

# AVAILABLE AIR MONITORING CAPABILITIES

## Current ongoing monitoring in Richmond

- Long-term
  - Air District Stations
    - San Pablo: CO, NO<sub>x</sub>, UFP, SO<sub>2</sub>, O<sub>3</sub>, PM<sub>2.5</sub>, PM<sub>10</sub>, toxics, BEACO<sub>2</sub>N node
    - Point Richmond: H<sub>2</sub>S
    - 7<sup>th</sup> and Hensley: H<sub>2</sub>S, SO<sub>2</sub>, toxics
  - Chevron-operated
    - Ground level monitors: H<sub>2</sub>S, SO<sub>2</sub>
    - Fence-line: BTEX, CS<sub>2</sub>, H<sub>2</sub>S, O<sub>3</sub>, SO<sub>2</sub>
    - Community monitoring stations: BTEX, H<sub>2</sub>S, SO<sub>2</sub>, PM<sub>2.5</sub>, BC
- Saturation
  - BEACO<sub>2</sub>N: CO<sub>2</sub>, CO, NO<sub>2</sub>, O<sub>3</sub>, PM-count

## Current Air District resources for use in studies of focus areas

- Portable or Short-term
  - Mini-Vol: PM<sub>2.5</sub> collection on filters. Requires laboratory analysis for mass and/or chemical speciation
  - Evacuated canisters: grab samples of air for toxic pollutants. Requires laboratory analysis for volatile organic compounds (VOCs).
- Short-term
  - Super SASS: PM<sub>2.5</sub> collection on filters; Requires laboratory analysis for mass and/or chemical speciation
  - Canister sampling systems: air sampling for toxic pollutants over a set period of time, typically 24 hours. Requires laboratory analysis for VOCs.

## Future Resources

- Mobile
  - Aclima (targeting July or August if adopted by Steering Committee)
    - PM<sub>2.5</sub>, NO<sub>2</sub>, NO, O<sub>3</sub>, CO, and CO<sub>2</sub>
  - BAAQMD Mobile Lab (targeting fall 2019)
    - PM: concentrations, physical and chemical characteristics including non-regulatory mass concentration in different size bins, size distribution from 0.006 to 10 microns, and chemical speciation.
    - Air Toxics: Two methods for VOCs (some semi-volatile organic compounds)
    - Gaseous criteria pollutants (NO<sub>2</sub>, O<sub>3</sub>, CO, SO<sub>2</sub>)
    - Greenhouse gases (CO<sub>2</sub>, CH<sub>4</sub>)

## Measured Air Pollutants

BC – black carbon	O <sub>3</sub> – ozone
BTEX – benzene, toluene, ethylbenzene, and xylenes	PM <sub>2.5</sub>
CO – carbon monoxide	PM <sub>10</sub>
CO <sub>2</sub> – carbon dioxide	PM-count
H <sub>2</sub> S – hydrogen sulfide	Toxics –
CS <sub>2</sub> – carbon disulfide	SO <sub>2</sub> – sulfur dioxide
NO <sub>x</sub> – oxides of nitrogen; NO <sub>2</sub> and NO	UFP – ultrafine particulate matter