



Welcome to the first Lehigh Valley Breathes project update! Because our project will require a year of data collection followed by several months of analysis before we can provide a final report, we decided to keep you informed on our progress as we work towards cleaner air for all.

In addition to providing monitor information, we'll use these monthly updates to share interim project observations as they come along during the year, additional opportunities for residents to be involved, and pertinent news and information regarding air quality issues of both local and general interest.

First and foremost, we'd like to thank you for the incredible response we received to our invitation to residents to place monitors on their properties and be part of this project. We had over 90 emails in response to our invitation, and from that, we've identified at least 70 possible locations. Since we only have 40 monitors to deploy for the project, we won't need all those sites; however, seeing so many people eager to participate was great.

As you may recall, we need two different kinds of sites for the project. The first type, what we call a priority site, is one that falls within one of the gray/white areas you may have seen on our interactive map. You can find the map [here](#). We've identified these areas in consultation with our particulate matter expert from Carnegie-Mellon that seem most likely to yield high concentrations of particulate matter 2.5 (PM 2.5), the pollutant we're focusing on.

The second type of site is one that is located outside of those priority areas where we expect to find data readings of much lower concentration because they are farther away from the mobile sources of PM 2.5 that we are studying. We need sites that are both rural and urban, close to roads and away from roads. Readings from these sites will be used to set baselines against which to measure readings from priority sites.

All of this requires a good deal of coordination. We expect the final design plan to be complete the week of September 25, 2023.

Monitor Installation

As of September 22, we have ten monitors installed. You can see where they are on the Shiny App, located [here](#). Why, you may ask, only 10? Because monitor siting is both an art and a science. As explained above, we need to carefully balance priority sites with secondary sites. And then, sometimes, the site itself needs a bit of tweaking. Two of the monitors we had already installed needed to be relocated at the site they're in because they were picking up stray readings from non-mobile or non-standard sources. One at a fire company picked up readings from the fire trucks when they left the garage. Another monitor was picking up readings from smoke from a nearby fireplace. They just needed to be repositioned, but that takes time. We expect to have several more installed this week, and we're still on track to have them all up this Fall.

Any Observations?

Not yet, except for those out-of-standard readings from the two sites I mentioned. Once a monitor is installed, we need to keep an eye on it to make sure it's not picking up weird stuff (that's a technical term), as I explained above. As we install more monitors and acquire more data, it will become easier to identify patterns and outliers.

See You Next Month

We'll be back again in October with more updated information. These updates will be posted on this webpage the last week of each month.

If you would prefer to receive the updates by email, you can request to be added to the email list at lvbreathes@gmail.com

Breathe easy!