

City of Sacramento and Sac Metro Air District Portable Air Monitor Project FAQ

December 2022

Why was this project initiated and what does it entail?

In October 2021, the Sacramento Metropolitan Air Quality Management District (Sac Metro Air District) and the City of Sacramento partnered on a new air quality project to provide real-time local air quality information in underserved communities. The project is supported by a one-time investment of the Sacramento City Council to advance the City's near-term climate action priorities, as outlined in the [2021 Climate Implementation Work Plan](#).

The Sac Metro Air District will distribute 100 free portable air quality sensors to eligible residents and businesses in low-income and underserved communities that may be disproportionately affected by air pollution, as well as schools within the city. Once sensors have been deployed and activated, data will be available to the public through an online portal. Community members will be able to use this air quality information to help determine their daily activities.

You can learn more about the project at <http://www.cityofsacramento.org/air-quality>

What are portable air sensors and what type of sensor is part of this project?

Portable air sensors are small devices that measure particulate matter (PM) in the air. These devices can be easily installed outside residences, businesses, and schools to help increase real-time air quality data in the city of Sacramento. For this project, PurpleAir PA-II portable air sensors will be deployed.

How are portable air sensors different than monitoring stations?

The Sac Metro Air District has several monitoring stations across the region that provide regional air quality data. Distributing portable air quality sensors will increase the amount of available air quality data and provide residents with information they can use to make decisions about everyday activities to protect their families' health from air pollution.

How accurate are portable air sensors?

Portable air sensors vary in their accuracy by manufacturer, but overall, are a useful tool to gauge general air quality. The South Coast Air Quality Management District (South Coast AQMD) provides information about their performance here: <http://www.aqmd.gov/aq-spec>

How much do portable air sensors cost?

If you are selected to become a sensor recipient for this project, you will receive a PurpleAir PA-II sensor free of charge. For residents wishing to purchase a portable sensor, South Coast AQMD has compiled helpful information on sensors available for purchase here: <http://www.aqmd.gov/aq-spec>. Please refer to each specific manufactures' website for pricing information.

What do you need to install the sensor?

Depending on the installation option you chose you will need:

- One screw or two zip ties
- Drill or screwdriver (unless using zip ties)
- Ladder (recommended installation height is 12-15 feet above ground)
- WiFi enabled device (laptop, tablet, or smartphone) and WiFi password
- Outdoor power source to connect the sensor

How much electricity does the PurpleAir sensor use in a year? How expensive is that?

It costs approximately \$1-2 to power the device for a year based on current electricity costs.

What does the PurpleAir sensor look like?

The below photos show the PurpleAir sensors that will be deployed. The City of Sacramento will make a PurpleAir PA-II sensor available for viewing at future community events.



Photo Credit: PurpleAir


What information do PurpleAir sensors collect?

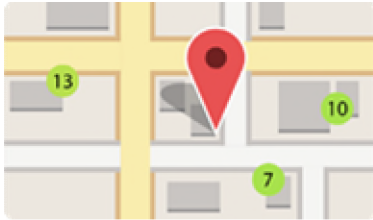
PurpleAir PA-II sensors can measure particulate matter (PM), temperature, relative humidity, and air pressure. PurpleAir PA-II sensors do not have cameras or microphones, and do not collect personal information, to protect privacy at the installation location.

Where can I access the data and how is the data displayed?

Air quality data from portable sensors is automatically uploaded to a publicly available online portal established by PurpleAir at <https://map.purpleair.com>. The data also appears on the EPA's AirNow Fire and Smoke Map at <https://fire.airnow.gov>.

During the initial installation of the PurpleAir sensor at your residence/business, you must make the data public, specify the location of the sensor by choosing a location for the *Map Marker*, and provide a publicly visible name for the sensor. The location and sensor name will be visible to the public but will not include an address. When naming your sensor, it is advised to use a general name like a street or intersection name.

To select a location for the PurpleAir *Map Marker*, drag and drop the red marker  on the map. You may place the marker at the nearest intersection or in the middle of your street. This will allow for privacy while maintaining data integrity.



Does the PurpleAir Map show indoor or outdoor sensors?

Yes, the PurpleAir map shows both indoor and outdoor sensors. Indoor sensors are displayed with a bold black outline and outdoor sensors are not. You can filter the map to only show outdoor sensors. You can learn more about the PurpleAir map at: [Map Start-up Guide - Real-Time Map - PurpleAir Community](#)

Are the PurpleAir sensors for this project indoor or outdoor sensors?

For this project, we are deploying PurpleAir PA-II Sensors that must be installed outdoors.

What's the difference between the owner's email and the associated email? How do I use my email login to access PurpleAir Map?

The owner of the sensor usually has physical possession of the sensor. The owner's email may be the same as or different from the associated email. The owner's email can be any email address but must be a Google account if you want to be able to login to the PurpleAir Real-time Map and use the "Show My Sensors" checkbox. Once the owner's email is set, you must contact PurpleAir if you'd like to change it. In contrast, the associated email is the email address used by the buyer to complete the purchase of the sensor and is used to authenticate the registration attempt.

How can I apply to be a sensor recipient and receive a PurpleAir PA-II sensor?

You can apply to be a sensor recipient for this project by filling out the Application/Agreement: <https://sacramentoaqmd.seamlessdocs.com/f/PortableSensorRecipientApplicationAgreement>

The application also can be accessed using this QR Code:



The application will remain open until all sensors have been allocated. Residents and businesses that apply by January 6, 2023, will be notified in mid-to late- January 2023 if they have been selected. Subsequent awards will be made monthly until there are no remaining sensors.

What criteria is used to select sensor recipients for this project?

For this project, the goal is to increase air monitoring data throughout in the city of Sacramento. Priority will be given to residents and businesses located within a high-need and/or underserved community within the city that currently lacks air quality monitoring.

How long do I need to support the project and make the sensor data public?

If selected to become a sensor recipient, you must agree to support the project by installing and making the sensor data public for a minimum of two years.

How will I receive my PurpleAir PA-II sensor if I am selected to be a sensor recipient?

If you are selected to become a sensor recipient, the Sac Metro Air District will mail the sensor to your mailing address at no cost to you.

How can I use this data to make informed decisions?

The Sac Metro Air District has developed [Air Quality Action Charts](#) that can help residents make decisions about their daily activities and protect themselves from air pollution. Visit the Sac Metro Air District's [Wildfire Smoke Information](#) page to learn more.

Do I need to be a property owner to receive a sensor?

You do not need to be a property owner to apply to receive a sensor. However, you must occupy the sensor location (either as a resident or business) at the time of applying for a PurpleAir sensor, and believe to the best of your knowledge, that you will be there for at least two years.