Bayview Hunters Point/ Southeast San Francisco Community Emission Reduction Plan (CERP) Community Steering Committee #15

April 15, 2025
Southeast Community Center
1500 Evans, San Francisco, CA

Welcome

Agenda

- Welcome
- Recap and Debrief previous meeting
- Roll Call
- Maps, Data, and Other Tools to Understand Air Quality
- Review Visions, Principles, and Focus Areas
- Planning and Strategies Subcommittee Report Back
- Wrap up and Action Steps

Recap and Debrief previous meeting

How Do We Get There?

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Refine list of community concerns and develop thematic focus areas with problem statements

Develop draft list of potential strategies and actions, Organize by thematic focus areas, conduct initial evaluation against Vision, Principles, and CERP Goals

Refine Strategies and actions

Year 2025 Year 2026

If needed, conduct background research on best practice actions

CSC Open House on draft ideas

Roll Call

Maps, Data, and Other Tools to Understand Air Quality

Maps, Data, and Other Tools to Understand Air Quality

- Air Quality Foundations - A Refresher
- Air Monitoring Overview
- Emissions & Modeling Overview

Air Quality Foundations - A Refresher

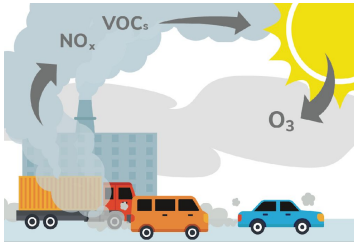
A look back at the March 19, 2024 CSC meeting

Types of Air Pollutants

Criteria Pollutants (2 of 6)

Particulate Matter (PM)

Microscopic particles of soot, dust, or other matter, including tiny liquid droplets



Ozone (O_3)

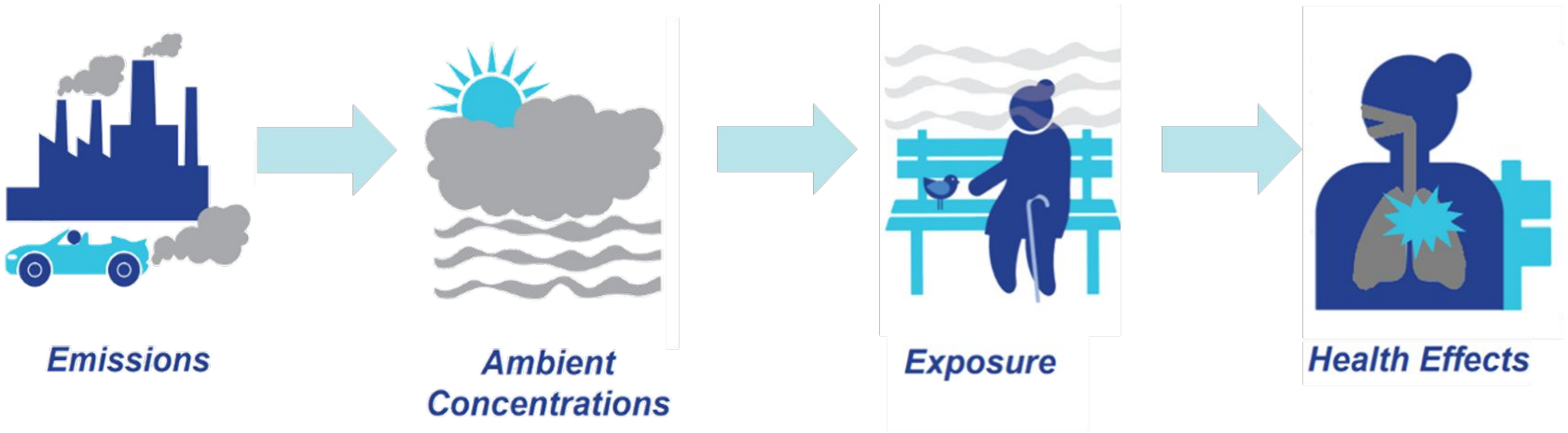
A highly reactive gas that is created in the atmosphere from the interaction of other pollutants in the presence of sunlight

Toxic Air Contaminants

Hundreds of pollutants that are known or suspected to cause cancer or other serious health effects (e.g., volatile organic compounds, diesel particulate matter, metals)

Understanding Air Quality

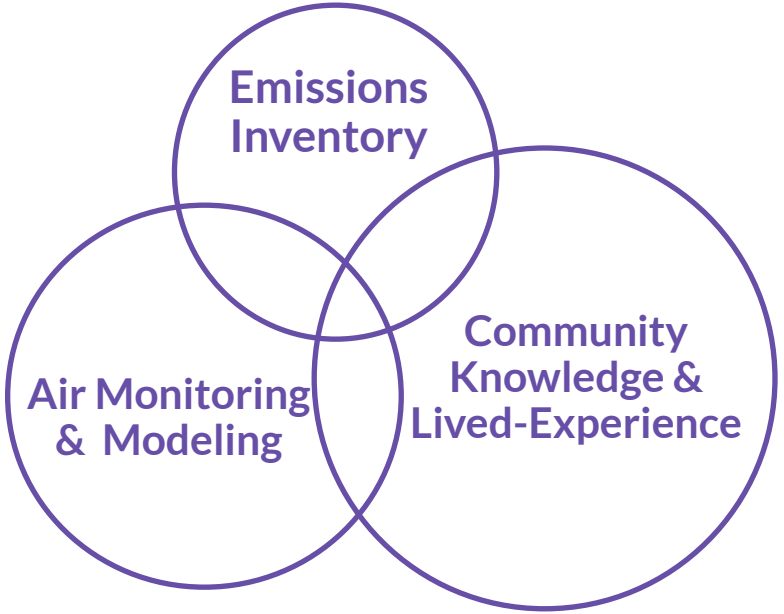
Tracing the Path from Emissions to Health Effects



Understanding Air Quality

How do we know what is in the air?

- Community Knowledge & Lived Experience
- Emissions Inventory
- Air Quality Modeling
- Air Monitoring



Air Monitoring Overview

Air Monitoring Approaches

- Regulatory air monitoring by the Air District
- Source-oriented long-term air monitoring like refinery community air monitoring (ambient and fenceline)
- Short-term studies using stationary or mobile monitors
- Community air sensor networks
- Public crowdsourced air sensor networks

→ *Each approach has strengths and limitations and should be matched to specific questions about air pollution to get the most out of the data*

Air Monitoring

Strengths

- Data reflects combined impacts from all sources
- Lets us know about current air quality and how things are changing over time
- Can help us understand what may be causing changes in air quality

Limitations

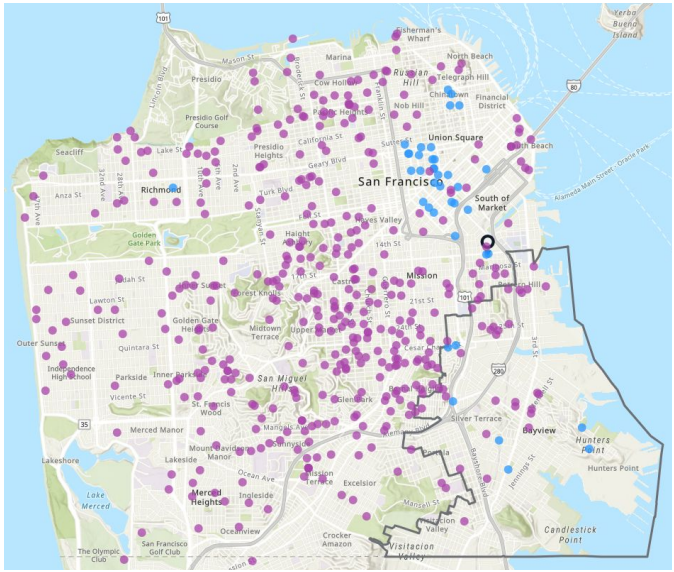
- Only tells you what is happening at some locations
- Not feasible to measure everything everywhere at all times
- Some types of monitoring are very resource intensive (e.g., air toxics – volatile organic compounds or metals)

Air Monitoring in Bayview Hunters Point

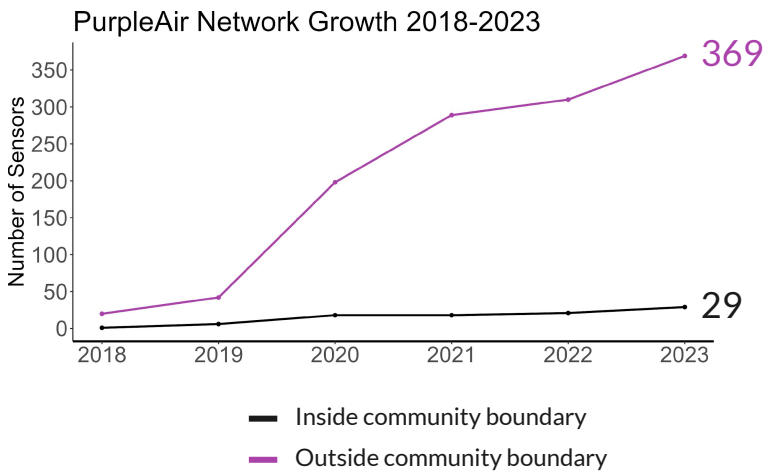
- Air Monitoring Reference Guide (see handout)
  - Air District monitoring site
  - Air sensor networks
  - Monitoring at the Navy Shipyard
  - Naturally occurring asbestos
  - Additional data resources
    - Real-time sensor data
    - Previous air monitoring studies

Air Sensor Networks

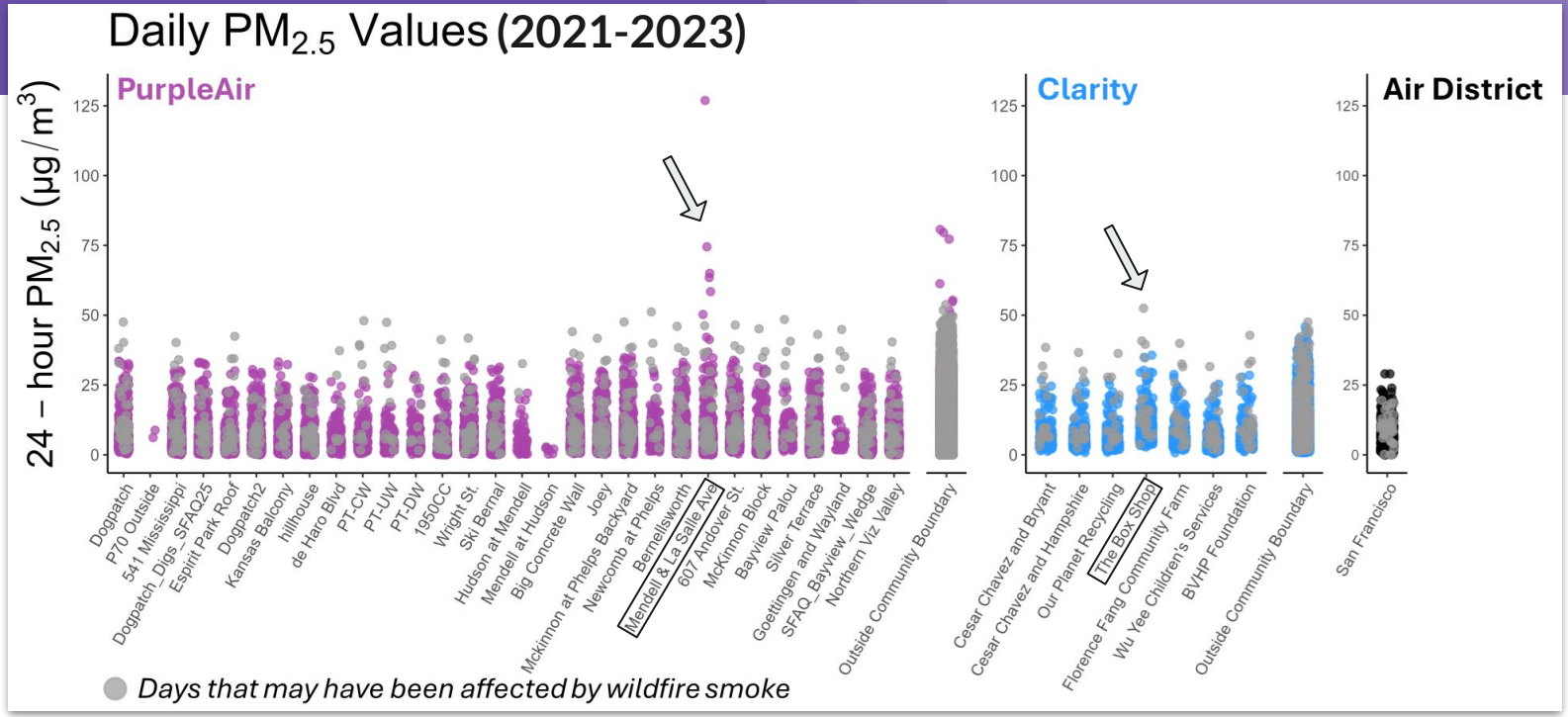
Large Networks in San Francisco



- Community boundary
- Air District monitoring site
- PurpleAir sensors
- Clarity sensors (Brightline)



Preliminary Look at Air Sensor Network Data



Air Monitoring in Bayview Hunters Point

- Limited or no air monitoring data on many pollutants or sources of concern specific to locations in BVHP
  - Toxic air contaminants (gaseous air toxics and metals) from many sources
  - Larger particles (PM_{10}) from sources of dust
  - Black carbon (BC) from cars, trucks, woodsmoke, and wildfire smoke
  - Ultrafine particles from cars, trucks, and other combustion sources
- For some concerns, we have other tools and data that speak to the issue, and additional air monitoring may not be needed (e.g., air pollution near roadways)

Air Monitoring in Bayview Hunters Point

- For other concerns, existing information may not be enough to support solutions or relevant to the issue, and additional air monitoring should be considered (e.g., sources of fugitive dust)
- Focusing limited air monitoring resources on these types of concerns will help target our efforts to improve understanding of air pollution in overburdened communities
- The CERP can include strategies to conduct feasible additional air monitoring in BVHP for the cases where there are data-driven barriers to actions

Emissions & Modeling Overview

Emissions Inventory

Strengths

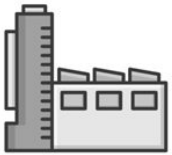
- Provides an estimate of the amount of air pollution emitted by sources within a defined area
- Helps identify sources that should be targeted by CERP strategies and actions
- Sets a baseline for emissions reporting and tracking
- Serves as an input for air quality modeling efforts

Limitations

- Focuses on typical conditions; may miss events like accidental releases or fires
- Lacks information for sources that are unknown or have limited data
- Includes estimates with a high level of uncertainty for some sources
- Paints an incomplete picture (a source with relatively low emissions may still have a large impact on local exposures)

Sources of Air Pollution
Stationary vs. Mobile

Stationary (Point) Sources



Facility-related sources; often issued a permit or registered by the Air District

On-road Mobile Sources

Vehicles that travel on roadways, such as cars, trucks, and buses

Areawide Sources

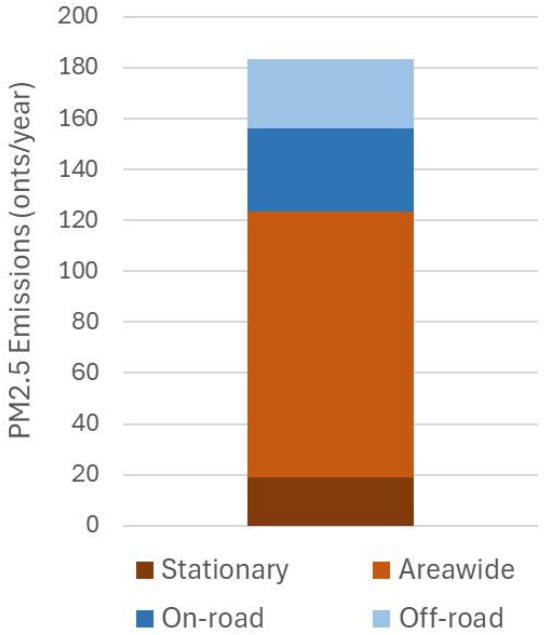
Small, dispersed sources such as fireplaces, restaurants, and dust sources

Off-road Mobile Sources

Vehicles and equipment such as trains, airplanes, ships, and bulldozers

Insight #1
The inventory connects sources and pollutants

- The 2022 inventory shows how those source sectors contribute to emissions of different pollutants.
- For fine particulate matter ($PM_{2.5}$), almost **70%** of local emissions are from stationary and areawide sources.

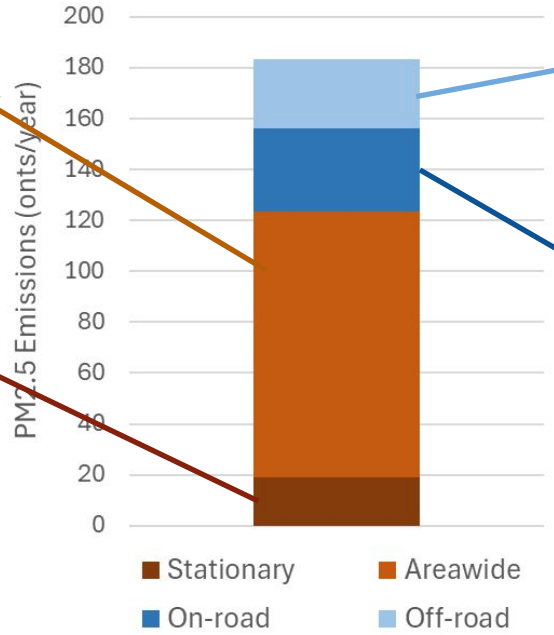


The bar chart shows local $PM_{2.5}$ emissions for 2022 (units = tons)

Insight #2
Fugitive dust is an important PM2.5 source

Areawide Sources	PM2.5	
Residential Fuel Combustion	38.2	
Construction/Demolition Dust	33.9	✓
Commercial Cooking	20.1	
Other	12.3	

Stationary Point Sources	PM2.5	
CEMEX Construction Materials	2.9	✓
Recology San Francisco	2.8	✓
Darling Ingredients, Inc.	1.3	✓
Recycle Central at Pier 96	0.9	
Southeast Treatment Plant	0.6	
Central Concrete Supply	0.5	✓
Other	9.9	



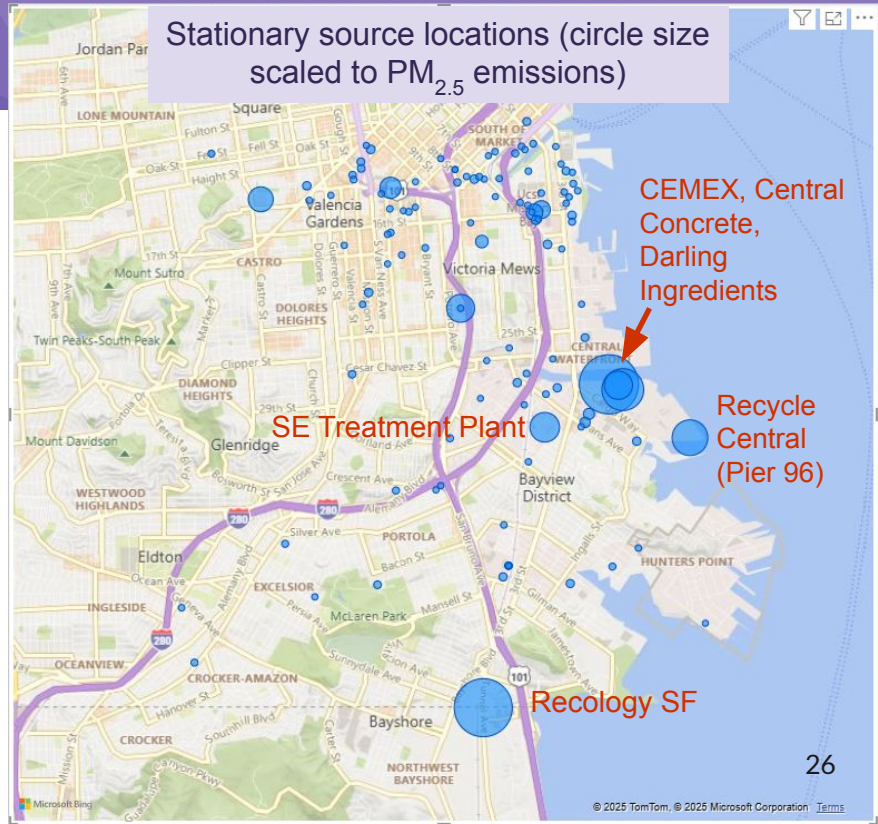
Off-road Sources	PM2.5
Construction Equipment	8.1
Ocean-going Vessels	6.0
Commercial Harbor Craft	4.1
Commercial & Industrial Equip.	2.8
Other Off-road Equipment	6.0

On-road Sources	PM2.5	
Paved Road Dust	18.3	✓
Passenger Vehicles	10.4	
Trucks	3.1	
Buses	1.0	

✓ Fugitive dust sources account for **over a third** of local $PM_{2.5}$ emissions

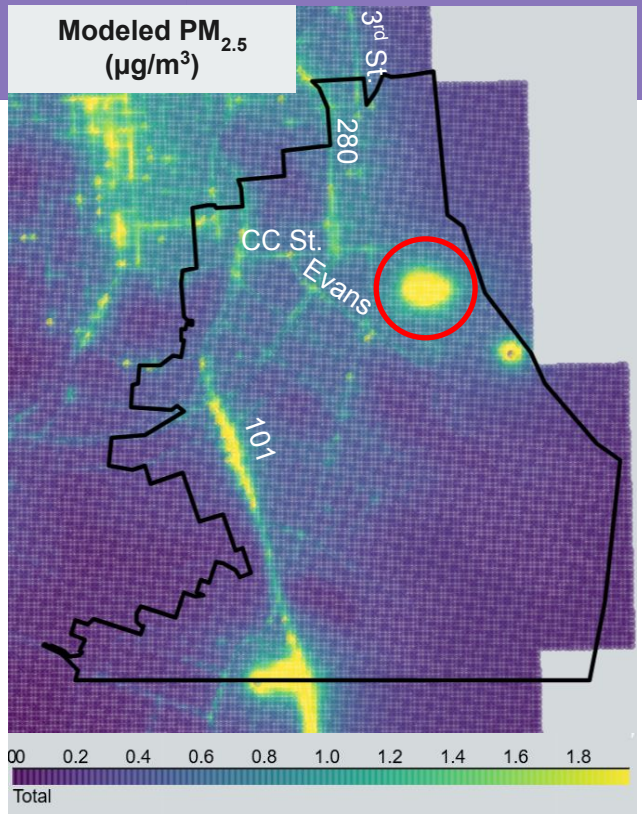
Insight #3
Clusters of permitted sources create impacts

- In the inventory, stationary sources account for 10% of local $PM_{2.5}$ emissions
- Six facilities are responsible for about half of the $PM_{2.5}$ emitted by these stationary sources
- Three of the largest $PM_{2.5}$ emitters are clustered together along Amador Street

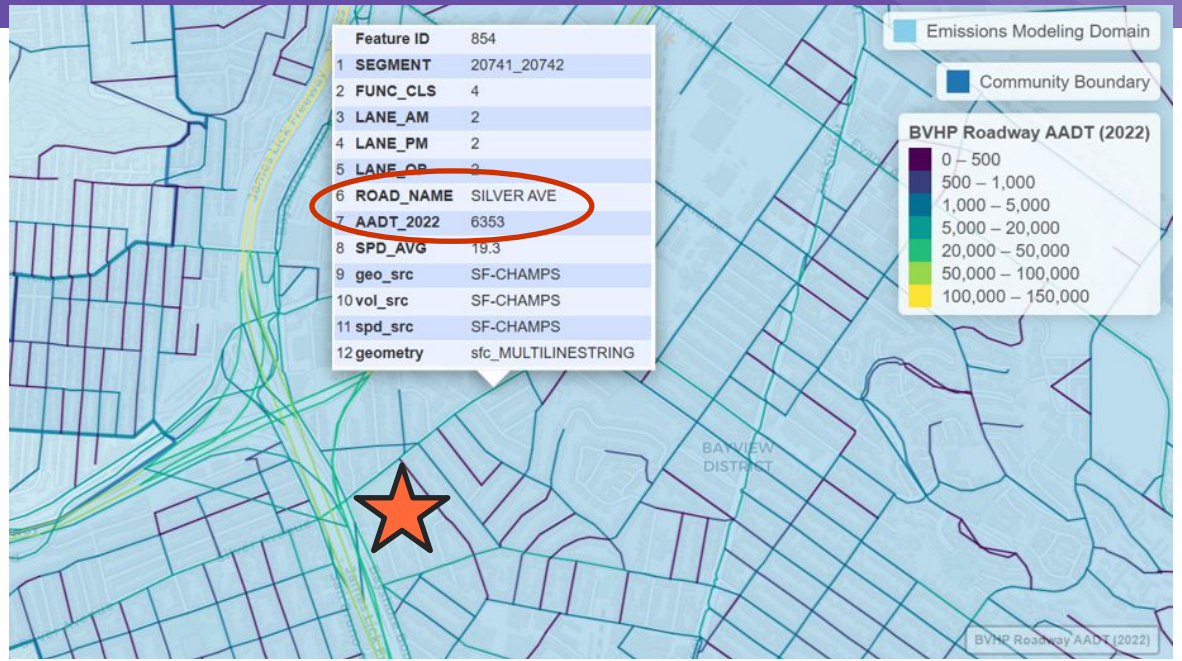


Insight #3
Clusters of permitted sources create impacts

- Modeling results show that individual facilities and groups of facilities (e.g., Amador Street) contribute over 1 µg/m^3 to $PM_{2.5}$ levels nearby
- These impacts are similar in scale to those seen around high-volume roadways
- This finding illustrates the potential importance of sources that make a relatively small contribution to the inventory (10%)



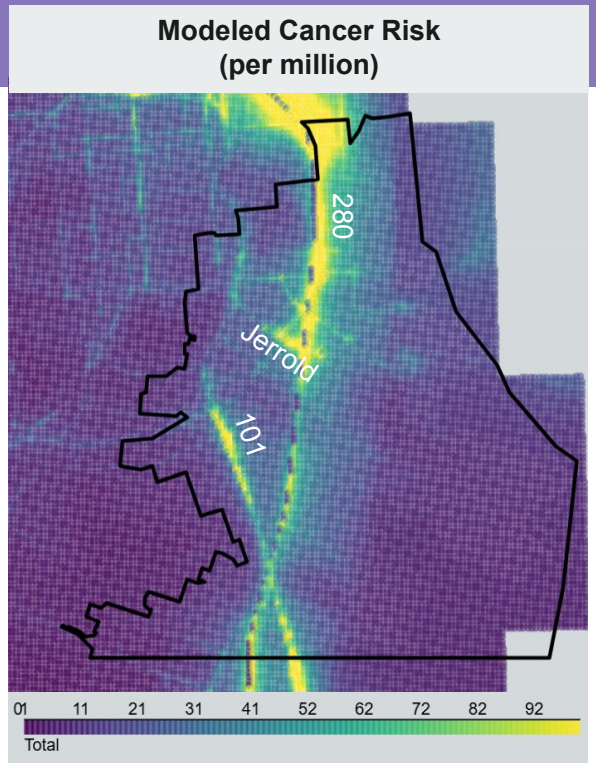
Insight #4 – Emissions-related data can help identify large sources near vulnerable populations



- Mapped traffic data can be used to identify high volume roadways
- One area where traffic activity is high is just south of the 101/280 interchange where Silver Avenue crosses Bayshore and the 101
- Silver Terrace Athletic Fields, a daycare, and a preschool are located in this area (see star)

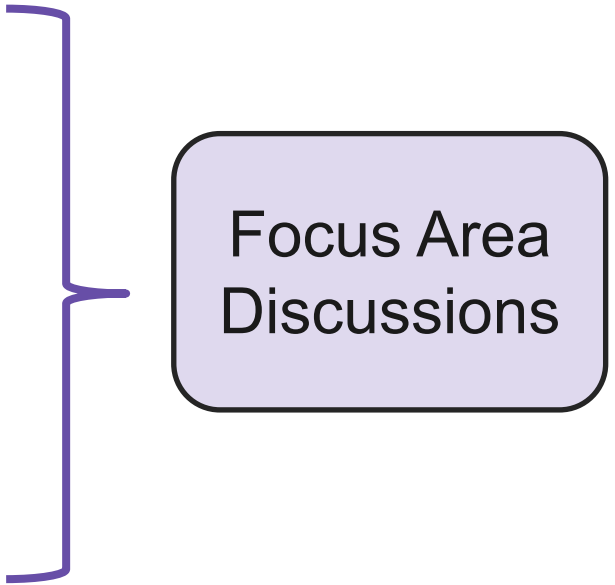
Insight #5
Emissions and exposures can tell different stories

- Cancer risk modeling shows that on-road mobile sources account for only **18%** of the emissions but almost **half** the modeled risk
- On the other hand, marine sources account for over **60%** of the emissions but only **7%** of the modeled risk
- The greater risk from on-road sources largely results from their location within the community (rather than off-shore)



Connecting to Community Concerns

- Community Knowledge and Lived Experience
  - CSC and SEDG mapping and findings
  - Focus area discussion from last meeting
- Air District
  - Emissions inventory
  - Air monitoring and modeling
  - Compliance & Enforcement data
  - Interactive map
- Additional data from other agencies/organizations
  - Health and demographic data
  - Land use/zoning
  - CalEnviroscreen



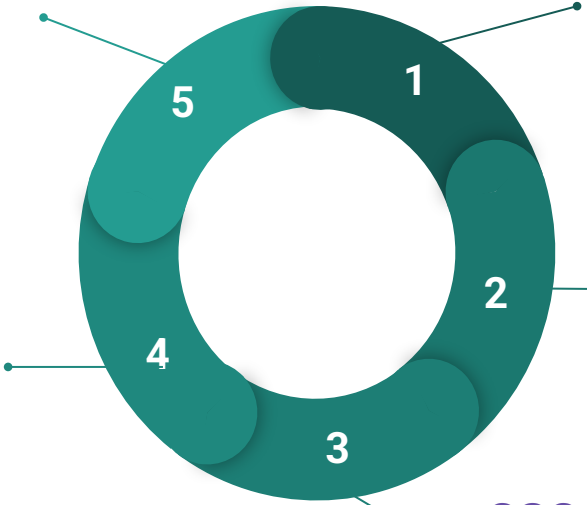
Review Visions, Principles, and Focus Areas

Planning and Strategies Subcommittee Report Back

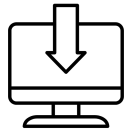
Strategy Development Process

CSC provides insights and core ideas

Created by Bahrul Ulum from Noun Project



Air District and CSC subcommittee refine initial content based on input from CSC



Created by Bahrul Ulum from Noun Project

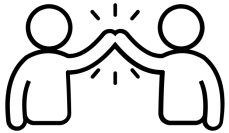
CSC reviews and suggests any changes to initial content

Created by WARHAMMER from Noun Project

Repeat steps 2 + 3 as needed

Created by VIKEI HI from Noun Project

CSC reviews final content for CERP



Created by Michael Appleford from Noun Project

Air District revises/refines and creates final content

Created by Vior from Noun Project

Discussion of Proposed New Subcommittee

From ongoing discussions with Co-leads and the CSC, as well as per the CSC Charter, we suggest the CSC consider these guidelines for forming a new sub-committee:

- Any proposed sub-committee should make clear to the CSC:
  - ➢ What is the specific need and the specific charge of the sub-committee
  - ➢ How often they plan to meet and when
  - ➢ The amount of expected work and time involved for members
  - ➢ What is the expected timeline of the sub-committee's work and what is the expected on-going and final deliverables

Wrap up, Action Steps, & Announcements

April 15 BVHP/ SE SF AB 617 CSC Meeting

Feedback on Meeting & Next Steps for the CSC

Please fill out the post-meeting survey form.

Next Meeting will be
May 20th from 5 PM to 7:30 PM

It is important that you register for each meeting so that we can make any required accommodations.

https://bit.ly/CSC-STIPEND

Thank You!

See You on May 20th !!

April 15 BVHP/ SE SF AB 617 CSC Meeting

For Example: Proposed Structure for the Strategy Development and Planning Coordinating Subcommittee

- Establishing a sub-committee was agreed upon by CSC in March with list of recommended members ~6-7 to be brought forward by co-chairs.
- A sub-committee should not be larger than a quorum of the CSC.
- Meet at least once a month from April-December and be committed to active participation and probable field work/site visits, as necessary.
- **Need:** to enable us to meet the CERP timeline we need a deliberate and coordinated strategy development and writing process which requires work outside of normal CSC time.
- **Charge:** w/ Air District staff and technical advisors, work to review, research, synthesize, contextualize, assess, and present out on proposed emission and exposure reduction strategies and actions within overall plan goals and CARB guidelines.
  - Ad-hoc working groups (e.g. for various theme areas of concerns or strategy specific writing teams) may be convened as necessary by the sub-committee.
- **Expectations:** report out at each CSC meeting and lead the larger strategy development discussion. A final summary compilation of strategy development background shall be provided to the CSC by December 2025.