



## *Particulate Matter (PM) Strategy: Status Update*

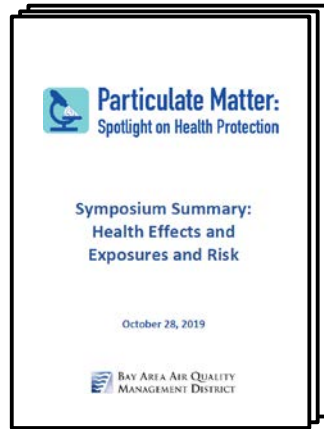
BAY AREA  
AIR QUALITY  
MANAGEMENT  
DISTRICT

*Presentation to BAAQMD Board of Directors  
By BAAQMD Advisory Council  
November 18, 2020*



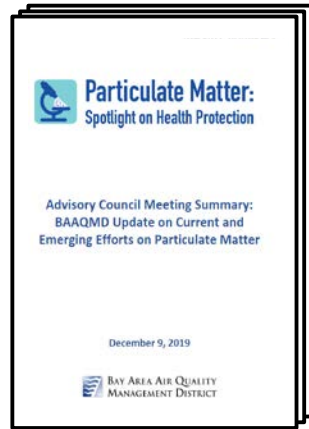
# PM Strategy: Milestones

October



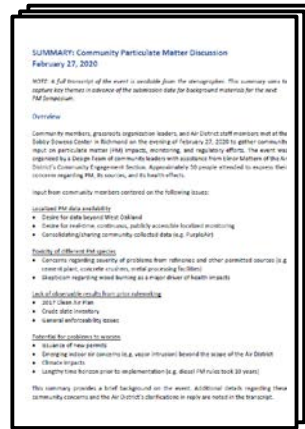
- State of Science: PM health effects, exposures, risk
- 9 national experts

December



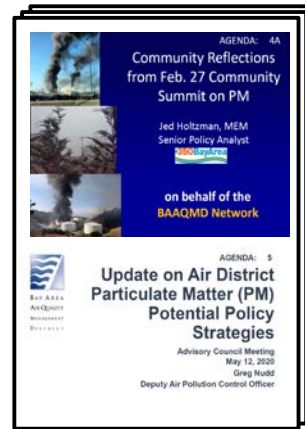
- Council deliberations
- District update on emerging PM efforts

February



- Community PM discussion
- District staff, ~30 community members, ~16 organizations

May



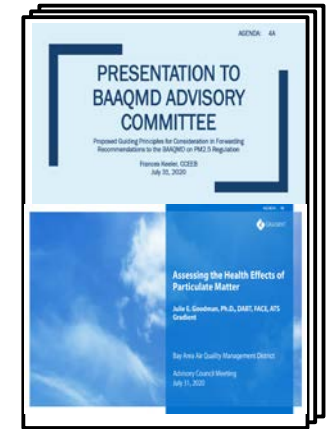
- Community AC presentations
- District update on PM potential policy strategies

June



- Panel Session
- A&WMA Virtual Annual Meeting

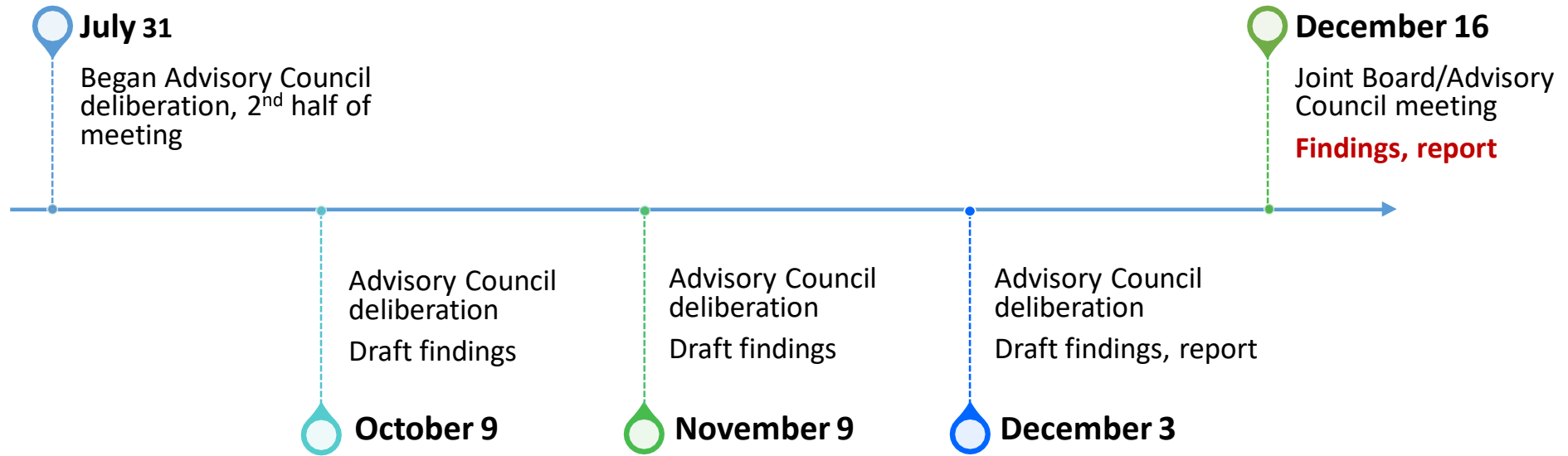
July



- Regulated industry AC presentations
- CCEEB, WSPA speakers



# PM Strategy: Schedule





## *PM Strategy: Findings*

- Assembled **more than 50** potential findings & recommendations
  - ✓ Based on outside experts, District staff, council expertise
- Organized them into **three groups**:
  - ✓ PM **Reduction Statements**
  - ✓ **Framework** for Evaluating PM Reduction Strategies
  - ✓ Recommended **Actions**



# PM Strategy: Particulate Matter Reduction Statements

PMRS8) V of concer needed. climate c

PMRS9) f PM expo controlla

PMRS10) can be ex

PMRS11) health ris and can t cause m

**PARTICULATE MATTER REDUCTION STATEMENTS**

The Advisory Council has gathered evidence on the current state of particulate matter science and the health impacts and risks of particulate matter exposure. These statements of evidence are provided below, and together ground the Air District's future particulate matter reduction initiatives in science and the interest of public health. These statements are as follows:

**PMRS1)** Particulate Matter (PM) is an important health risk driver in Bay Area air, both PM<sub>2.5</sub> as a criteria pollutant and diesel PM as a toxic air contaminant.

**PMRS2)** The Bay Area has made substantial progress at reducing regional PM<sub>2.5</sub> levels to meet current PM<sub>2.5</sub> standards; however, 1) more stringent standards would be more health protective; 2) exposures vary substantially across communities; and 3) wildfire smoke increases PM<sub>2.5</sub> levels substantially above standards.

**PMRS3)** The current particulate matter national ambient air quality standards (NAAQS) are not health protective. The Advisory Council concurs in the following statement: "Based on scientific evidence, as detailed in Attachment B [of our letter], the [Independent Particulate Matter Review Panel] finds that the current suite of primary fine particle (PM<sub>2.5</sub>) annual and 24-hour standards are not protective of public health. Both of these standards should be revised to new levels, while retaining their current indicators, averaging times, and forms. The annual standard should be revised to a range of 10 µg/m<sup>3</sup> to 8 µg/m<sup>3</sup>. The 24-hour standard should be revised to a range of 30 µg/m<sup>3</sup> to 25 µg/m<sup>3</sup>. These scientific findings are based on consistent epidemiological evidence from multiple multi-city studies, augmented with evidence from single-city studies, at policy-relevant ambient concentrations in areas with design values at and below the levels of the current standards, and are supported by research from experimental models in animals and humans and by accountability studies." (Independent Particulate Review Panel Letter on Draft EPA PM Policy Assessment, October 2019).

**PMRS4)** More stringent standards to reduce exposures are needed, and, if met, would save thousands of lives in the U.S. and many Bay Area lives each year.

**PMRS5)** There is no known threshold for harmful PM<sub>2.5</sub> health effects, thus it follows that additional reductions of PM<sub>2.5</sub> exposures beyond that afforded by the current standards will achieve additional public health benefits.

**PMRS6)** An Air District guideline "target" below the current PM<sub>2.5</sub> NAAQS is warranted to protect public health; if the Air District were to set that target at an annual average of 10 µg/m<sup>3</sup> to as low as 8 µg/m<sup>3</sup>, U.S. EPA's PM<sub>2.5</sub> NAAQS risk assessment provides scientific evidence that annual average targets in that range would save additional lives.

**PMRS7)** Although a large fraction of PM<sub>2.5</sub> is regionally contributed, substantially elevated PM<sub>2.5</sub> exposures can occur in locations adjacent to local PM sources.

- *Statements of evidence on current state of PM science and health impacts and risk*
- *Together ground Air District's future PM reduction initiatives in science and interest of public health*



# PM Strategy: Framework for Evaluating PM Reduction Strategies

## FRAMEWORK FOR EVALUATING PARTICULATE MATTER REDUCTION STRATEGIES

As the Air District approaches the task of reducing particulate matter in the Bay Area, strategies under consideration should be evaluated using the following framework:

F1) The Air District should move as quickly as possible to take maximal feasible action within its authority.

F2) PM reduction strategies should prioritize those measures that are most effective in reducing exposure and improving public health and health equity in the most impacted areas.

F3) The most effective exposure reduction measures may differ across communities, due to varying source mix and size, ambient PM concentration levels, physical circumstances (e.g., meteorology, terrain), and other relevant factors.

F4) The Air District should focus PM reduction in areas with elevated exposures, health vulnerability, and those areas with increased impacts and sensitive populations (e.g., U.S. EPA identifies children, non-white, low socioeconomic status, elderly).

F5) PM reduction strategies should consider regional (Bay Area-wide), local (community-level), and localized hot-spot (block-level) sources.

F6) PM reduction strategies should consider emission reduction measures for both primary PM and secondary PM formed in the air (e.g., emissions of precursor ROG, NOx, NH<sub>3</sub>, and SO<sub>2</sub>).

F7) PM reduction strategies will need to address multiple source categories with a wide range of emission reduction measures; there are no single, universal solutions.

- *Framework for evaluating strategies under consideration by Air District*



# PM Strategy: Recommended Actions


<b>FUNDING</b>	RA9) Further guidance to include: 1) more comprehensive management centers, libraries, personal protective mobile clean individuals.	<p><b>RECOMMENDED ACTIONS</b></p> <p>The Advisory Council, through feedback from experts, and observation, have identified several actions the Air District can take to reduce particulate matter in the region. These actions include, but are not limited to, the following:</p> <p><b>AIR DISTRICT-WIDE</b></p> <p>RA1) Establish a PM<sub>2.5</sub> target consistent with findings based on scientific evidence (i.e., from an annual average of 10 µg/m<sup>3</sup> to as low as 8 µg/m<sup>3</sup>).</p> <p><b>MONITORING</b></p> <p>RA2) Continue working to make air quality data for PM and PM precursors more accessible and timely. Partner with effective platforms (e.g., Purple Air).</p> <p>RA3) Make current PM speciation data more available. Advocate for U.S. EPA national monitoring guidance and requirements to increase PM speciation.</p> <p>RA4) Advocate for increased, broader, national monitoring, exposure, and health impact studies of UFP.</p> <p><b>TECHNOLOGY</b></p> <p>RA5) Advocate for appropriate federal and state agencies to set improved UFP filtration requirements for on-road vehicles.</p> <p><b>ENFORCEMENT</b></p> <p>RA6) Strengthen implementation and enforcement of programs and rules (including Rule 11-18) to reduce exposures to PM<sub>2.5</sub> (including diesel PM) and ensure necessary resources to do so.</p> <p><b>ASSESSMENT, INVENTORY, &amp; MODELING</b></p> <p>RA7) Advocate for improved emission estimation and control methods for emerging source categories (e.g., tires &amp; brakes, road dust).</p> <p><b>PLANNING</b></p> <p>RA8) Develop Air District PM strategic action plans for individual highly impacted communities with appropriate targets.</p>
RA20) Ass for local st	RA10) Devel traveled (e.g	
RA21) See communit	RA11) Expan	
RA22) See pedestrian brake & ti	<b>RULE DEVE</b>	
<b>AUTHOR</b>	RA12) Evaluat road dust to	
RA23) See	RA13) Modif PM health ri	
RA24) Con	RA14) Adopt new constru incentives, a	
RA25) Adv road dust to	RA15) Adopt heaters and	
RA26) Sup	RA16) Expan charbroilers	
RA27) See	RA17) Evaluat strategy.	
<b>ADDITIO</b>	RA18) Adopt	
RA28) PM economica mobile, ar	<b>ENGINEERI</b>	
	RA19) Devel processes.	

- *Actions that Air District can take to further reduce PM in the Bay Area*



# PM Strategy: Report


**DRAFT FOR ADVISORY COUNCIL REVIEW** AGENDA: 3



**Advisory Council report submitted  
to the Air District Board of Directors  
for review and consideration**

December 16, 2020

Chair Stan Hayes  
Dr. Severin Borenstein  
Dr. Michael Kleinman  
Dr. Tim Lipman  
Dr. Jane Long  
Dr. Linda Rudolph  
Dr. Gina Solomon

**DRAFT FOR ADVISORY COUNCIL REVIEW** 

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# Particulate Matter Strategy Report

**Final Report**

- **Executive Officer Statement**
- **Introduction and Background**
- **Particulate Matter Reduction Statements, Framework, and Recommended Actions**
- **Annotated Bibliography**



# Particulate Matter Strategy Report

## Appendix A: Annotated Bibliography, organized by table

- **Annotated bibliography/scientific references organized in a table**

## Appendix B: Advisory Council Deliberations Summaries

- **Summaries of Advisory Council Deliberations:**
  - July
  - October
  - November



# Particulate Matter Strategy Report

## Appendix C: Symposium Reports, Summaries & Presentations

- **October 2019 Report and Panel Presentations**
- **December 2019 Report and Panel Presentations**
- **February Community PM Discussion Summary**
- **May Community and Air District Presentations**
- **July Industry and Air District Presentations**



# Particulate Matter Strategy Report

## Appendix D: Advisory Council Information

- **Links to Advisory Council webpage and additional media**
- **Biographies of Advisory Council members**



## *PM Strategy: Next Steps*

- *Advisory Council meeting on December 3<sup>rd</sup>*
  - *Further deliberation on findings & recommendations*
  - *Further review and comment on draft report*
- *Joint meeting with Board on December 16<sup>th</sup>*



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**AGENDA: 18**

# **Summary of 2020 Spare the Air Summer Campaign and Update of 2020-21 Spare the Air Winter Campaign**

**Board of Directors Meeting  
November 18, 2020**

**Kristine Roselius  
Communications Director**

# Winter Campaign



## WSTA 2020-21

**REGION-WIDE**  
*(Includes multicultural)*

- Digital
- Broadcast TV
- Cable TV
- Radio

**MAP KEY**

- Transit Lines\*
- Napa Transit Shelters\*
- Door-to-Door Outreach
- Eco-Posters\*
- Flag Banners

*\*Approximate locations throughout the region. Specific locations to be presented for approval.*

**TRANSIT/BUS ROUTES**

**AC Transit**

- East Bay

**Golden Gate Transit**

- Marin/Sonoma Counties

**Tri-Valley Transit**

**Vine Transit**

- Napa County



# Advertising





# Media and Social Media



## Media Outreach

- Targeted op eds
- In-language outreach
- Partnership with ALA
  - Interview series
  - Promote clean heating
  - Medical experts

## Social Media

- Focus on health impacts
- Alternatives to wood burning
- Alert notifications



Board of Directors Meeting  
November 18, 2020

OPINION // OPEN FORUM

Trump officials put California's air quality at risk, just in time for wildfire season

By Jack Broadbent and Rod Sinks | July 8, 2020



Poor air quality in San Francisco during the wildfires in 2018. The E.P.A. recently declined to strengthen standards for fine particulate matter ahead of what



Spare The Air @SpareTheAir · Nov 1

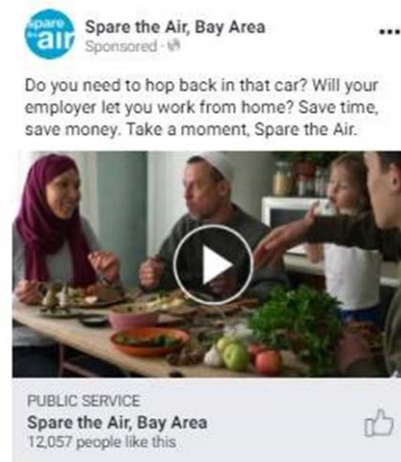
In colder months, wood burning is the biggest contributor to air pollution in the Bay Area. On cool, calm days when there is an inversion layer, warm air acts as a lid over a layer of cold air, causing unhealthy concentrations of wood smoke to build up at ground level.



# Summer Campaign



- New remote work campaign
- Focus on remote work benefits
- Shift to digital and social advertising



# Media and Social Media



- Benefits of remote work and active transportation
- New calls to action
- Promote Cut the Commute pledge

**Spare The Air** @SpareTheAir · Oct 27

The @sfcta is sharing "sales tax stories" to show how people across San Francisco benefit from the half-cent sales tax for transportation. See more stories highlighting improvements to the city's transportation system at [sfcta.org/stories](https://sfcta.org/stories).

**"Biking is my preferred mode of travel for work and leisure activities around the city and the bikeshare program provides added convenience that is key to my quality of life."**

Sol McKinney, Bike share

See how sales tax dollars improve the city's transportation system. Click on a face to see how people across San Francisco benefit from the half-...  
[sfcta.org](https://sfcta.org)

Monday, October 26, 2020 A look inside San Jose politics and culture

**sanjoseinside**

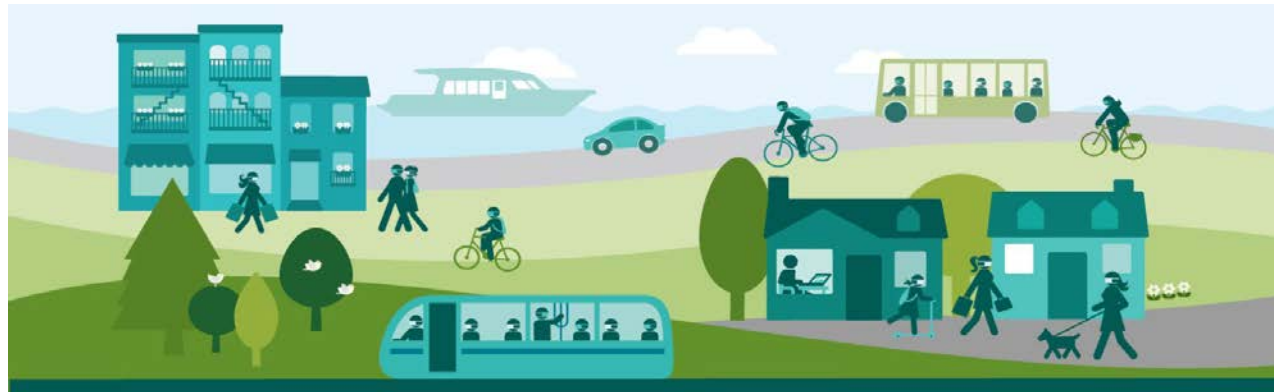
NEWS OPINION INVESTIGATIVE REPORTS THE FLY SPORTS

OPINION

**Op-Ed: Cleaner Air Solutions Start with Bay Area Employers**

By Jack Broadbent, Rod Sinks and Cindy Chavez / October 22, 2020

In the first three months of the pandemic, vehicle miles traveled in the Bay Areas decreased by approximately 70 percent. (Photo by Daniel R. Blume, via Wikimedia Commons)



Board of Directors Meeting  
November 18, 2020

**Spare The Air** @SpareTheAir

(1/2) GIVEAWAY ALERT: In the warmer months, smog forms when sunlight reacts with car exhaust. Walking or biking instead of driving keeps our air clean, and we have a giveaway bag (including a bike jersey!) for one lucky winner who helps #SparetheAir this July.

Bay Area Air Quality Management District

SPARETHEAIR Posts

**LEAVE YOUR CAR AT HOME**

- Work from home
- Ride your bike
- Take public transit
- Attend meetings remotely
- Bring a lunch to work or school instead of driving

CALIFORNIA CLEAN AIR DAY  
A PROJECT OF THE CALIFORNIA FRESH AIR

# Outreach



- Active transportation videos
- Virtual events
- New virtual booth



# Employer Program



- Promote remote work and Cut the Commute Pledge

- Developed new Remote Work Toolkit

- Virtual employer events



**ABOUT THIS TOOLKIT**

As an employer, one of the most important jobs is ensuring that employees are content and challenged. Studies show that the flexibility offered by remote work programs improves employee satisfaction, retention, and even increases productivity. Plain and simple, remote work can make your job more efficient!

It's clear that remote work is much more than a growing trend – it's a proven management tool that lessens traffic congestion on Bay Area roadways, increases productivity, and helps retain skilled workers. Everyone benefits from a carefully directed remote work program.

The best remote work programs begin with clear company policies and guidelines. Other important elements to consider incorporating into your remote work program include:

- ✓ An initial assessment program where employers and employees can determine whether this is a good fit for the employee and their work responsibilities
- ✓ Education and training for employees working remotely to learn how to communicate and collaborate with other employees, and how to manage time effectively while working from home
- ✓ Ongoing, regular communication and check-ins with managers and team members
- ✓ Company-provided equipment, including a laptop, to help your employees be more effective and efficient. Employers may also offer reimbursement for purchased equipment, high-speed internet, or cell phone offerings.

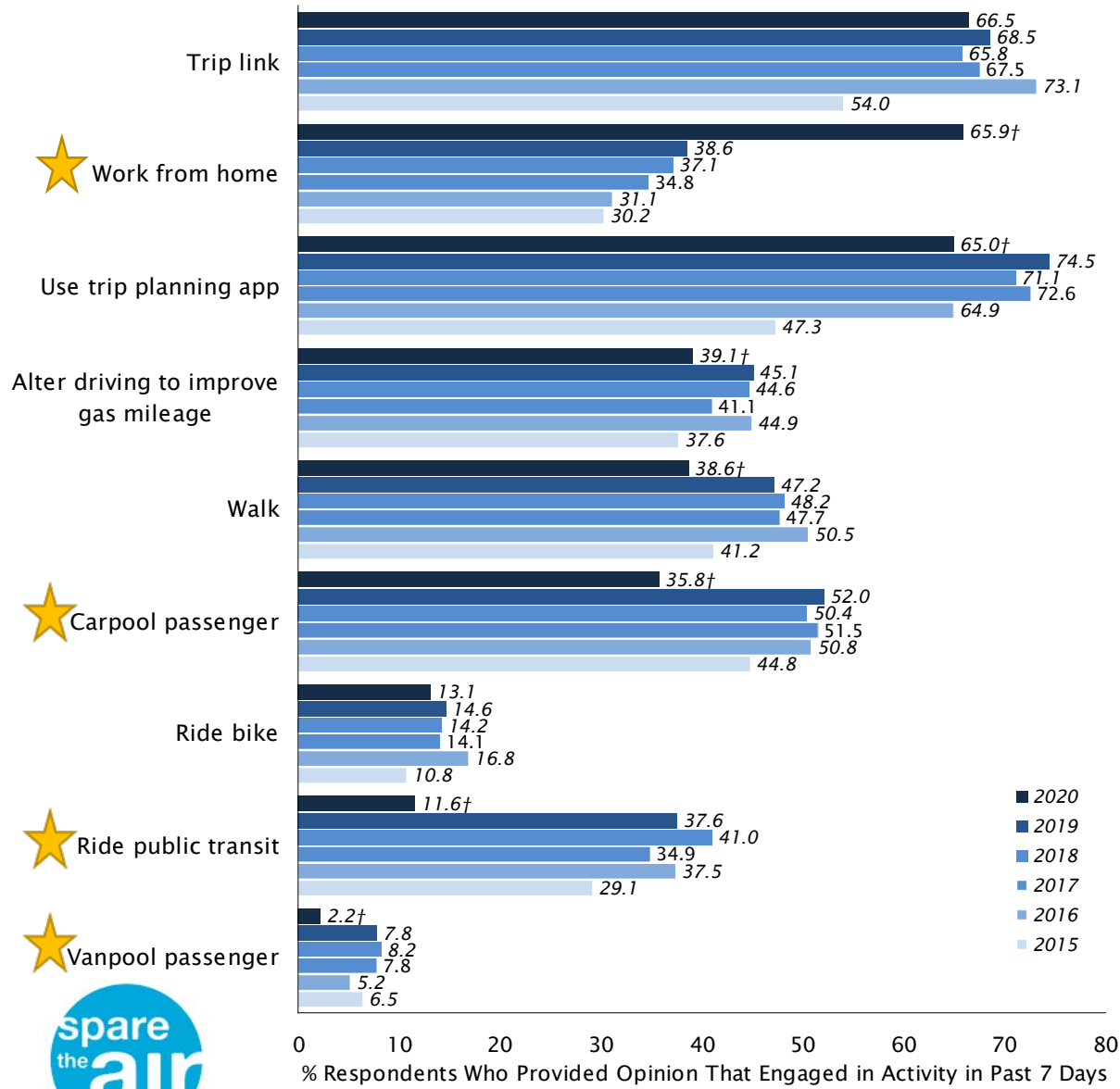
**EmployersSpareTheAir.org**

Brought to you by the Bay Area Air Quality Management District.





# Survey Results



## The pandemic has dramatically altered working arrangements and travel behavior in the Bay Area

- Percentage of residents working from home at least one day in week before interview *increased* from 39% to 66%
- Percentage riding public transit *decreased* from 38% to 12%
- Percentage carpooling as a passenger *decreased* from 52% to 36%
- Percentage vanpooling as a passenger *decreased* from 8% to 2%



# Survey Results



## Communications were successful despite pandemic

- Fifty-eight percent (58%) recalled exposure to air quality/air pollution messaging
- Forty-eight percent (48%) specifically recalled mention of Spare the Air
- Those who had not heard of the Air District declined to 33%, the lowest level ever recorded
- Large increases in exposure to Spare the Air messages on websites (+9%) and social media (+3%)

## Spare the Air campaign had greater positive impacts this season

- Four percent (4%) of Bay Area residents reduced their driving trips in response to campaign
- 1.27 miles of vehicle travel reduced on average per week for every 16+ age resident
- Weekly Vehicles Miles Traveled reduction: 7,563,642 miles





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**AGENDA: 19**

# **Wildfire Air Quality Response Program Update**

**Board of Directors Meeting  
November 18, 2020**

**Wayne Kino  
Deputy Air Pollution Control Officer**

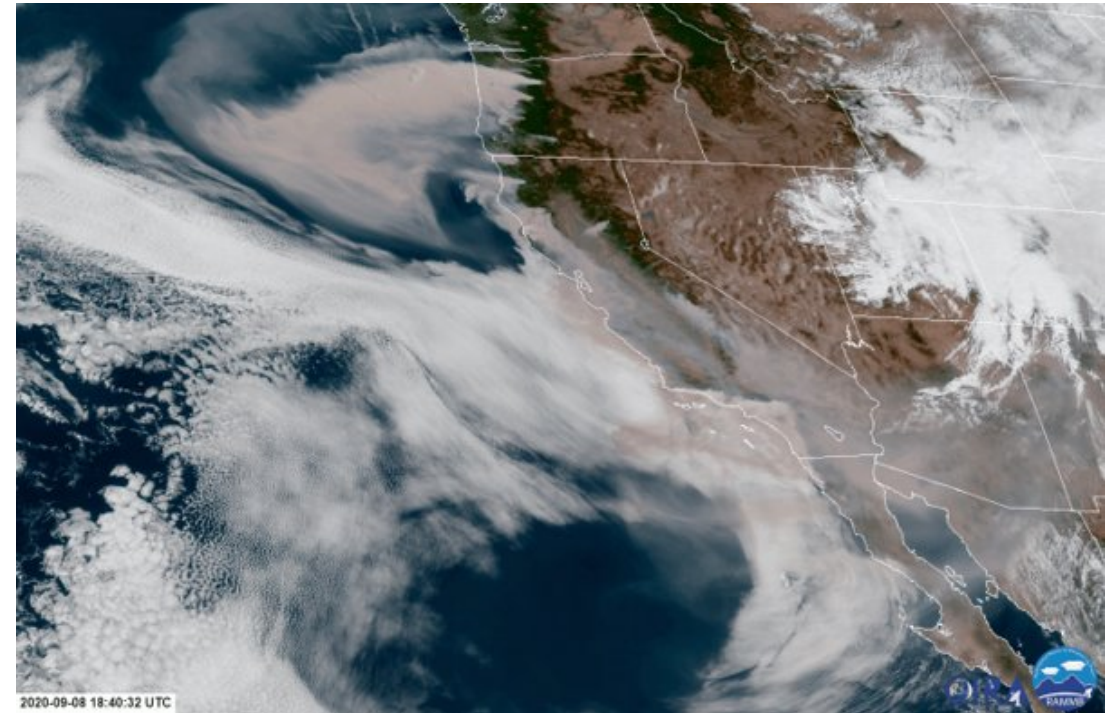


# 2020 Wildfire Review

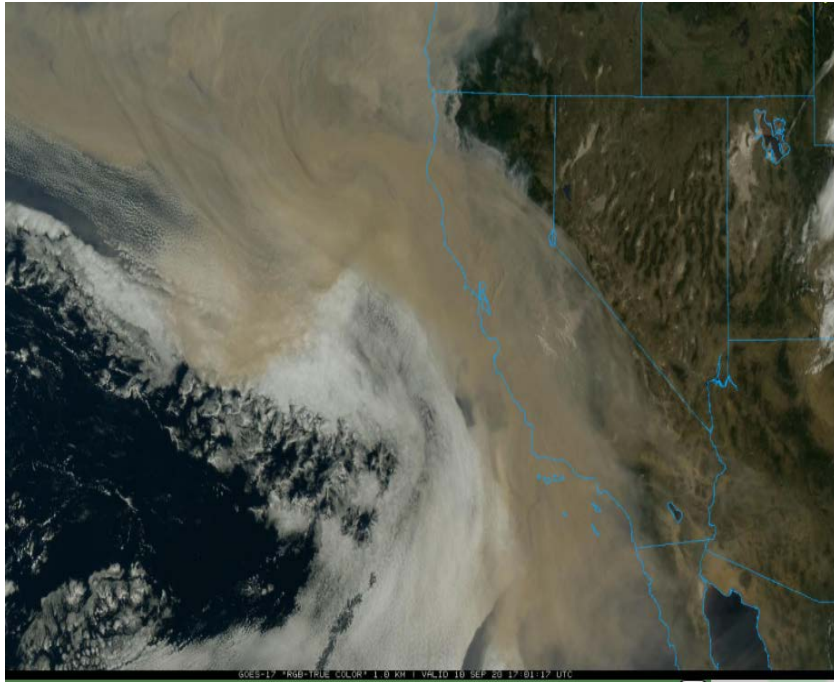


- Starting August 15, 2020, over 14,000 lightning strikes ignited fires throughout California
- To date, California has experienced over 900 wildfires burning over 4 million acres

September 8, 2020 – Western United States



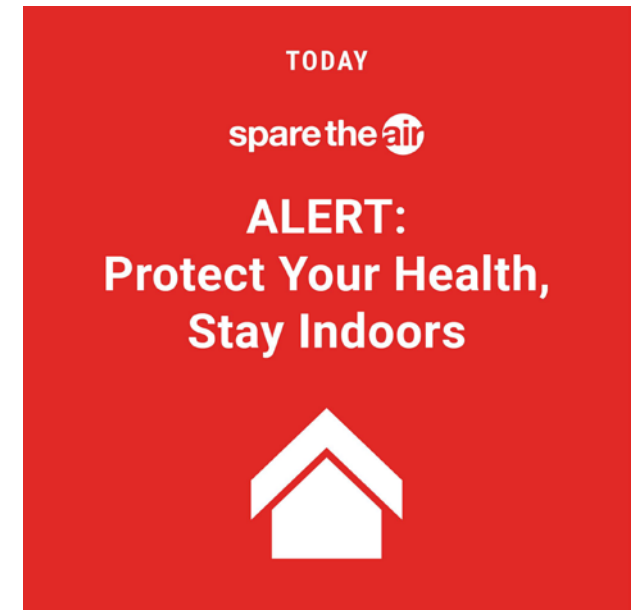
# Wildfire Events



# Spare the Air (STA) Comparisons



- **Record High** - 49 STA issued this year through October 11, 2020
- The 2<sup>nd</sup> highest STA occurred in 2017 with 46 days
- Spare the Air Alerts due to wildfires since 2016:
  - Through October 11, 2020: 49 days
  - 2019: 7 days
  - 2018: 21 days
  - 2017: 15 days
  - 2016: 10 days



# Wildfire Air Quality Response Program (WAQRP)



**Purpose:** Develop a comprehensive, multi-faceted program intended to prepare, prevent and respond to future wildfires, and to ensure health-protective measures and strategies are in place during air pollution emergencies.



# Program Strategies



- Promote Clean Air Shelters Across Bay Area Region
- Target Regulatory Actions
- Develop Local and Regional Partnerships
- Enhance Community Resources
- Advance Air District Grant Opportunities

# Evolving Program



- WAQRP continues to evolve due to unprecedented 2020 wildfires and lessons learned from past fires
- An evaluation of the program identified gaps that require additional program strategies
- New initiatives are needed to bridge gaps in existing program, extend support to partners and enhance community resources



# Additional Program Initiatives



- Advance ongoing fuel reduction efforts to prevent and mitigate future wildfires
- Seek legislative changes to require enhanced filtration in new construction, renovations, and rentals
- Develop grant program to increase accessibility of high efficiency particulate air (HEPA) filtration units to homes of those most vulnerable to wildfire smoke

# New Grant Program



- Objective - Provide HEPA filtration units to low-income families with asthma
- Explore a partnership with Regional Asthma Management & Prevention (RAMP)
  - Technical advisor to Asthma Mitigation Project, a \$15 million statewide program to help Medi-Cal beneficiaries with uncontrollable asthma by increasing patient access to asthma care, including education and environmental trigger mitigation
  - Program administered by Sierra Home Foundation and local health care partners to provide in-home asthma visits to ~2400 low-income families in Bay Area



# New Grant Program Concepts



- Create a program that complements Asthma Mitigation Project by funding HEPA filtration units
- Utilize in-home asthma assessments and services to provide HEPA filtration units
- Educate participants on proper use of HEPA filtration units and setting up a “clean room” in home
- Develop individual wildfire smoke preparedness plan

# Wildfire Air Quality Response Program



Questions, comments, and/or ideas?



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**AGENDA: 20**

# **Source Test 101**

**Board of Directors Meeting  
November 18, 2020**

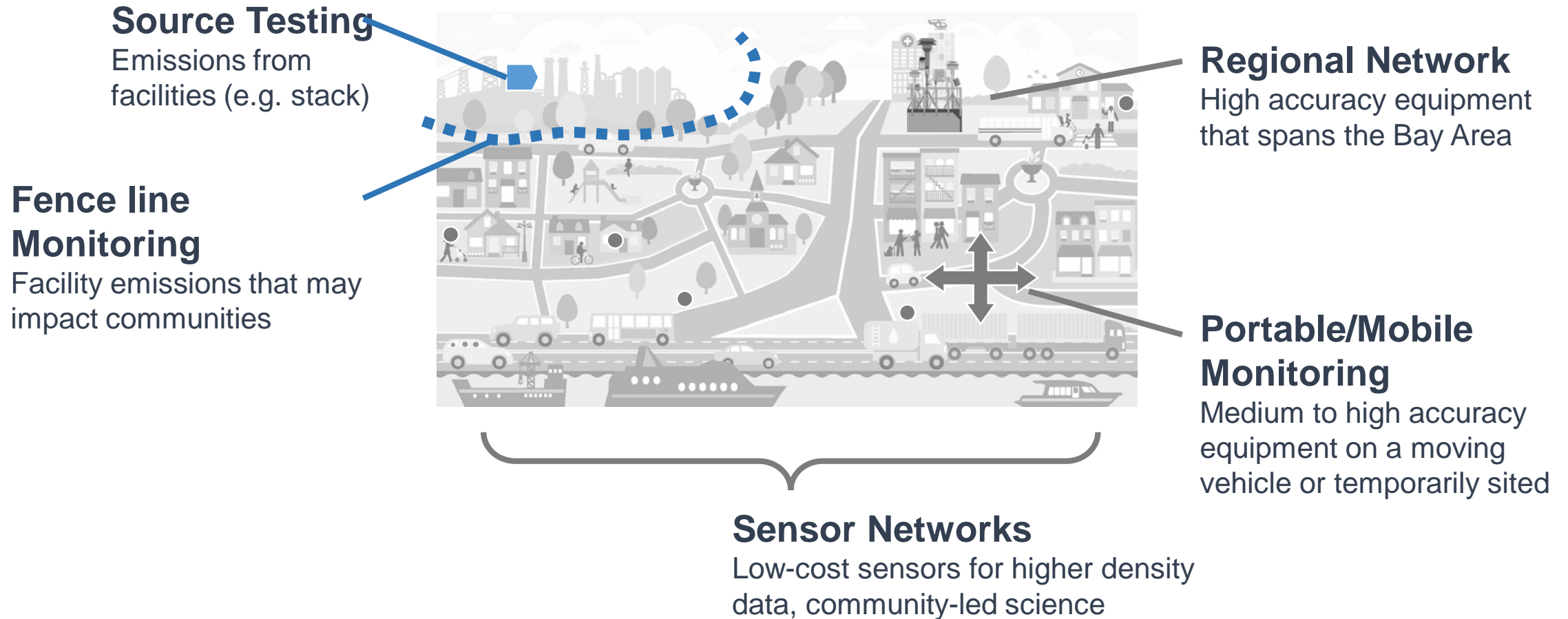
**Elaine Ko  
Supervising Air Quality Engineer  
Meteorology and Measurement Division**

# Source Testing: Measuring Emissions from Bay Area Industrial Facilities



## Facilities

## Communities



# Source Test 101: Presentation Overview



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Types of facilities and number of tests

---

Testing methods and data review

---

How is data used

---

Key projects

---

Research new technologies



# Source Categories and Number of Tests\* Conducted (2019)

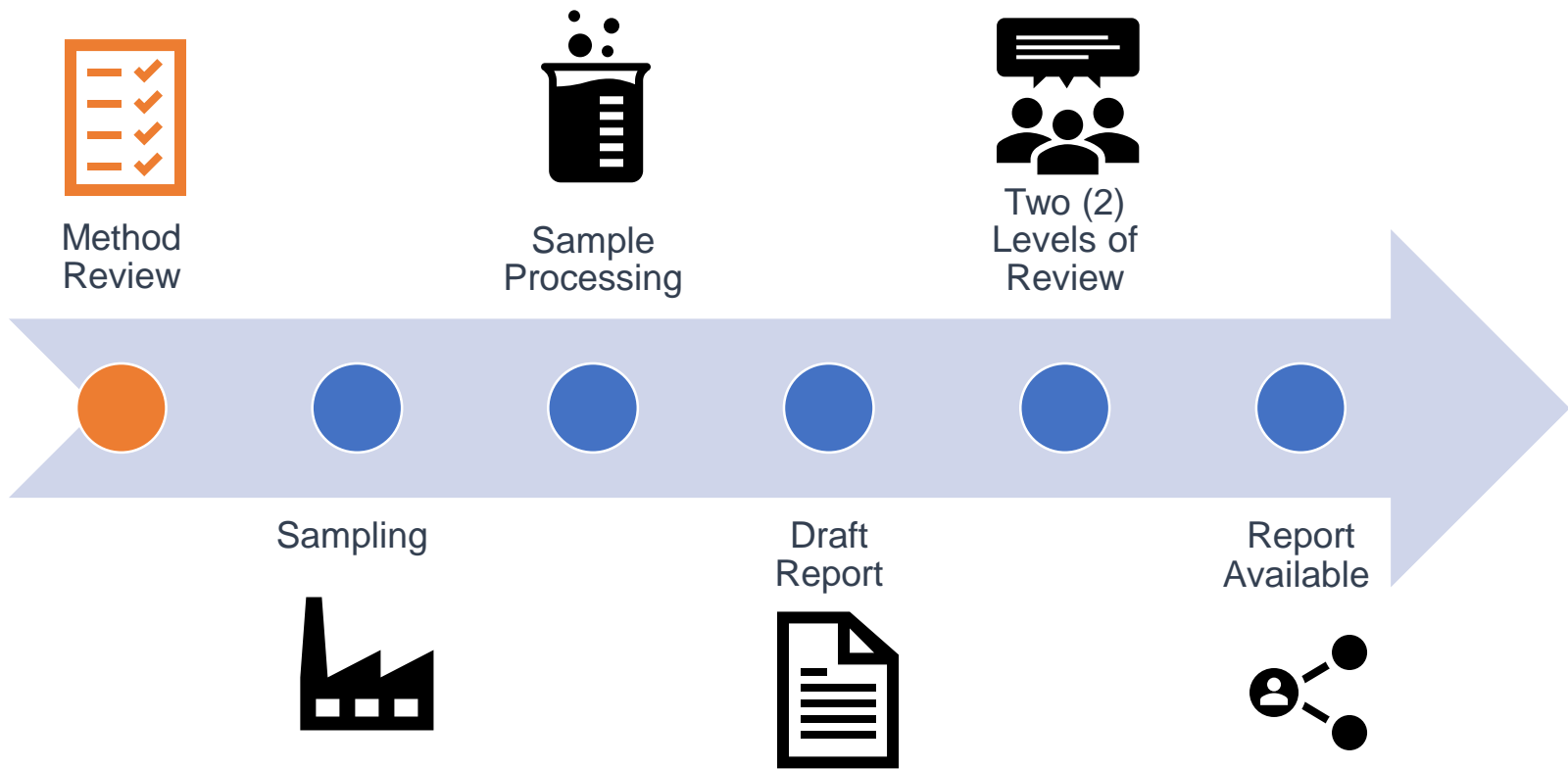


	Conducted by Staff	Reviewed by Staff**
<b>Refineries</b>	32	190
<b>Power plants</b>	3	16
<b>Cement/asphalt/concrete production</b>	2	19
<b>Landfills/compost facilities</b>	8	33
<b>Wastewater treatment plants</b>	20	24
<b>Bulk terminals</b>	34	10
<b>Cargo tanks</b>	233	0
<b>Gasoline dispensing facilities</b>	69	2,730
<b>Other</b>	11	127

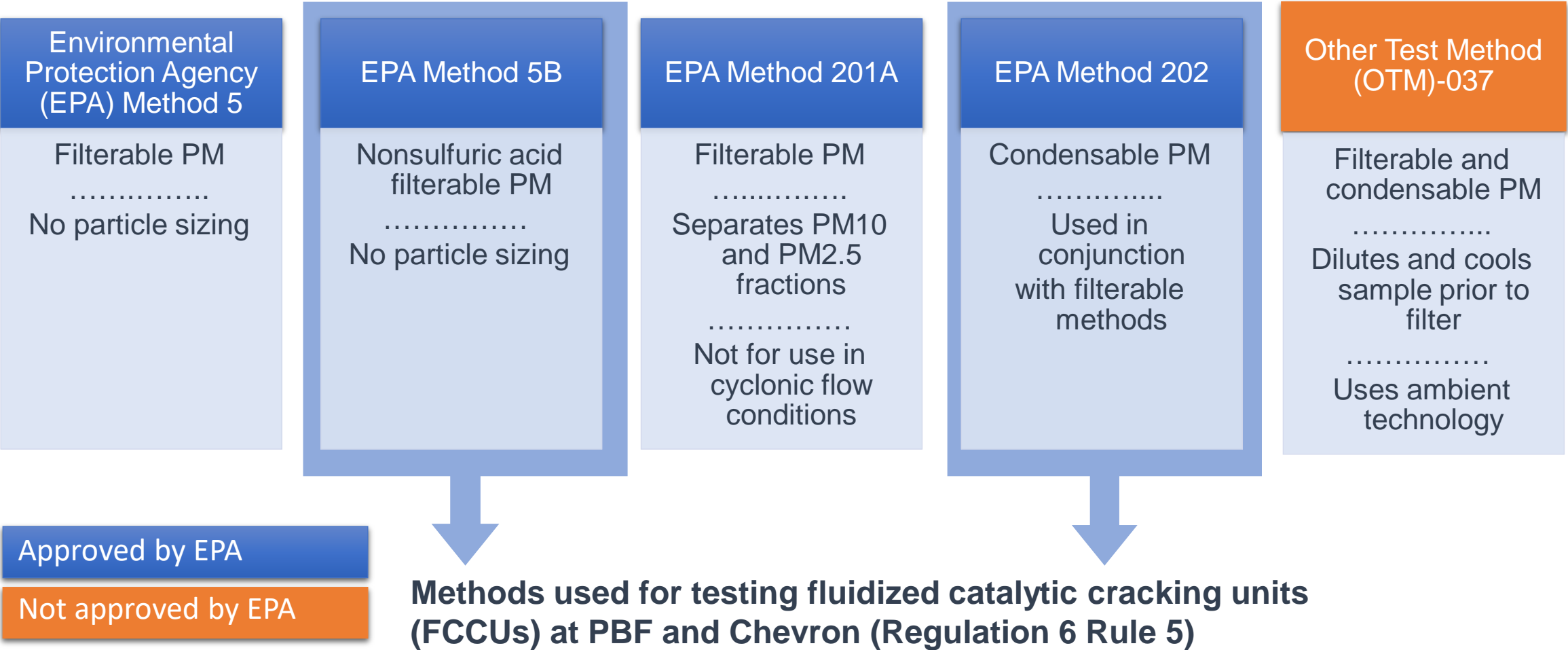
\* Each test in the table includes multiple compounds

\*\* Ensure third party protocol, testing, quality control, and quality assurance meets standards

# Source Testing Process

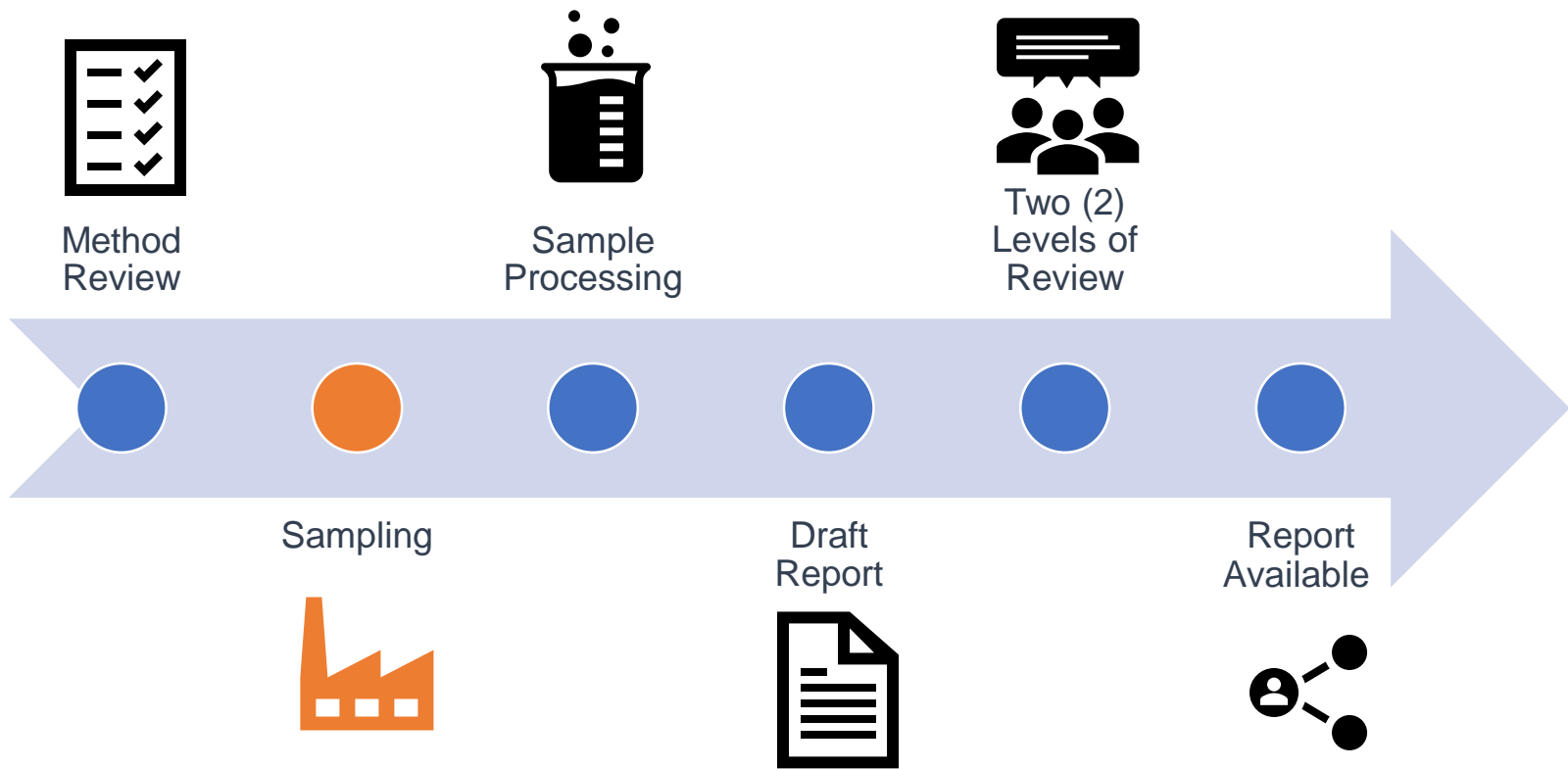


# Example Method Review: Particulate Matter (PM) Methods





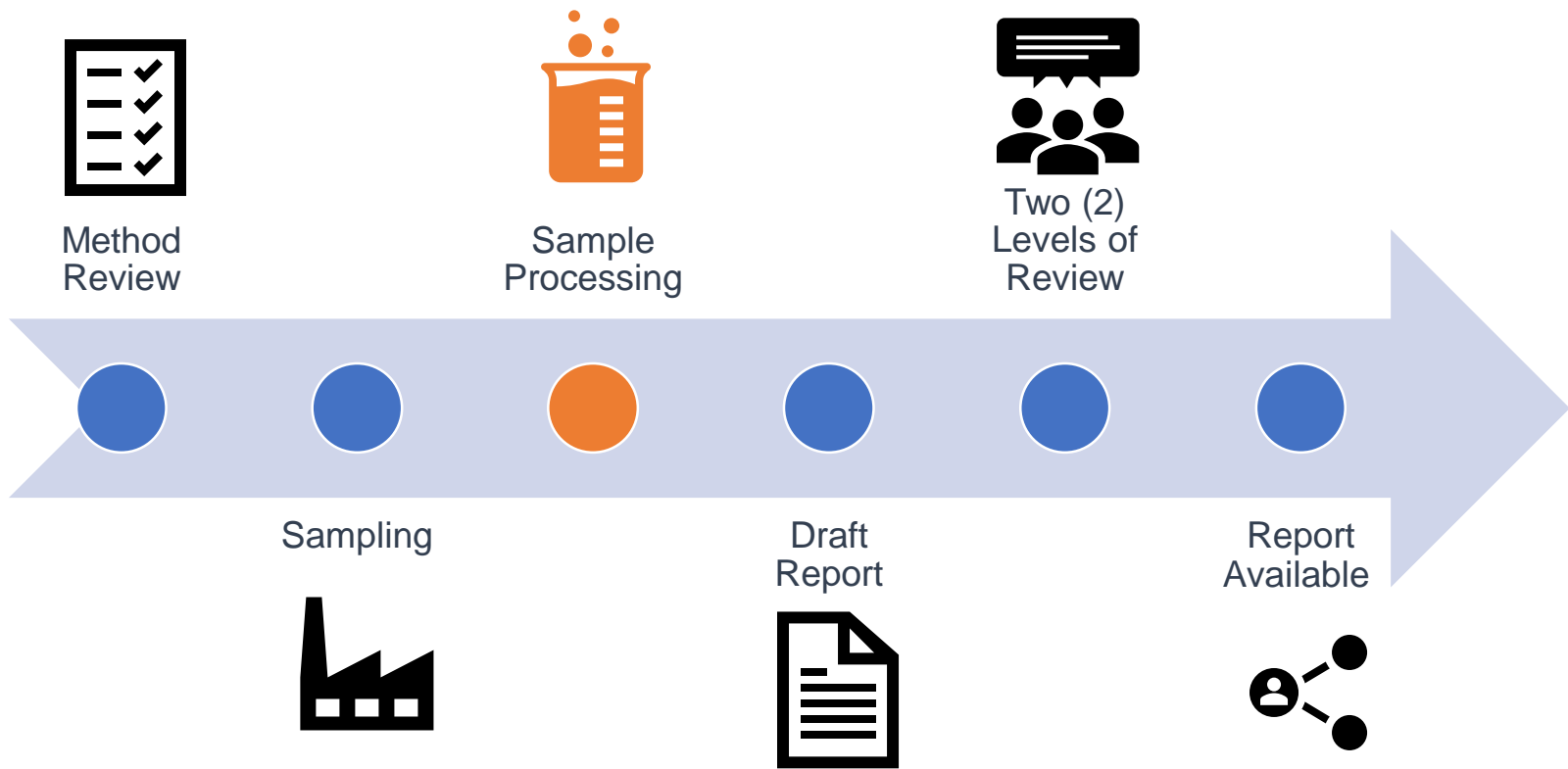
# Source Testing Process



# Sampling



# Source Testing Process



# Sample Processing and Analysis



## Examples:

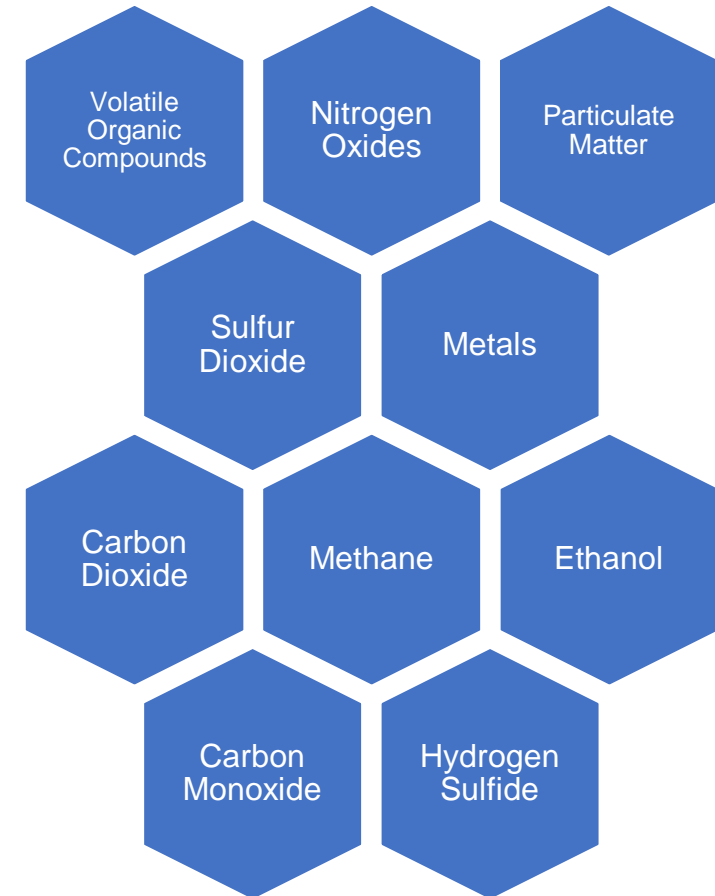
Analysis of landfill and wastewater treatment plant gas

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Determination of particulate matter on filter and in glassware through use of chemical extraction and weighing

.....

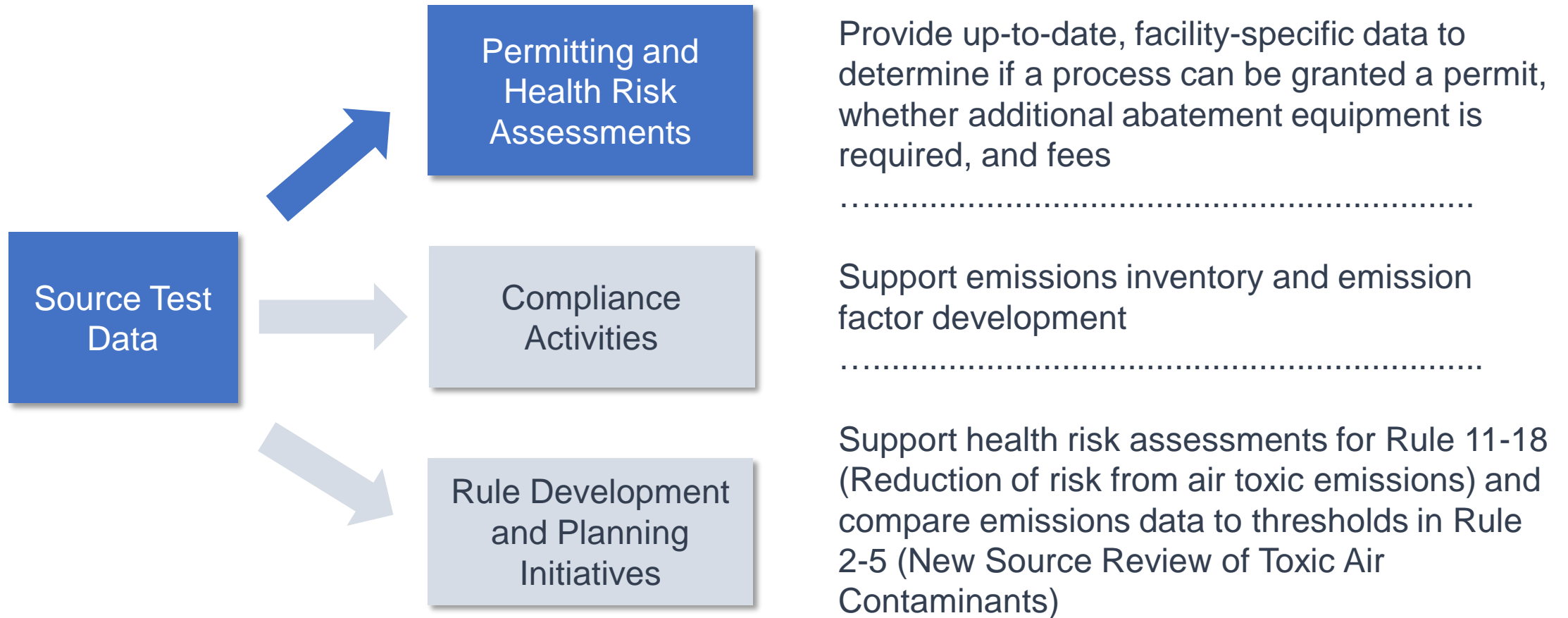
Measurement of volatile organic compounds (VOCs) coming from coatings at can plants



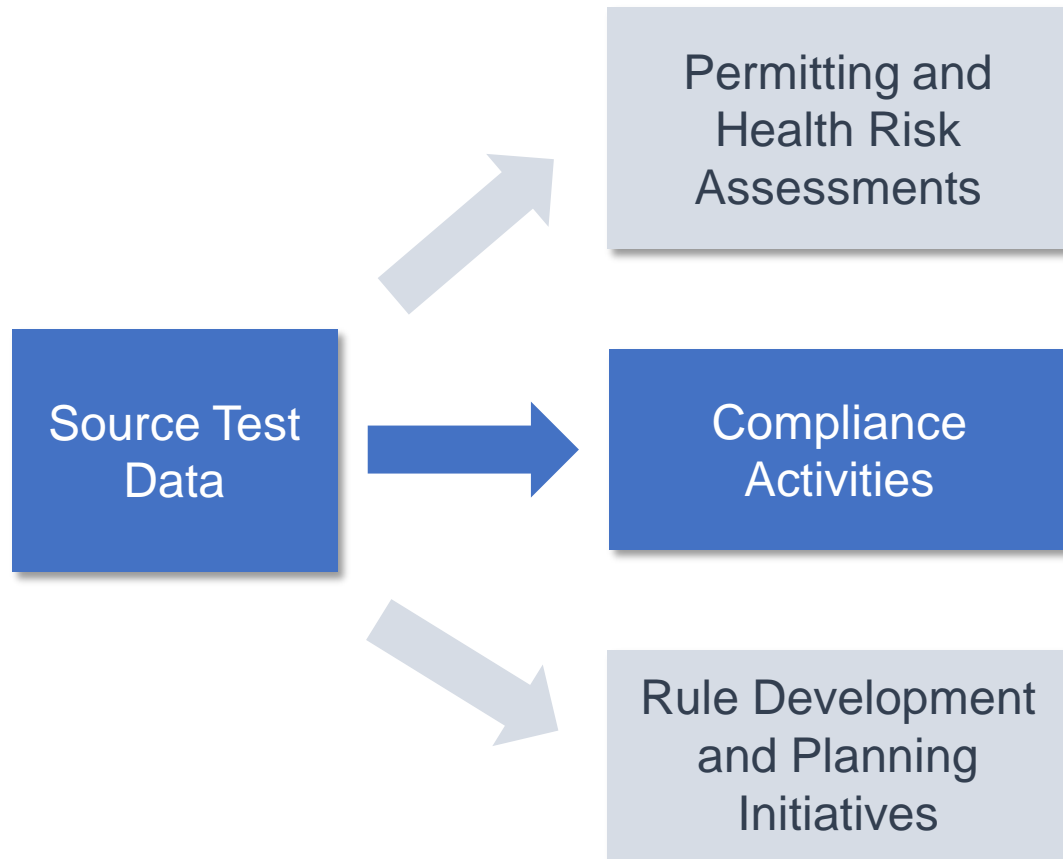
# Source Testing Process



# How is Source Test Data Used



# How is Source Test Data Used



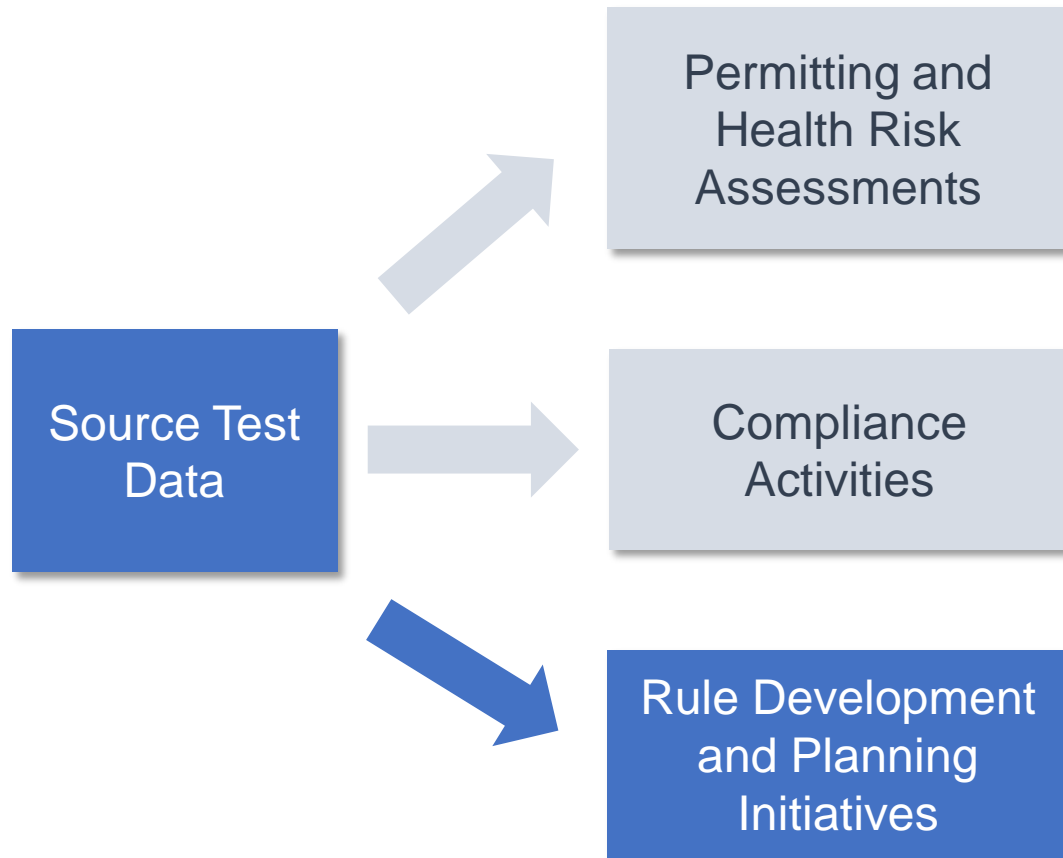
Evaluate emissions test results to compare to permit and regulation limits

.....

Provide defensible data for compliance and enforcement activities



# How is Source Test Data Used



Conduct testing to provide data to rule development and planning

.....  
Provide technical input on relevance of existing testing data and feasibility of rule development

.....  
Support improvements in computer modeling of exposure and health risk

.....  
Current projects

- Rule 6-5 – PM testing at refinery Fluidized Catalytic Cracking Units (FCCUs)
- Methane emissions from waste management sectors



# Key Projects

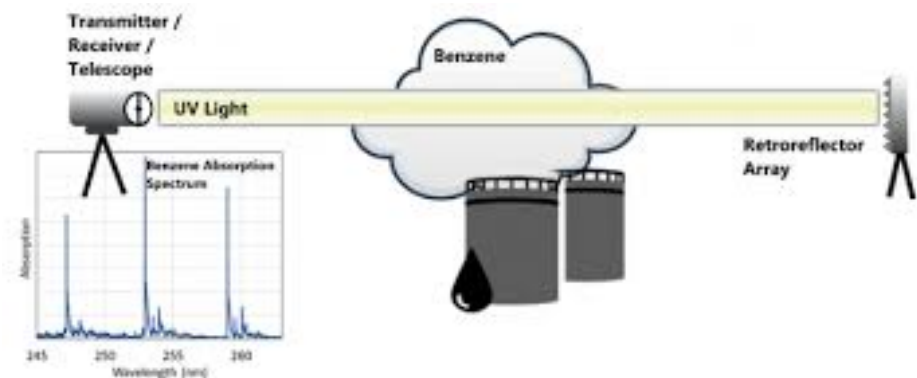


## Fenceline monitoring

Oversee refineries' installation of fenceline monitoring to measure chemicals and emissions (“fugitive emissions”) produced near ground level

Review quality assurance project plans (QAPPs) and approve when they have met criteria for Rule 12-15 ( Petroleum Refining Emissions Tracking)

Interface with instrument vendors and track field testing of new technology



# Key Projects



## Odor study

Measure contribution of odors that can be attributed to 3 South Bay waste facilities

.....  
Measure composition and variability of odors at facility and in community

.....  
Inform actions to reduce odors (best practices, enforcement, rules) and establish methods to measure progress

.....  
Educate community



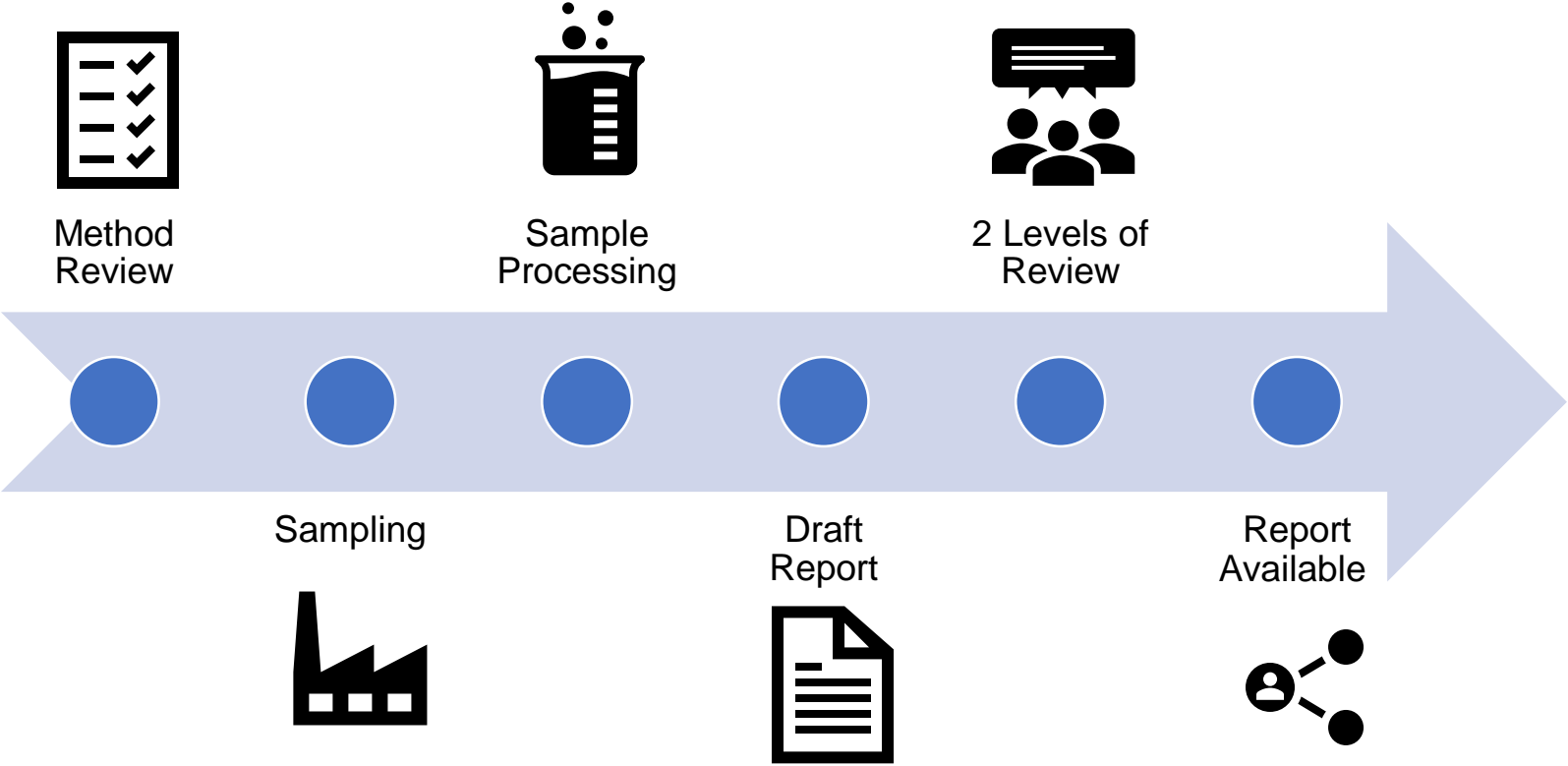
# Research New Technologies



Goals	Technologies Evaluated
Accurate, simple-to-use devices that measures methane	Portable methane monitors
Monitor ammonia continuously, in a way that is comparable to existing point-in-time methods	Ammonia Continuous Emissions Monitors (CEMS)
Sample a wider range of compounds with a single analyzer	Fourier transform infrared spectrometer (FTIR)
Sampling equipment that can be used in area sources like landfills and compost piles	Flux chamber



# Questions?





BAY AREA  
AIR QUALITY  
MANAGEMENT  
DISTRICT

**AGENDA: 21**

# **Update on Bay Area Hyperlocal Air Quality Mapping Project**

**Board of Directors Meeting  
November 18, 2020**

**Ranyee Chiang, Ph.D.  
Director of Meteorology and Measurement**

# Presentation Outline



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Motivation

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Project Scope

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Data Evaluation

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Potential Uses for Data







Presentation from Aclima

David Herzl, CEO and Co-Founder

- Methodology and tools
- Status update
- Data access

# Hyperlocal Air Quality Mapping Complements Other Bay Area Monitoring Efforts



	Accuracy	Geographical Coverage	Time	Goals
 <b>Regional Monitoring Network</b>	High	33 sites	Continuous, hourly, near-real time, etc.	Regional air quality, National Ambient Air Quality Standards
 <b>Mobile and Portable Monitoring</b>	High	Communities of concern	Short-term studies	Investigate concerns identified by communities
 <b>Hyperlocal Mapping</b>	Medium	All publicly-accessible streets	Annual average	Identify hotspots for further investigation
 <b>Sensor Networks</b>	Low	Dense network	Continuous, real-time	Trends in air quality over time and space, Personal decision-making

# Goals of Aclima Project



- Determine air quality impacts at a highly localized scale (block-by-block) for all communities in the Bay Area
- Identify “hotspots” and areas for further study
- Strengthen partnerships with communities around air quality concerns and data-driven actions to reduce emissions



# Project Scope



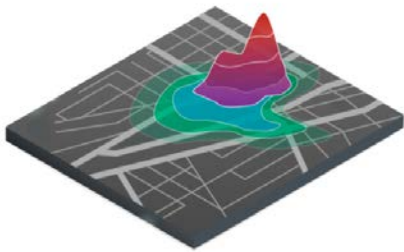
## Customized, high-grade sensor systems measuring:

- Particulate Matter (PM<sub>2.5</sub>), Ozone (O<sub>3</sub>), Nitrogen Oxide (NO and NO<sub>2</sub>), Carbon Dioxide (CO, and CO<sub>2</sub>)



## Drive the entire Bay Area

- Bay Area-wide baseline for annual average pollutant concentrations



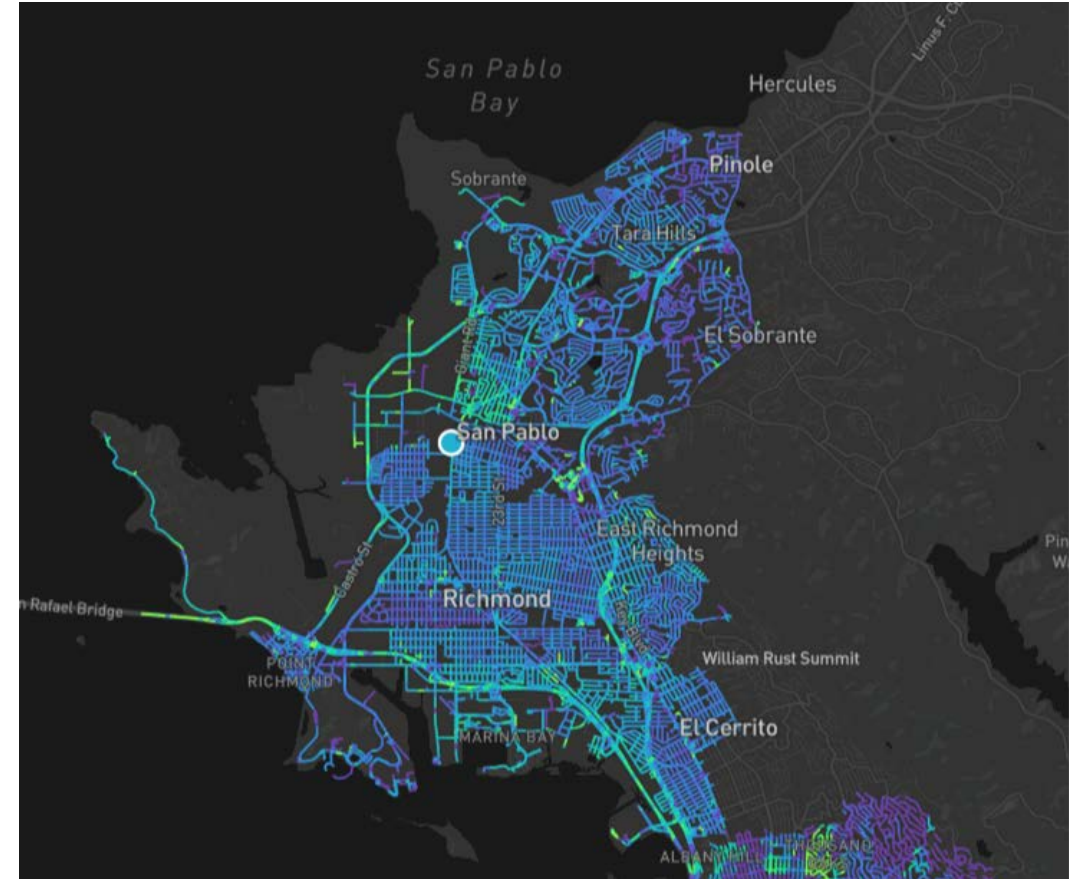
## Analytics and data portal

- Website presents the information in an easily understood format that incorporates community input
- <https://insights.aclima.io/>
- Aclima Pro for advanced visualization and analytics

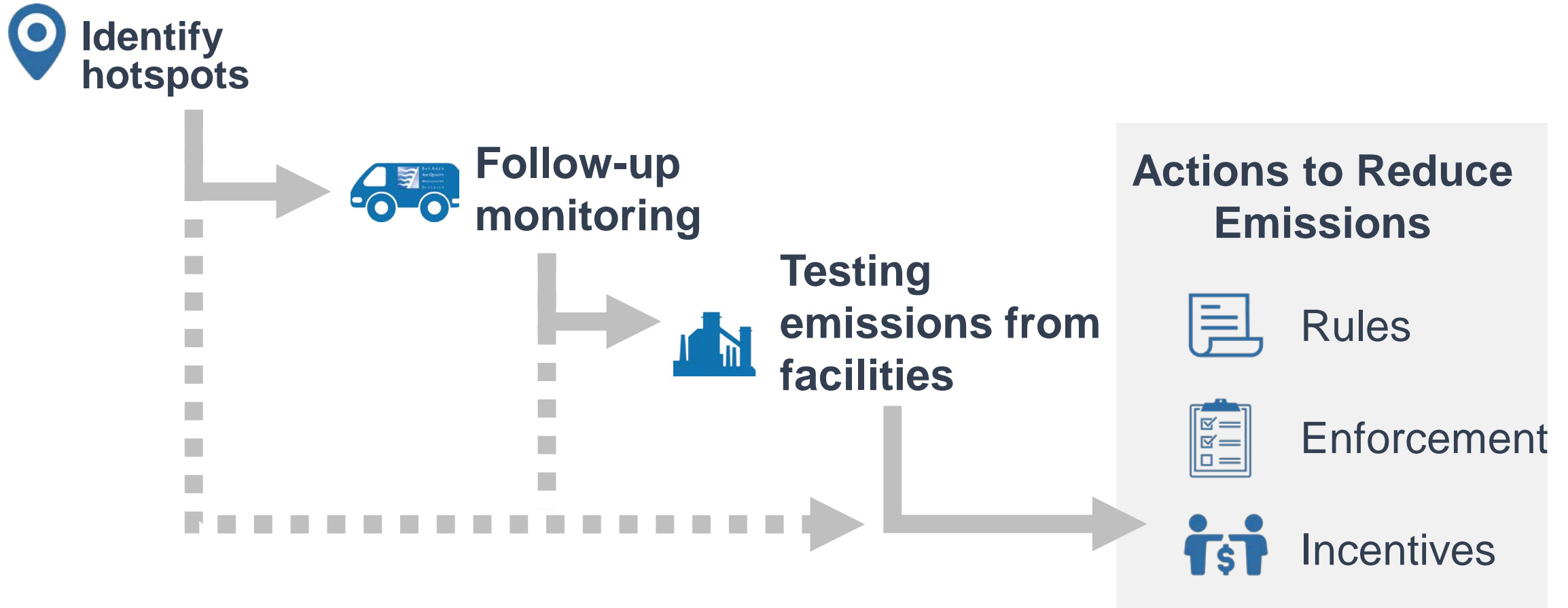
# Data Evaluation by Air District and Aclima



- Sensor collocation at Air District monitoring stations to ensure data accuracy
- Development of data visualization and analysis tools
- Reviewing driving coverage (geographic and time), potential biases, metrics, uncertainty
- Reviewing impacts of shelter-in-place and wildfires on data



# Potential Uses and Actions from Data



# Presentation from Aclima



**David Herzl, CEO and Co-Founder**

**Presentation will include:**

- Methodology and tools
- Status update
- Data access