

# Statewide Mobile Monitoring Initiative (SMMI): Frequently Asked Questions

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# Introduction and Background

## What is SMMI?

SMMI stands for the Statewide Mobile Monitoring Initiative. SMMI is designed to attain a comprehensive dataset of criteria pollutants, toxic air contaminants, and greenhouse gases, create a data portal for public to access and visualize SMMI data, and conduct inclusive community engagement to better understand and address community concerns. This project provides an opportunity to complement AB 617 statewide air monitoring activities by engaging communities beyond those currently selected under the Community Air Protection Program, providing data to fill air monitoring gaps and support additional actions to reduce emissions and exposure. It is intended to provide valuable information to increase understanding of current air pollutant concentrations measured in a subset of communities across the state (e.g., [AB 617 Consistently Nominated Communities](#)). Data will support focused community and agency action, such as identifying areas of concern to help prioritize locations for more comprehensive community-scale air monitoring. In addition, SMMI will help CARB learn more about mobile monitoring techniques that may be suitable for future monitoring projects.

## How is SMMI funded?

SMMI is part of California Climate Investments, a statewide initiative that puts billions of Cap-and-Trade dollars to work reducing greenhouse gas emissions, strengthening the economy, and improving public health and the environment - particularly in disadvantaged communities. CARB received \$27M through legislative appropriation in the Budget Act of 2022 for SMMI ([CARB Statewide Mobile Monitoring Initiative Expenditure Record](#)).

## What does the scope of work for this project include?

SMMI includes 7 main tasks:

- Task 1 – Hold a virtual public kickoff meeting.
- Task 2 – Form Project Expert Group (PEG) to guide and steer SMMI.
- Task 3 – Develop a community engagement plan in collaboration with the PEG.
- Task 4 – Design Community Air Monitoring Plans (CAMPs).
- Task 5 – Conduct mobile monitoring.
- Task 6 – Data reporting and visualization.
- Task 7 – Project wrap-up and final virtual public meeting to conclude the project, present findings, and explore follow-up activities.

## Where can I find information on SMMI?

As the project gets underway, CARB will continue to provide up-to-date information on [CARB's SMMI website](#). This website includes background information, documents (such as the SMMI RFP and Aclima's technical proposal), and links to Aclima's public website materials.

## Contractor Selection

### Who is the contractor and how were they selected?

CARB awarded Aclima, Inc a \$26.88 million contract to carry out SMMI through a competitive solicitation process called a Request for Proposal (RFP). Aclima is a California Public Benefit Corporation that specializes in hyperlocal air quality mapping and analysis. All SMMI RFP materials are available on [CaleProcure](#). The contractor responded to the RFP by submitting a technical proposal, which is available on CARB's SMMI website. The contractor was selected by an evaluation committee through a rigorous evaluation process against the minimum qualifications and technical evaluation criteria established in the RFP.

### How was the RFP designed and what technical requirements were in the RFP?

The RFP was designed based on information collected through a Request for Information (RFI) and air quality concerns from overburdened communities. The RFP considered the availability of monitoring technologies and challenges to address air quality, toxic, and climate issues. Example air pollutants, emission sources, and monitoring areas were listed in the RFP, which CARB compiled through community engagement, data collected by CARB's monitoring networks, and scientific literature. The priorities in the RFP were designed to leverage the strengths of mobile monitoring to focus on screening for potential sources that can lead to follow-up monitoring and action.

Explicit scoring criteria were included in the RFP to guide selection of a proposal that was the most technically qualified. Proposers were required to meet the following minimum technical requirements to score full points:

- Identifies approach to apply existing platforms and capabilities that meets specified RFP mobile monitoring definition.
- Identifies pollutants that can be measured and provides a comprehensive justification of the utility of the selected pollutants.
- Maximizes benefits to priority populations and discusses spatial coverage that can be accomplished.
- Provides justification for prioritization of certain locations based on anticipated sources of concern, pollution burden, demographics, and priority population designation.

Proposers' monitoring capabilities were also required to achieve or exceed the following (to score maximum points):

- Ability to measure pollutants classified as criteria, greenhouse gases, and air toxics.
- Proposed methods have pollutant-specific Limits of Detection (LoDs) adequate for measuring near ambient concentrations typical in California.
- Ability to quantify localized pollutant concentration enhancements, both temporally and spatially.
- A minimum of 3 complete mobile monitoring platforms that can be employed for this project.

- Ability to conduct monitoring outside of standard business hours (Monday through Friday, 6 p.m. to 8 a.m. and weekends).

### What was the timeline for SMMI development and contractor selection?

Date	Deliverable
<b>2023</b>	
September 18	Budget Bill Jr. signed
September 20	Request for Information (RFI) and air quality concerns survey released
October 6	Last day to submit RFI questions
October 16	Release of answers addendum
November 16	RFI response due date ( <i>18 responses received</i> )
November 16 - January 22	Complete scope of work with information from RFI
<b>2024</b>	
January 22	Request for Proposal (RFP) available to prospective proposers
February 12	RFP questions submittal deadline
February 20	Questions and answers addendum posted
March 18	Final date for proposal submission to CARB ( <i>3 proposals received</i> )
March 18 - April 5	Proposal evaluation
April 5	Posting of intent to award notice ( <i>Aclima, Inc.</i> )
April 16	Agreement sent to successful proposer; AB 106 signed by the Governor and chaptered (Chapter 9, Statutes of 2024) to fix SMMI encumbrance and liquidation dates
April 24	Signed agreement returned to CARB for countersignature
May 3	Agreement submitted for processing
May 20	Anticipated date for agreement approval and execution
June 14	Agreement approved and executed

## Mobile Monitoring

### What are the overarching monitoring objectives of SMMI?

The two primary monitoring objectives are 1) to identify or confirm emissions from sources of concern and 2) identify areas overburdened by specific pollutants or sources. Other monitoring objectives will also be considered if they are raised during the community engagement.

### **Who will be responsible for SMMI mobile monitoring?**

Aclima, Inc. and their subcontractors will conduct tasks specified in the RFP, such as community engagement, mobile monitoring, data management, and data analysis and visualization. The CARB SMMI project team will oversee implementation of the contract.

### **Where will mobile monitoring take place?**

The contractor is required to conduct at least 60% of monitoring to benefit [California Climate Investments Priority Populations](#). Aclima has proposed to carry out mobile monitoring in the [64 consistently nominated AB 617 communities](#). Specific monitoring areas will be determined through a community engagement process and documented in community air monitoring plans.

### **What are Aclima's monitoring capabilities and capacity?**

Aclima will work with its subcontractors (UC Berkeley, UC Riverside, and Aerodyne) to conduct mobile monitoring using 42 mobile platforms and 3 mobile laboratories. The mobile laboratories will be operated by subcontractors. Aclima mobile platforms will focus on criteria pollutants, methane, ethane, and black carbon with primary objectives to identify local sources and determine the areas impacted by these sources. Partner mobile laboratories are equipped with the state-of-the-art instrumentation (e.g., proton transfer reaction mass spectrometry (PTR-MS)) to provide comprehensive analysis of air toxic contaminants (e.g., BTEX).

Mobile monitoring will start with a broad area monitoring strategy, through which Aclima will conduct mobile monitoring in communities using its 42 platforms to identify sources of concerns, then direct partner mobile laboratories to these areas to conduct comprehensive chemical analysis of air pollutants. The partner mobile laboratories will also be deployed to areas identified during community engagement. The Aclima platforms measure criteria pollutants and surrogates for air toxic contaminants. The partner mobile laboratories are capable of speciation analysis of air contaminants (e.g., benzene and formaldehyde). Mobile monitoring will be planned to capture representative air pollutants in each community to achieve monitoring objectives. For more information, please see Aclima's technical proposal.

### **What air pollutants will be monitored?**

The list of pollutants proposed to be monitored includes criteria pollutants, toxic air contaminants, and greenhouse gases. The air pollutants include Particulate Matter (PM<sub>2.5</sub> & PM<sub>10</sub>), Black Carbon (BC, surrogate for diesel PM), Ozone (O<sub>3</sub>), Carbon Monoxide (CO), Carbon Dioxide (CO<sub>2</sub>), Nitrogen Oxides (NO & NO<sub>2</sub>), Methane (CH<sub>4</sub>), Hydrogen Sulfide (H<sub>2</sub>S), Benzene, Toluene, Ethyl Benzene, Xylenes (BTEX), Formaldehyde, Acrolein, Ethylene Oxide, 1,3-Butadiene, Carbonyls, Polycyclic Aromatic Hydrocarbons (PAHs), Metals, and Methyl bromide.

### **When will monitoring occur?**

The monitoring coverage is proposed to occur simultaneously across all communities for up to 9 months, with a projected start date during the second quarter, 2025. Monitoring will include

coverage across all days of the week and times of day, including within and outside of standard business hours.

### **What methods will be employed to meet monitoring objectives?**

Mobile monitoring will be carried out following the community air monitoring plan(s) developed in collaboration with the PEG and community members. Mobile monitoring will be conducted through a mixed fleet strategy:

1) Broad area monitoring: Aclima Mobile Platforms (AMP) will conduct up to 9 months of monitoring time in each community with an average of 20 repeat measurements distributed across all residential and major roads to provide adequate coverage throughout the monitoring areas. The Aclima fleet is suited to temporal characterization due to the ability to drive around-the-clock and can also be used for spatial characterization for source types or proxies supported by Aclima's core pollution measurement suite.

2) Targeted area monitoring: Partner Mobile Labs (PML) UC Berkeley, UC Riverside, and Aerodyne will focus on detailed chemical speciation around locations of concern and exploration of the spatial impact of those pollutants. The assignment of a particular target area to the AMP fleet versus a PML will largely be determined by the source of concern and the suite of pollutants necessary to characterize the source.

A quality assurance project plan and standard operating procedures will be developed to ensure data quality throughout the duration of monitoring.

### **What types of sources might be monitored?**

Target source types are anticipated to include:

- Oil and Gas Extraction, Production, and Distribution (subset of pollutants of concern: BTEX, PAHs, 1,3 butadiene)
- Metalworking and finishing (subset of pollutants of concern: metals, acrolein, 1,3-butadiene, BTEX, arsenic)
- Warehouses and distribution centers, ports, and railyards, especially those with high volumes of heavy duty trucking associated (subset of pollutants of concern: diesel PM, PAHs, BTEX, acrolein, 1,3-butadiene, carbonyls)
- Airports (subset of pollutants of concern: acrolein, 1,3-butadiene, carbonyls, diesel PM, BTEX, formaldehyde)
- Cement plants and mineral processing facilities (subset of pollutant of concern: arsenic and other metals)
- Sterilization facilities and commodity fumigators (subset of pollutant of concern: ethylene oxide)
- Chemical manufacturing (subset of pollutants of concern: BTEX, PAHs, 1,3-butadiene, ethylene oxide, carbonyls, formaldehyde)

## How will source types be prioritized?

Initial prioritization will be based on (in no particular order of importance):

- The most common source types from community concerns
- Pollutants known or suspected to be associated with the highest health risk in California (e.g. OEHHA health guidance values, SCAQMD MATES studies)
- [CARB's Air Toxics "Hot Spots" Emissions Inventory](#)
- Other relevant data sources such as criteria pollutant and greenhouse gas emissions, enforcement data (e.g. EPA ECHO, nuisance odors, and/or population density)
- [CalEnviroScreen 4.0](#) scores
- Monitoring capabilities

## Community Participation and Engagement

### How can community members participate in SMMI?

There are several ways community members can participate in SMMI. Community members can attend community engagement meetings and share their concerns and suggestions during the meetings, fill out the [community air quality concerns survey](#), and send any thoughts and concerns to [SMMI@arb.ca.gov](mailto:SMMI@arb.ca.gov) or to other contacts shared during public meetings. The project will follow a co-leadership community engagement model, and community representatives will serve as co-leads throughout the duration of SMMI and as members of the project expert group (PEG). The community engagement plan and CAMPs will be developed in collaboration with the PEG and community members. All CAMPs will be subject to public review and comment, and analyses and visualizations will be designed with community input to ensure the data are easily accessible and useful. Also, Aclima will provide local job opportunities by hiring community members to drive mobile platforms.

### How will community engagement be carried out during SMMI?

Aclima will work with their subcontractor, community engagement specialists Kearns & West, to carry out community engagement. Community engagement will be guided by the community engagement plan, which will be developed by working with the Project Expert Group (PEG) and community co-leads.

### Who will be included in the Project Expert Group?

The Project Expert Group (PEG) will be a diverse and inclusive group, consisting of community experts (e.g. members of community-based organizations (CBOs)), community leaders, researchers, air districts, state and government agency staff, businesses. It is anticipated that the PEG will include 15-17 members with over 50% of members directly representing the CAPP CNCs. PEG members will be compensated for the expertise and knowledge they provide. The group will meet at least 4 times per year and the members of the PEG will be released once the group is

formed. A PEG registration form, along with membership selection criteria, will be available on the CARB SMMI website when finalized.

## Data and Results

### **What are the data reporting requirements?**

The contractor must provide CARB mobile monitoring data in discrete monthly intervals beginning 4 months after monitoring has commenced. CARB will receive all raw and finalized monitoring data. The State of California will own all data associated with this project in perpetuity with no use limitations and the data will remain in the public domain to maintain transparency. The contract also requires high-level description of data processing (without violating the contractor's confidential business information and intellectual property) is also required. Finalized data is defined as data in its reportable and stored format that has undergone quality assurance and quality control procedures prior to any aggregation for public visualization.

### **How will communities and the public access data?**

Aclima will set up an online data portal for the public to access monitoring data. Interactive visualizations using ESRI and supportive analyses (such as diesel proxies, toxic air contaminant hotspots, and natural gas leaks) will be accessible to communities to help them identify and verify potential sources of concern. Aclima and CARB will work with communities and the PEG to identify the most valuable mobile monitoring data visualizations to communicate results to the public and in support of subsequent actions to reduce emissions.

### **What actions do we expect from SMMI?**

SMMI is intended to generate a high-quality dataset that can be used to support many potential actions. Community engagement and continued discussions with air districts and divisions within CARB will be conducted to best leverage SMMI data.

Potential actions may include:

- ✓ Identify fugitive emissions (e.g., pipeline leaks)
- ✓ Support community emission reduction plan development and upcoming rulemaking activities
- ✓ Inform future monitoring (e.g., community air grant funded monitoring, follow-up mobile monitoring)
- ✓ Notify relevant entities of air pollution emergencies