# Development of Stockton Community Air Monitoring Plan

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# Community Air Monitoring

- AB 617 includes requirements for air districts to deploy air monitoring in communities selected by CARB
  - Community air monitoring for Stockton to be in place by January 2021
  - Supplements existing monitoring in/near selected community
- District currently preparing platforms and equipment for community air monitoring in Stockton
- Community access to air monitoring information will be provided
  - District's AB 617 webpage for Stockton Community
  - CARB's online statewide data portal (AQview)
- Stockton community air monitoring will mirror localized air monitoring work being conducted in previously selected AB 617 communities of South Central Fresno and Shafter

# Community Air Monitoring Plan Elements

- Stockton Community Steering Committee will provide input in preparing community air monitoring plan
  - District responsible for preparing final plan
- CARB AB 617 Blueprint describes the following 14 elements for community air monitoring plans

1. Community partnerships
2. Community-specific purpose for air monitoring
3. Scope of actions
4. Air monitoring objectives
5. Roles and responsibilities
6. Data quality objectives
7. Monitoring methods and equipment
8. Monitoring areas
9. Quality control procedures
10. Data management
11. Field measurements
12. Evaluating effectiveness
13. Analyze and interpret data
14. Communicate results

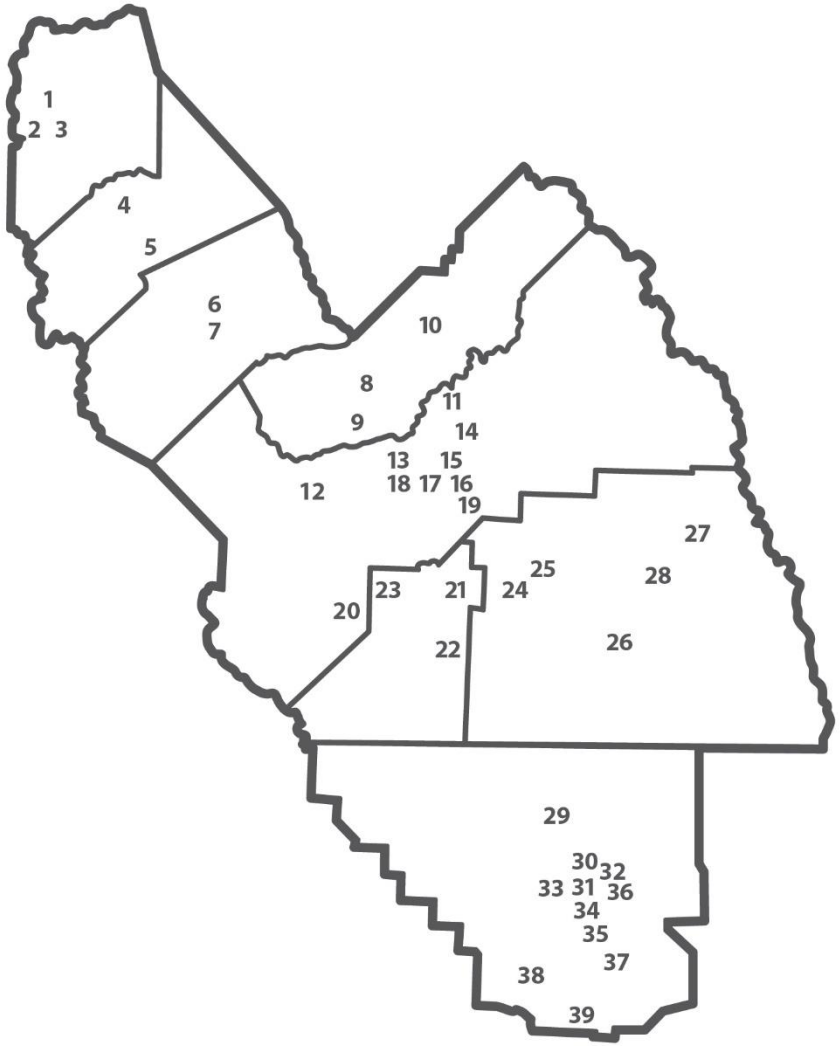
# Goals of Community Air Monitoring Plan

- Community air monitoring plan for Stockton should define clear goals and objectives
- Developed community air monitoring plan should assist in guiding the air monitoring goals for Stockton
  - Collected data will allow for community-level air quality analysis and evaluation of long-term trends
- Collected data will assist with ongoing development and implementation of Stockton community emissions reduction program

# Pollutants and Source Types

| | |
|---|---|
| PM2.5, Black Carbon | • Mobile, industrial, and residential sources |
| Oxides of Nitrogen (NO/NO2/NOx), Toxics | • Mobile and industrial sources |
| Carbon Monoxide (CO) | • Mobile sources |
| Ozone | • Regional, formed through combination of NOx, VOC, sunlight |
| Sulfur Dioxide (SO2) | • Industrial sources |
| Volatile Organic Compounds (VOC) | • Mobile, industrial, and gasoline distribution sources |

# Air Monitoring Sites in Operation




As of July 2019

**SAN JOAQUIN COUNTY**
- ■ 1 Stockton-Hazelton: G, M, P, F, T
- ★ 2 Tracy-Airport: G, M, P, F
- ★ 3 Manteca: P, F, M

**STANISLAUS COUNTY**
- ■ 4 Modesto-14th St: G, M, P, F
- ★ 5 Turlock: G, M, P, F

**MERCED COUNTY**
- ★ 6 Merced-M St: P, F
- ★ 7 Merced-Coffee: G, F, M

**MADERA COUNTY**
- ★ 8 Madera City: G, P, F, M
- ★ 9 Madera-Pump Yard: G, M

**Other[1]:**
Chukchansi Indians
- ▲ 10 Picayune Rancheria: G, F, P, M

**FRESNO COUNTY**

**Other[1]:**
Monache Tribe/Foothill Yokut Indians
- ▲ 11 Table Mountain AMS+: G, F, P, M
- ★ 12 Tranquillity: G, F, M
- ★ 13 Fresno-Sky Park: G, M
- ★ 14 Clovis: G, M, P, F
- ■ 15 Fresno-Garland: G, M, P, F, T, N
- ★ 16 Fresno-Pacific: F
- ★ 17 Fresno-Drummond: G, P, M
- ★ 18 Fresno-Foundry: G, M
- ★ 19 Parlier: G, M
- ★ 20 Huron: F, M

**KINGS COUNTY**
- ★ 21 Hanford: G, F, M, P
- ★ 22 Corcoran: F, M, P

**Other[1]:**
Tachi Yokut Tribe
- ▲ 23 Santa Rosa Rancheria: G, M, P

**TULARE COUNTY**
- ★ 24 Visalia Airport: M
- ■ 25 Visalia-Church St: G, F, M, P
- ★ 26 Porterville: G, F, M

**Other[2]:**
- ▲ 27 Lower Kaweah: A, G, M
- ▲ 28 Ash Mountain: A, G, M, F

**KERN COUNTY**
- ● 29 Shafter: G, M
- ■ 30 Oildale: G, M, P
- ★ 31 Bakersfield-Golden/M St: F, P
- ★ 32 Bakersfield-Westwind: G, M
- ■ 33 Bakersfield-Calif Ave: G, M, P, F, T
- ★ 34 Bakersfield-Muni: G, M
- ■ 35 Bakersfield-Airport (Planz): F
- ■ 36 Edison: G, M
- ■ 37 Arvin-Di-Giorgio: G, M
- ★ 38 Maricopa: G, M
- ★ 39 Lebec: F, M

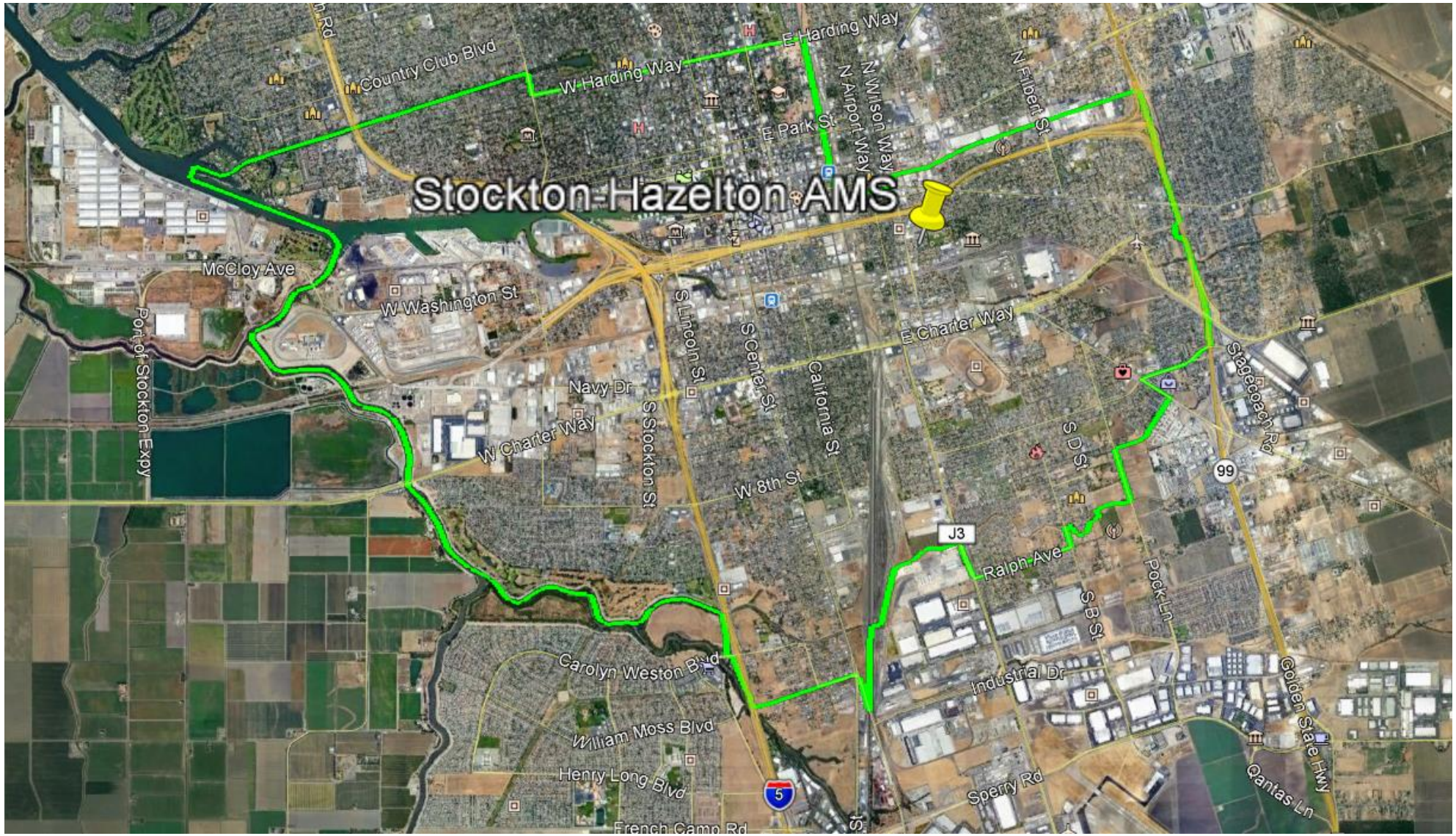
**MONITORING DESIGNATIONS**

| | | | |
|---|---|---|---|
| F | Fine Particulate (PM2.5) | P | Particulate (PM10) |
| G | Gaseous | N | National Core |
| M | Meteorological | T | Toxins |

**MONITORING OPERATION**
- ★ Sites operated by the District
- ● Sites operated by the District & CARB
- ■ Sites operated by CARB
- ▲ Sites operated by other agencies
  - Other[1] Tribal
  - Other[2] National Park Service
- + Air Monitoring Station (AMS)

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

# Current Air Monitoring in Stockton Community



# Current Air Monitoring in Stockton Community

- Stockton-Hazelton site operated by CARB since 1976
  - Measures Ozone, NO/NO2/NOx, CO, PM2.5, PM10, Toxics, Meteorology
  - Located near Wilson and Hazelton Avenues at San Joaquin County Public Health building
- Ongoing air monitoring operations at this existing site provides valuable data that will be used to complement the community air monitoring network in development
- Historical data for this site is available on CARB website
  - https://www.arb.ca.gov/aqmis2/aqmis2.php

# Community Air Monitoring Data

- District developing various additional resources for community air monitoring in Stockton
  - Development of these resources aimed to be scalable, portable, and rapidly deployable
  - Instrumentation will produce high-precision and quality data
- Air monitoring data collected in Stockton community will be available on AQview
  - Available at: https://ww2.arb.ca.gov/es/community-air-quality-portal
- Stockton community air monitoring data will also be displayed on District website in real-time

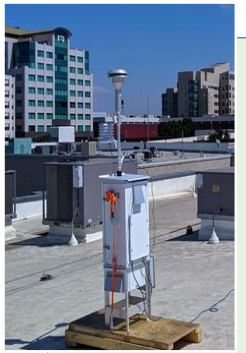
# Community Air Monitoring Platform Capabilities

## Air Monitoring Trailer

- PM2.5, Ozone, Black Carbon, CO, NO/NO2/NOx, VOC, Toxics, SO2, H2S, Speciated VOCs, Meteorology
- Extensive capabilities, could be placed in most impacted area


## Compact Multi-Pollutant Systems

- PM2.5, Ozone, Black Carbon, CO, NO/NO2/NOx, VOC, SO2, Meteorology
- Variety of pollutants measured, could be placed in areas with multiple concerns



## Stand-Alone PM2.5 Monitors

- PM2.5
- Could be placed in various areas where PM2.5 is a concern

## Mobile Air Monitoring Van

- PM2.5, Ozone, Black Carbon, CO, NO/NO2/NOx, VOC, SO2, H2S, Toxics, Meteorology
- Maximum flexibility in where measurements can take place

# Considerations for Community Air Monitoring

- Number of factors to be taken into consideration when planning for placement of air monitoring equipment
  - Permission of land-owner to place equipment on property
  - Establishment of lease agreements with property owner
  - Security of the location to protect equipment
  - Access to power source to operate equipment
  - Proper monitoring siting (no obstructions, mindful of influence from local sources of pollution)
  - Placing air monitoring equipment at schools is often a long administrative process – would recommend also looking at other properties near schools as an alternative
- These factors frequently impact the ability to find suitable monitoring locations
- These factors should be kept in mind when making recommendations for monitoring locations

# Questions for Steering Committee

- District asking Stockton Community Steering Committee for initial thoughts and comments in the following areas:
  - Where should air monitoring assets be placed in the community?
  - What pollutants/types of sources should be considered in the community air monitoring plan?
- What specific information and resources could assist the Community Steering Committee in providing meaningful input in the design of the Community Air Monitoring Plan?

# Next Steps

- Stockton Community Air Monitoring Plan exercise planned for upcoming Community Steering Committee meeting
- Exercise will solicit feedback and recommendations on where within the community and what pollutants should be monitored
- Feedback will guide the District in drafting Stockton Community Air Monitoring Plan for Community Steering Committee review and comment

# Contact Information

Contact the Valley Air District at:

AB617@valleyair.org

(559) 230-6170

For information, or to receive regular updates, visit:
AB 617 Community Page: http://community.valleyair.org/
Valley Air District Website: www.valleyair.org

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Use the Valley Air App for the latest air quality info.