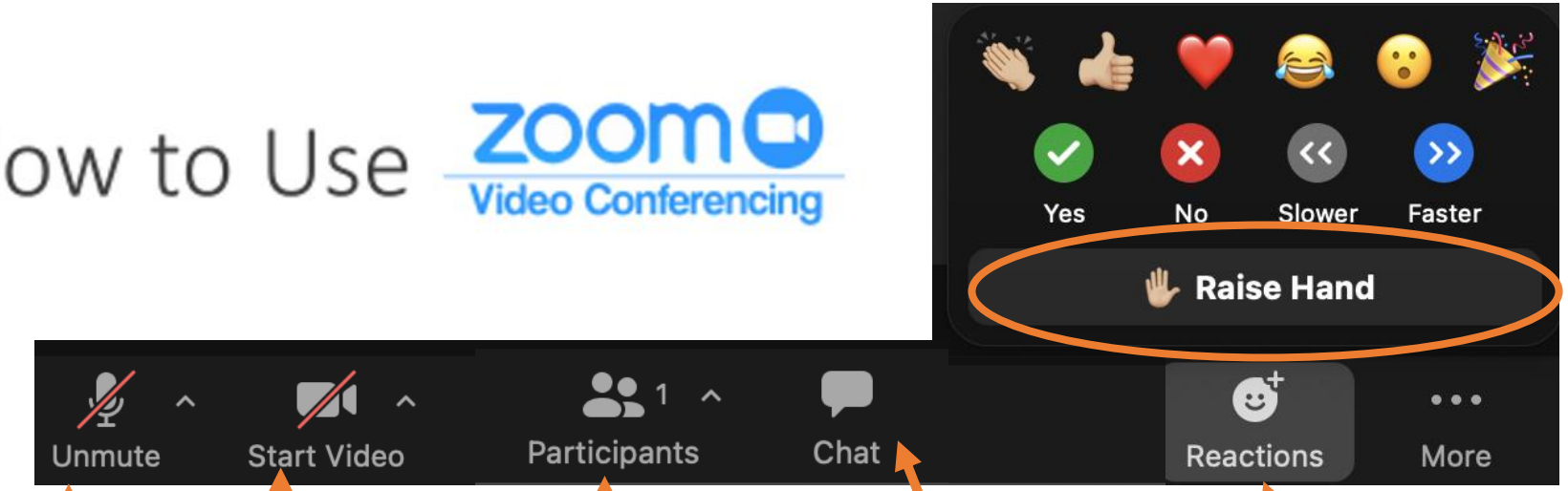
Virtual Workshop on Benicia Community Air Monitoring Site Selection

Thank you for joining us. The workshop will begin at 6:00 pm.

Until then, please familiarize yourself with the following Zoom features:

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

How to Use zoom Video Conferencing



Mute/Unmute
Please mute yourself when not speaking

Video

Participants
- See others
- Rename yourself (Name and Group/Agency Affiliation if applicable)
- Raise hand

Chat
To provide questions and or comments when chat is enabled

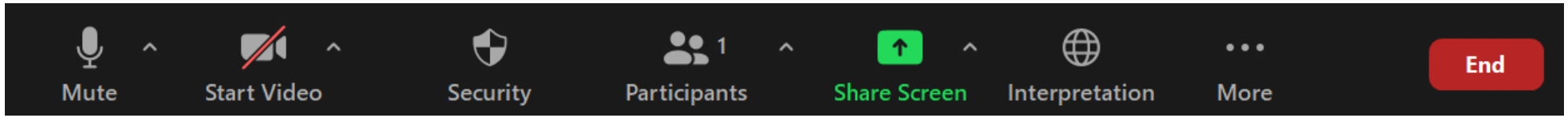
Reactions
- Raise hand
- give thumbs up
- applaud

Note: The Air District will be recording this public workshop

If you need technical assistance at any time during this workshop, please call or text (415) 508-4164

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Note: This workshop is being interpreted in Spanish.
Closed-captioning is also available.



Interpretation
Click the globe icon and select "Spanish" to listen in Spanish.

Closed-captioning
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BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Virtual Workshop on Benicia Community Air Monitoring Site Selection

Virtual Public Workshop
Thursday, June 30, 2021

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

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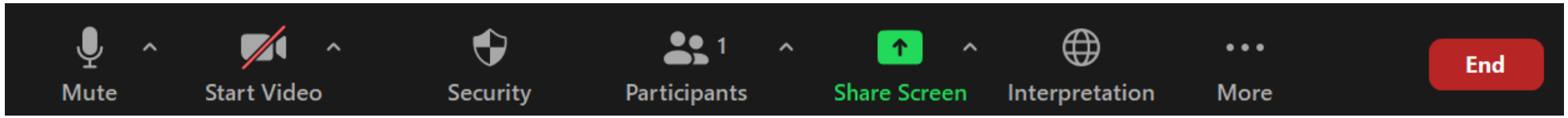

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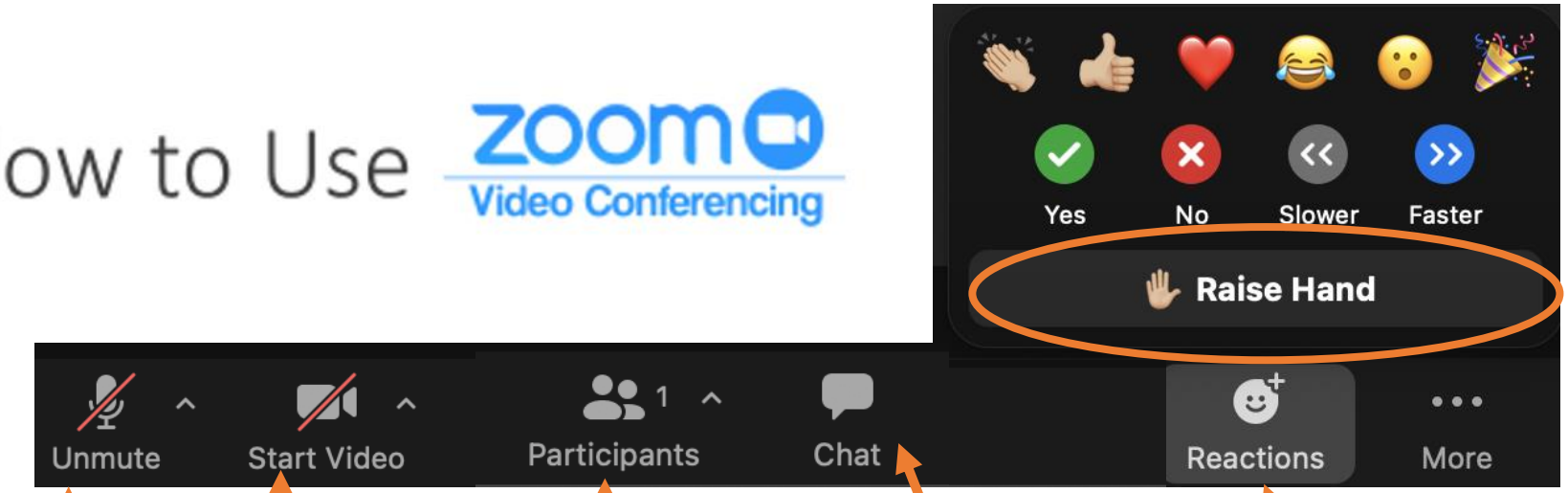

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Technical Assistance

- If you need technical assistance, please call or text

  (415) 508-4164

Virtual Participation Principles

- **One** person speaks at a time.
- Be **respectful** of one another's opinions.
- Please **mute** yourself when you're not speaking. During the Q&A/comment periods, individual participants will be **asked to unmute** when it is their turn to speak.
- **Share video if you like** so we can stay visually connected.
- Technology happens – please be **flexible and patient**.

Workshop Agenda

1. Welcome and Opening Remarks
2. Poll: Who's in the room
3. Community Perspectives
4. Air District Presentation
5. Poll: Site ranking
6. Discussion
7. Closing and Next Steps

Welcome and Opening Remarks

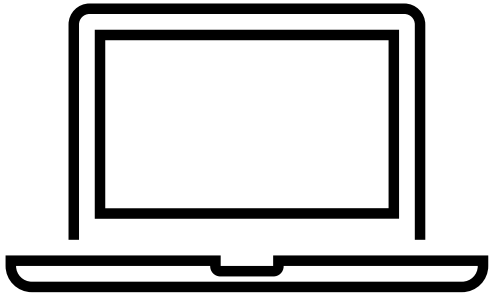
Veronica Eady

Senior Deputy Executive Officer of Policy & Equity

Bay Area Air Quality Management District

Polling Exercise

TWO WAYS TO PARTICIPATE



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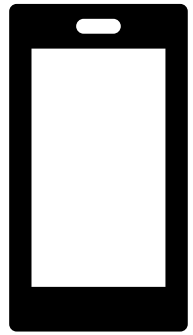

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on your internet browser.

https://pollev.com/kwpoll1

Start the presentation to see live content. For screen share software, share the entire screen. Get help at **pollev.com/app**

Polling Exercise

Who's in the room?

Materials:https://www.baaqmd.gov/news-and-events/workshops

Start the presentation to see live content. For screen share software, share the entire screen. Get help at **pollev.com/app**

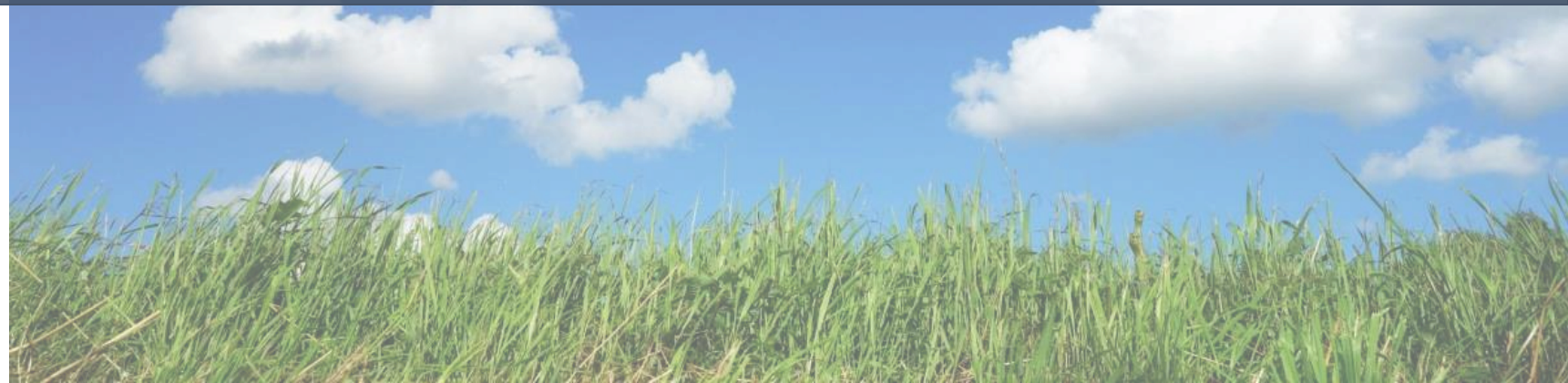
Community Perspectives on Monitoring Air Quality in Benicia

Marilyn Bardet

Good Neighbor Steering Committee

Constance Beutel

Air Watch Bay Area



airwatchbayarea.org

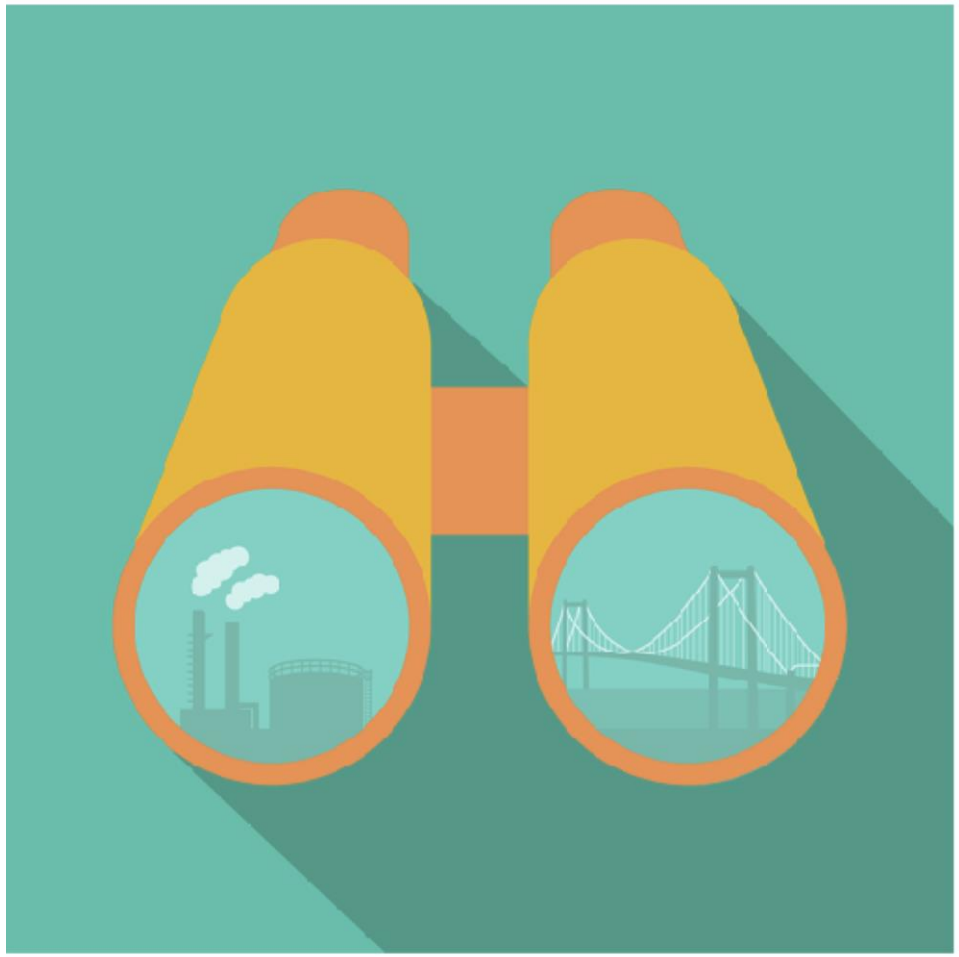
Air Watch Bay Area

Learn more about air quality in the San Francisco Bay Area and report air pollution. Use our interactive tool to know how air pollution affects your community, especially pollution from oil refineries.

Join our Facebook page →

GET STARTED

AIR WATCH BAY AREA



- Total support for Benicia's BAAQMD monitoring system
- About Air Watch
- Considerations for the Community

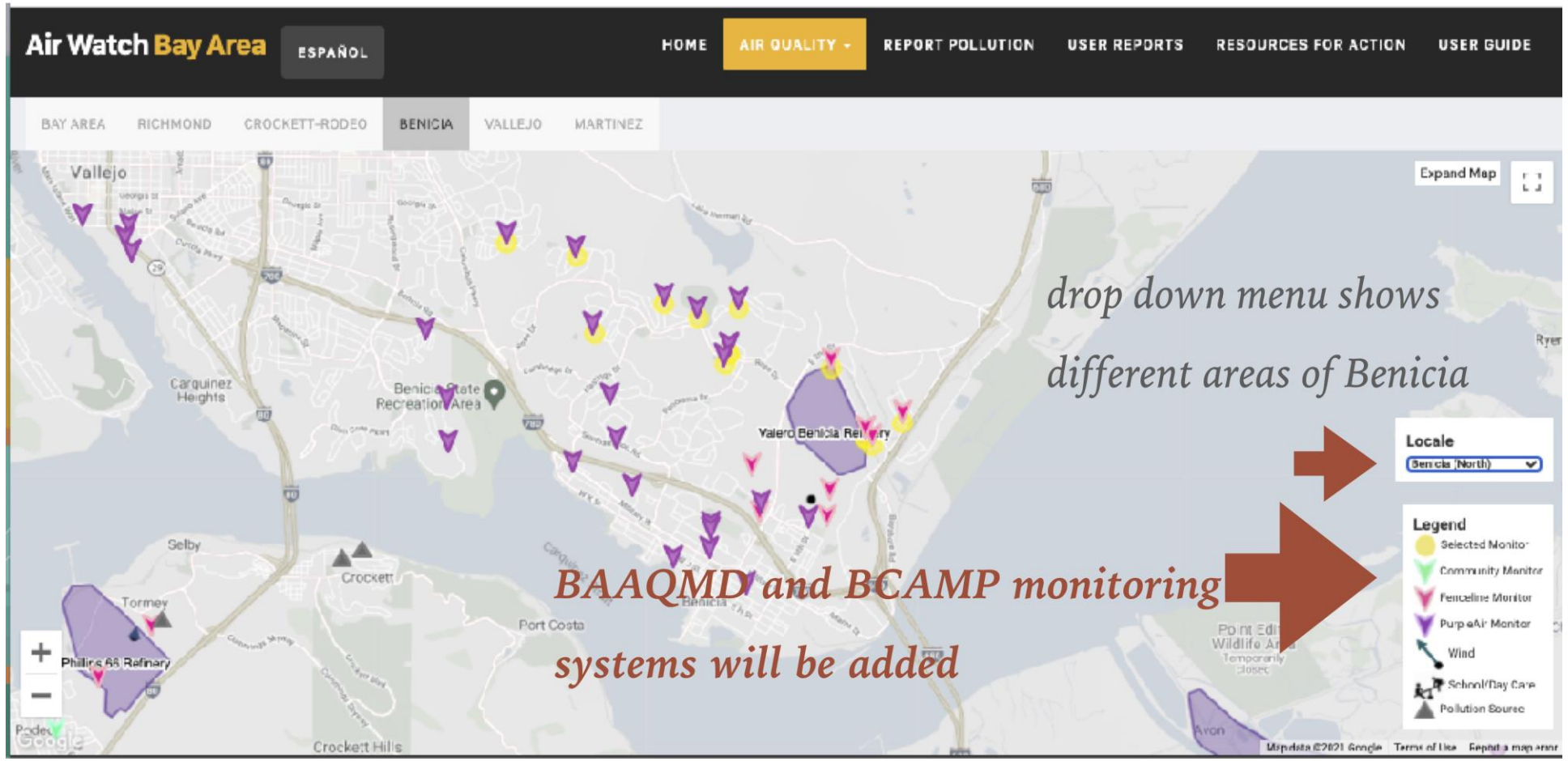
airwatchbayarea.org

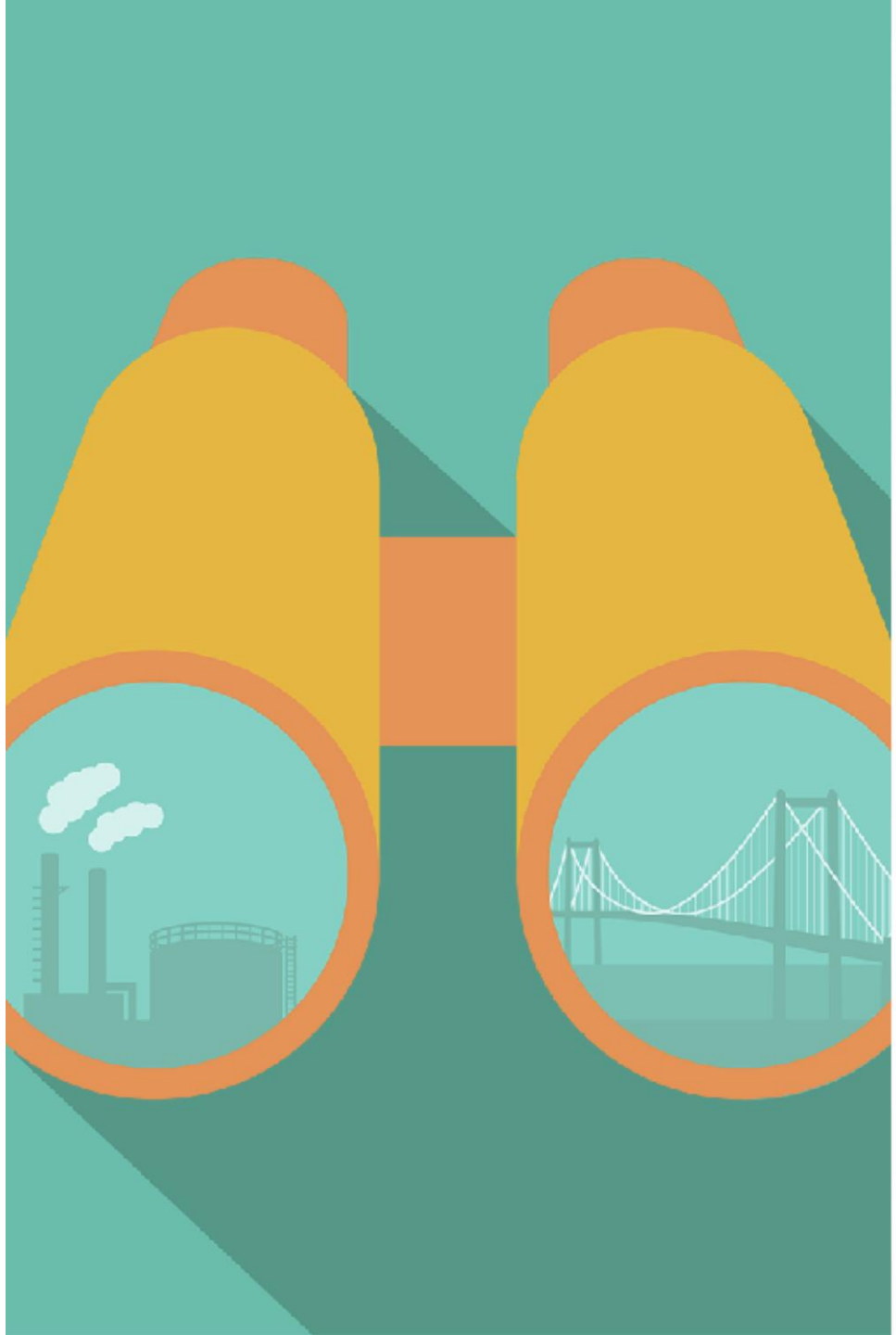
ABOUT AIR WATCH BAY AREA

- Air Watch curates real time and archived, publicly accessible data from monitors and gives residents the opportunity to add to that data with real time reporting via Smell my City
- in 2017 the Fair Tech Collective, Drexel University and the CREATE Lab, Carnegie Mellon University felt real-time data from refinery fence-line and community monitors was underutilized
- Air Watch Bay Area today actively consists of collaborating community activists, The Fair Tech Lab, the CREATE lab and others

NEW SYSTEMS WILL BE ADDED TO DATA COLLECTION FOR BENICIA

airwatchbayarea.org





CONSIDERATIONS FOR ALL

- Data reporting and collection is useless unless:

  Used to **alert and protect** community

  Used by citizens, public officials, researchers to **understand trends, health and safety implications**

  Currently, refinery and Air District **data needs to be reported in a user friendly format and data producing sites need to provide an API** (Application Programming Interface) to allow for the easy collection and analysis of data

airwatchbayarea.org

Overview of Monitoring Siting Process and Potential Sites

Ila Perkins

Manager, Air Monitoring Operations

Bay Area Air Quality Management Air District

Presentation Topics

- Overview of air quality and monitoring
- Benicia Air Monitoring
- Candidate site information
- Next steps
- Questions

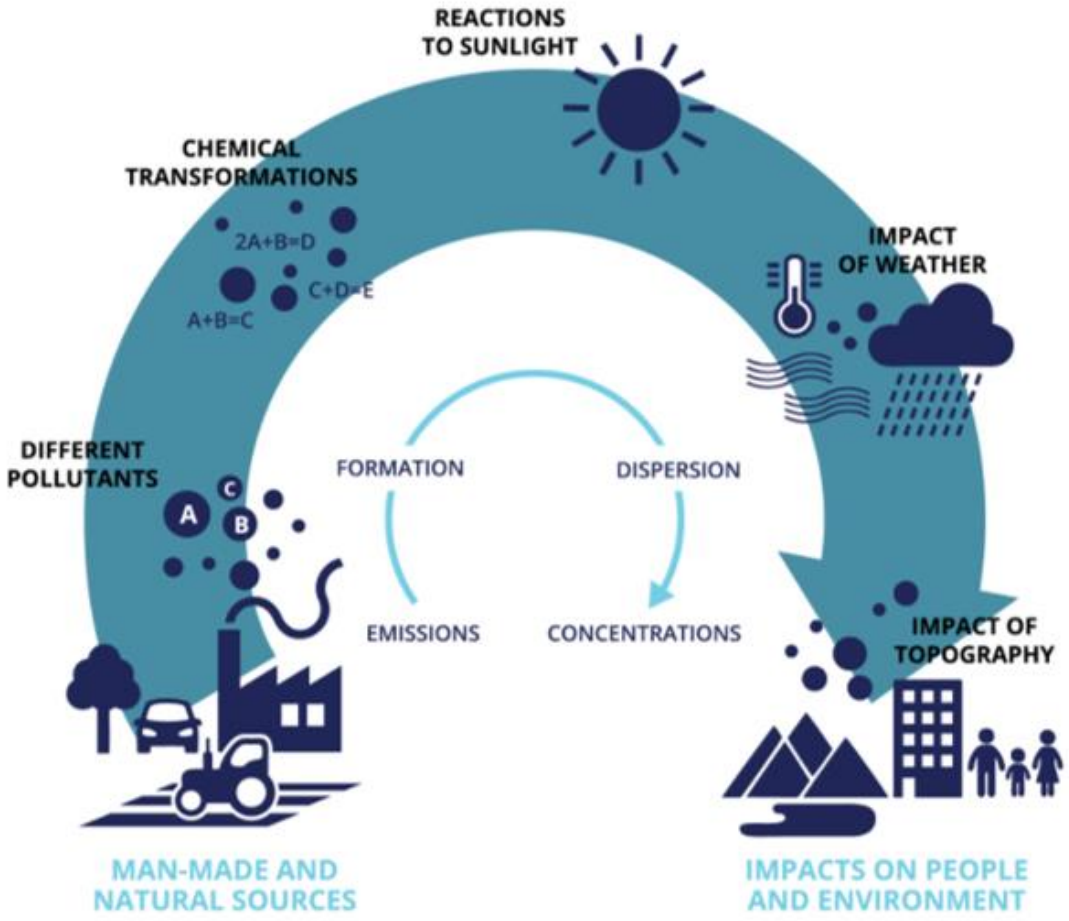
Air quality overview

Air pollution concentrations vary in time and space due to:

- Natural background sources
- Nearby emissions
- Transport from other areas
- Meteorology
- Chemical reactions
- Topography

Different types of pollution in the air

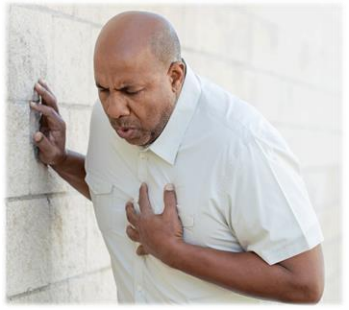
- Gases or particles
- Criteria Pollutants (e.g. ozone, SO_2, $PM_{2.5}$)
- Toxic air contaminants (e.g. H_2S, VOC, black carbon)



Source: EEA, 2015, Air Quality in Europe, 2015 Report

Air quality and Health

How does breathing air pollution affect our health?



- Impaired lung growth in children
- Increased asthma, coughs and bronchitis
- Impairment of brain development in babies and small children
- Low birth weight and adverse birth outcomes
- Heart attack and stroke
- Upper respiratory track irritation and infection
- Worsening of existing health problems in people with chronic disease

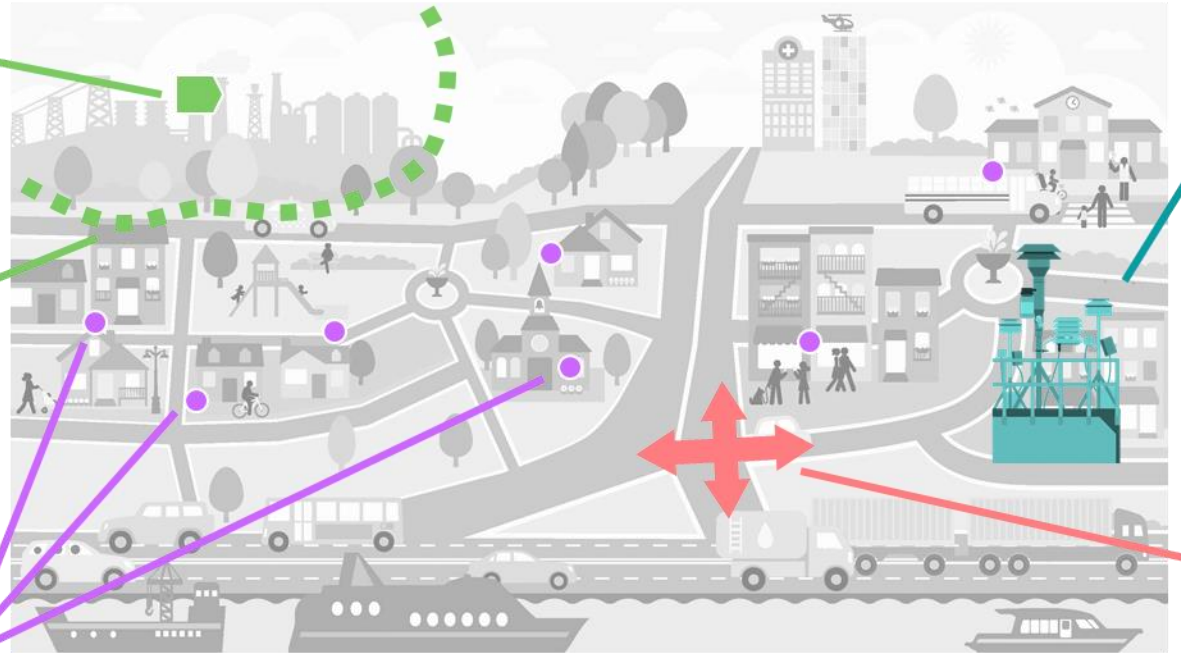
Air quality and Health

Who is most affected by poor air quality?

Different air pollution measurements

Source Testing
Emissions from facilities (e.g., stack)

Fence Line Monitoring
Facility emissions that may impact communities



Sensor Networks
Low cost sensors for high density networks, community-led

Regional Network
High accuracy equipment located throughout the Bay Area

Portable & Mobile Monitoring
Equipment moving in a vehicle or temporarily sited

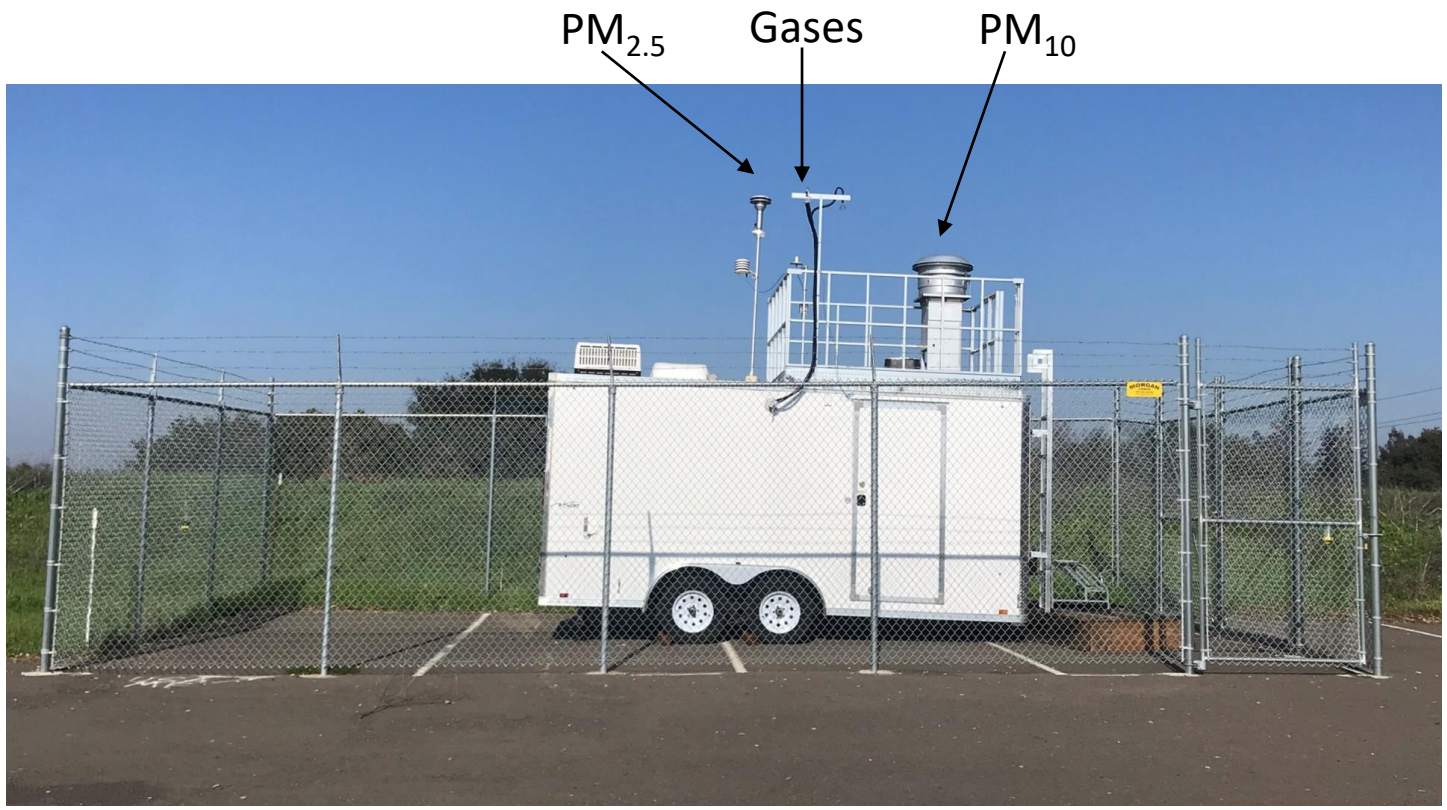
Why do we need an air monitoring station?

- Most ambient monitoring stations are designed to assess **typical urban pollution levels**, including the effect of common sources near where people live, such as mobile sources, gas stations, and restaurants.
- **Communities close to a large facility or a unique combination of sources** can experience localized areas of higher levels of air pollution.
- The goal of the Benicia community air monitoring station is **to provide additional air quality information** to the communities near the Valero Refinery.

Air District Monitoring Network

https://www.baaqmd.gov/about-air-quality/air-quality-measurement/ambient-air-monitoring-network

Air District Monitoring Stations



Logistics needed for suitable location include:

- Long term lease
- Secure area for temperature-controlled shelter
- Minimal trees or buildings obstructing air flow
- Access to power
- Safe access to site

Information used to decide where to look for a suitable site

- Information from community (e.g. 2018 workshop)
- Locations of nearby air pollution sources
- Meteorology and topography
- Modeling results
- Location of people
- Information from environmental justice screening tools

Benicia Air Monitoring

2018

Compile information and identify preferred areas

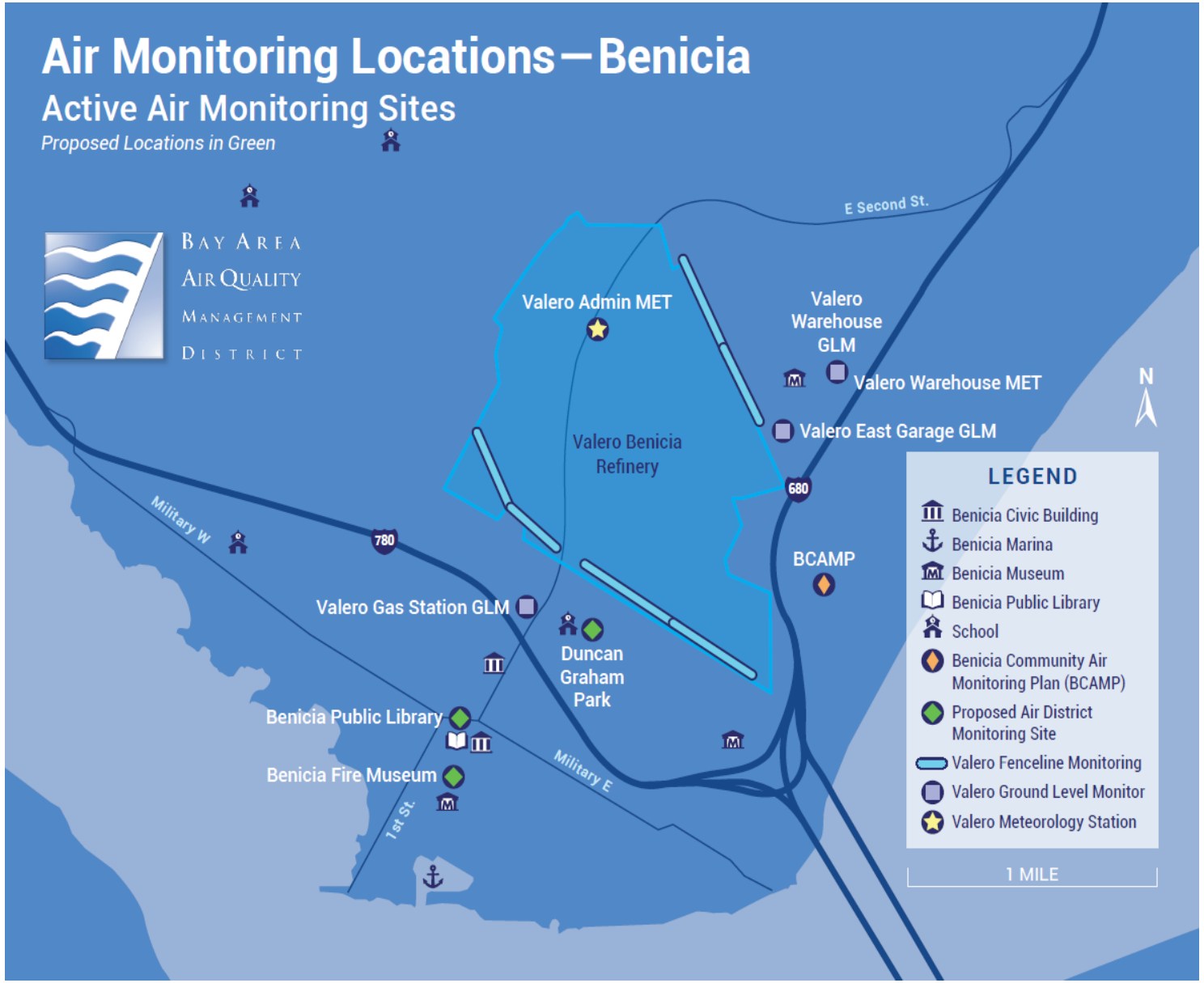
2019 – mid 2020

First potential option identified, work on site development at Robert Stemple Elementary

July 2020 – Present

Work with City of Benicia and Fire Chief Chadwick to identify alternate locations

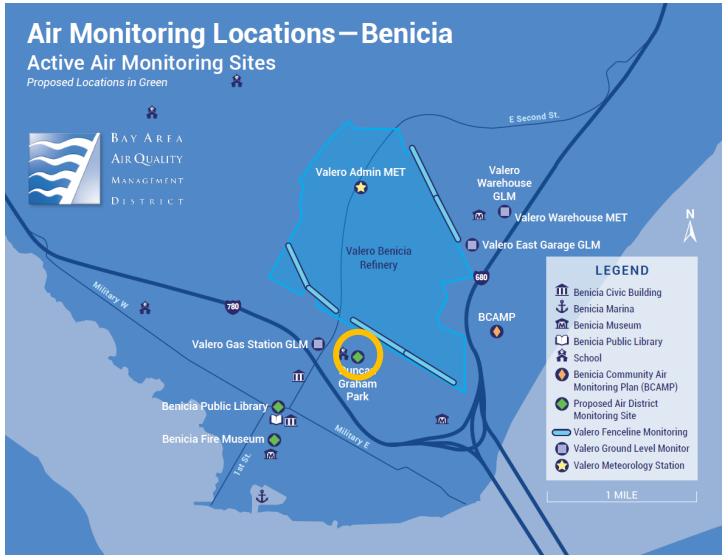
Description of Candidate Station Locations



Candidate locations

Duncan Graham Park

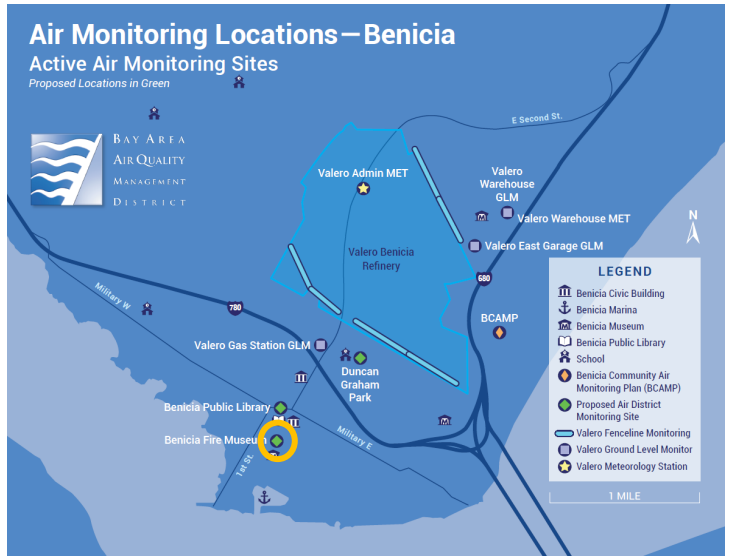
10 Linda Vista Avenue



Data	Description
GPS	38.058257, -122.144706
Use	Recreational Facility
Power Available	Yes
Accessibility	Street parking
Distance From Primary Source	0.98 miles SSW
Elevation	185 feet above sea level

Benicia Fire Museum

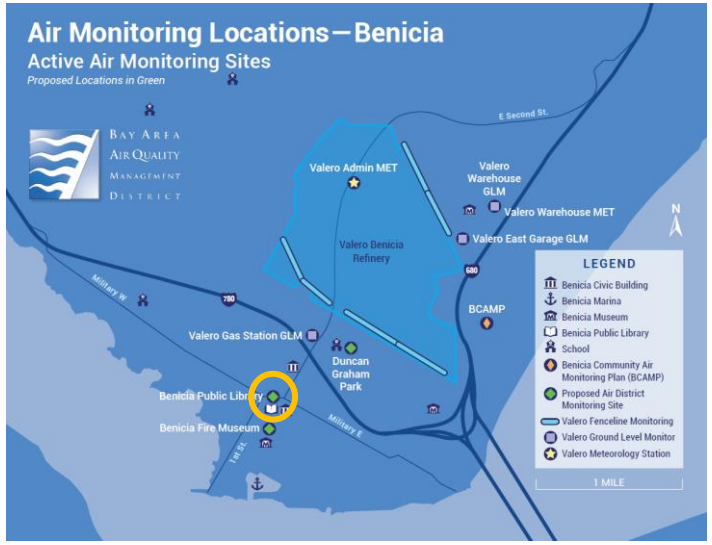
900 East Second Street



Data	Description
GPS	38.050439, -122.154956
Use	Recreational Facility
Power Available	Yes
Accessibility	Through parking lot
Distance From Primary Source	1.71 miles SW
Elevation	19.7 feet above sea level

Benicia Public Library

150 East L Street



Data	Description
GPS	38.058257, -122.144706
Use	Government Offices
Power Available	Yes
Accessibility	Through parking lot
Distance From Primary Source	1.51 miles SW
Elevation	49.2 feet above sea level

Next steps in community station development

Phase I – Design and Permitting

- Develop site design plans
- Negotiate and execute lease
- Obtain permit approvals

Phase II – Procurement and Installation

- Procure instruments and other materials
- Construct station & install monitors
- Test monitors and data communications

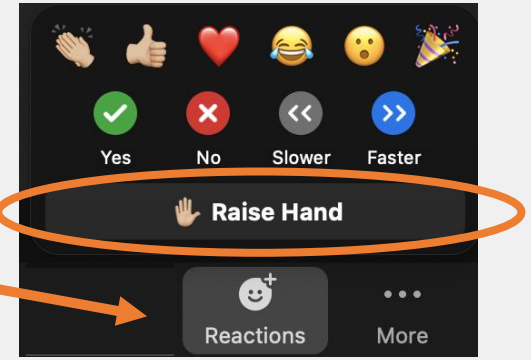
Phase III – Monitoring and Reporting

- Conduct Quality Control
- Initiate routine monitoring operations
- Data Reporting

Questions and Answer Session

Please mute yourself when you're not speaking

Please raise your hand if you wish to speak and wait for the facilitator to let you know when you can unmute yourself & speak



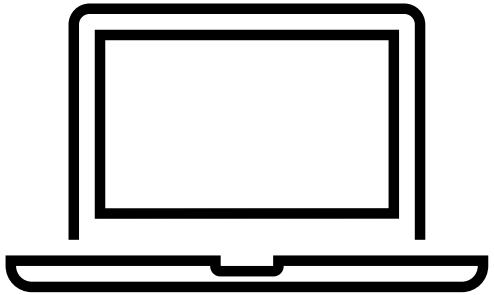
One person speaks at a time

Be respectful of one another

Materials: https://www.baaqmd.gov/news-and-events/workshops

Polling Exercise

TWO WAYS TO PARTICIPATE



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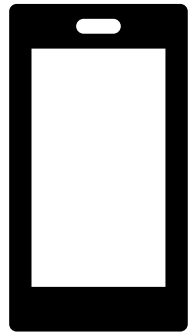

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Polling Exercise

Rank the three proposed sites in terms of your preference.

Materials:https://www.baaqmd.gov/news-and-events/workshops

Start the presentation to see live content. For screen share software, share the entire screen. Get help at **pollev.com/app**

What considerations should be made in selecting the monitoring site?

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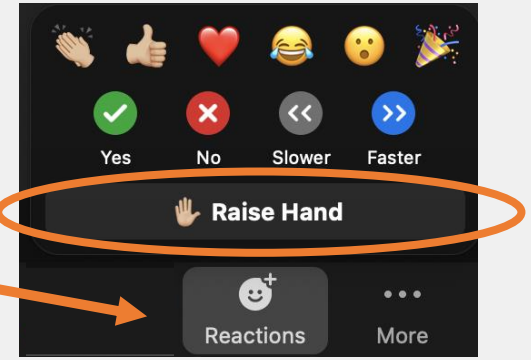
- Be respectful of one another



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Workshop Evaluation

The Air District Wants Your Feedback!

Help us improve our workshops and community air monitoring process by completing this short survey in the link below.

https://www.surveymonkey.com/r/BeniciaCAMP

Closing and Timeline

Materials available at: www.baaqmd.gov/news-and-events/workshops

- → Contact staff by July 14 with any follow-up questions
- → Responses to questions will be posted to the website
- → Sign up for the **Refinery Stakeholders** contact list to receive ongoing updates about this project at: www.baaqmd.gov/contact-us/sign-up-for-information

Staff contact:

Ila Perkins, Manager

Air Monitoring Operations

Meteorology and Measurements Division

iperkins@baaqmd.gov

THANK YOU FOR YOUR ENGAGEMENT

Thank you and Closing Remarks

Ila Perkins

Manager, Air Monitoring Operations

Bay Area Air Quality Management Air District

Special Acknowledgements to:

***City of Benicia**– Fire Chief Josh Chadwick, Mario Giuliani and Teri Davena*

***Community Leaders** Marilyn Bardet and Constance Beutel*

***Benicia community members** at large for participation*