



From Funding to Impact

A Roundtable Discussion on Grant-Funded Community Air Quality Monitoring Work



cclarity

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Moderator Sean Wihera

VP of Business Development & Partnerships at Clarity

Agenda

- **01** Introduction & Current Grant Funding Opps
- **02** Community Monitoring & the "Clarity Model"
- **03** Panelists Share Case Studies
- **04** Q&A and Roundtable Discussion



Meet the panelists!





Cecilia Mejia, Brightline Defense

Program Coordinator



Trinity Vang, Brightline Defense

Air Quality Organizer & Policy Researcher



Adrian Rehn, Valley Vision

Project Leader



Aubrey Burgess, Clarity (former Love My Air)



Principal Air Quality Specialist

Environmental Project Manager



The growth of community air monitoring networks

2017 — California's Community Air Protection Program (AB 617)



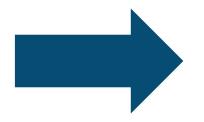
Has provided >\$100M in funding to support dozens of community air management programs

2022 — U.S. EPA Enhanced Air Quality Monitoring for Communities Program



Awarded \$53.4 million in funding for 132 air monitoring projects in 37 states





\$53 Million 132 Projects

(Source: California Air Resources Board)



Example current EPA air quality funding opportunities

EJCPS

EJ Collaborative
Problem-Solving
Cooperative Agreement

EJG2G

Environmental Justice
Government to
Government

EJ TCGM

Environmental Justice
Thriving Communities
Grantmaking

CPRG

Climate Pollution Reduction Grants

\$30M of funding ~83 projects

Eligible entities:

- Community-based nonprofit organizations (CBO)
- Partnership of CBOs

\$70M of funding ~70 projects

Eligible entities:

- State & CBO
- Tribe & CBO
- Local govt & CBO

\$550M of funding 11 Grantmakers

Eligible Grantmakers:

- CBOs or partnership of CBOs
- Tribal government & CBO
- Higher Education & CBO

\$5B of funding* Two phases

Eligible entities:

- States
- Air pollution control agencies
- Tribes & local govts

^{*} Eligible entities can apply for planning grants to develop strong, local climate pollution reduction strategies, and then for grants to implement plans that have been approved by the EPA. This is a new program that will be informed by comments received via this request for public comment.



What makes community-led air monitoring successful?

Air Monitoring

alone is not enough...



Introducing the "Clarity Model" for AQ Management



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cclarity Bloomberg Philanthropies



getting there. Hospitals can use the framework to lead by example as role models, educators and



Community Engagement (GLA, Borroughs, Hospitals, Schools)



Regulatory **Engagement & Emissions** Reductions (Defra, GLA,

Breathe London



GREATER LONDON **AUTHORITY**

Imperial College London





Pre-deployment colocation







Air Monitoring (Clarity + LAQN)



Data Analysis & Policy Insights (Imperial College London)

Clarity Network for Frontline SF Communities





Brightline's Air Quality Monitoring Program

About Brightline

We are an environmental justice nonprofit organization, our primary mission is to empower communities and create sustainable environments.

Brightline is a recipient of

- California Air Resources Board: Community Air Grant
 - o Brightline's Air Quality Monitoring Program
- Bay Area Air Quality Management District: James Cary Smith Grant
 - Brightline's Our Community Our Air

Brightline's Air Quality Programming Timeline



Kickoff AB 617 Meeting

Brightline first met with community partners and prepped for deployment.

AQ Sensors Pick Up Wildfire Smoke

Aug

2020

21 Sensors are deployed and pick up initial wildfire smoke.

"Little Room to Breathe" Report

July

Brightline and partners interviewed 255 SRO building residents on air quality and health.

CARB Chinatown Tour

Aug

2021

Convened CARB and BAAQMD staff to meet community leaders and tour Chinatown SROs.

NO2 Study with Clarity & BAAQMD

May

Brightline coordinated with BAAQMD, Bay Air Center and Clarity to add NO2 in our network.

Expansion with UC Berkeley

We work with UC Berkeley to expand our network with 20 Black Carbon Sensors.





Partnerships

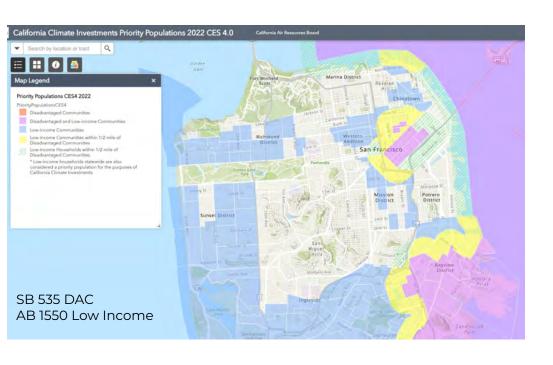




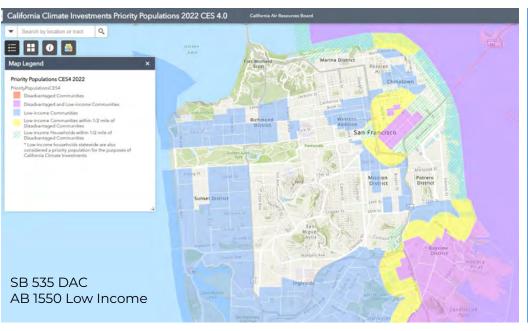




Serving Priority Populations in San Francisco



Serving Priority Populations in San Francisco





Sensor Siting and Calibration with BAAQMD







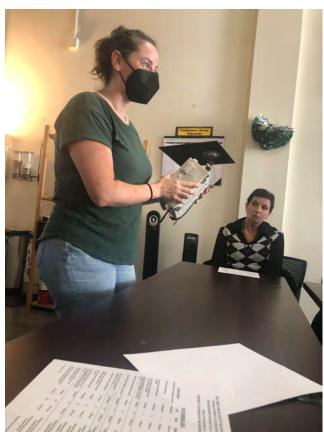






UC Berkeley Partnership: Black Carbon Study

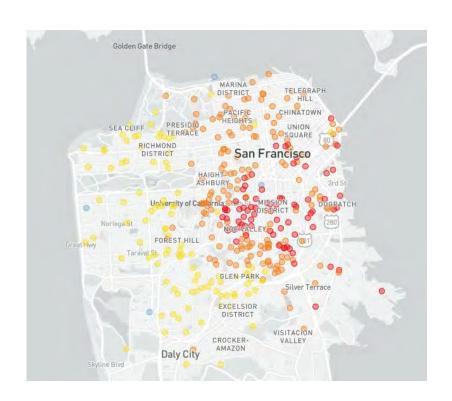


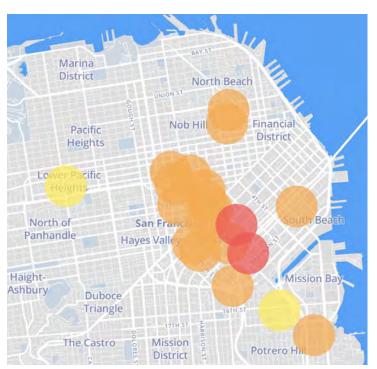






Disproportionate Impacts Across SF (1.13.22)





Central City SRO Collaborative

















Community Youth Center of San Francisco

















California Air Resources Board Tour

B2 |金山新聞

世界曰郭

worldjournal.com 2021@APIGNET BIRDS THURSDAY, AND ST 20, 2021

主席與社區領袖會面 宣布未來華埠居民 可申請免費裝空氣過濾系統

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取餘變化問題 - 並分享 了CARSTE 為單級社團 **我你你你你你 南的取信-南南**州 **英型电阻器图表现象** 到外国外商和和火炬 WILLIAM TOR - DW STRUMBOUGH STORY

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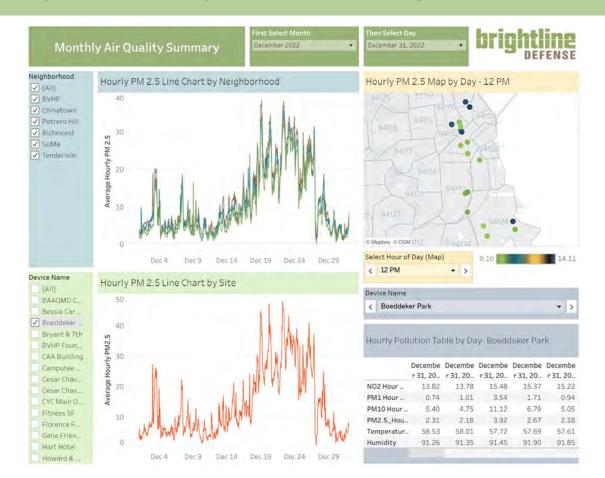




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Data Analysis at tinyurl.com/BrightlineAQData



Media Coverage by SF Examiner

Environmental dangers are connected to racism

Let's attack problems with better policies, greater awareness

By Robyn Purchia · April 14, 2021 1:30 am













Eddie Ahn: San Francisco's environmental justice warrior

The thing I love about my work now is that it is constantly changing'

By Jessica Wolfrom · December 21, 2021 12:00 pm - Updated December 21, 2021 6:14 pm













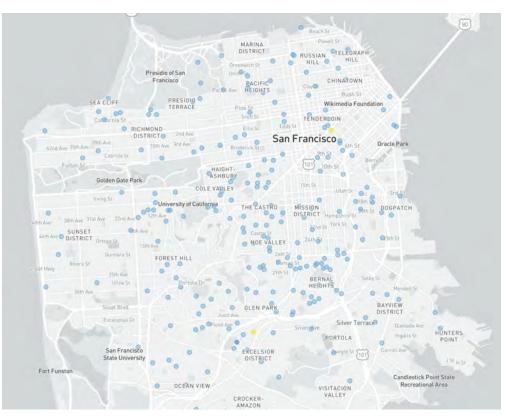


Eddie Ahn, executive director of Brightline Defense, an environmental justice non-profit, with an air quality sensor installed at Gene Friend Recreation Center. Brightline has focused on air quality and how it affects people living in SROs, who often suffer from health problems related to air quality and lack the means to purchase things like air filtration systems. (Craig Lee/The Examiner)

Media Coverage by SF Chronicle

A number of community and environmental groups, including Brightline Defense, Sustainable Silicon Valley and Acterra, have taken matters into their own hands, buying and placing sensors in lower income communities. Government agencies have done similar projects.





SF Chronicle: The number of air monitors in the Bay Area has exploded. Where are they?

Brightline's Our Community, Our Air Program

Community Engagement & Capacity Building



Our Community, Our Air Kickoff

The Our Community, Our Air Program began needs assessment and capacity building in SF.

Community Interviews

Brightline and partners conducted 66 interviews on public comment experience and gaps.

Community Workshops

Brightline led workshops with the Air District to cover topics like the public comment process.

Bay Area Metro Center Tour

Brightline coordinated a field trip for frontline communities to tour the Bay Area Metro Center.

Public Meetings and Comments

Presently, we are working with frontline communities to build their capacity in decision-making spaces.

Community Partners

La Voz Latina

Organization that supports the various needs of low-income, monolingual Spanish-speaking immigrants in the community.



Central City SRO Collab

Collaborative that builds community morale and enhances the quality of life of SRO tenants.



Community Youth Center

Nonprofit that provides high-need youth with education and employment opportunities.



Community Workshop in Spanish













Community Workshops in English









Community Workshops and Tabling in Chinese











Bay Area Metro Center Field Trip

Brightline organized a field trip to SRO Tenant Leaders to the Bay Area Metro Center in December 2022 to familiarize them with the meeting spaces for Year 2!







Increasing Air Filtration Access











Thank you!

Sacramento Neighborhoods Activating on Air Quality (SNAAQ)















Community Inspired Solutions

- Triple-bottom-line organization focused on advancing **quality of life** in the 6-county Sacramento region (and increasingly beyond).
- Founded in 1994 by regional leaders focused on addressing estimated loss of 80,000 jobs due to the closing of two major air bases – Mather and McClellan.
- 19 full-time staff working on broadband, food and ag, workforce development...
- A sampling of our most relevant work:
 - Cleaner Air Partnership Longstanding (since 1986!) coalition of air quality regulators, industry, and advocates working to improve air quality
 - Community Economic Resilience Fund (CERF) \$600M statewide program to advance economic development and a regional "just transition"
 - Sacramento Neighborhoods Activating on Air Quality (SNAAQ) 2.0 air monitoring and pollution mitigation in North Sac and Oak Park
 - ...and much more! (everything is interconnected)

Background on Community Air Protection

- In late 2017, California Assembly Bill 617 was signed into law, which created the Community Air Protection Program run by the CA Air Resources Board (CARB).
- The Community Air Protection Program
 empowers California's most polluted communities
 to monitor their air quality and guide investments
 to reduce harmful emissions and improve public
 health in frontline neighborhoods.
- There are 19 selected communities across the state, but hundreds more have been nominated by air districts and community members themselves.





Sacramento Neighborhoods Activating on Air Quality (SNAAQ) 1.0

 CARB awarded a <u>2019 Community Air Grant</u> to a group of local nonprofit organizations - Valley Vision, Civic Thread, Breathe CA Sacramento Region, and Green Tech Education.



Sacramento Neighborhoods Activating on Air Quality



In July 2017, the State of California passed AB 617. The bill requires the California Air Resources Board (CARB) to develop a monitoring plan for the state and select, based on the plan, the highest priority locations to deploy community air monitoring systems. SNAAQ received a grant from CARB to work collaboratively with the North Sacramento neighborhood through 2021 as part of AB617 funding. Our efforts will lead to the deployment of air monitors throughout North Sacramento and develop a community strategy that will improve the air quality and quality of life for all.













'Sacramento Neighborhoods Activating on Air Quality' (SNAAQ) is part of California Climate Investments, a statewide initiative that puts billions of Cap-and-Trade dollars to work reducing greenhouse gas emissions, strengthening the economy, and improving public health and the environment — particularly in disadvantaged communities.

Sacramento Neighborhoods Activating on Air Quality



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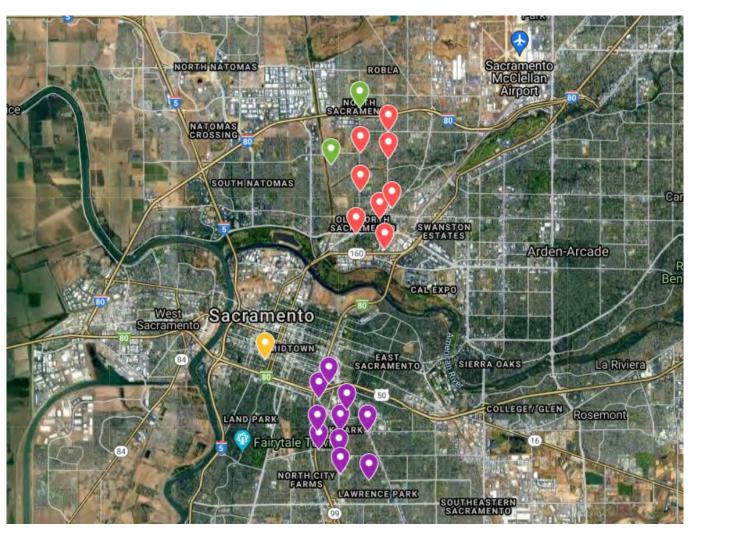








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Solar-Powered Clarity Node-S

The Clarity Node-S measures $PM_{2.5}$ and NO_2 .

- Particulate Matter (PM)
- Nitrogen Dioxide (NO₂)
- Solar-Powered
- Co-Located at CARB facility for 4 weeks to ensure data quality
- Read More: https://www.clarity.io

https://tinyurl.com/snaaqmap









Del Paso Heights, Oak Park get monitors to track air quality













'You Can Just Smell It': Ai To Be Installed In Oak Par Sacramento

& Sarah Mizes Tan Thursday, June 10, 2021 | Septembers, CA



Is the air quality in these Sacramento neighborhoods bad? Residents can now tell in real time

BY ALEXANDRA YOON-HENDRICKS JULY 01, 2021 05:00 AM





The National Weather Service Sacramento breaks down how the winds will blow (compared to Monday) today, October 11, 2017, and how smoke and air quality will present problems in the Sacramento Valley due to the



Instalan monitores de calidad de aire en zonas de bajos ingresos

Más de 20 monitores de calidad del aire fueron instalados en comunidades del norte de Sacramento hasta Qak Park, y es que estudios han revelado que zonas latinas, de color y de bajos ingresos están expuestas a más contaminación en el aire que otras.





Clean Air for All Education Curriculum

- Five interactive lessons & activities structured around air quality
- Designed for middle school students
- Includes Facilitator's Guide and Student Workbook

Clean Air for All's Five Lessons:

- 1. What's in the Air?
- 2. Our Air, Our Health
- 3. Be Air Aware
- 4. The Air Inside
- 5. Be the Change

Clear Air for All Curriculum & Breakthrough Sacramento's Youth Summer Program

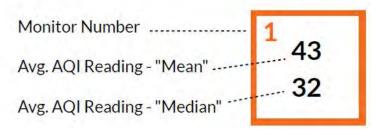


Air Monitoring - One Year Results:

North Sacramento/Norwood/Del Paso Heights:

- 1. Rio Linda & Rivera (ATRF6WJQ)
- 2. Del Paso & El Camino (A8T16W86)
- 3. Del Paso & Arden (A9CJTX6K)
- 4. Norwood & Las Palmas (AC6L8134)
- 5. Rio Linda & Grand (A476WBPV)
- 6. Arden & Evergreen (AYDD929T)
- 7. Norwood & Silver Eagle (A62QFJRV)

Legend:



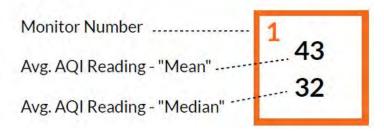


Air Monitoring - One Year Results:

Oak Park/Lawrence Park/Alhambra Triangle:

- 1. Highway 99 & 12th Ave (A0HRYM79)
- 2. Broadway & Stockton (A9MJX405)
- 3. Broadway & Alhambra (A18VV944)
- 4. Broadway & Martin Luther King (AQPX8C3K)
- 5. 12th Ave & Martin Luther King (AY1GYR6S)
- 6. 22nd Ave & Martin Luther King (ADZXCMQ4)
- 7. 33rd Street & 6th Ave (AZ58WQKQ)
- 8. 32nd & T Street (A5TYMRCW)
- 9. 37th Street & 1st Ave (A7DVSP0Q)
- 10. 45th Street & Roosevelt Ave (AJB1Q7PC)

Legend:

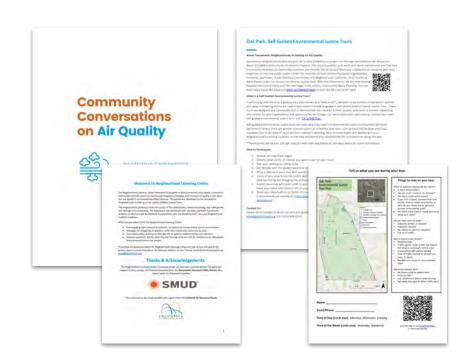




Community-Based Planning:

- Train-the-Trainer Approach
- Listening Circles
- Self Guided EJ Tours
- Block Parties





Community Air Action Plans:

- Key product of SNAAQ 1.0
- Starting point for deepening of strategies via SNAAQ 2.0
- 1-page draft list of priority actions for emissions reductions
- Through formal AB 617 process, could evolve into a "Community Emissions Reduction Plan (CERP)"
- CERPs are fundable and enforceable by CARB
- Read more: https://tinyurl.com/snaagmap





Our Current Work:

"SNAAQ 2.0"

- \$299,700 grant
- **Goal**: Further build out resident-identified emissions reduction strategies in North Sac and Oak Park, better positioning these neighborhoods for a formal AB 617 designation
- Project Components:
 - Expand resident engagement in developing emissions reduction strategies
 - Advance an emissions reduction pilot project with a workforce training component
 - Pilot a \$100,000 participatory budgeting framework (one-third of total project budget)
 to be programmed entirely by residents in advancing the scope of work















Adrian Rehn

Project Leader, Valley Vision

adrian.rehn@valleyvision.org

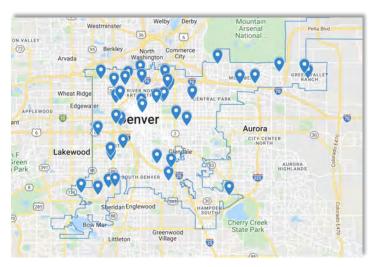
(707) 813-1913

Program Overview

love my air

- Why: Denver has a long history of air pollution issues,
 Denver children have an increased rate of childhood asthma
- Who: City and County of Denver
- What: 40+ low-cost PM 2.5 sensors at Denver Public Schools
 - Pairs local, near-real-time air quality information with behavior change programs & education
- How: Supported by a \$1M grant from Bloomberg
 Philanthropies through 2022

Bloomberg Philanthropies



Community Engagement

Since 2018, the project has

- Worked with community members to identify needs & shape program
- Collaborated to create a dynamic data platform & app with accessible data & information
- Built strong relationships with academic institutions
- Developed a strong program identity
- Addressed equity in messaging



The Future

- Denver continues to support the project through City funding including building out an app!
 - Contact <u>LMA@denvergov.org</u> for current and future project updates
- Other entities are using the Love My Air brand to launch their own air networks
 - Capital Area Council of Governments (Austin, TX)
 - Boise State University
 - City of Boulder
 - Colorado Springs
 - Adams County



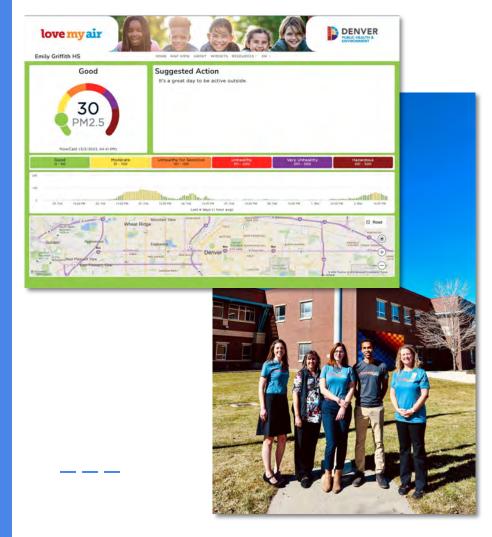
Challenges

- Operating a school-based project during the pandemic
- Managing school operations was outside of our realm of influence
- Ease of accessibility



Things to consider

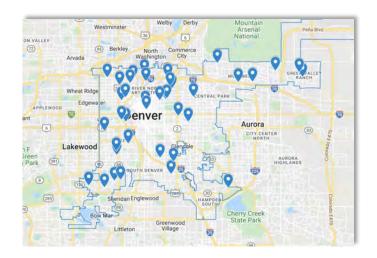
- Factor in accessibility needs and costs
 - Consider stipends for participation in meetings, focus groups, etc.
- Factor personnel costs into funding
 - At least 1 FTE to manage the project
- Identify a clear use of the data
- Ask yourself "Will the project offer value to the community?"
 - o How can you measure impact?



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The Brand & Community Engagement

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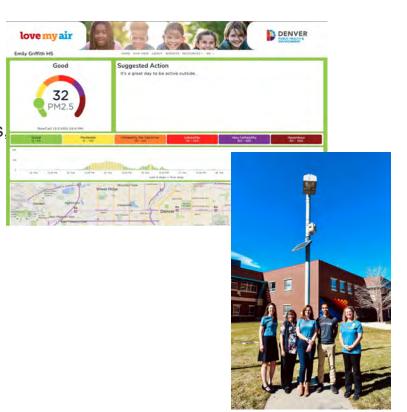






Things to consider...

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The future of Love My Air

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Community Air Monitoring Roundtable

Aubrey Burgess
Denver Department of Public Health &
Environment
City & County of Denver





A Roundtable on Grant-Funded Community Air Quality Monitoring Work

Michael Flagg

Principal Air Quality Specialist Meteorology & Measurements Division Ambient Air Quality Analysis Section

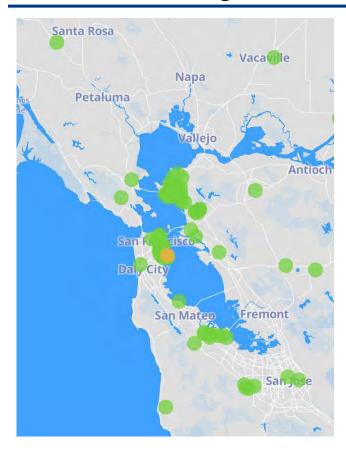


Bay Area Air Quality Management District

- Established in 1955
- Governing board of 24 elected officials
- Large geographic area
 - 9 County jurisdiction;
 - 5,340 square miles;
 - 7 million residents
 - Many unique communities facing different air pollution issues
- Air Monitoring
 - 32 locations
 - Criteria pollutants, toxics, black carbon, ultrafine particles



Community-Led Sensor Networks

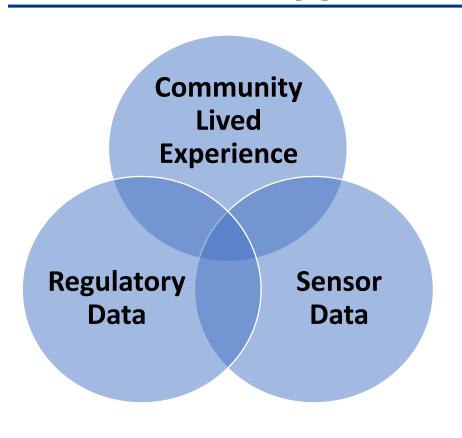


 Many community-led sensor networks in the Bay Area

Primarily funded by State and Federal grants

 Sensor networks can provide valuable insights to local air quality issues

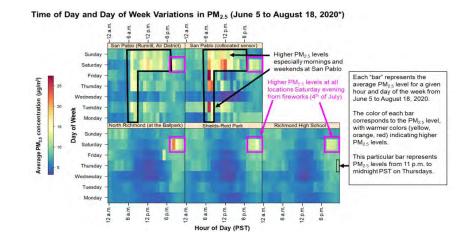
Air District Support

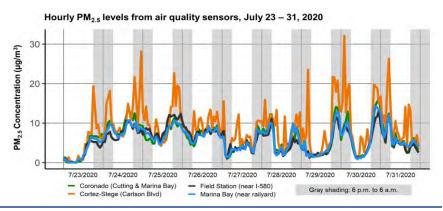


- Support community-led objectives
- Prioritize community lived experience and local knowledge
- Build partnerships
- Provide project-specific technical support
- Facilitate access to existing data sources
- Reduce barriers to accessing funding

Air District Support

- Analysis of existing data sources
- Sensor network data analysis and interpretation
- Identify local-scale spatial and temporal variations
- Link insights from data analysis to Air District programs
 - AB 617 CERP/CAMPs
 - Compliance & Enforcement





Air District Support - Bay Air Center

- Independent third-party contract
- Coordination, facilitation, and technical components
- Flexible in-kind resource for air monitoring projects
- Designed to provide tailored training, resources, hands-on field support, or data analysis
- Assist with grant applications











Register for the next webinar on Thursday 3/23!







EJ Fireside Chat — How Community
Partnerships Drove a Successful Air Quality
Initiative in Grand Rapids, Michigan



Co-Founder & CEO at JustAir Solutions

