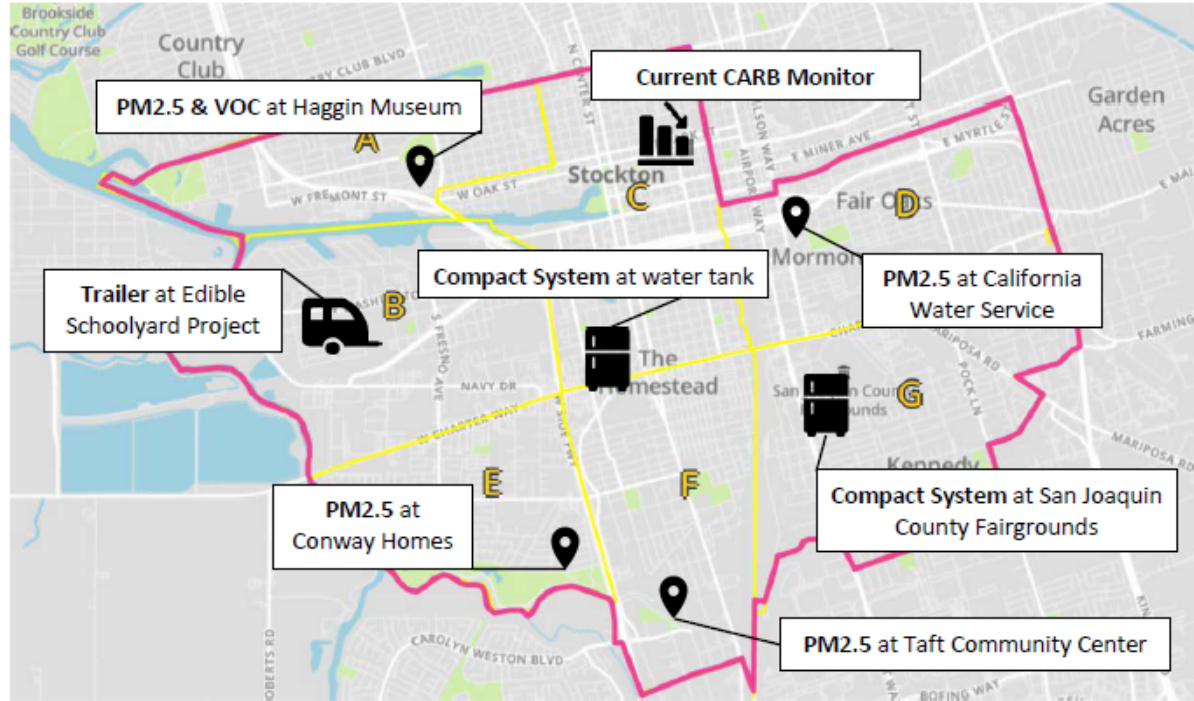







Update on Stockton Community Air Monitoring

Stockton CSC Meeting
May 3, 2023

CAMP Implementation Status



	
Mobile Monitoring Van: respond to community concern	Compact System: PM2.5, Black Carbon, SO2, NO2/NO, & VOC
	
Trailer: PM-2.5, Black Carbon, Ozone, CO, NO2/NO, H2S/SO2, VOC, & Toxics	CARB Monitor: PM2.5, PM10, Ozone, NO2/NO, CO, & Toxics
	
PM2.5 Monitor	

Zone	Location	Installed	Notes
A	Haggin Museum	X	PM2.5 installed on April 4, 2022; VOC sampling started on 9/3/22
B	Edible Schoolyard Project (Boggs Tract Community Farm)		Lease agreement signed; working with contractor on electrical infrastructure
C	University Park (CARB)	X	CARB installed on October 1, 2021
C	Water Tank (El Dorado St. & E. Clay St.)	X	Installed on March 2, 2022
D	California Water Service Building (E. Lafayette St.)	X	Installed on February 16, 2022
E	Van Buskirk Park		<u>Van Buskirk:</u> Information provided to City of Stockton Public Works who needs time to discuss internally. Awaiting response. Permission denied at Conway Homes (Housing Authority of the County of San Joaquin) and Kipp School.
F	Taft Community Center		Taft Community Center awaiting hiring of new property manager sometime in May 2023 before this can be considered due to limited resources.
F	Little Manila Center	X	PM2.5 monitor temporarily deployed at Little Manila Center
G	San Joaquin County Fairgrounds	X	Installed on May 3, 2022

Community Air Monitoring Platforms



Community Air Monitoring Platforms (cont'd)



Community Air Monitoring Platforms (cont'd)



Key Takeaways from January – March 2023

Compared to 2022 University Park data, **PM2.5 concentrations were lower than the previous year**

PM2.5 concentrations were **heavily influenced by meteorological conditions**

VOCs detected remained **under health thresholds**

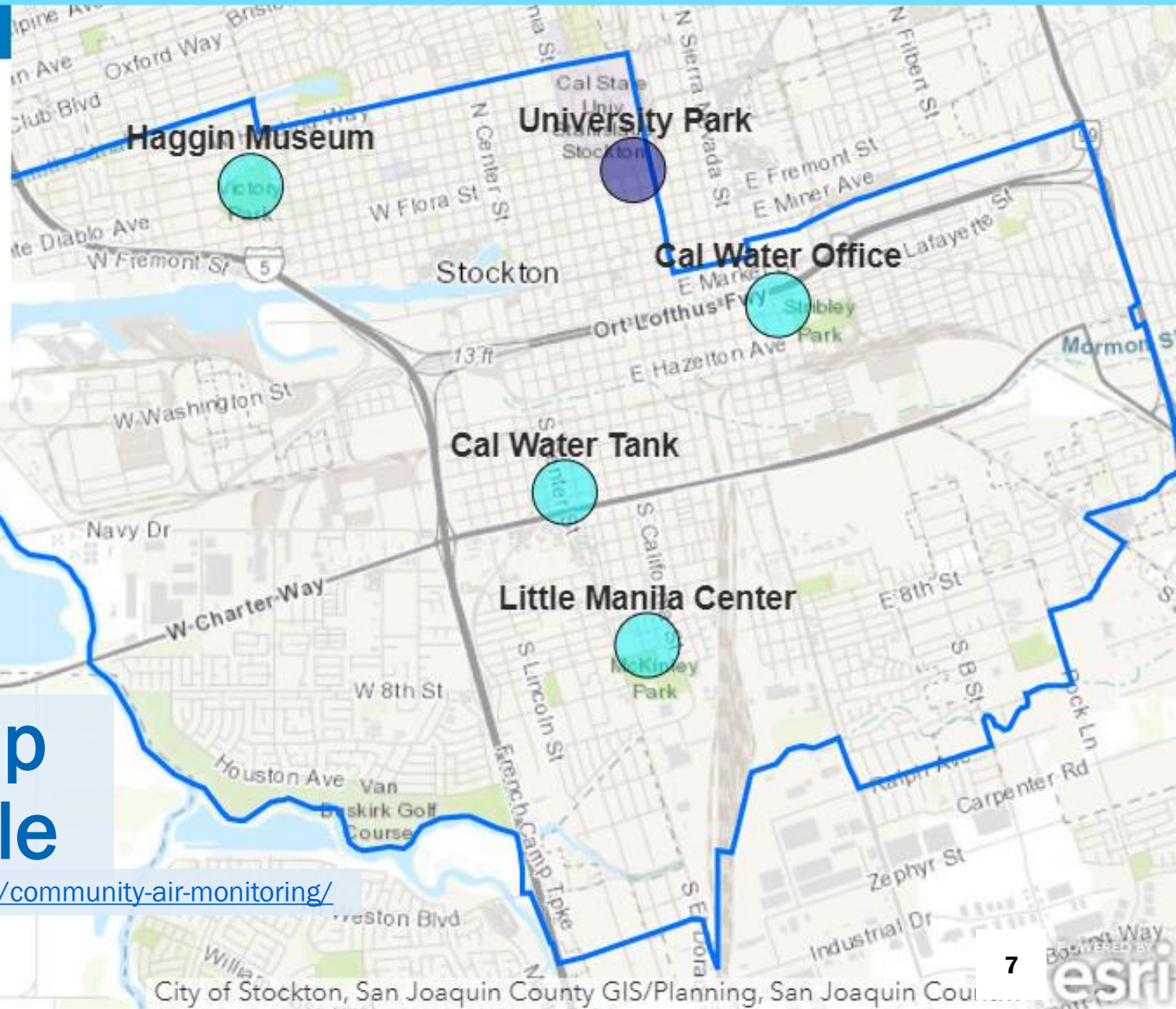
Majority of hourly **Real-time Outdoor Activity Risk** levels based on community air quality were **“Outdoor Activity OK for all,”** which means good air quality

San Joaquin Valley Air Monitors

LEGEND

Air Monitor

-  Regulatory
-  Community



**Interactive Map
Always Available**

<https://community.valleyair.org/selected-communities/stockton/community-air-monitoring/>

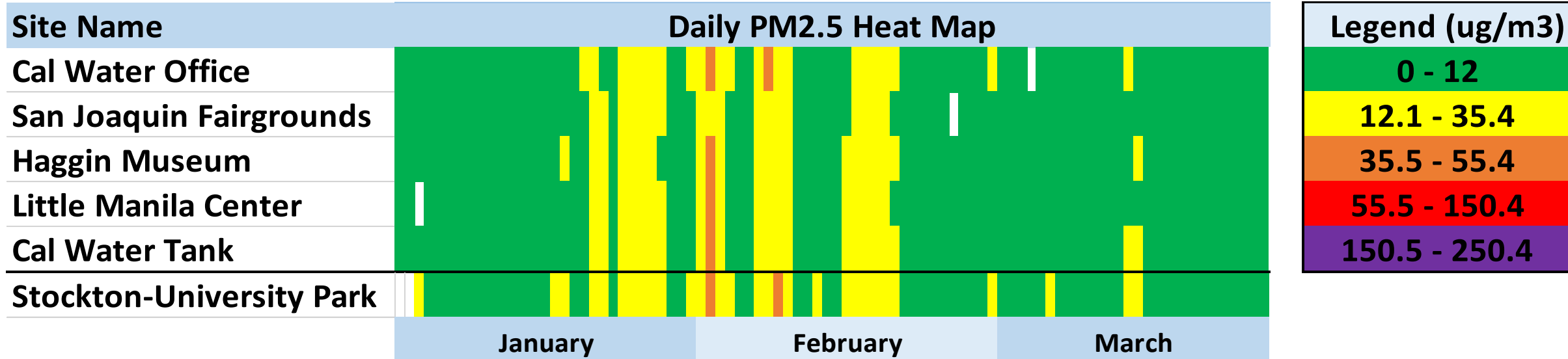
0 0.5 1mi

Real-time Outdoor Activity Risk (ROAR) Guidelines

Levels of Concern	Daily PM2.5 (µg/m3)	Description of Air Quality
Good	0-12	Air Quality is Satisfactory, and air pollution poses little or no risk
Moderate	12.1-35.4	Air quality is acceptable. However there may be a risk for some people, particularly those who are unusually sensitive to air pollution
Unhealthy for Sensitive Groups	35.5-55.4	Members of sensitive groups may experience health effects. The general public is less likely to be affected.
Unhealthy	55.5-75.4	Some members of the general public may experience health effects; members of sensitive groups may experience more serious health effects.
Very Unhealthy	>75.4	Health Alert: The risk of health effects is increased for everyone

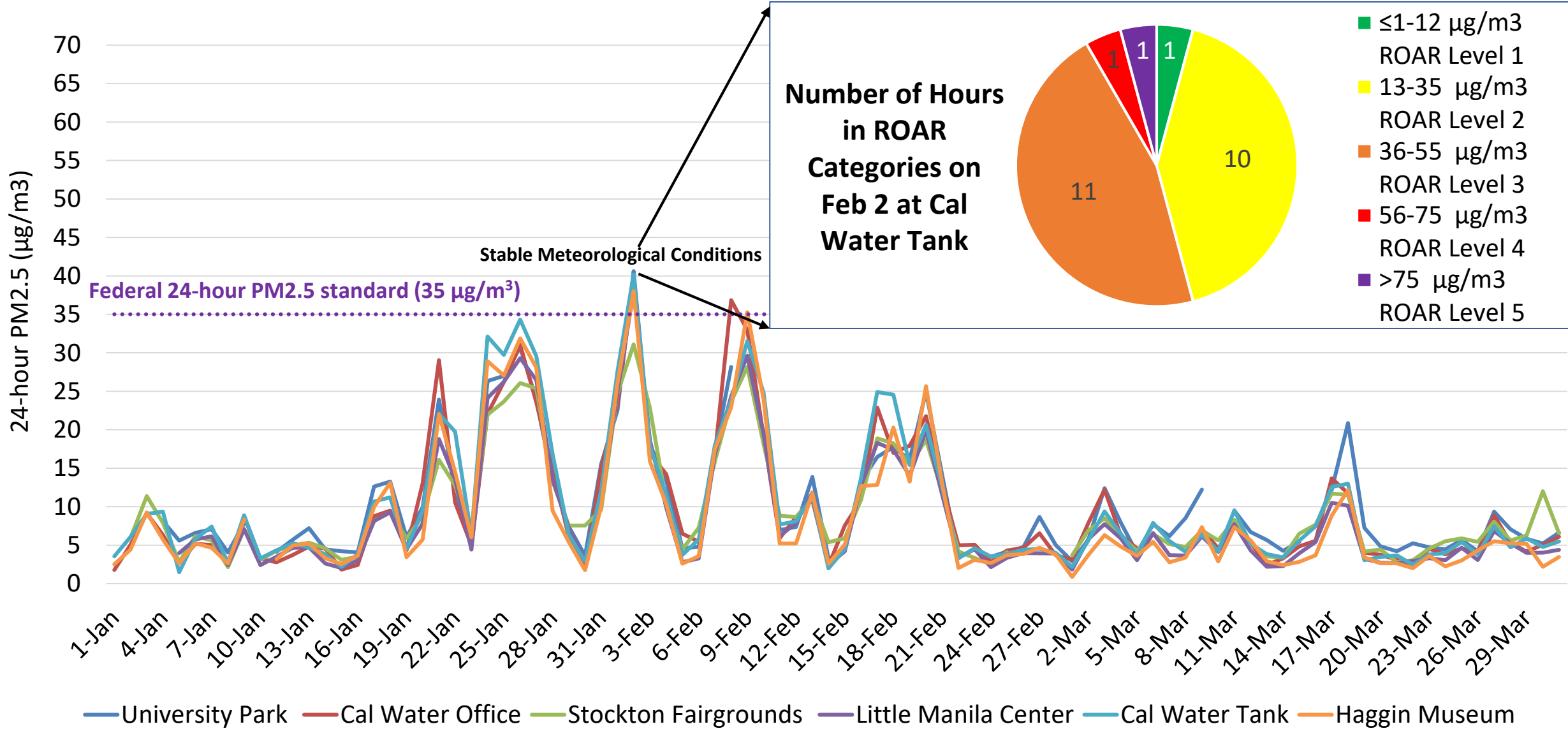
ROAR Level	Guidelines
LEVEL 1	Outdoor activity OK for all
LEVEL 2	Sensitive individuals should consider reducing prolonged and/or vigorous outdoor activities.
LEVEL 3	Sensitive individuals should exercise indoors or avoid vigorous activities.
LEVEL 4	Sensitive individuals should exercise indoors. Everyone should avoid prolonged or vigorous outdoor activities.
LEVEL 5	Everyone should avoid outdoor activity.

PM2.5 Daily Average Concentration Comparison



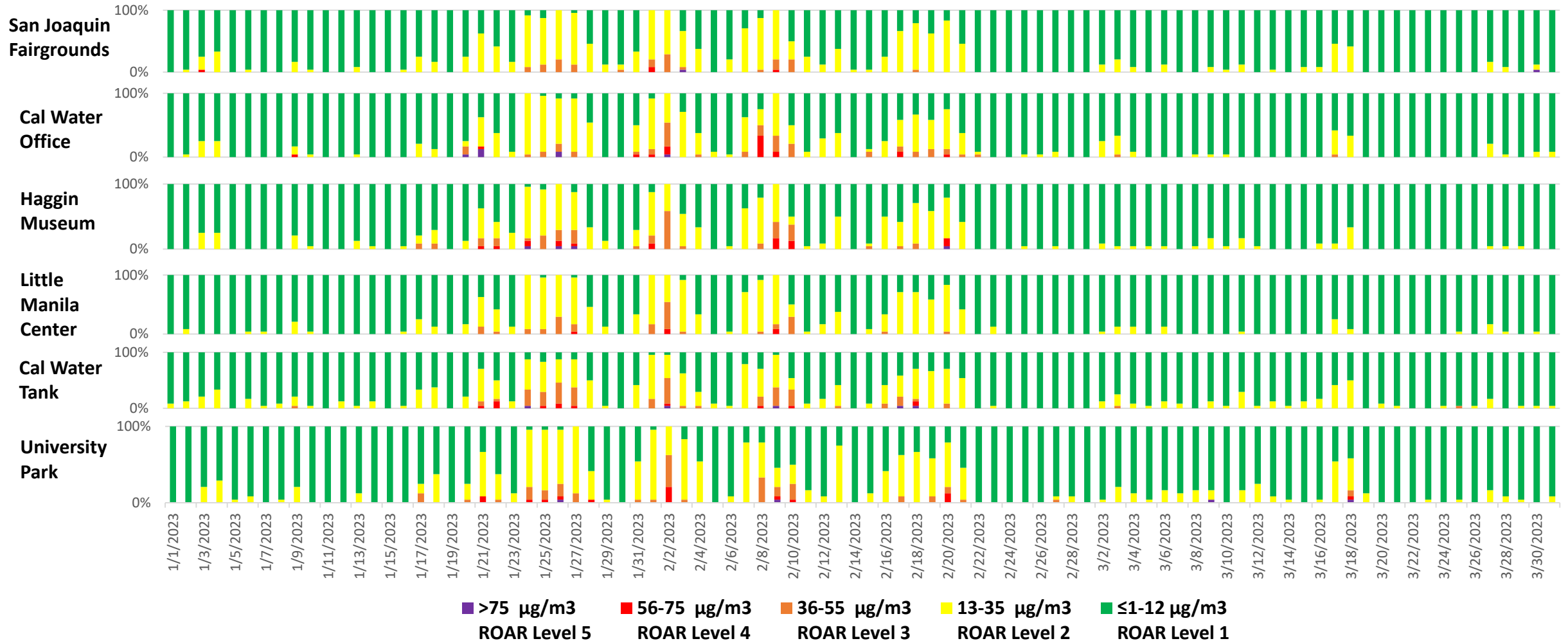
Levels of Concern	Daily Concentration (µg/m3)	Description of Air Quality
Good	0-12	Air Quality is Satisfactory, and air pollution poses little or no risk
Moderate	12.1- 35.4	Air quality is acceptable. However there may be a risk for some people, particularly those who are unusually sensitive to air pollution
Unhealthy for Sensitive Groups	35.5 -55.4	Members of sensitive groups may experience health effects. The general public is less likely to be affected.
Unhealthy	55.5 – 150.4	Some members of the general public may experience health effects; members of sensitive groups may experience more serious health effects.
Very Unhealthy	150.5-250.4	Health Alert: The risk of health effects is increased for everyone

PM2.5 Daily Average Comparison



Hourly ROAR Levels

January 1, 2023 – March 31, 2023



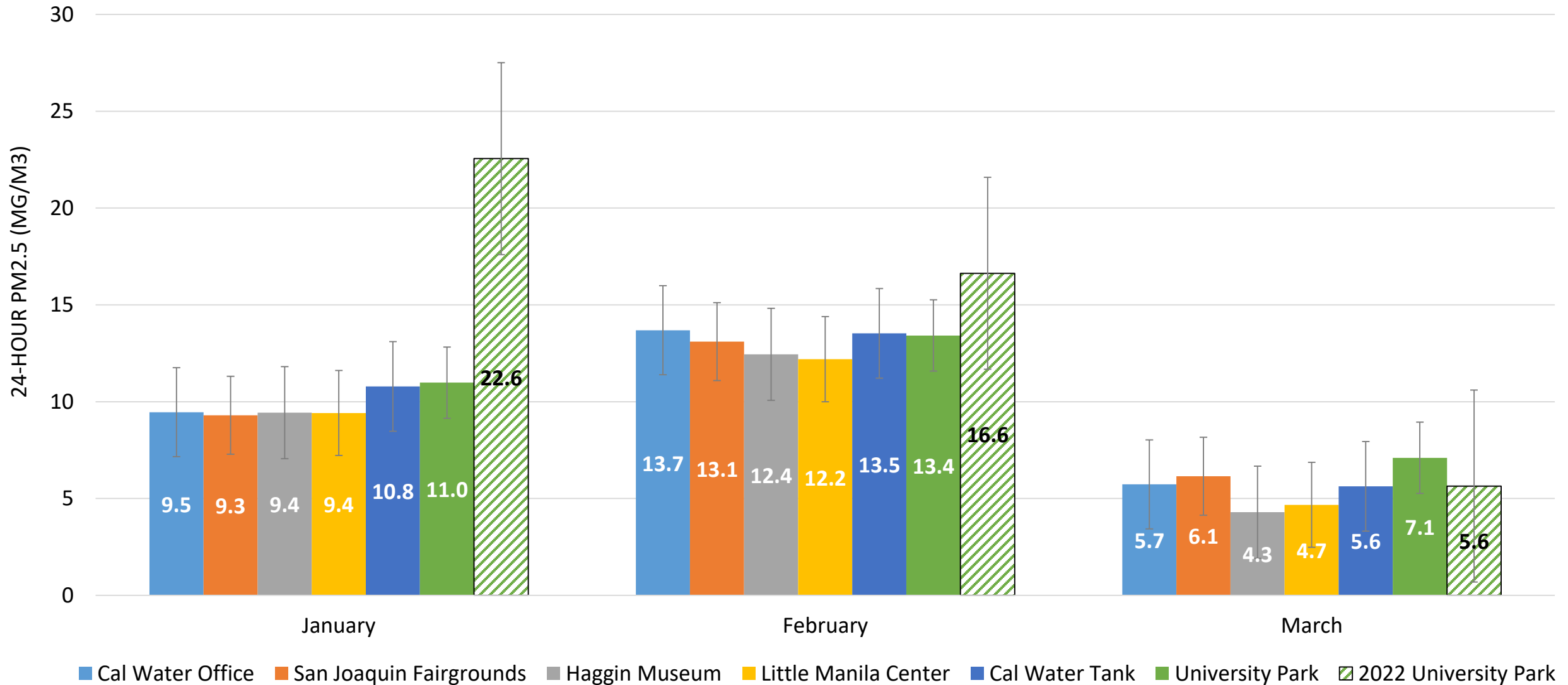
PM2.5 Daily Average Comparison

January 1, 2023 – March 31, 2023

	Highest 24-hour Average PM2.5 (µg/m ³)	Jan-March Average PM2.5 (µg/m ³)	2022 Jan-Mar Average PM2.5 (µg/m ³)
Stockton Community Monitors			
Little Manila Center	38.1	8.6	-
Cal Water Office	39.9	9.6	-
Cal Water Tank	40.2	9.9	-
Haggin Museum	38.0	8.6	-
San Joaquin Fairgrounds	31.1	9.3	-
University Park	40.6	10.4	14.7

- Peak and quarterly average PM2.5 concentrations at community monitors are comparable to the regulatory monitor at University Park
- A complete dataset from January to March 2022 at the University Park site shows an improvement in air quality within the community.

PM2.5 Monthly Average Comparison



Efforts to Understand Causes of High PM2.5

Surveillance and Enforcement

- Inspectors and air monitoring operators are looking for activity around

Air Pollution Monitoring Network


- Lab analysis of the PM2.5 air samples

Volatile Organic Compound (VOC) Speciation Summary – Haggin Museum

- 8 samples taken from January 2023 to March 2023
- **Acetaldehyde & methanol** have associated Reference Exposure Level (REL), a health metric established by Office of Environmental Health Hazard Assessment

Pollutant	Potential Sources of Emission	Short Term Impact		Long Term Impact	
		OEHHA Acute REL [1-hour] (ppb)	Max Measured [24-hour] (ppb)	OEHHA Chronic REL [Annual] (ppb)	Average Measured [Annual] (ppb)
Methanol	Automobile exhaust, solvent use, and naturally from vegetation and microbes	21,367	4.8 ✓	3,052	3.2 ✓
Acetaldehyde	Wood combustion in fireplaces and woodstoves, coffee roasting, burning of tobacco, vehicle exhaust fumes, and coal refining and waste processing	261	3.9 ✓	78	1.8 ✓

How can the District make sure the community knows that we expect worse air quality?

NEWSRelease 
www.valleyair.org 24hr Media Cell Phone (559) 309-3336

For immediate release
12/23/2022

Media Contact:
Jaime Holt (559) 309-3336


Attn:
Local news, weather, health and assignment editors

Spanish-language Contact:
Danny Gonzalez (559) 779-1570


Reducing wintertime emissions during the holidays

The Residential Wood Smoke Reduction program aims to reduce negative health impacts and buildup of PM2.5 by restricting the use of wood-burning devices in the Valley when conditions do not allow for pollution to disperse.


The daily burn information is always available by visiting www.valleyair.org/burnstatus, by calling 1-800-SMOG INFO (766-4463), or by downloading the free "Valley Air" app on a mobile device. In addition, residents are invited to sign up for daily wood-burning email [notifications](#). There are three curtailment levels:



NO
BURNING
FOR ALL




NO
BURNING
UNLESS
REGISTERED



BURNING
DISCOURAGED

- Schools participate in the Healthy Air Living school program
- ← • News releases are issued before known and expected high pollution days
- District posts updates to social media sites like Facebook, Twitter, and Nextdoor

 **Valley Air District** @ValleyAir · Dec 16, 2022

Smoke from wood burning is a form of fine particulate matter (PM2.5). It aggravates breathing-related illnesses and increases the risk of heart attack and stroke. Please consider how it impacts air quality. Visit valleyair.org/Rule4901 for more information.

How can the District make sure the community knows that we expect worse air quality?

 **Valley Air District** @ValleyAir · Dec 17, 2022

Heads up! Persistent stability and poor dispersion conditions are leading to high PM2.5 pollution. Unhealthy conditions are forecast through the beginning of the week. Use caution if you need to be outdoors. Follow air quality at [AirNow.gov](https://airnow.gov) or get the Valley Air app



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 **Valley Air District** @ValleyAir · Dec 24, 2022

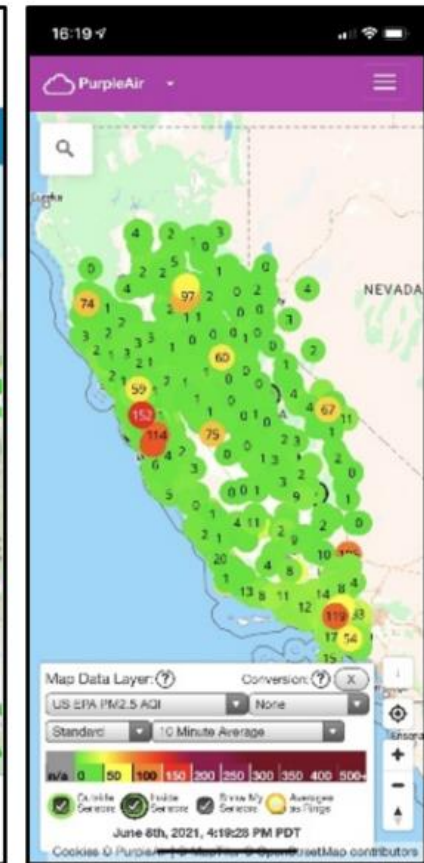
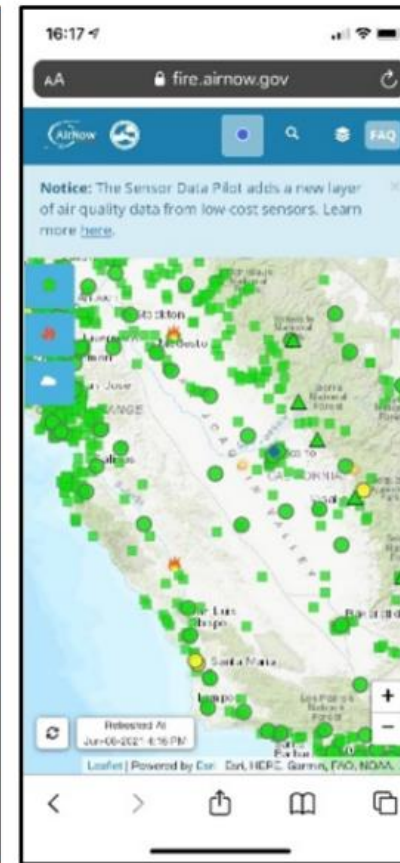
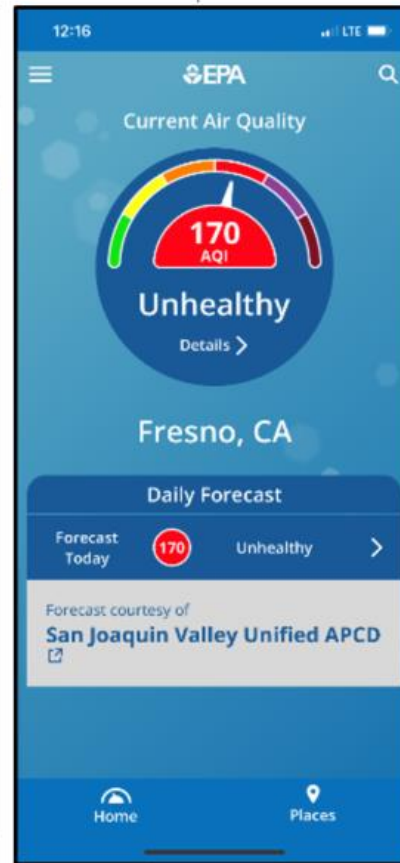
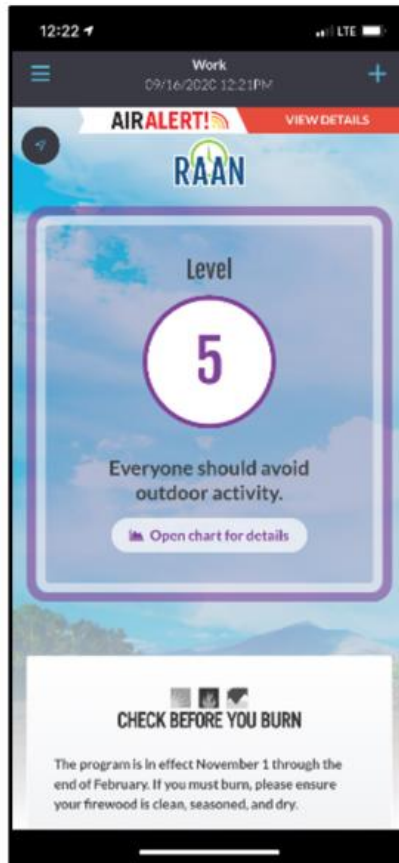
Current winter conditions are trapping PM2.5 pollution at ground level with us. Wood burning would cause the smoke to remain in your neighborhood. Please protect public health and avoid wood burning. Visit valleyair.org/Rule4901 for more information.



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Available Air Quality Tools

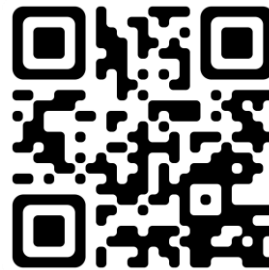
- Residents have found mobile applications useful
- New air quality tools have become available in recent years



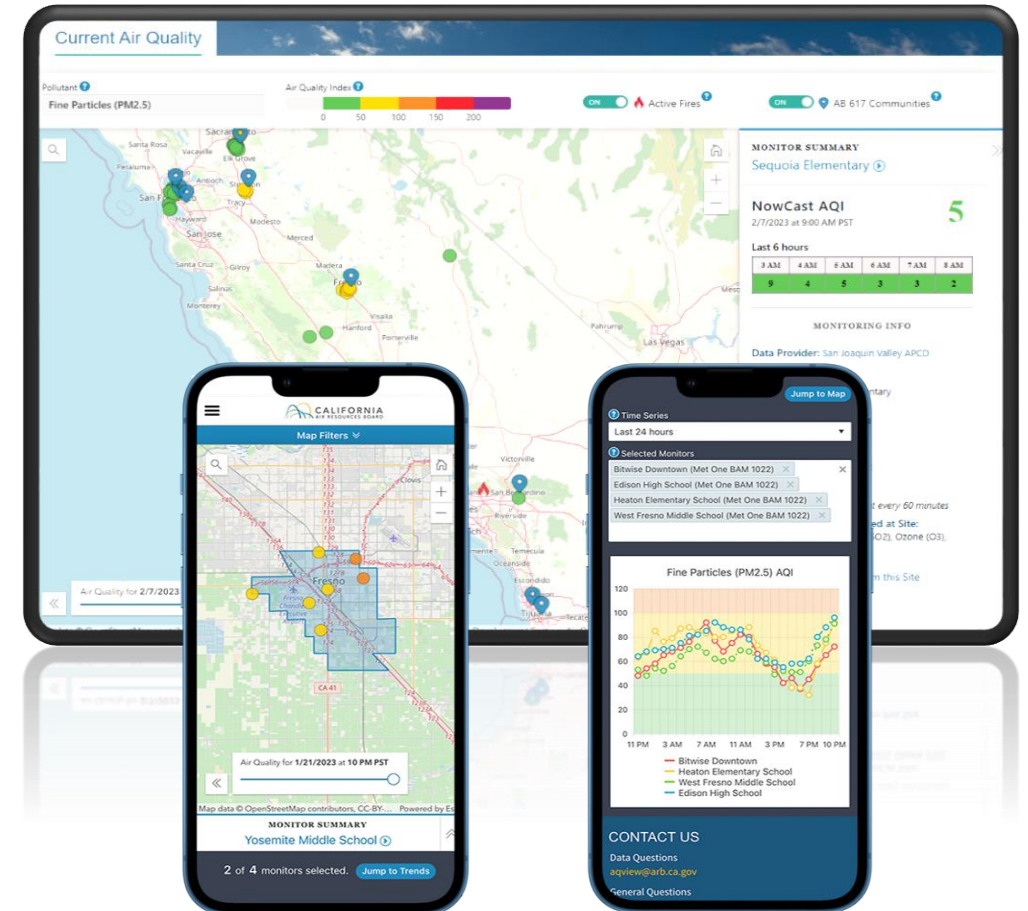
AQview Map is Now Live!

CARB AQview Goals:

- Provide latest up-to-date information on AB 617 communities and community air monitoring efforts
- Provide single platform to view and access air quality data from different networks
- Provide simple, intuitive, and mobile-friendly interfaces for viewing real-time exposure

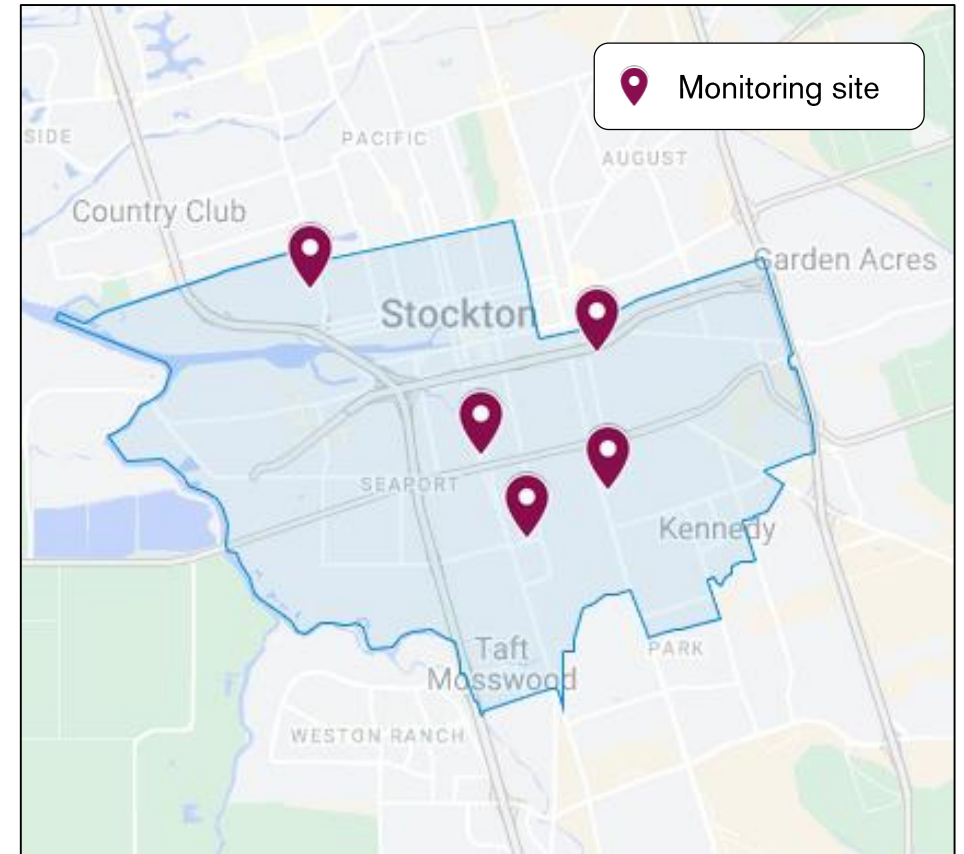


<https://AQview.arb.ca.gov>



Stockton Community Data Available in AQview

- 5 community monitoring sites (PM_{2.5} and sulfur dioxide)
- Data available starting from Mar. 2022
- Monitoring information and quality checks available in download files



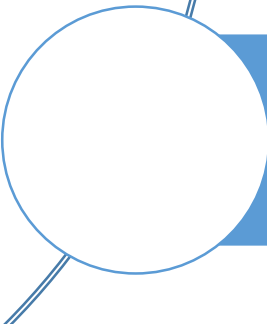
Questions for the Community



Have you ever received an alert about air quality?



Do you think neighbors know how to check the air quality?



How can we make sure people are better prepared to protect their health?

Comments/Questions?