Update on Stockton Community Air Monitoring

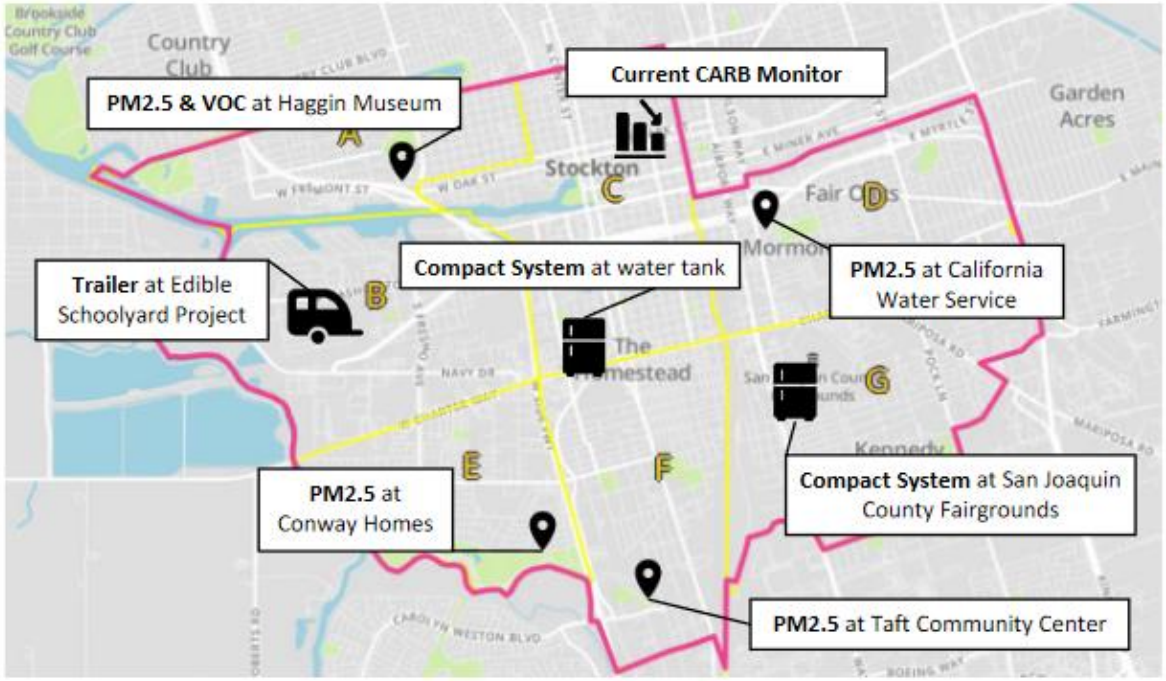
Stockton CSC Meeting

August 3, 2022

Air Monitoring Update

- Status of Community Air Monitoring Plan Implementation
- Review Air Monitoring Data Collected
- Questions, Comments, And Recommendations

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

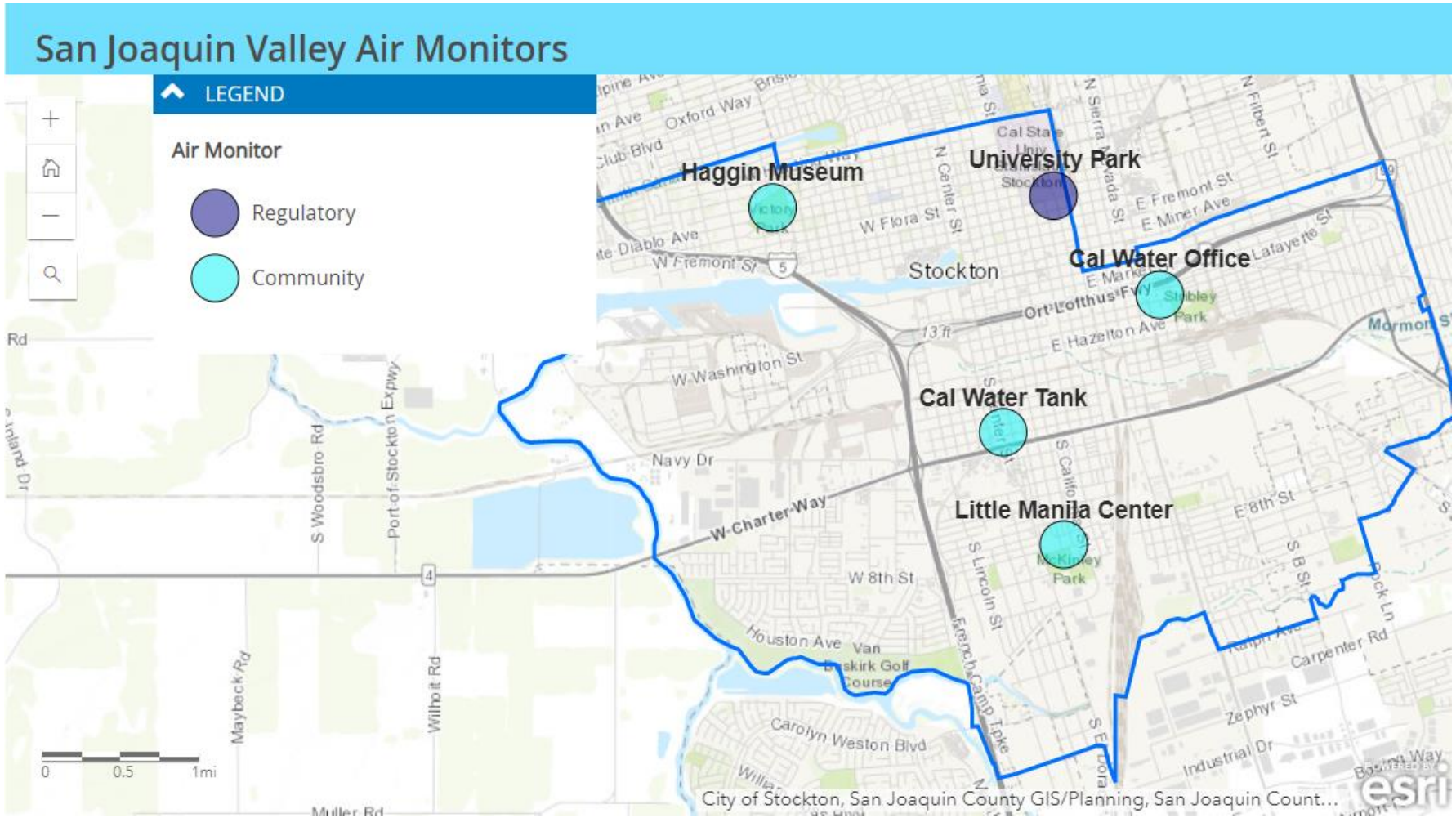
Zone	Location	Installed	Notes
A	Haggin Museum	X	Installed on April 4, 2022
B	Edible Schoolyard Project (Boggs Tract Community Farm)		Working with electrician, Port of Stockton, and Edible School Yards to implement electrical infrastructure.
C	University Park (CARB)	X	CARB installed on October 1, 2021
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	Conway Homes or Kipp School in Conway Community		Awaiting response from Conway Homes and Kipp School
F	Taft Community Center		Awaiting board item to be put together by San Joaquin County Property Manager
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)

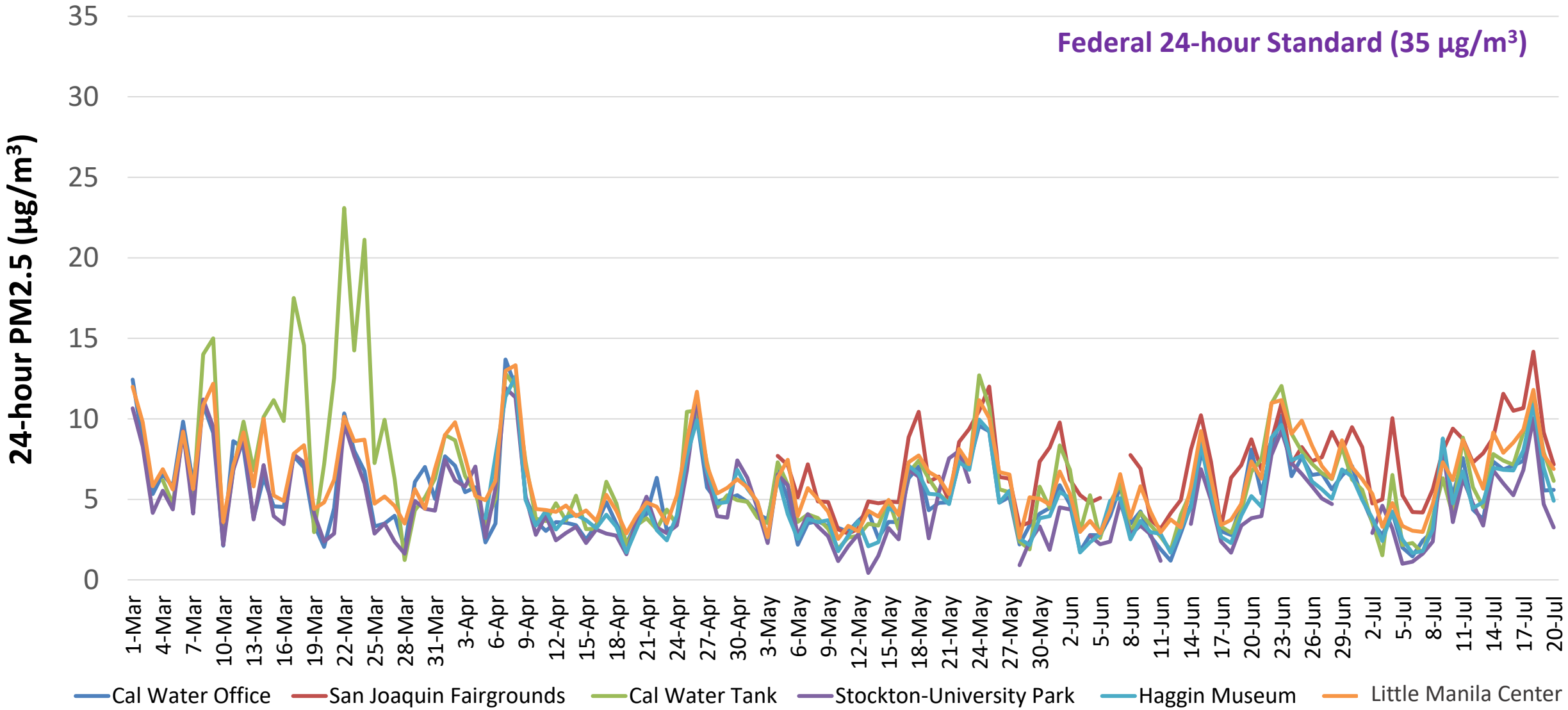
Community Air Monitoring Platforms (cont'd)

New Interactive Map

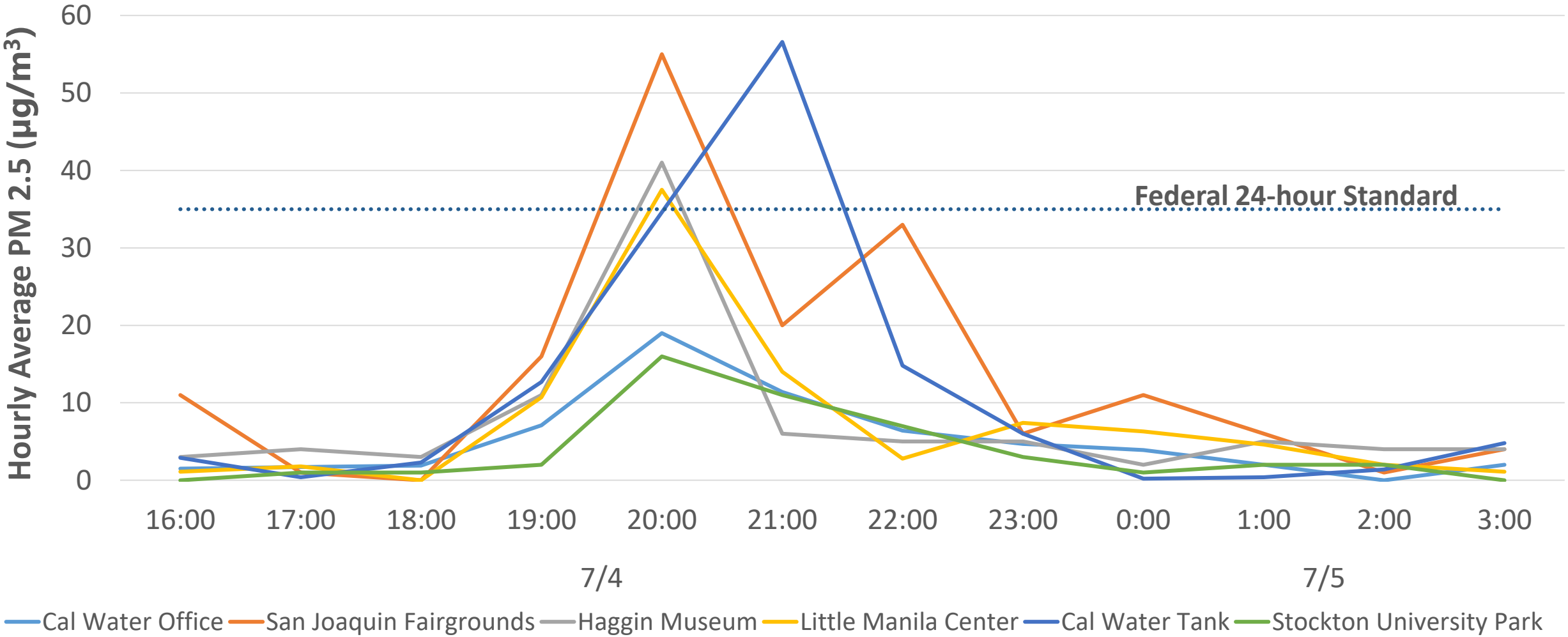


https://community.valleyair.org/selected-communities/stockton/community-air-monitoring/

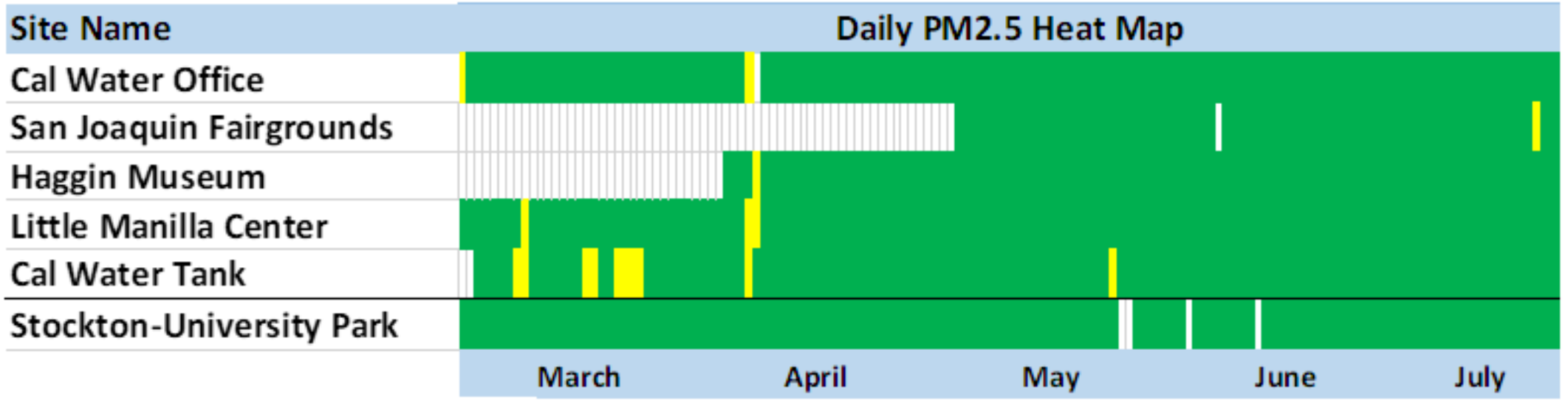
PM2.5 Daily Average Comparison



July 4th Fireworks Impacts on PM2.5



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

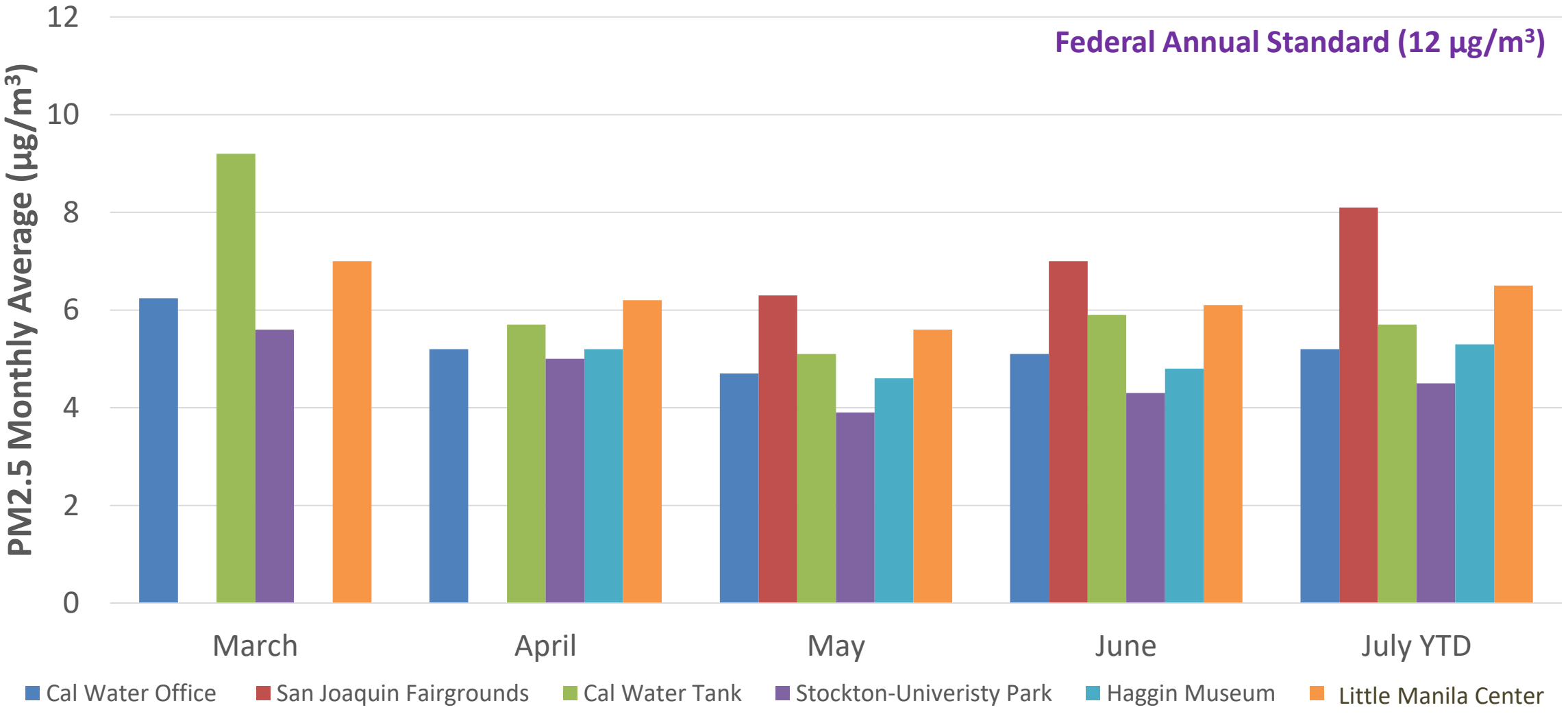
PM2.5 Daily Average Comparison
March 1, 2022 – July 20, 2022

	Highest 24-hour Average PM2.5 (µg/m³)	Quarterly Average PM2.5 (µg/m³)
Stockton Community Monitors		
Little Manila Center	13.3	6.3
Cal Water Office	13.7	5.3
Cal Water Tank	23.1	6.2
Haggin Museum	16.0	5.3*
San Joaquin Fairgrounds	14.2	7.0*
Nearby Regulatory Monitor		
University Park	11.9	4.7

*Only partial data since installed after March 1, 2022

- Peak and quarterly average PM2.5 concentrations at community monitors slightly higher than at University Park
- Higher PM2.5 concentration measured at Cal Water Tank due to nearby construction
- No violation of 24-hour standard in this period

PM2.5 Monthly Average



VOC Speciation Summary at Little Manila Center

February 7, 2022 –June 16, 2022

- Acetaldehyde, methanol, ethanol, 2-proponal, and acetone were the primary VOCs detected.
- Only acetaldehyde and methanol have an associated Reference Exposure Level (REL), a health risk metric established by the Office of Environmental Health Hazard Assessment (OEHHA).

Pollutant	Potential Sources of Emission	Short Term Impact		Long Term Impact	
		Max Measured [24-hour] (ppb)	OEHHA Acute REL [1-hour] (ppb)	Average Measured [Annual] (ppb)	OEHHA Chronic REL [Annual] (ppb)
Methanol	Automobile exhaust, solvent use, and naturally from vegetation and microbes	**16.3**	21,367	**8.85**	3,052
Acetaldehyde	Wood combustion in fireplaces and woodstoves, coffee roasting, burning of tobacco, vehicle exhaust fumes, and coal refining and waste processing	**7.69**	261	**3.04**	78

Summary of Air Monitoring Van Data

Little Manila Center

November 24, 2021 –February 23, 2022

Pollutant	Max 1- Hour Average		Monitoring Average	
	Measured	Applicable Standard	Measured	Applicable Standard
Benzene (ppb)	1.2	8	0.02	1
Toluene (ppb)	5.5	1,327	0.01	111
Ethylbenzene (ppb)	0.5	--	0.12	461
Xylene (ppb)	0.2	5,067	<0.0	161
PM2.5 ($\mu g/m^3$)	109.0	--	17.9	12
Ozone (ppb)	57.8	70 (8-hr ozone standard)	17.9	--
CO (ppm)	6.8	35	0.5	--
NO2 (ppb)	49.0	100	15.2	--
SO2 (ppb)	2.4	75	0.6	--

Community Air Quality Data

- District AB 617 webpage at: https://community.valleyair.org/community-air-monitoring
  - Real-time community air monitoring data
  - Air monitoring data from vans
  - Quarterly reports (to begin soon for Stockton)
  - Weekly air monitoring updates (to begin soon for Stockton)
- CARB's statewide air quality data portal (AQview) displays and provides community air monitoring data from AB 617 communities
  - AQview website located at: https://aqview.arb.ca.gov/
  - Air quality data from Valley AB 617 communities available at this website
  - Development ongoing, new features to be added

Comments/Questions?