

Update on Stockton Community Air Monitoring

Stockton CSC Meeting
November 2, 2022

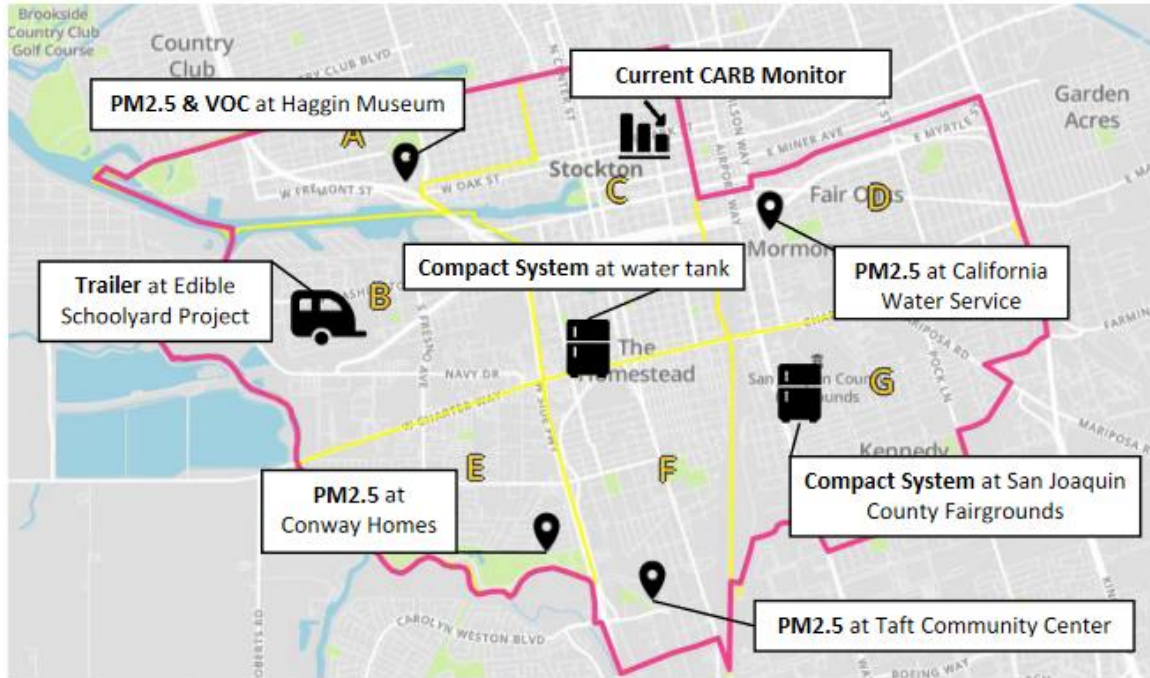
Air Monitoring Update






Status of Community Air Monitoring Plan Implementation

Review Air Monitoring Data Collected

Questions, Comments, And Recommendations

CAMP Implementation Status



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

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)		Received electrical quote for infrastructure; Edible Schoolyard okay with location and operation of air monitor; awaiting approval from Port of Stockton
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. Awaiting response. Permission denied at both Conway Homes (Housing Authority of the County of San Joaquin) and Kipp School.
F	Taft Community Center		Awaiting board item to be put together by San Joaquin County Property Manager, originally projected for October but new 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



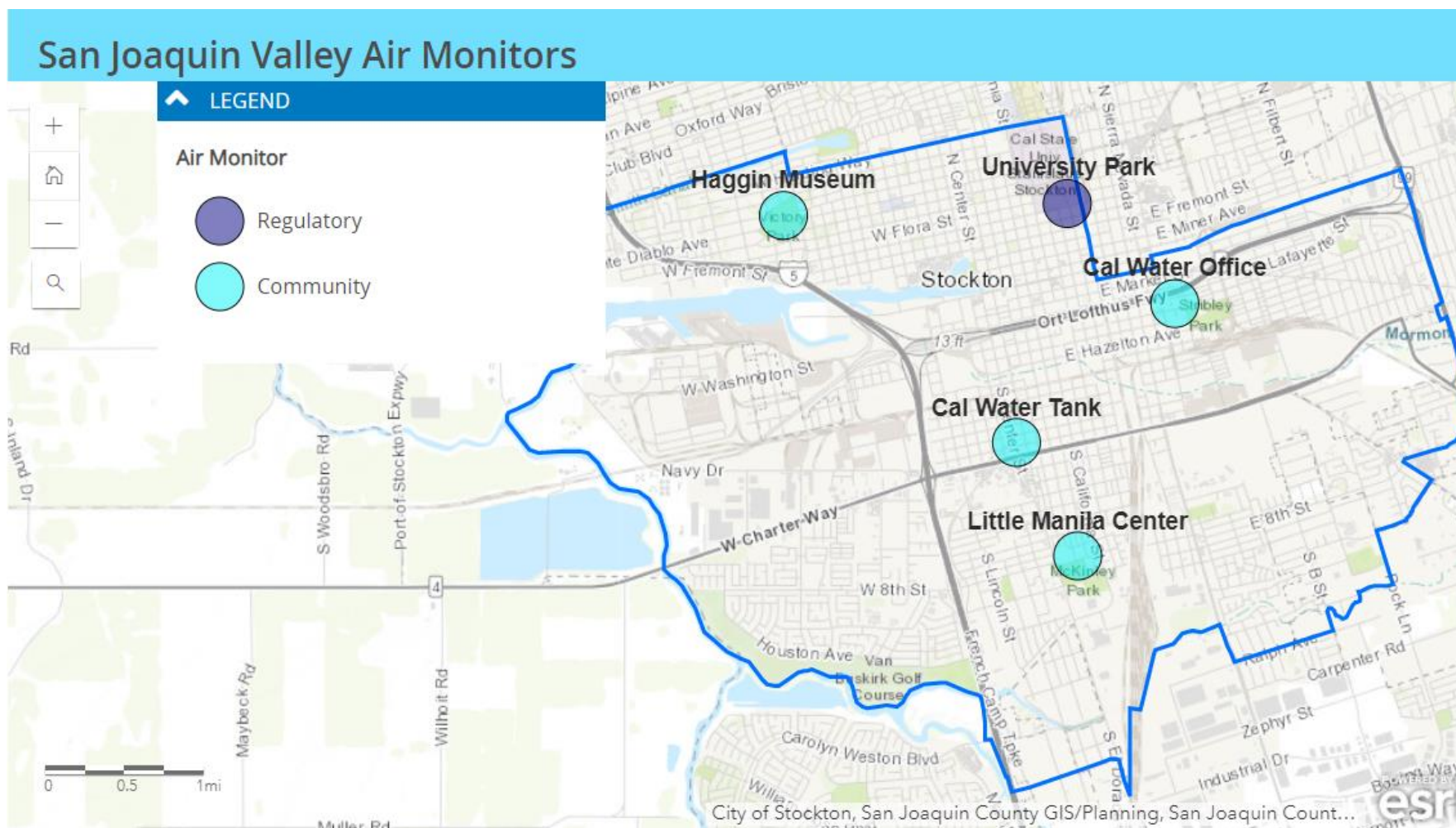
Community Air Monitoring Platforms (cont'd)



Community Air Monitoring Platforms (cont'd)

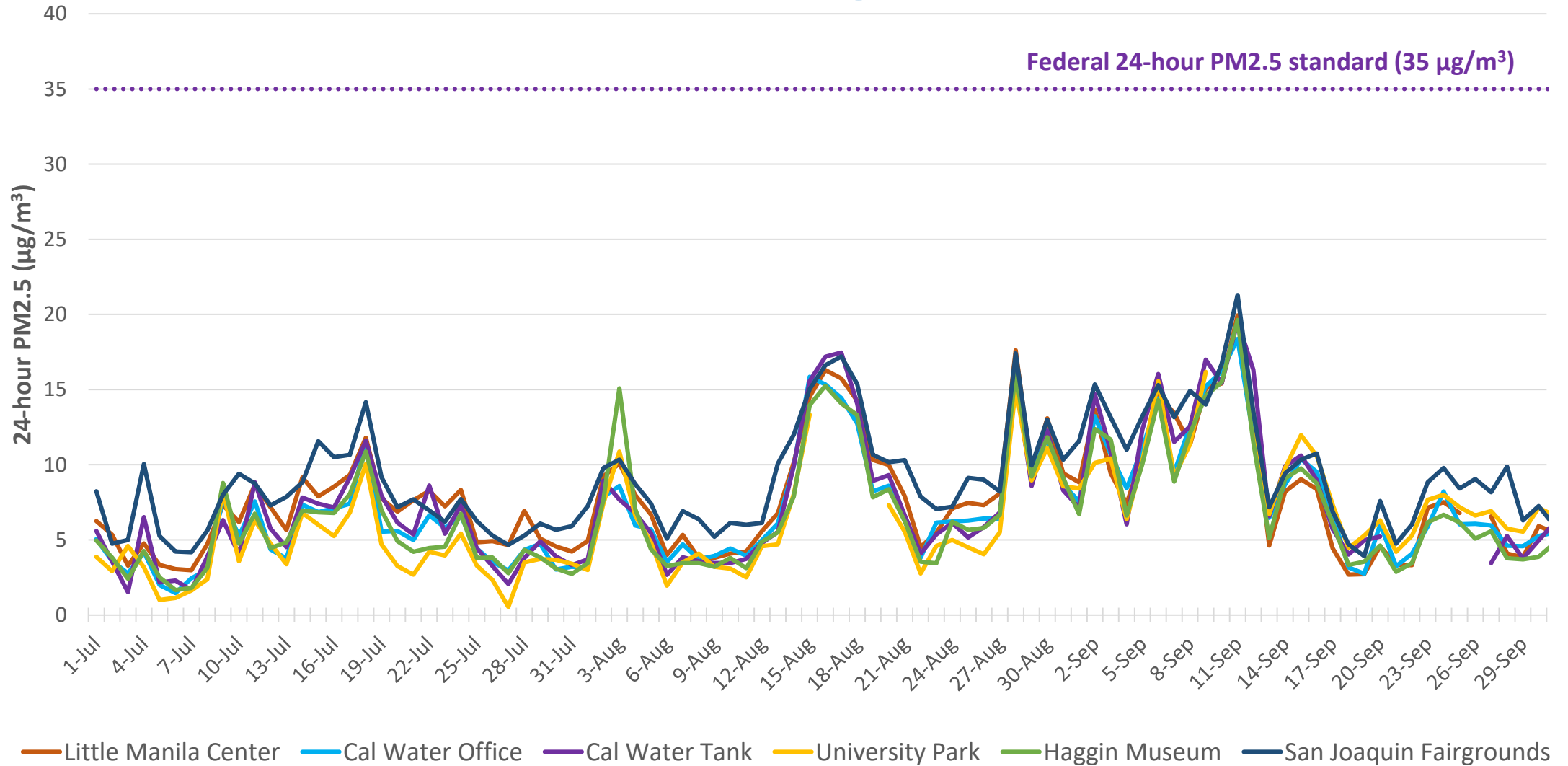


Interactive Map

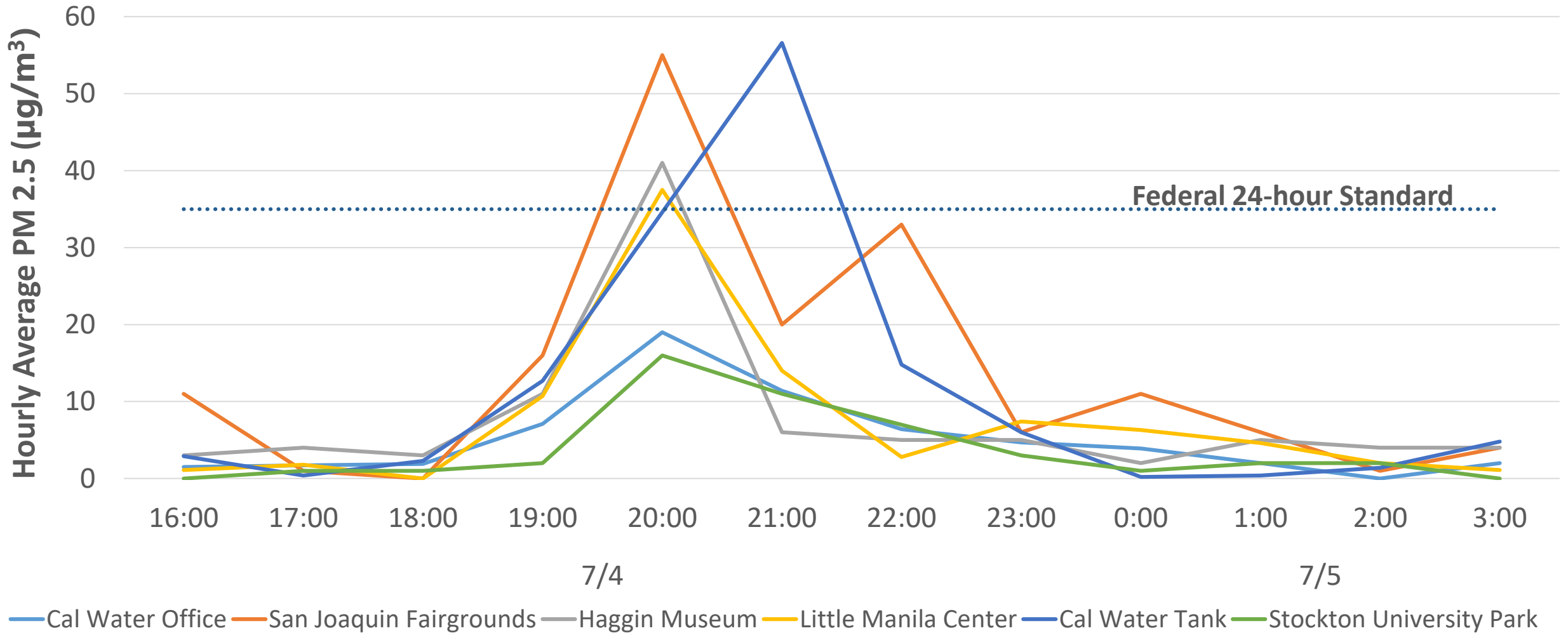


<https://community.valleyair.org/selected-communities/stockton/community-air-monitoring/>

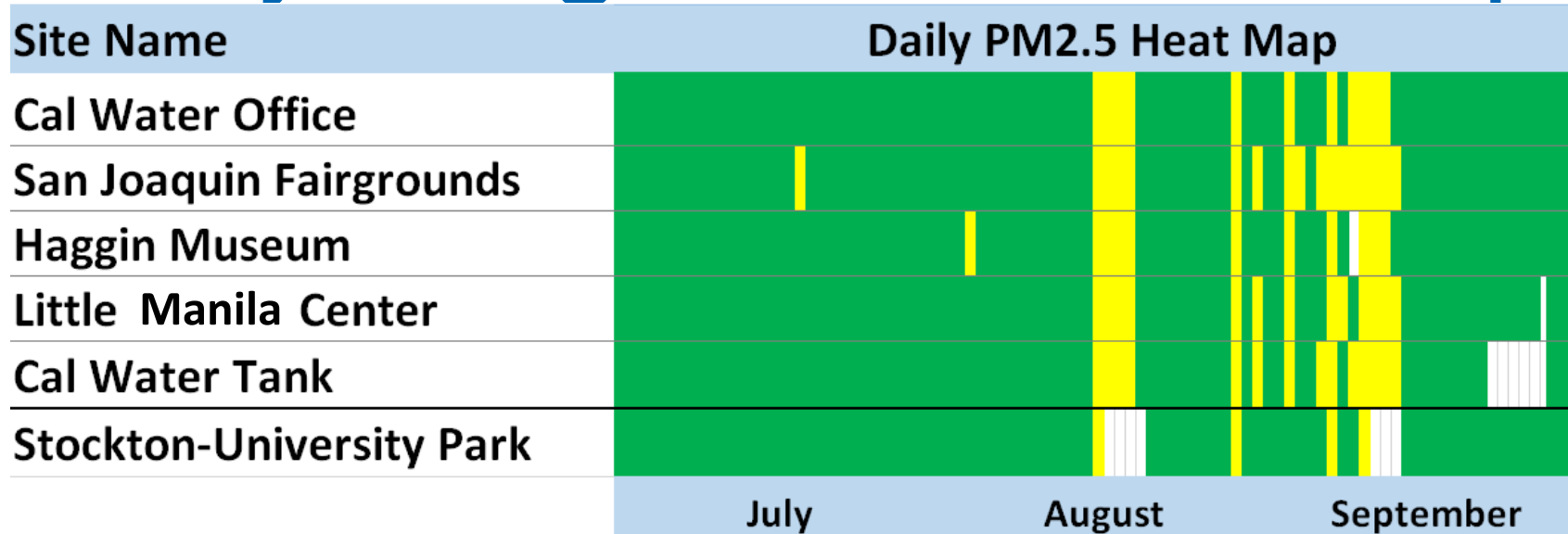
PM2.5 Daily Average Comparison



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

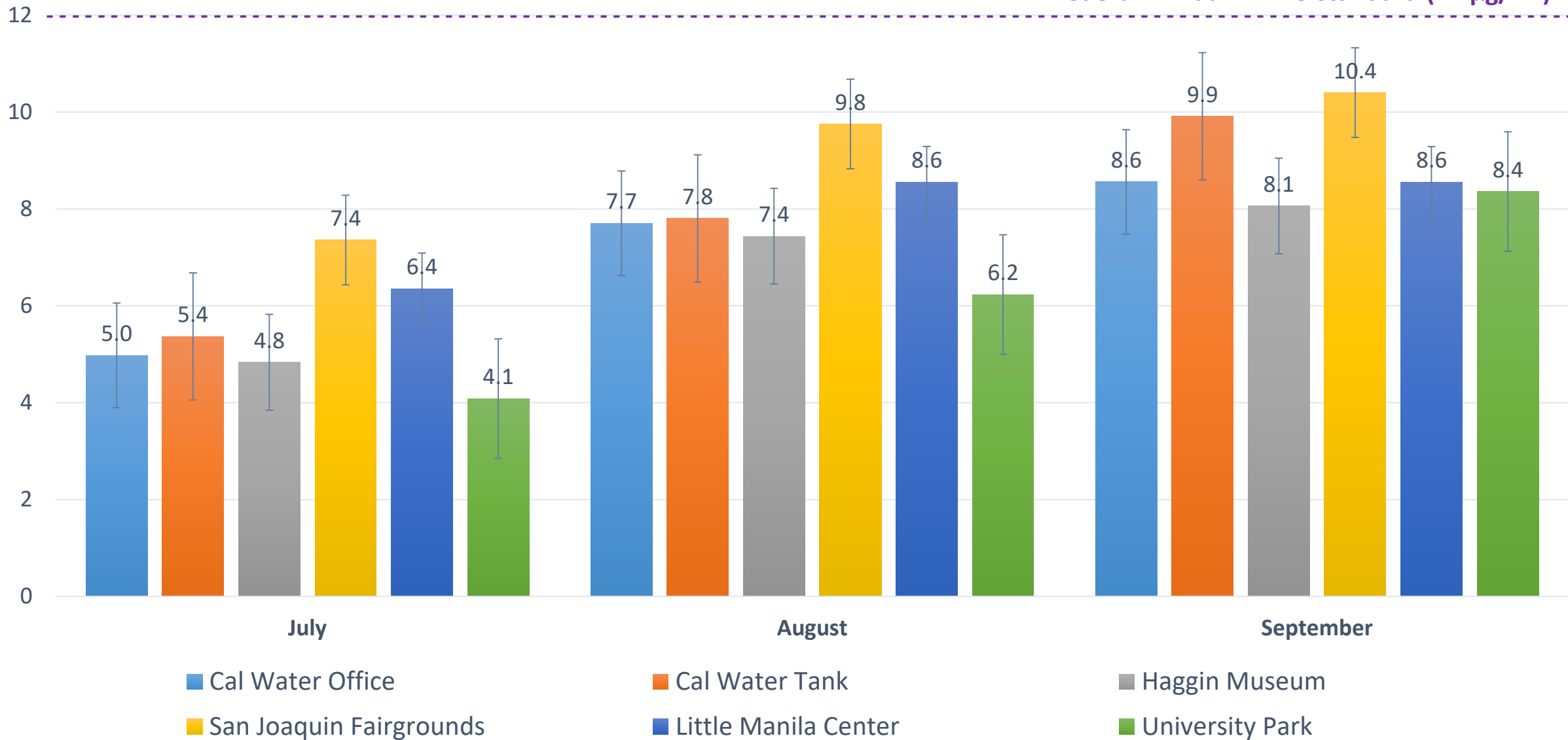
July 1, 2022 – September 30, 2022

	Highest 24-hour Average PM2.5 ($\mu\text{g}/\text{m}^3$)	Quarterly Average PM2.5 ($\mu\text{g}/\text{m}^3$)
Stockton Community Monitors		
Little Manila Center	19.9	7.8
Cal Water Office	18.4	7.1
Cal Water Tank	19.5	7.4
Haggin Museum	19.6	6.8
San Joaquin Fairgrounds	21.3	9.2
Nearby Regulatory Monitor		
University Park	16.2	6.1

- Peak and quarterly average PM2.5 concentrations at community monitors slightly higher than at University Park
- No violation of 24-hour standard in this period

PM2.5 Monthly Average ($\mu\text{g}/\text{m}^3$)

Federal Annual PM2.5 standard ($12 \mu\text{g}/\text{m}^3$)



VOC Speciation Summary

- VOC sampling moved from Little Manila Center to Haggin Museum on September 3, 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	55.2	21,367	12.42	3,052
Acetaldehyde	Wood combustion in fireplaces and woodstoves, coffee roasting, burning of tobacco, vehicle exhaust fumes, and coal refining and waste processing	13.9	261	3.75	78

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
 - Weekly air monitoring updates
- 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?