

Brightline Defense Air Quality Monitoring Program

A collaborative air quality program serving frontline communities

Brightline Air Quality Program



brightline
DEFENSE



CYC
COMMUNITY YOUTH CENTER

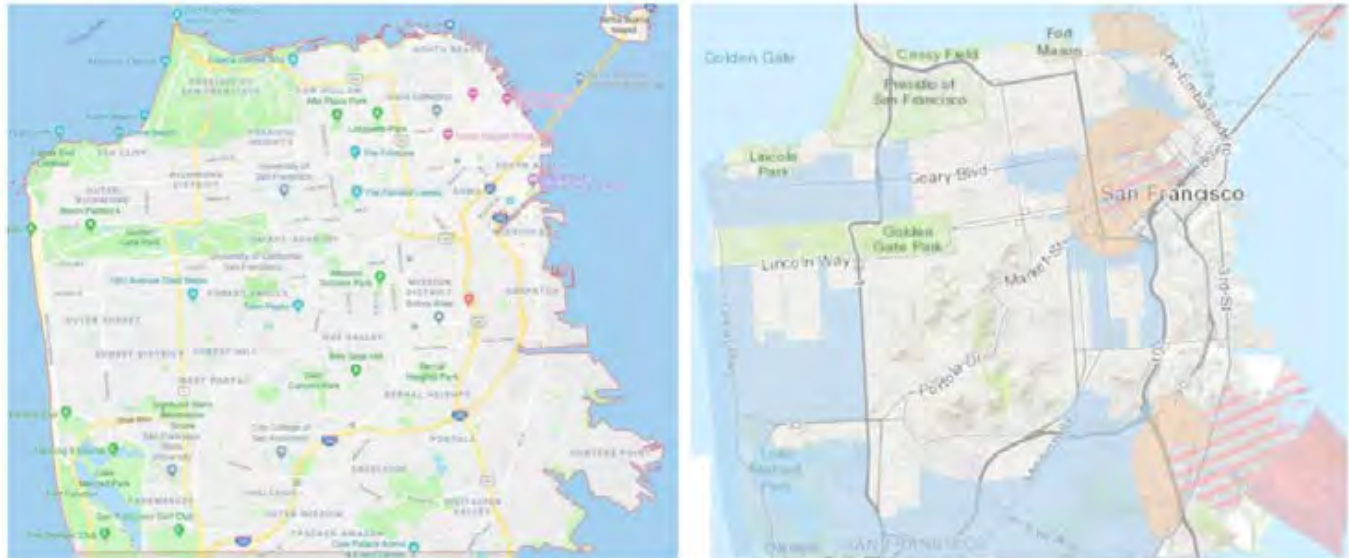


Special thanks to:



Priority Populations

Map 1. Mapping of SB 535 Disadvantaged Communities and AB 1550 Low-Income Communities in San Francisco



Source: "Priority Populations Maps," available at:

<https://ww3.arb.ca.gov/cc/capandtrade/auctionproceeds/communityinvestments.htm>

The Community Partners

Brightline Defense

An environmental justice nonprofit organization; our primary mission is to empower communities and create sustainable environments.

brightline
DEFENSE

Central City SRO Collab

Established in 2001 to build community morale and enhance the quality of life of SRO tenants.



Community Youth Center

Dedicated to providing high-need youth with education and employment opportunities.

CYC
COMMUNITY YOUTH CENTER



January 2020 - 1st meeting
with community partners



October 2020 - Sensor
Installation at CYC Main Office

SRO Conditions

Photos: Zachary Hearst/Courtesy of Chinatown Community Development Center



The Device: Clarity Node-S Sensors

Data will be collected and analyzed through 15 Clarity Node-S sensors.

Through our Technical Partner Clarity Movement, equipment and methods have already been field tested and deployed in various environments. Clarity is technically proficient, having deployed in 70+ cities and throughout 40+ countries.



The Program

Phase 1

Planning Meetings

Meet with SRO Tenant Leaders and CYC Youth to discuss placement and deployment of sensors.

Community outreach begins.

Phase 2

Data Collection

Brightline will site 15 Clarity-Node S sensors and collect air quality data.

Partners will meet on a quarterly basis to review the data.

Phase 3

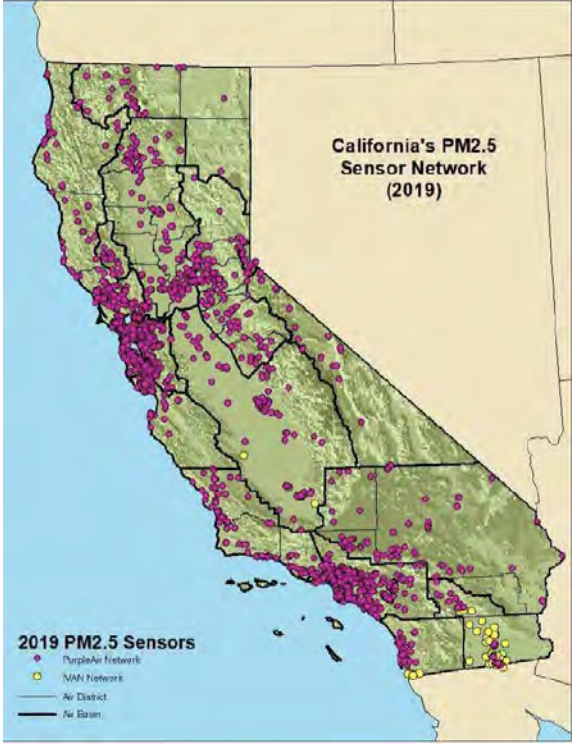
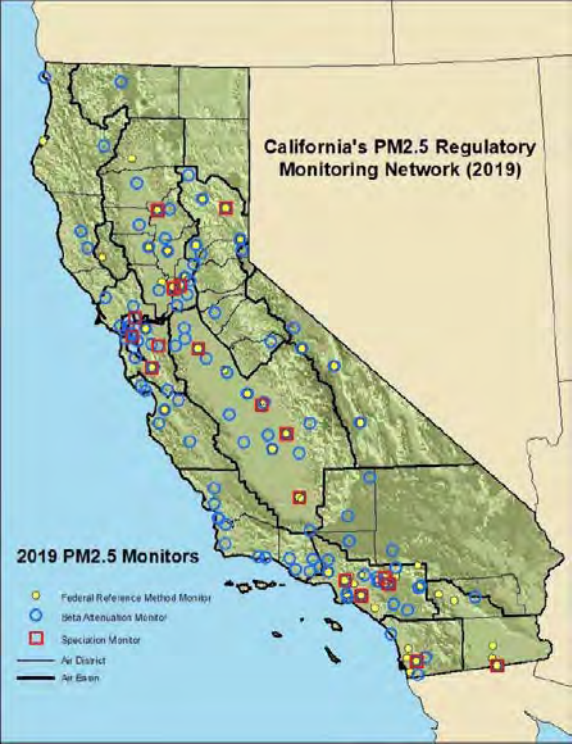
Data Analysis

Brightline will analyze the air quality data and work with the City to distribute air quality information to residents about immediate and long-term risk factors.



Environmental Policies

How is Air Quality Monitored?



Air Quality & Environmental Justice

Air quality issues



Close proximity to highways



Diesel emergency generators



Ongoing construction



Wildfire smoke



Impact

Ultimately, our project may shape a number of environmental policies, from transportation to planning to the creation of “Clean Rooms” – which would act as public infrastructure for the City’s most vulnerable populations.



Community Input Process

Created Survey Map

A survey map was created with considerations to SB 535 Disadvantaged Communities and AB 1550 Low-income Communities priority populations.

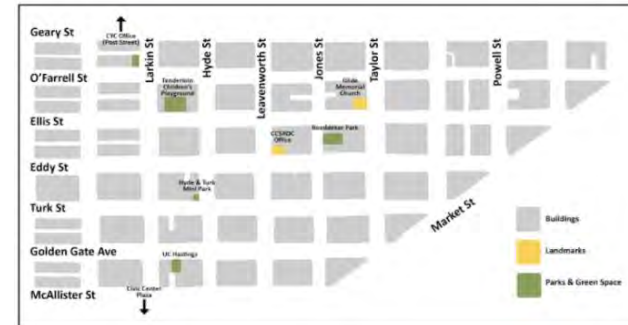
Community Input

Survey with map was presented to tenant leaders who marked the map to indicate areas of concern.



Outcomes

The frequency in which intersections were marked by community input were aggregated into a map..



CCSROC Tenant Leadership Program



Survey on Air Quality in the Tenderloin

This community survey is meant to gather community input and help inform data analysis for the Brightline Air Quality Monitoring Program. Over the course of 2 years, Brightline will be implementing this community-driven environmental program in partnership with nonprofits Central City SRO Collaborative and Community Youth Center.

do you know what's in your air?

check here to find out and learn more about the air quality in your area!

scan your iPhone camera here OR visit this link!



tinyurl.com/brightlineaq

brightlinedefense.org
Brightline Defense Project
@brightlinedefense
@brightlinedef



have you seen me in SoMa & the TL?



- I'm an air quality sensor that measures the level of pollution in the air.
- The data I collect can help us reduce air pollution in the neighborhood!

To learn more about the air quality data in your area, visit tinyurl.com/brightlineaq or scan your phone camera here!



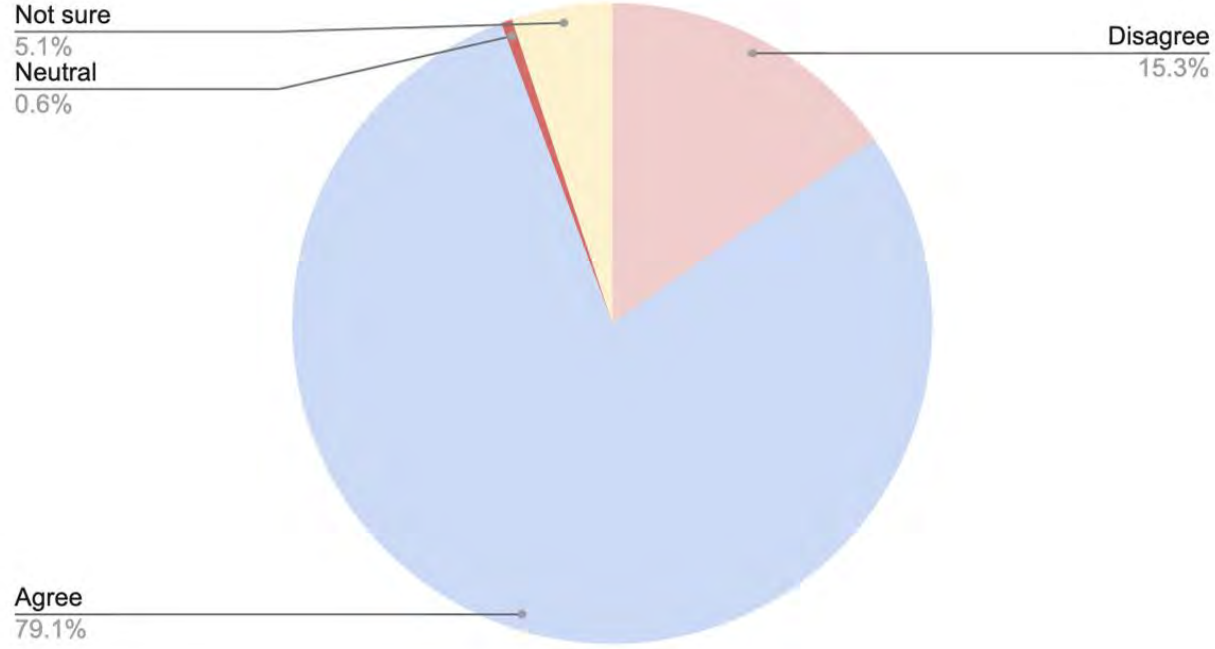
brightlinedefense.org
Brightline Defense Project
@brightlinedefense
@brightlinedef



Reggie Reed, SRO Tenant Leader

Survey Results

Based on nearly 300 survey responses from SRO Tenant Leaders, Tenderloin residents, and community workers we can conclude that the majority of respondents (79.1%) agree that **air quality in their neighborhood has negatively impacted their health.**



CYC

COMMUNITY YOUTH CENTER

Youth for Community Engagement



WHAT DOES YCE DO?

- Outreaching to the community about disaster preparedness and First Aid/CPR.
- Participating in community health fairs and festivals
- Provide educational workshops in multi-languages.



How are we reaching out to the audience

- Workshops
- Flyers Campaign
- Community Fairs



Outreach Outcome

- Outreached to over **550** residents in San Francisco



Date and Time	Event	Location	Number
	Eddy & Turk Senior Building Workshop	Eddy & Turk	15
10/8	Rosa Parks Senior Building Workshop	Rosa Parks	15
	Sequoia Senior Building Workshop	Sequoia	15
10/2	CYC Staff Meeting	CYC	70
10/31	Chinatown Halloween Neighborhood Festival	Chinatown	50
10/17	BAYCS Workshop		50
10/19	Mission YCE Club	Zoom	20
11/10	Burton YCE Club	Zoom	15
11/11	Balboa YCE Club	Zoom	25
11/15	Bayview Senior Tablet Class	Zoom	54
11/17	Galileo YCE Club	Zoom	29
11/18	Marshall YCE Club	Zoom	5
12/10	SFI YCE Club	Zoom	8
12/17	Washington YCE Club	Zoom	28
12/21	JRELL Workshop	Zoom	50
2/1	MYEEP Workshop	Zoom	36
2/16	Washington NCC Workshop	Zoom	15
2/16	Mission NCC Workshop	Zoom	20
2/17	SFI NCC Workshop	Zoom	8
2/18	Lincoln NCC Workshop	Zoom	18
2/19	Marshall NCC Workshop	Zoom	15
2/26	Galileo NCC Workshop	Zoom	18

Survey Report

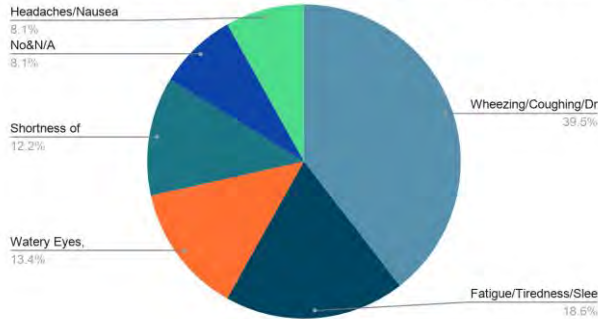
- Response: 360
- When: 10/02/2020 -- 03/04/2021
- Where: South Market, Tenderloin, Richmond, Chinatown, Sunset, Bayview and Potrero Hill neighborhoods



Report's Summary

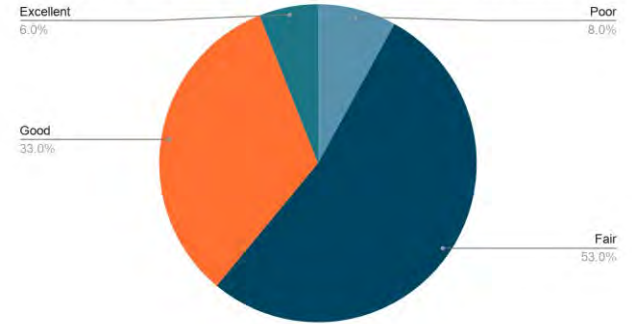
In last year, San Francisco's air quality is fair; The season that has **the worst** air quality is **summer**.

Have you ever experienced any of the following due to the Air Quality?



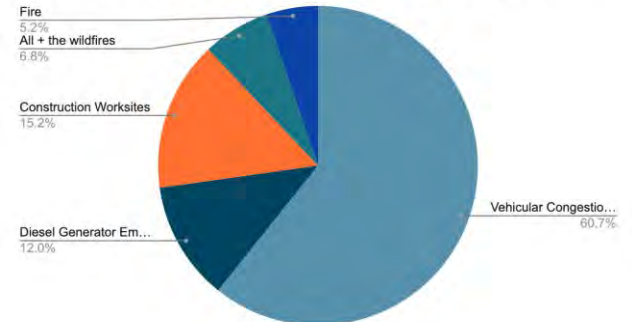
Over **60%** agree that **vehicular congest/exhaust**, is one of the major sources that contributes to the air pollution.

How do you feel about the air quality in San Francisco? [Last Year]



About **70%** of people agree that SF's air pollution has affected their **health condition**

Which one do you think is the main source of air pollution?





August 2020: Phase 2



CAL FIRE



Incidents



About Us



Careers



Programs



Grants



Resources



Stats & Events

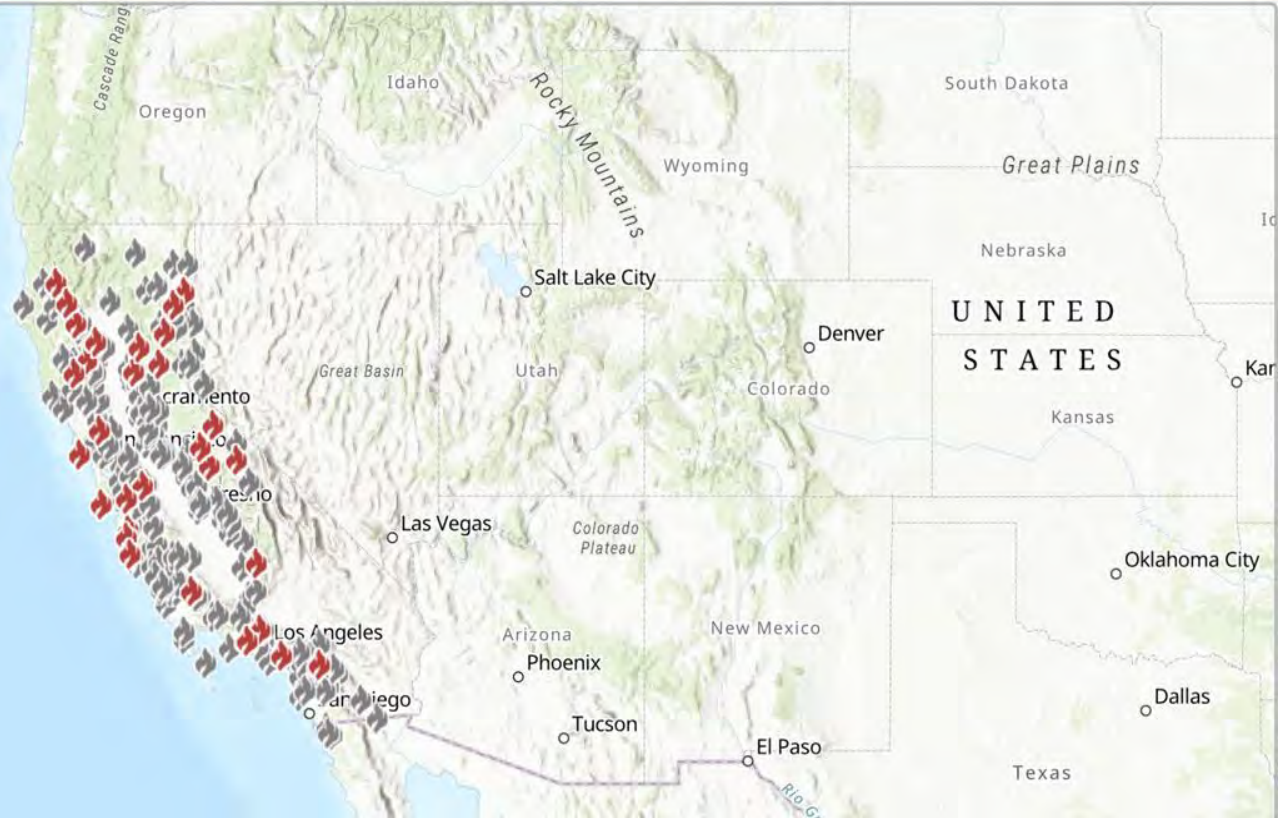


Search

On August 19, 2020 Governor Newsom declared a state of emergency after an unusual lightning storm and a historic heatwave led to an especially fierce fire season.

At the time of the press conference California was battling 367 known fires.

By Wednesday, fires were burning in every Bay Area county except urban San Francisco. As a result, the SF Bay Area was experiencing [the worst air quality in the world](#) that day.



Impoverished SF Communities Get New Air Quality Sensors — Just in Time for Smoke-Clogged Skies

By Joe Fitzgerald Rodriguez Aug 22



An air-quality sensor hangs in Father Alfred E. Boeddeker Park in San Francisco's Tenderloin, an effort to measure the air near impoverished communities. (Photo courtesy Brightline Defense)



In response to the wildfires, Brightline quickly deployed its first 7 sensors across Tenderloin, SoMa, and the Richmond District to start capturing critical air quality data for community health.

Air Quality Index

The Air Quality Index (AQI) is a representation of air pollution concentration levels. It assigns numbers on a scale between 0 and 500 and is used to help determine when air quality is expected to be unhealthy. Each AQI number refers to specific amounts of pollution in the air. If the concentration of a pollutant rises above 100, air quality can be unhealthy for the public.



0-50 Good

Health impacts are not expected when air quality is in this range.



51-100 Moderate

Unusually sensitive people should consider limiting prolonged outdoor exertion.



101-150 Unhealthy for Sensitive Groups

Active children and adults, and people with respiratory disease such as asthma, should limit outdoor exertion.



151-200 Unhealthy

Everyone, especially children, should limit prolonged outdoor exertion.



201-300 Very Unhealthy

Everyone, especially children, should limit outdoor exertion.

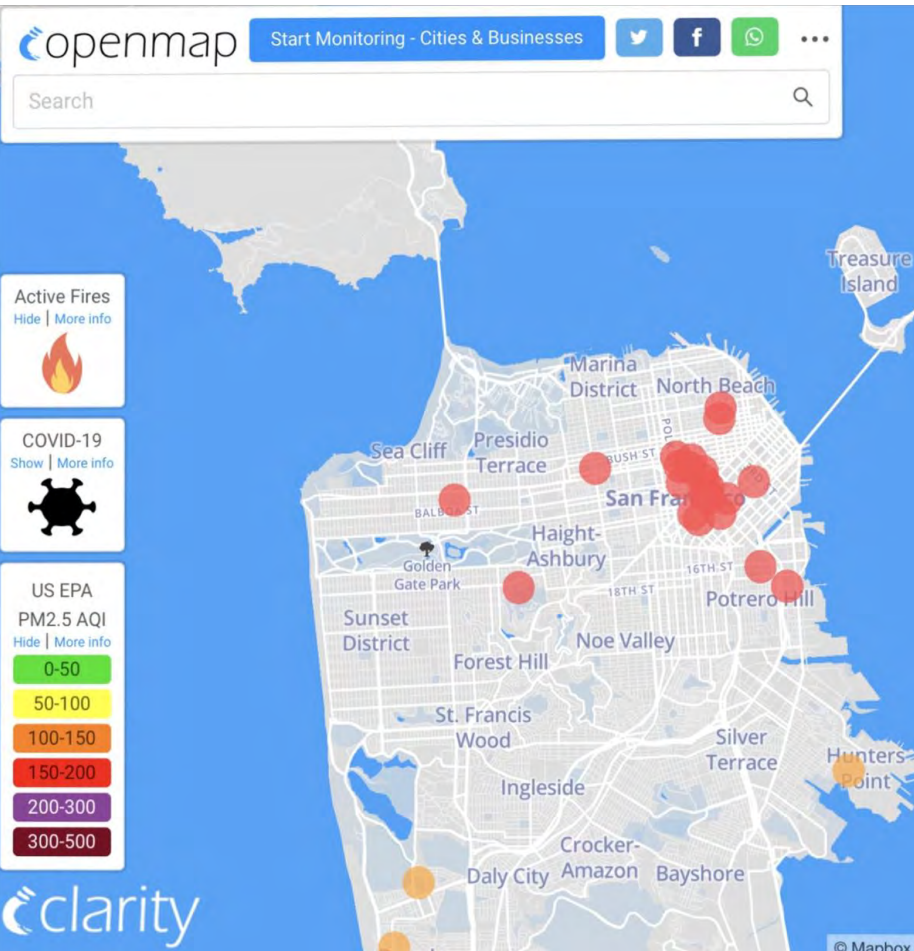


301-500 Very Unhealthy

Emergency conditions: everyone avoid outdoor physical activity.

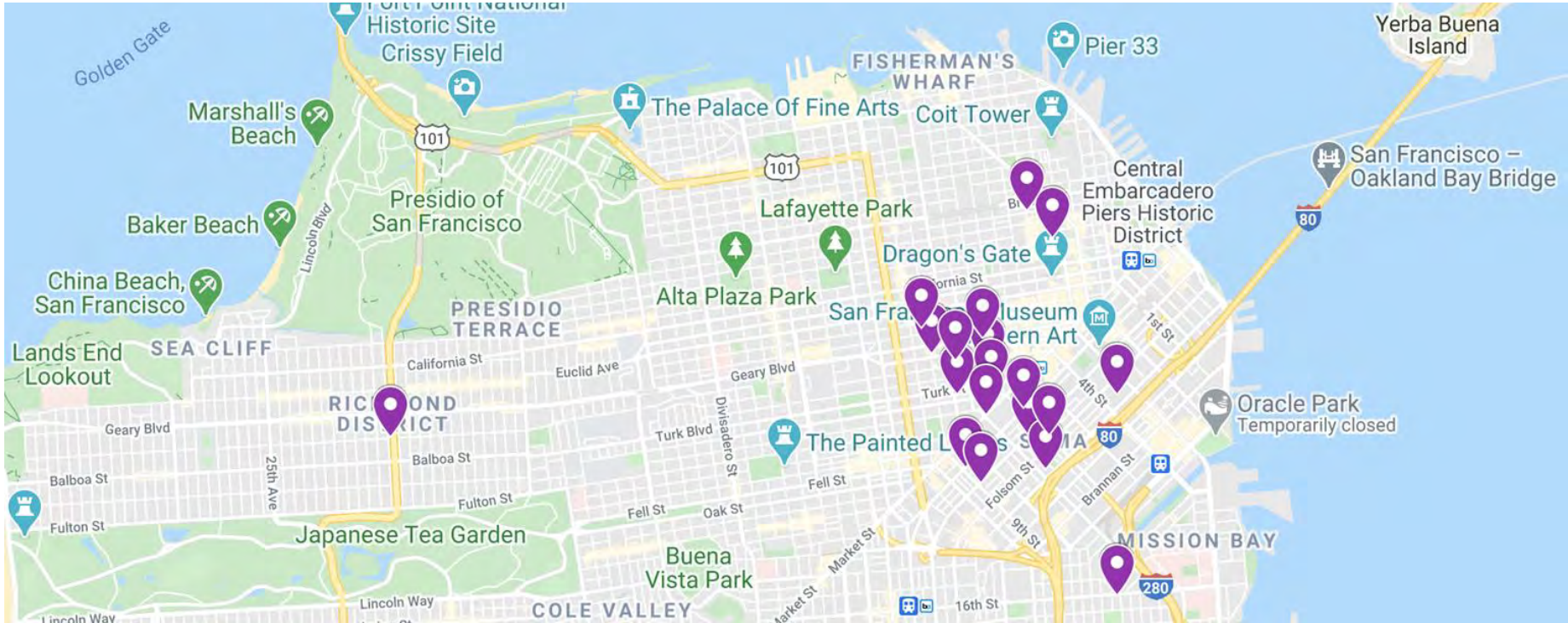
Sensor Network

Brightline has deployed 19 sensors across 5 different San Francisco neighborhoods.



The air quality data is publicly available and updated hourly on: tinyurl.com/brightlineAQ

Brightline Air Quality Sensor Network



Phase 3: Data Analysis

August 2020 - March 2021

Partnership with Stanford University



Maya Green



Dani Cruz



Tori Flowers



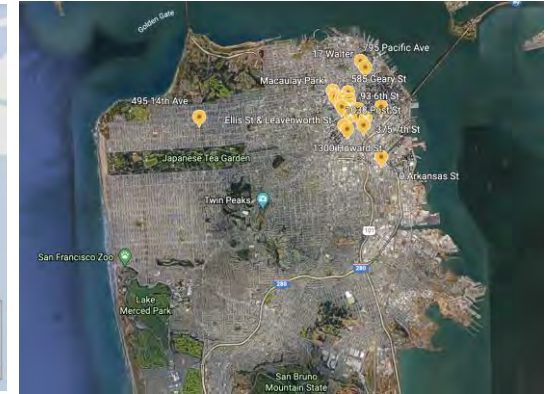
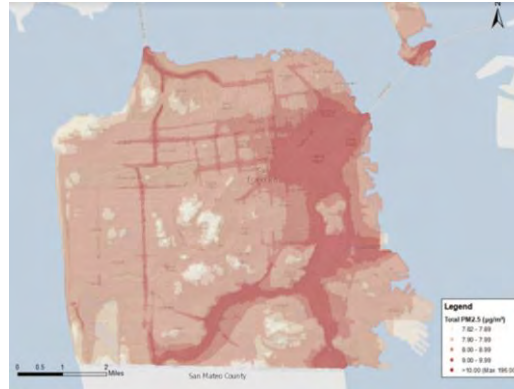
Patricia Wei



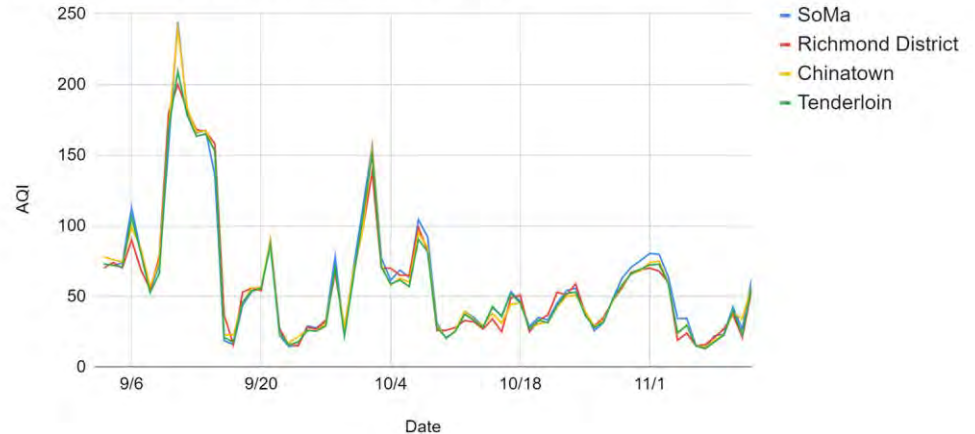
Connery Wood

Wildfire Impacts

- Wildfires have presented an extremely noticeable effect on the AQI and PM 2.5 concentrations across all neighborhoods.
- Air quality significantly declined in every neighborhood during the wildfires, however, **SoMa** had the highest AQI in comparison to the other neighborhoods.



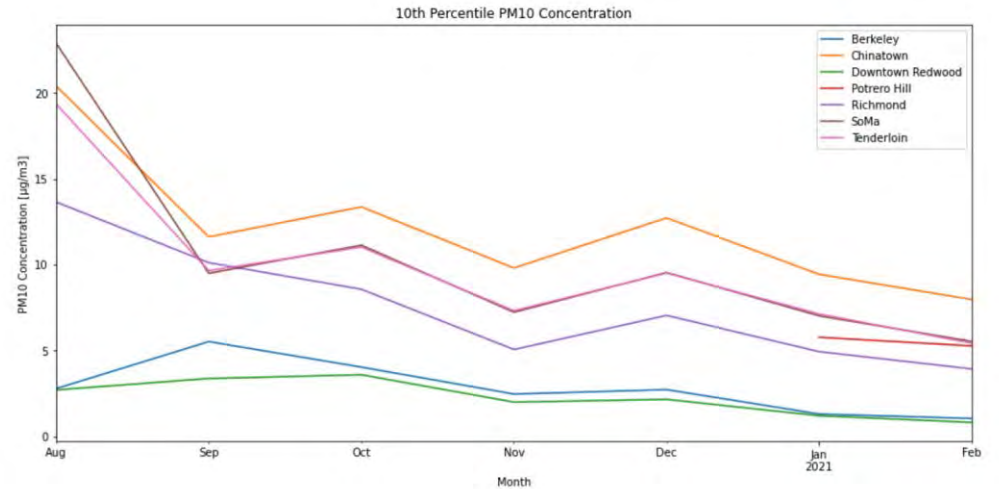
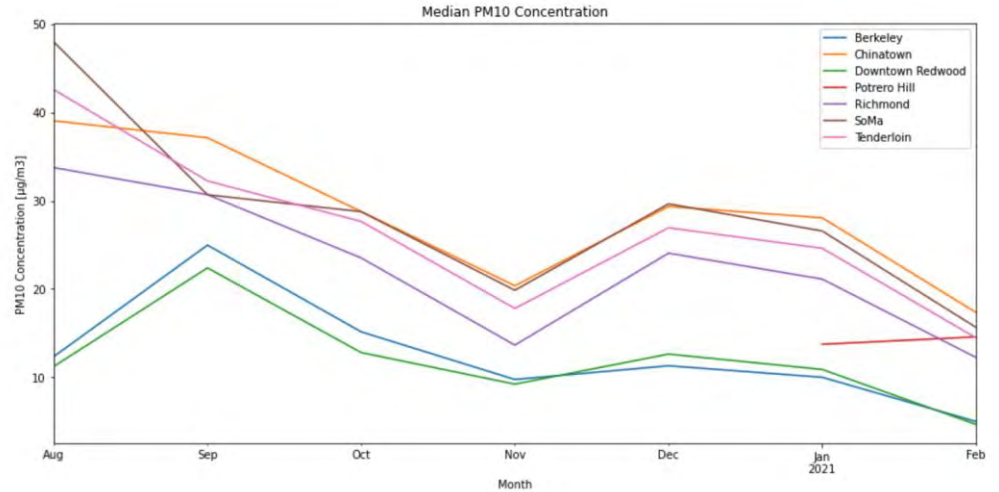
Daily Average AQI Comparison by Neighborhood





COVID-19 Impacts

- San Francisco faces higher air pollution (PM10) than Berkeley or Redwood City, even with reduced traffic due to COVID-19.
- In the absence of major policy changes, we risk a rapid rebound of emissions in 2021.
- Clean energy and a transition to a green economy will be critical to ensure a sustainable recovery.



Air Quality Matters

Long term exposure to air pollution increases your risk of cardiac disease, your risk of strokes, your risk of asthma exacerbations, and reduces your life expectancy

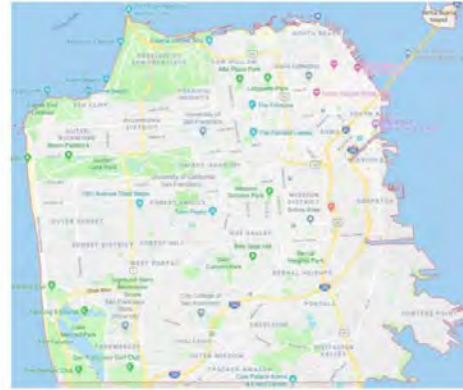
CalEnviroScreen (CES) 3.0 and CES Draft 4.0

>Under CES 3.0, only two of the eight census tracts in the Tenderloin were classified as Disadvantaged Communities. But under Draft CES 4.0, there are zero census tracts scoring in the top quartile.

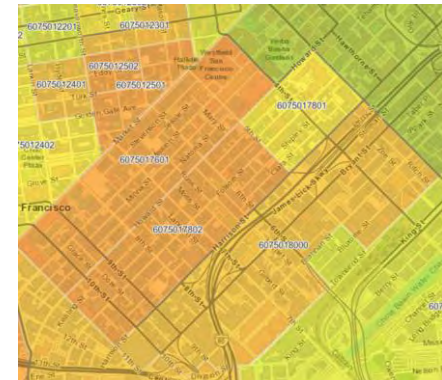
>Pollution risk and other environmental and socioeconomic factors persist as a serious threat in SoMa. But Draft CES 4.0 now disqualifies both of SoMa's four census tracts previously in the top quartile under CES 3.0, while one census tract has a score that barely exceeds the 75th percentile.

>Workshops underway from April 7-20, Bay Area Workshop is April 20, public comment due April 30th.

Map 1. Mapping of SB 535 Disadvantaged Communities and AB 1550 Low-Income Communities in San Francisco



Source: "Priority Populations Maps," available at: <https://ww3.arb.ca.gov/cc/capandtrade/auctionproceeds/communityinvestments.htm>



Introducing: The Brightline Podcast

Available to listen on [Apple](#) & [Spotify](#)



**West Oakland
Environmental
Indicators Project**
know which way the wind blows





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AIR QUALITY
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AGENDA: 4

Discussion on the Community Equity, Health & Justice Committee's Mission Statement and Draft Schedule for 2021

**Community Equity, Health & Justice Committee Meeting
April 1, 2021**

**Veronica Eady
Senior Deputy Executive Officer, Policy & Equity
veady@baaqmd.gov**

Outcome



- Review of Committee Mission Statement
- Discuss Proposed Committee Calendar for 2021

Outline



- Background
- Mission Statement
- Proposed Committee Calendar

Requested Action



Committee Consideration and Approval of 2021 Meeting Schedule

Background



- The Board of Directors at its March 4, 2020, meeting established the Ad Hoc Committee on Equity and Environmental Justice for one year with a sunset of becoming a full committee if agreed upon, if not agreed upon after one year, a second year granted.
- The Board of Directors merged elements of its “Community and Public Health Committee” and the “Ad Hoc Committee on Equity, Access and Inclusion Committees” to form a new standing Community Equity, Health & Justice Committee.
- New Committee Structure
 - 2 Co-Chairpersons
 - 1 Vice-Chairperson

Mission Statement



Community Equity, Health & Justice Committee ... “will advise the Board of Directors regarding equitable and inclusive actions the Air District takes to create a healthy breathing environment for all people of the Bay Area, regardless of race, ethnicity, age, gender identity, national origin, immigration status, or sexual orientation.

The Community Equity, Health & Justice Committee will oversee staff efforts in developing policies for both internal and external operations, which impact the Bay Area. Internal operations include applying an equity lens to programs, policies, practices, and procedures related to staffing, recruitment, promotions, inclusive practices in the workplace, contracting for capital projects and services, and continuous racial equity training. External operations include addressing disparities by applying an equity lens to Air District programs, policies, practices, and procedures.

The Committee will prioritize traditionally marginalized and disinvested communities for investment opportunities to ensure communities highly impacted by air pollution receive program and policy prioritization.

The Committee will also recommend to the Board of Directors overall direction of the District’s public engagement programs. In addition, the Committee hears proposals and makes recommendations to the Board of Directors regarding the selection of contractor(s) to assist the District with aspects of the public engagement programs.”

Committee Calendar



Meeting Schedule	Topics
<p>April</p>	<ul style="list-style-type: none"> • Community Perspective • Community Convening • Committee 2021 Work Plan Schedule • AB 617 Steering Committee Richmond/San Pablo Steering Committee Term of Office and Stipends • AB 617 Appointment of Health Office Representative to the Richmond/San Pablo Steering Committee • Transparent & Equitable Funding Project Scope, Road Map and Deliverables Timeline
<p>May</p>	<ul style="list-style-type: none"> • Community Perspective • AB 617: Richmond-San Pablo Monitoring Data Update • AB 617: Work Program & Community Selection Process • Community Advisory Council Process Update • Community Benefits Fund Framework • Transparent & Equitable Funding Project Update Scope, Road Map and Deliverables Timeline
<p>June</p>	<ul style="list-style-type: none"> • Community Perspective • Community Convening • AB 617 Community Selection Discussion • Air District-Wide Equity Plan Update • Community Engagement Grant Program Discussion • Electric Bicycle and Other Active Transit Mobility Incentives

Committee Calendar (cont.)



Meeting Schedule	Topics
<p>July</p>	<ul style="list-style-type: none"> • Community Perspective • Transparent and Equitable Funding Project Update Scope, Road Map and Deliverables Timeline • Community Advisory Council Update • Community Benefit Fund Update
	<p>August – No Meeting</p>
<p>September</p>	<ul style="list-style-type: none"> • Community Perspective • Community Convening • Air District-Wide Training Update • Community Engagement Guidelines Update • Bay Air Center Update • AB 617 Community Selection
<p>October</p>	<ul style="list-style-type: none"> • Community Perspective • Diversity, Equity & Inclusion Office Update • AB 617 Community Selection • AB 617 West Oakland Community Action Plan Annual Report

Committee Calendar (cont.)



Meeting Schedule	Topics
November	<ul style="list-style-type: none">• Community Perspective• Community Convening• Mobile Monitoring Van Update
December	<ul style="list-style-type: none">• Community Perspective• AB 617 Program FYE 2023 Update/Next Steps

Feedback Requested/Prompt



Recommend the Committee:

- Approve Calendar for Committee's 2021 Meeting Schedule



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DISTRICT

AGENDA: 5

Transparent & Equitable Funding Project

**Community Equity, Health & Justice Committee Meeting
April 1, 2021**

**Greg Nudd
Deputy Air Pollution Control Officer
gnudd@baaqmd.gov**

Outcome



Committee and community feedback on purpose, scope, and timeline of deliverables for the Transparent & Equitable Funding Project.

Requested Action



Seeking feedback from the Committee and the public on the purpose, scope, road map and deliverables timeline for the Transparent & Equitable Funding Project.

Outline



Community Request



Project Purpose



Goals & Scope



Roadmap



Deliverables and Timeline



Community Request



- Total funding to Community Air Risk Evaluation (CARE) and Disadvantaged communities
- Total funding to African American/Black communities
- Total funding to African American/Black CBO's, organizations, consultants
- Opportunities and programs available for funding
- How much funding was provided to RSP Monitoring Program
- How the Air District plans to spend its portion of the \$50 million Assembly Bill (AB) 617 California Air Resources Board (CARB) Grant (*approx. \$9 million*)

Purpose



To improve transparency in program budgets and spending in communities, especially Black/African American communities, and to better communicate funding opportunities.

Increasing transparency in spending and funding opportunities may increase the equitable distribution of resources at the Air District and improve community access to resources.

Goals



- Respond to both the specific community requests and to the most recent memo prepared by Air District Board of Directors' Chair Chavez and Secretary Bauters.
- Set the groundwork for a more inclusive and participatory budgeting process for programs that benefit communities, especially inequitably burdened communities.
- Create a framework for including racial equity as a performance metric for Air District external funding programs.

Scope



- Research current data availability regarding funding distribution.
- Make recommendations for improved data collection and tracking of funding distribution processes.
- Clearly communicate current AB 617 program budget and components.
- Describe and map funding distribution into communities with existing data.
- Assess and improve how funding opportunities are communicated to communities.
- Update maps and narrative as improve data collection process.

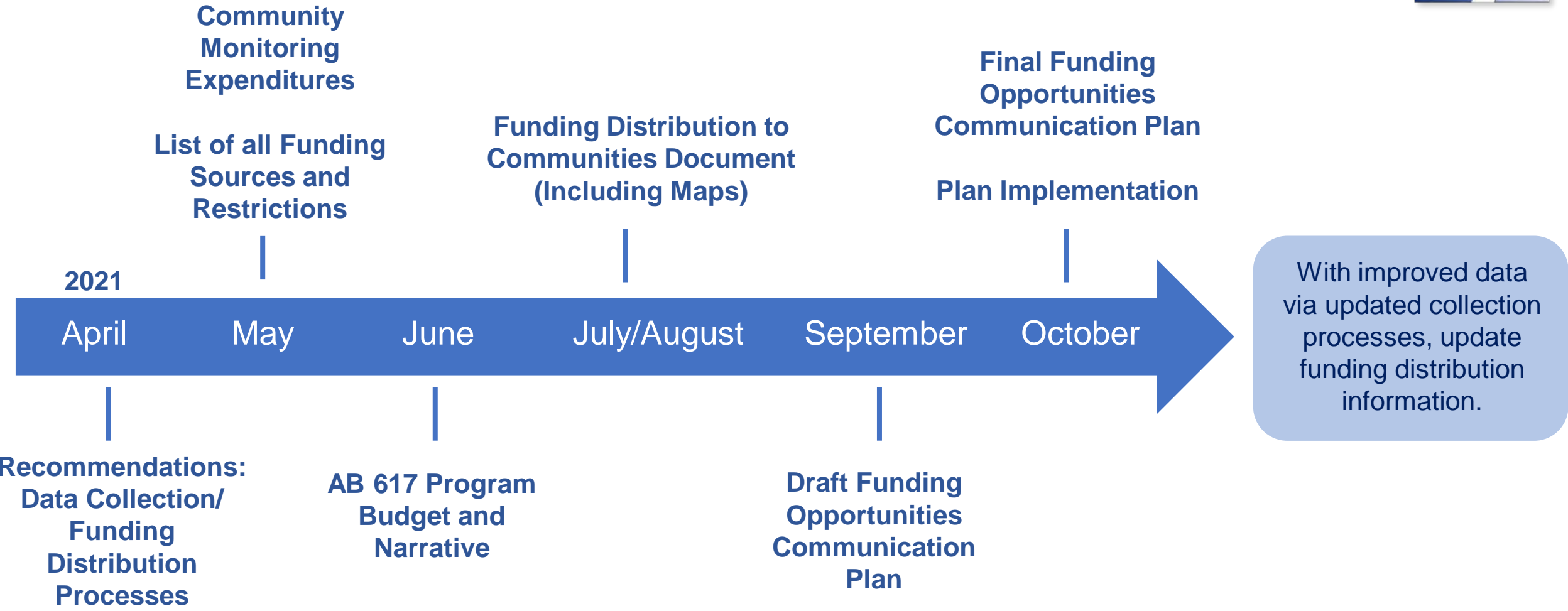
Roadmap & Timeline



Transparent & Equitable Funding Roadmap

Research	AB 617	Distribution	Opportunities
Fall 2020 – April 2021	February - June	February - August	March - October
Data Analysis	Narrative	Funding Sources	Needs Assessment
Constraints	Budget	CARE/Disadvantaged	Communication Plan
Recommendations	Community Monitoring	Black/AA Communities	Implementation

Deliverables Timeline



Feedback Requested



Please share thoughts on project:

- Purpose
- Goals
- Scope
- Roadmap
- Deliverables



BAY AREA
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MANAGEMENT
DISTRICT

AGENDA: 6

**Consideration of AB 617 Richmond-North
Richmond-San Pablo Emissions
Reduction Plan Steering Committee
Proposed Stipend**

**Community Equity, Health & Justice Committee Meeting
April 1, 2021**

**Veronica Eady
Senior Deputy Executive Officer, Policy & Equity
veady@baaqmd.gov**

Outcome



- Recommended Board Action to decide the proposed stipend for community members appointed to the Richmond-North Richmond-San Pablo Area (Path to Clean Air) Community Emissions Reduction Plan (CERP) Community Steering Committee for Board of Directors' consideration and approval.

Background



- On April 3, 2021, the Air District Board of Directors voted to establish a 31-member community steering committee
- The Path to Clean Air Community Air Monitoring Plan Steering Committee and West Oakland CERP Steering Committee members were compensated \$100 per meeting.

Requested Action



- The Committee is requested to act on the recommendation:

Air District staff recommend that the stipend amounts be set to \$100 per meeting attended.



BAY AREA
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AGENDA: 7

**Consideration of Appointment of Contra
Costa Health Services Representative to AB
617 Richmond-North Richmond-San Pablo
Emissions Reduction Plan Steering
Committee**

**Community Equity, Health & Justice Committee Meeting
April 1, 2021**

**Veronica Eady
Senior Deputy Executive Officer, Policy & Equity
veady@baaqmd.gov**

Outcome



- Recommended Board Action to consider the appointment of Contra Costa Health Services Representative to AB 617 Path to Clean Air Community Emissions Reduction Plan (CERP) Steering Committee.

Background



- On February 19, 2021, the Community Equity, Health & Justice Committee (Committee) reviewed applications for the Path to Clean Air CERP Steering Committee.
- Less than 24 hours before the meeting, Air District staff were notified that the representative from the Contra Costa County Health Services Agency could no longer serve on the Steering Committee.
- The Committee voted to approve a slate of 31 members for Board of Directors approval. The slate consisted of 30 identified members, and one seat for a representative from the Health Services Agency to be appointed at a later date.

Requested Action



- The Committee is requested to act on the recommendation:

Review the application and Conflict of Interest form for the Contra Costa Health Services representative to determine whether to appoint them to the Path to Clean Air Steering Committee.