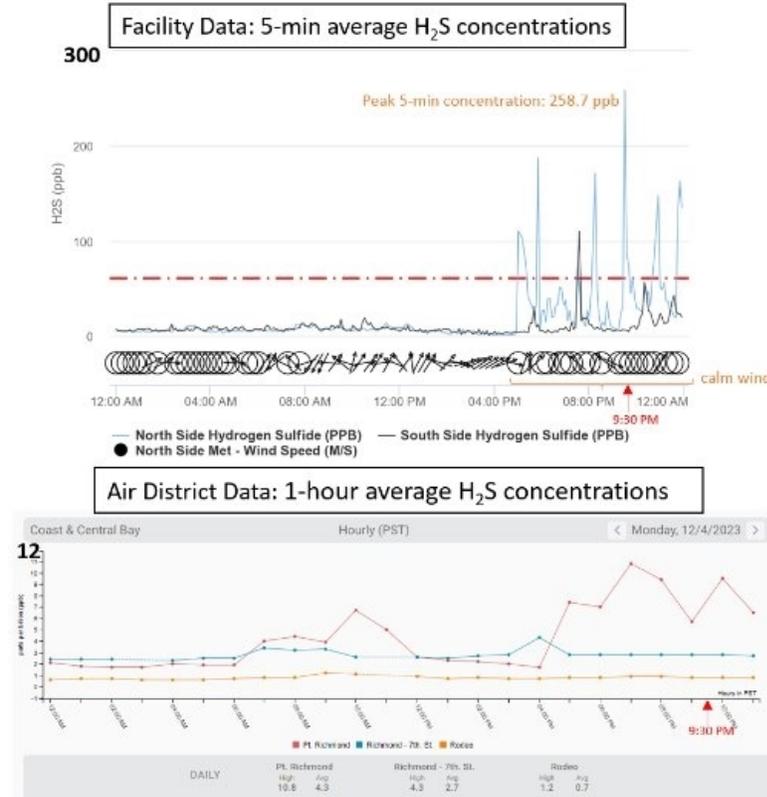


Example: Real-time Data During Incidents



Incident at City of Richmond Wastewater Treatment Plant (Veolia) – December 4-6, 2023

- High readings of Hydrogen Sulfide (H₂S) higher
- at Veolia's two fenceline monitors
- Some peak concentrations at Veolia coincided with elevated readings at other nearby monitors

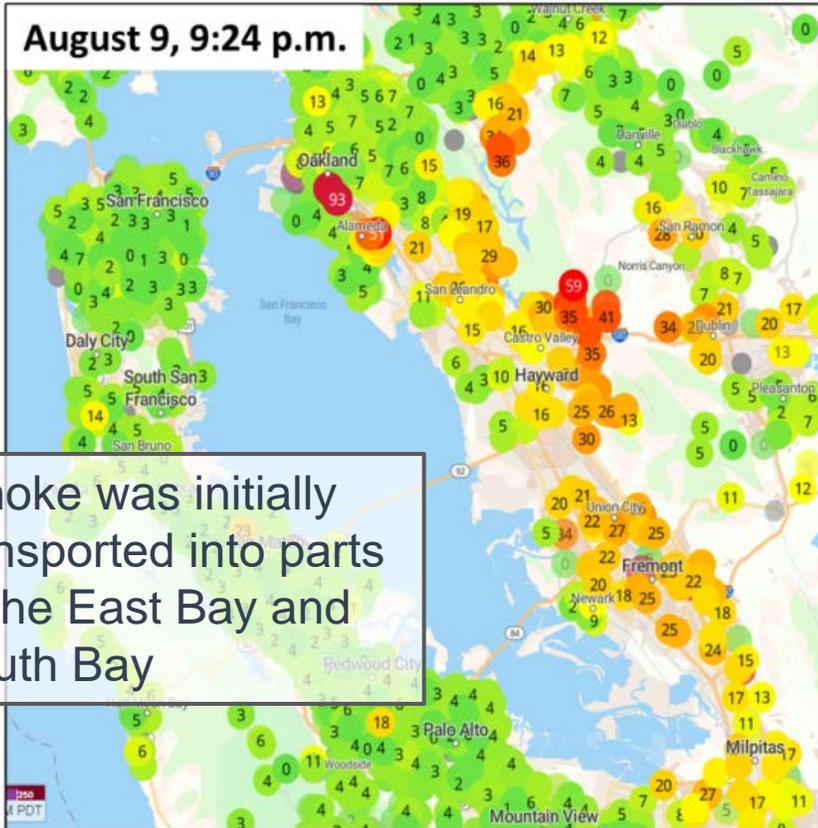


Example: Real Time Data During Incidents

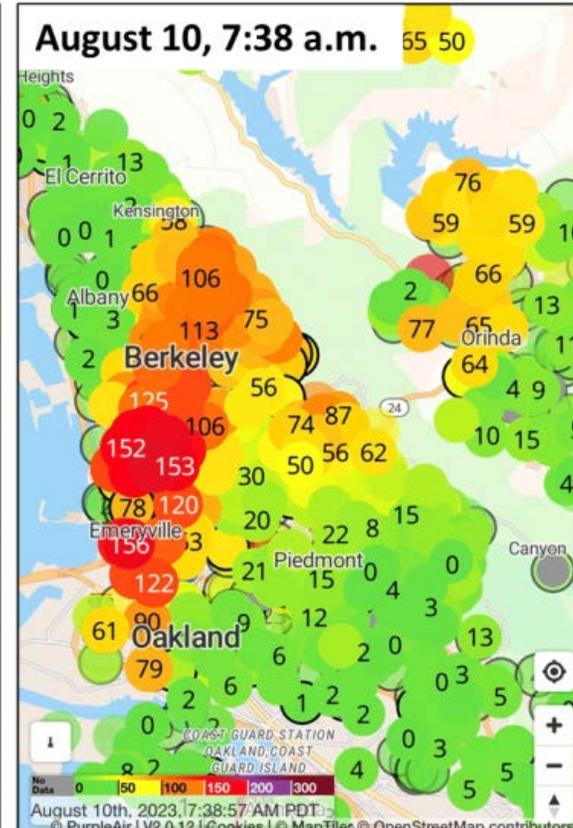


Fire at Schnitzer Steel in West Oakland

PM_{2.5} data from lower-cost sensors helped illustrate the spatial extent of the smoke plume



Smoke was initially transported into parts of the East Bay and South Bay



Some of the peak impacts were experienced in overburdened communities, including East and West Oakland and along I-880

Winds shifted overnight and transported smoke northward

Included information about the location of in air quality advisories and presentations to other agencies and community organizations

Screenshots from the PurpleAir website (map.purpleair.com) of PM_{2.5} 10-min averages

Upcoming Data Accessibility Work



Refinery emissions and air monitoring data consolidation

- Work with Community Advisory Council, upcoming Refinery Corridor Community Workgroup, and PTCA Community Emissions Reduction Plan (CERP) Implementation Community Steering Committee (CSC)
- Consolidate all refinery-related data, making data easier to find or download and providing additional information and context so data is more meaningful

Future Directions



- Continue working with community partners to develop air monitoring data resources and community-scale air quality assessments
- Continue to increase transparency and accessibility of existing data
- Strengthen requirements for facility-conducted air monitoring to increase availability of real-time data
- Track other efforts and new legislation aimed at increasing availability of air monitoring data and share new information

Feedback Requested/Questions



Questions and Comments?