

Comments on the Community Air Monitoring Plan for the South Sacramento – Florin Community

As of May 8, 2020, the District received the following comments on the draft Community Air Monitoring Plan (CAMP) released in March 2020. The comments listed below are from Steering Committee Members, members of the public, and outside peer-review air quality experts. The District is releasing these comments in an effort to promote transparency, promote dialogue and share information with Steering Committee Members and the public. The comment period for the draft CAMP closed on May 8, 2020. The District is working to create a document that lists all comments with the District's responses and/or updates to the CAMP.

This is only a list of comments and does not include any responses or updates to the plan.

Oral comments received at the April 14, 2020 Steering Committee Meeting

Comment #1: A steering committee member stated that the list of concerns listed in the CAMP Element 3 were out of order. He noted that the concerns started with public outreach and that he thought monitoring should be the primary concern for the monitoring plan. His proposed new ordering was:

1. Emissions from Highway 99 (Currently #2)
2. Emissions impacts from businesses (Currently #4)
3. Increasing rates of asthma and respiratory problems in the community (Currently #3)
4. Need to increase air quality education and outreach efforts (Currently #1)

Comment #2: A steering committee member suggested that the CAMP should contain language that allowed the District to be flexible in how it implements the plan due to unforeseen circumstances. The member noted that the Steering Committee may need similar language to allow flexibility in implementing the CAMP due to COVID-19 and the shelter-in-place order.

Comment #3: A public commenter stated that it would be helpful for Element 3 of the CAMP to categorize health disparities by race and income so racial and wealth equity issues could be addressed.

Comment #4: A public commenter stated that Element 2.2 should note that public comment at Steering Committee meetings was stifled from March to November of 2019.

Comment #5: A public commenter stated that the explicit outreach and education goals were implicit already and that the Steering Committee should consider replacing the outreach and education goal to not be business as usual.

Written comments received via email from Hilary Hafner, Sonoma Technology, Inc. (STI) on April 20, 2020

From: Hilary Hafner <Hilary@sonomatech.com>
Sent: Monday, April 20, 2020 3:41 PM
To: Janice Lam Snyder <JLam@airquality.org>
Cc: Steve Brown <steveb@sonomatech.com>
Subject: Review of CAMP docs

*** THIS EMAIL ORIGINATED OUTSIDE AIRQUALITY.ORG ***

Hi Janice,

Thanks for having us take a look at the CAMP documents. Steve and I had only a few comments. The document is good!

CAMP summary:

I think it is important to have the pollutants and sampling duration/intervals in each Phase.

- P. 2 Phase I: add *NO2 and PM* after Clarity Node monitors
- P. 2 Phase I: Add *ozone* after AQY 1
- P. 2 Phase I: Add that *the low-cost sensors will be hourly or sub-hourly duration.*
- P. 2 Phase II: add continuous *1-hr* monitoring for BC
- P. 2 Phase II: Add *VOC and mini-vol sampling is 24-hr duration, every sixth day.*
- P. 2 Phase III: add in 1-hr duration for BAM, ozone, NOx. 24-hr for carbonyls.
- P. 3 in the table, I recommend putting in the sample duration in parentheses after the word Continuous to be very clear on what interval is being measured.

Full CAMP document

- P. 2-10 low cost sensors. Suggest adding that there is a limited pollutant list for low-cost sensors
- P. 2-11 mobile monitoring. Suggest changing – limited to pollutants than can be ~~continuously~~ monitored at high time resolution (*e.g., on the order of seconds*).
- P. 3-2 concern #3: when *and what type of mask* to wear if air quality is poor.
- P. 4-1 Table 4-2. Suggest adding duration to use of the word continuous (*e.g., 1-hr, 1-min.*). Would be helpful to list make and model here of equipment, but could instead refer to element 7
- P. 4-5 should we consider in the initial screening phase that if some sites correlate highly with each other, it may be worth moving one of them to a “next tier” of locations? Or, that it is more important to get a complete year with all the seasons?
- P. 6-5 suggest adding *Spatial Representativeness and Siting Criteria* to the title
- P. 6-7 suggest mentioning timing the 1-in-6 day sampling with EPA schedule.
- P. 7-7 Suggest mentioning that the Clarity node is going to use a solar solution
- P. 7-7 Aeroqual. There is a typo with using Clarity rather than AQY 1 in the text. Suggest noting the sampling interval in these descriptions
- P. 7-8 Aethlabs – not really a low cost instrument, perhaps mid-cost is more appropriate?
- P. 7-9 suggest adding sampling interval (most are 1-hr) to each instrument description
- P. 7-5 typically for quality assurance, it is best to state the gas cylinder certification requirement
- P. 8-3. Section 8.2 needs a brief summary on what is meant by traffic and stationary screening (assuming these are referring to areas with those sources dominating?)

- Section 9.2.2 suggest calibrate sampler *flowrate*
- Section 10.2.2 Data review procedure. Suggest adding will check that the concentration range, calibration results, flow rate check results were within specifications.
- Section 13 data analysis. Would like to see more on the goals and expected outcomes of the data analysis in each phase. For example, for Phase 1 is the main outcome a map of NO2 and PM concentration in the community with some statistical assessment of variability among sites and which sites vary/don't vary together? With this analysis the a single site could be used to represent multiple sites, which would help to identify where to put phase 2 monitors.

Not sure where this would go, but it would be helpful to be more quantitative about the number of samples to be collected in Phase 3 (or approximate/caveated) or how long each measurement will run calendar-wise if it is other than 1 year.

It would be great to add a timeline/gant chart with the phases to show what is overlapping or sequential.

Suggest collocation occurs at both start and end of study for low-cost sensors.

Look forward to chatting.

Hilary R. Hafner
Chief Operating Officer
Sonoma Technology, Inc.

Written comments received via email from Vincent Valdez, Steering Committee Member, on April 24, 2020

From: vincent valdez <vvaldez63@sbcglobal.net>
Sent: Friday, April 24, 2020 12:36 PM
To: Janice Lam Snyder; Ron Jimenez Kof C; David Yang; Herman Barahona; Tido Hoang; Denise Mccoy; Mark Loutzenhiser; Patricia Shelby; Bill Knowlton; Shirley Banks; Rhonda Henderson; SDW Upchurch; Saldana Jose@ARB; samar.lichtenstein@arb.ca.gov; Jaime Lemus; csinglefather@comcast.net; Joelle Toney; veronica.eady@arb.ca.gov; Ariel Ambruster; nlcna@outlook.com
Subject: CAMP suggestions

*** THIS EMAIL ORIGINATED OUTSIDE AIRQUALITY.ORG ***

As I previously stated in our CAMP in its draft form as stated in the Executive Summary page IV (4) reads


Concern 1. Need to increase air quality education and outreach efforts
 Concern 2. Emissions from Highway 99/traffic
 Concern 3. Increasing rates of asthma and respiratory problems in the community
 Concern 4 Emissions impacts from businesses

This order of Concerns is reflected in our Draft CAMP on pages 3-1 and 3-2 in describing Scope of Actions, 4-1 and 4-2 in Air Monitoring Objectives, 6-6 in Spatial Representativeness, 12-(1,2,3) in Process for Evaluating Effectiveness if there are any other areas of the CAMP I have missed please add them.

My suggestion is the order of Concerns to be changed to reflect the data we will be collecting

Concern 1 Emissions from Highway 99/traffic
 Concern 2 Emissions impacts from businesses
 Concern 3 Increasing rates of asthma and respiratory problems in the community
 Concern 4 Need to increase air quality education an outreach efforts

Thank you for letting me be of Service

 Vinnie V 

Oral comments received at the April 28, 2020 Steering Committee Meeting

Comment #1: A steering committee member stated the 75% completeness for data collection seems too low.

Comments #2-13: A steering committee member provided the following comments:

2. The District needs to explain data quality for low cost monitors (e.g. $RMSE < \sigma_{reference}$)
3. Explain why professional-grade monitors may not be held to FRM/FEM requirements
4. The District needs to explain why 75% completeness is an acceptable standard.
5. The District needs to explain why some monitors do not have DQI objectives requirements
6. It is not appropriate to reference the accuracy for SASS, VOC, and carbonyl samplers to the laboratory SOP. Please explain.
7. In Section 6.4, the CAMP references documents reviewed by the District. These documents should be available to the Steering Committee. There should be a clickable link to any documents used by the District to create the CAMP.
8. What will be done with monitoring equipment after monitoring? Why isn't equipment being rented?
9. How many of each monitor are being used? It doesn't say in Element 7.
10. Section 10.1 references a data review process. That process should be available to the Steering Committee and public.
11. The Appendix is confusing. There should be a link whenever a document is referenced. There should be a clickable link to any documents used by the District to create the CAMP.
12. The District should consider using ACLIMA. Their data are easy to understand, exceeds federal standards and precise.
13. Would the Phase 3 monitoring see impacts from the Title V power plant or the airport?

Comment #14 A steering committee member said that the District should explain why professional-grade monitors may not be held to FRM/FEM requirements and said that equipment should meet federal requirements so there are no exceptions on what it won't do.

Comment #15 A steering committee member noted that there should be outreach in other languages, especially Vietnamese.

Comment #16-17 A steering committee member provided the following comments:

16. The objectives were of equal value and that the order did not reflect priority.
17. They are comfortable with the 75% completeness as a industry standard with the understanding that the District will attempt more completeness.

Comment #18-19 A steering committee member provided the following comments:

18. They disagreed with Comment #16 and thought that readers would infer priority from the repeated ordering of the objectives.
19. The District needs to explain why equipment might not meet federal standards

Comment #20 A member of the public said that a Technical Advisory Committee could be used to help rebuild trust between the steering committee and the District.

Comments #21-#26 A member of the public provided the following comments:

21. The numbering of the goals provides an intuitive sense of urgency
22. Community outreach/information is implicit in AB617 and that should not be a stated goal.
23. Outreach materials should include materials in Vietnamese.
24. If outreach is a goal, it should include more than what has been done.
25. The steering committee should be provided with information about strategies that are available as a result of the monitoring of emissions from Highway 99.
26. There should be a health analysis tied to the monitoring as a tangible deliverable.

Comments #27-#29 A member of the public provided the following comments:

27. He supports forming a technical advisory group.
28. The information should be understandable to schools and local neighborhoods.
29. He supports efforts to reduce emissions in the greater Sacramento area and wants to understand the budget and whether that is a limiting factor.

Comments #30-#33 were made by a member of the public:

30. It is concerning that the goals aren't geared toward having pristine data quality.
31. The District should justify the use of non-deterministic language, such as the case of "data may be used to target emission reductions."
32. The language in the CAMP does not always put community stakeholders first.
33. There is an imbalance in the air quality expertise between the District and the community.

Comments #34-#36 were made by a steering committee member

34. The District should explain why the Campbells Soup facility and the airport are not within the boundary when the steering committee wanted it in.
35. The CAMP should identify all the agencies and non-profits it has consulted with to create the CAMP.
36. The District should comment on why the EJ communities and Title V facilities are not in the map on page 2-3.

Written comments received via email from Dr. Anthony Wexler and team, UC Davis Air Quality Research Center, on May 5, 2020

CAMP Review

Anthony Wexler, Distinguished Professor and Director, Air Quality Research Center
Minmeng Tang, PhD student, Atmospheric Science Graduate Group
Chris Niedeck, PhD student, Agricultural and Environmental Chemistry Graduate Group
University of California, Davis

Low-cost sensors evaluated by AQ-SPEC

- Aeroqual AQY very good except NO₂ 24 hour average only ok
- Clarity Node PM_{2.5} good but not as good as the AQY
- Aethlabs MA-200 not evaluated

Pg 3-1

- Concern 1: involve middle school and high school science teachers to integrate into curriculum. One great way to reach parents and families is through their children. And great to help kids understand why science is important by using air quality as something they can relate to.
- Concern 2: Sound walls and trees bounding highway 99 to confine pollutants there and help clean some out.
- Concern 2: The remediation list does not include highway 99 issues.
- Concern 2: Volkswagen settlement funds may be available to help pay for EV charging stations.

Pg 3-2

- Concern 3: Can we get CA Dept. of Public Health to let us know if incidence of asthma and other illnesses is actually higher here than in greater Sac area?

Pg 4-1

- Element 4, Objective 1: Monitor at schools
- Element 4, Objective 2: Air cleaning at schools
- Element 4, Objective 3: get CA Dept of Public Health to help out here

Pg 4-2

- Should also measure ozone – Table 4-1 (an ozone measurement was not listed
- This and several other pages – should measure elemental carbon too to get the traffic contribution

Pg 4-5

- Time of year is important since inversions in Winter
- Phase 2 and 3 are only 6 months so must be the right 6 months
- Kids are not in school in summer

Pg 6-1

- Bring trailer to some of the low-cost sensor sites to get side-by-side comparison and estimate of data quality

Pg 6-5

- Would be good to have local meteorological measurements, especially wind direction, in Phase 1 and 2 in addition to Phase 3, in order to help identify the source location.

Pg 6-6

- For regional air quality regulatory purposes, you do not want sensors near sources, but for this study near sources or at least in neighborhoods nears sources seems like a better way to meet objectives.

Pg 7-1

- Clarity Node: Is there is a way to store locally on an SD card say in case the internet connection breaks down?
- The Aeroqual and the Clarity should be checked frequently since low cost sensors have a history of breaking down frequently.
- NO2 measurements are not very reliable from these low cost sensors so will not be useful for tracking vehicle and power plant emissions. Another reason to bring the trailer to these sensors periodically to check on their performance.

Pg 7-2

- With the Aethlabs instrument, you can probably replace the SD card with a USB cable run to a hobbyist computer to get the data in real time. We did this with the PurpleAir sensor.

Pg 7-3

- The description of the MetOne BAM says PM2.5 and PM10 – which one?

Pg 7-4

- SASS pre-weighed nylon and Teflon cylinders. Should that be filters?

Pg 7-9

- Might need more black carbon measurements to see the spatial distribution in more detail.

Pg 9-1, section 9.1 – same as comment on Pg 6-1

Pg 10-3 – same as on pg 7-1 regarding parallel storage on SD cards

Pg 13-1

- It would be helpful to have more detail about objectives of the data analysis.
- Relate the data collected to public health data, especially asthma incidence.

Pg 14-2, Table 14-1 – same as comment on Pg 3-1, Concern 1

Written comments received via email from South Coast Air Quality Management District on May 7, 2020

Sacramento CAMP:

The Sacramento CAMP is written very well and satisfies all the air monitoring checklist items in the CARB blueprint.

There's a comprehensive discussion on the process of developing the CAMP and gathering CSC and public input. The CAMP provides a clear description of the existing monitoring network and capabilities, and how these resources will be leveraged for AB 617. The air monitoring concerns are categorized and monitoring strategies are developed based on each air quality concern, considering the target pollutants. The air monitoring strategy is to conduct monitoring in three phases, which is a great strategy for focusing subsequent monitoring with established air monitoring methods. The QA section provides sufficient information, including DQI tables for various sampling and monitoring methods, which will ensure the quality of the data collected is appropriate for the objectives of the monitoring. The low cost sensors selected are a good choice for the stated purposes, although it is not clear how exactly the micro-Aeth will be utilized. All proposed mobile measurements will be conducted by contractors.

Areas for improvement:

- In phases 2 and 3 of monitoring it is mentioned that air toxics samples (PM and VOCs) will be collected and analyzed. It is not clear how the 3 hour samples will be taken or for what purpose. The 3 hour sample, unless taken from near a major source, will not be sufficient for subsequent chemical analysis.
- In the proposed monitoring to address the air quality concerns related to "small business", the actual business locations should be clearly identified along with the target pollutants. In this context upwind/downwind air monitoring should also be addressed/discussed. Currently the target pollutant seems to be VOCs, but it is not clear if the APCD is going to perform near-source monitoring, fenceline monitoring, upwind/downwind monitoring, etc. Also, continuous monitoring for VOCs should be considered for near-source or fence-line monitoring applications.
- Some of the DQIs described in the QA section conform to the EPA program guidelines, but a more complete and rigorous DQI list including "precision" and other more relevant indicators should be provided. The requirements for DQIs for low cost sensors have been relaxed greatly and simplified. Requirements for lab measurements have large error allowance and in most cases will pass the QA checks (consider tightening these requirements).

Sac Metro Air Quality Management District

Comments of Draft Community Air Monitoring Plan for South Sacramento AB 617:

Thank you for this opportunity.

My comments on **ES**:

Page i, of the **Executive Summary**, states that AB 617 is supposed to be taking an “environmental justice approach” and that “collaboration between the community and the local air district is a critical component of AB 617.” This aspect of AB617 has not been met. South Sacramento community residents and others from EJ communities within a quarter mile of the northern and westernmost parts of the AB 617 boundaries have been entirely absent from this process. This northwest corner of the boundaries was selected as Priority Area 1 by the Community Steering Committee (CSC), after they were presented with slides on cancer risk, traffic volumes, and permitted sources. This Priority Area 1 has very few residents due to its siting as an industrial park; however, it is surrounded by low income communities of color on three sides, and other industrial sources on the northernmost side.

Other examples of this include, but are not limited to:

1). A hostile process initially that eliminated verbal public comments, by switching to a process where the public submitted handwritten comments that were addressed during the final 10 minutes of the two-hour AB617 Steering Committee meetings in the first year. This has been corrected; and I don't mean to dwell on the past but rather to prepare you for my later comments; those are to the effect that the CAMP being commented on here, was in part shaped by early mistakes.

2). The CSC was provided with data on cancer risk, traffic volumes, permitted sources, that was very helpful in helping us prioritize the areas of concern. However, the CSC only became aware of these things, including the Title V sources (across the street from the boundaries), AFTER they had voted on and finalized the boundaries. Thus, many of the people who AB 617 was intended to protect, were left out of the process entirely, and denied their right to use their voice in the deciding of environmental policies affecting them. Some of these people live within 200 yards of the boundaries, and pollution sources that are also not included in the boundaries. This needs to be mentioned and explained. I can elaborate on the boundary vote itself to make my point, but for the sake of not being inflammatory, will forego that.

3). Because EJ communities were not included in the boundaries, the residents from those communities have been denied a seat at the table – on the CSC committee. For example, when a seat became vacant on the steering committee and a woman from the

community applied, she was turned down because although she lived in an EJ community - she was not within the boundaries that were decided before we had sufficient information to make an informed decision. Several communities, within one half mile of the boundaries, and having been identified by CalEnviroScreen as having health disparities are not included. These include areas of South Sacramento with very dense apartments housing very low income and monolingual people, living on top of or next to pollution. This needs to be mentioned and explained.

The CSC should have been provided with information about potential air pollution from known stationary and mobile sources in the area, as well as information about health disparities in the communities, before the boundary vote, so that the CSC could make boundary determinations based on having access to that information. As a result, many stationary sources including ALL five of the Title V stationary sources are outside of the boundary and are not being monitored. One CSC member told me that he found out (by accident) about the Title V sources when he asked what the stars were on a map of the boundaries that the CSC was shown AFTER the boundaries were finalized.

In summary, not informing the CSC of known air pollution sources, and giving misleading information during the boundary determination process about communities identified by CalEnviroScreen, along with muting the community during public comments does not allow for active participation and self-determination and goes against the most basic spirit of AB 617 – a community driven process.

The AB 617 process in South Sacramento and CAMP, are built on a foundation that is not entirely community driven. While there are representatives and residents of the community on the AB 617 Community Steering Committee, I would find it hard to believe they were aware of the cancer risks, traffic volumes, permitted sources, and health disparities when they decided the boundaries, and built upon that with further votes. Thus, the initial, and final boundaries did not include the areas of South Sacramento with the highest cumulative impacts, paired with some of the lowest income rates. Despite the boundaries being expanded, they still failed to include areas with great cumulative impacts, in very close proximity (hundreds of feet in some cases) to homes and sensitive receptors, as well as a Title V facility located directly across the street from the boundaries.

Sacramento County is developing an EJ plan that has captured many of the most disadvantaged communities in South Sacramento. Their map captures communities located within a half mile of the AB 617 boundaries that face as many, if not more, air pollution concerns than any community in Sacramento. These communities are not within the South Sacramento AB 617 footprint

boundaries. (https://planning.saccounty.net/PlansandProjectsIn-Progress/Documents/Environmental%20Justice%20Element/EJ_Communities_NonEJ)

[Communities.pdf](#)). One could argue that the most disadvantaged are still being left behind.

In the **Executive Summary**, a list of concerns, goals, and objectives, by priority, that will form the basis for the CAMP, are provided.

They are as follows:

Elements 3 and 4 describe the scope of desired actions identified by the Steering Committee and identify the objectives for air monitoring, which are tied to each of the four highest priority concerns that were developed by the Steering Committee.

Those concerns, actions, and objectives are:

Concern 1 – Need to increase air quality education and outreach efforts. Action 1 – Implement better and more targeted public outreach and education efforts. Objective 1 – Increase air quality awareness in the community by making air quality information readily accessible and easy to understand.

This request for education was raised by several steering committee members with regards to their own level of air quality education at the start of the process, and not the communities'; the belief being that it would improve the quality of their input throughout the AB 617 process in South Sacramento. Regarding the outreach request from the steering committee, it was also made at the start of the process to address an immediate need to increase public participation. There were often meetings with only one member of the public, if that. When the Priority Area 1 was voted on, several CSC members requested outreach in surrounding areas to recruit for the CSC. It was not provided at this key juncture.

Listing Air Quality Education and Outreach as the number 1 priority is unneeded. This concern/objective/goal can be satisfied with several flyers, and a few public meetings; without any real change being affected to characterize the pollution affecting the people of South Sacramento. Air quality education and outreach are assumed components of AB 617; thus, this item should be a continual component of the entire AB 617 process; and **not a stand-alone item. If it must be included, then I request that the steering committee be opened up to new membership on an ongoing basis, to make the**

most of the outreach. Spanish translation is not enough, South Sacramento is the most diverse community in all of Sacramento with many ethnicities and neighborhoods that are being left out of this process. The Air District should look at providing grassroots nonprofits with grants to do outreach, and not punt it to other agencies.

The Air District should not be the only ones educating us on areas outside their expertise, or selecting unilaterally who those teachers will be. A TAG can serve well here, but only if the selection process is fairly discussed with all voices on the CSC, and the public's being heard. We should be able to invite guest speakers on topics like land use planning, public health, environmental justice, etc. (I doubt any of us on the CSC, as residents or advocates, knew about any of those when we started-and made critical decisions)

Summed up, the number one concern of the CSC, was a lack of characterization of the emissions in their community, and how those emissions are affecting their health. That was the summation of all their comments. However, not being familiar with the language of regulatory agencies, I couldn't word it so precisely. So, I found a translator and interpreter.

Concern 2 – Emissions from Highway 99/traffic. Action 2 – Implement strategies to mitigate mobile source emissions impacts from Highway 99 and other traffic within the community. Objective 2 – Monitor for traffic-related air pollutants. Determine the spatial distribution of pollution from traffic on Highway 99 and whether these emissions are significant at schools and hospitals.

While emissions from traffic on city streets and Highway 99 are a major concern, the spirit of AB 617 legislation includes a primary focus on criteria pollutants and toxic air pollutants. As mentioned in the comments regarding Priority 1, the CSC often asked for AQ education to better understand the pollutants in their community, so they could better prioritize them.

There are currently many ongoing and innovative efforts to address mobile source emissions in California. Monitoring for traffic or highway emissions, while critical to understanding the impacts on the community, may not allow for new strategies, beyond those already being deployed to address vehicle emissions. If one of the goals of the monitoring is to move to a CERP (as indicated in this document), then land use

planners, and public health officials should be included in this process now. With their help, the CSC could consider rerouting truck traffic in the neighborhoods most burdened by logistics centers, as part of a CERP.

The map of the community tour provided to the CSC, to familiarize them with the community, clearly shows that the steering committee was not able to tour the Southgate Industrial Park, which is surrounded by low income neighborhoods that are mostly people of color (slide 8 <http://www.airquality.org/AB617/Documents/Steering%20Committee%20Meeting%208%20Final.pdf>): They didn't get see the body shops and large paint booths, that sit across the railroad tracks from homes, or an elementary school (Bowling Green). Nor were they provided a firsthand view of the many logistics centers or the cold storage facility located within the Southgate Industrial park. The roads within the Industrial Park are well suited for tour buses. The notes from the community tour indicate a CSC member was concerned about the industrial sources along Franklin Boulevard. (<http://www.airquality.org/AB617/Documents/Community%20Tour%20Notes.pdf>), as they relate to sensitive receptors. Again, not wanting to be inflammatory, I'll refrain from calling out staff who responded to requests from the CSC to tour the area by saying, "we have a bus that can't navigate many streets." I am providing pictures of this area for your information and context.

Because this information WAS NOT (by not being able to see the sources within the industrial park, during the community tour) provided to the CSC; and their lack of information around the strategies that could be developed by monitoring the highway; and their lack of awareness around the disadvantage in the communities immediately proximate to Priority Area 1, I believe the decision to focus on Highway 99 could have been different if that information would have been provided.

Concern 3 – Increasing rates of asthma and respiratory problems in the community. Action 3 – Provide individuals within the community with the information needed to make decisions based on community air quality data. Objective 3 – Determine air quality at sensitive receptor locations and whether air quality changes by season and location for these sensitive receptors.

This concern should be moved #2, and should follow the characterization of emissions in the community.

This priority can easily be revised to provide a deliverable such as a health analysis report for the community that explains how the characterized emissions can affect their

health. As this camp reads, it sounds more like an early warning system. Sac Metro already provides air alerts that anyone can access via a mobile device. Thus, Action 2 would NOT bring any new benefits to help people understand the characteristics of a community's air. By changing this priority to create a deliverable such as a health analysis report, the community can continue to grow in their Air Quality education.

Given recent reports around environmental justice communities being the most impacted by COVID-19, this priority should be re-assessed, or considered more deeply. **Possible outcomes/goals could include helping South Sacramento's AB 617 community to build resiliency for pandemics, as well as understanding the relationships between respiratory problems, and their constructed environment.**

Concern 4 – Emissions impacts from businesses. Action 4 – Understand more fully the potential emissions contributions from businesses to the nearby community areas and develop ways to mitigate those contributions. Objective 4 – Determine which source categories the emissions are coming from and whether the emissions from the sources contribute significantly to poor air quality in nearby areas.

The concerns, actions and objectives identified above guide the design of the air monitoring program.

CAMP should clearly indicate community interests in body and paint shops. Many on the CSC, after learning of it, were concerned about the Title 5 facility that is not included within the boundaries. There was also concern for the low-income neighborhoods sandwiched between, or surrounding, the municipal airport and/or the industrial park (Priority Area 1). There are paint booths less than 1/4 mile from the existing boundaries, that are yards from homes in that low-income community.

In my comments below, I provide a specific example of how the CSC's priority Area 1 is further downplayed.

CAMP DRAFT DOCUMENT

The following comments are on the places in the document where I found errors.

*Stationary Source Emissions*³ · *Campbell Soup (no longer active)*⁴ · *Wastewater treatment plant* · *Stationary sources along Gerber and French Road*⁵ · *Natural gas turbine (outside the community boundary)*⁶ *Type of sources was not specifically*

identified by the Steering Committee, but air pollution sources in the area include a concrete and aggregate seller, a recycler, a food packaging manufacturer, autobody shops, and repair shops

On an almost daily basis, a large plume of steam can be seen coming from the old Campbell Soup Factory. The plume is blowing towards Florin in the morning, and then, many afternoons, towards a very impacted community (Rainbow Park) that is divided by Hwy 99, has dense low-income housing, and a dense automobile repair industry surrounding it. The CSC had asked what was being emitted, and was told, “we think its steam”, so they quit pursuing the question.

Separately, the footnote #5 for this section indicates that the CSC was concerned with stationary sources along French Road. However, the CSC was also concerned about the stationary sources along Franklin Boulevard, including a Title V facility and the Southgate Industrial Park. The notes from the community tour indicate a CSC member was concerned about the industrial sources along Franklin Boulevard, (<http://www.airquality.org/AB617/Documents/Community%20Tour%20Notes.pdf>), as they relate to sensitive receptors sandwiched between them and Highway 99. When provided with a map of permitted sources within the boundaries, cancer risk, and traffic volumes, the CSC voted to prioritize this very area. The monitoring plan does not reflect that mandate.

The CAMP, as written further reflects the downplaying of emissions and concerns in Priority Area 1. That they are not listed here concerns me. That a power plant or factory (I believe) is listed as “Campbells Soup-no longer active.” and not what it really is, is concerning.

Does anyone know that a daycare appears to be operating directly across the street from a Title V and major logistics center? And that on the same side of the street on either side are two large logistics centers, and that right next door to them immediately next to the daycare, are a smog shop and major recycler?

see below

Impact on sensitive receptors · Children walking to school and crossing intersections⁸ where these are located at high traffic areas or the Highway 99 corridor (also can be categorized under mobile source emissions) · Effects on the many underserved populations, including young children, need to be better understood · Impacts on neighborhoods

The community tour for the benefit of the CSC, also did not traverse the primary walking route for kids going to Luther Burbank HS, from Bowling Green. That route is often lined with Heavy Duty Diesel Trucks from the logistics or cold storage center in Southgate Industrial Park. The route is also very close to urban housing, located next to an elementary school, and across from several paint shops and a smog shop (maybe 100 yards from the school).

2.3. Previous and Ongoing Air Quality Reports and Studies Based on best available data, the District's Technical Assessment identified communities disproportionately impacted by air pollution as well as those without historical community-level air quality data.

EJ reports/studies should be included in this section, as should some of the many reports on citizen monitoring, community engagement, public, and land use-also as resources for the CSC. These would help the CSC learn of success in other communities; and possibly how to apply them here.

Element 3

3.1. Actions that air monitoring aims to support

Throughout the document, the CAMP indicates a potential to create a Community Emissions Reduction Plan (CERP) as a result of what is learned through the air monitoring. It should be noted that much is already known about existing technologies that can reduce emissions today. To wait for a CERP to promote those, is to deny justice, today, to the people living next to pollution sources. These can be addressed today through incentives and/or enforcement.

In short, all the action items listed lack sufficient specificity to be meaningful. None one of the listed actions, as worded, provides the community with much more than business as usual.

I suggest

Action 1 - Characterize air emissions in south Sacramento for Toxic Air Contaminants criteria pollutants, including PM from diesel, but also toxics from small businesses in proximity to communities.

Action 2 - Create a health analysis report for the community based on TAC and Criteria pollutants emissions measured in the community. Work with health professionals at OEHHA or the Department of Health (county or state) and also with Sac County EJ planners. Consider ways to incorporate resiliency during a health crisis.

Action 3 - Develop CSC expertise, in relationships with professionals from the following fields: public health, land use, regulatory law & policy, and EJ to start. These folks could serve on the steering committee or a TAG. These experts should be selected by the steering committee.

Action 4 - Provide CSC with a new tour of the community, that includes Southgate Industrial Park, and the neighborhoods around it, including sensitive receptors. This should be in addition to previous suggestions already listed. And this would should happen before CAMP is finalized.

Action 5-Outreach and Education

Share monitoring results with the community, as they arise, or in quarterly meetings. Develop AQ materials that advocates can use to conduct outreach. Increase outreach to boost public participation at CSC meetings. Open CSC to new members on an ongoing basis, and conduct outreach to recruit new CSC members (this should be a given and Action 3 replaced with a deliverable to the community such as a TAG and more participation on the steering committee by professionals).

COVID-19 has shown us that the same communities that AB 617 was intended to protect, are also the same communities that are most impacted by this pandemic. It is well known that EJ communities have higher incidences of asthma and respiratory illnesses than do non EJ communities. If we believed that there was time to address these higher incidences of chronic respiratory conditions in our community, it may be time to reconsider.

When provided with the data they requested, the CSC itself prioritized one of Sacramento's most impacted, and thus most vulnerable communities, as Priority Area 1. However, that day was unique; and every meeting afterward chipped away at that vote, and this CAMP reflects that. I hope I've helped you see clearly now; and now that you know, please help see that genuine CSC vote through, by listing priorities, goals, and objectives that celebrate what YOU and the CSC did that one day-you collaborated. Lives depend on it, now more than ever. You can help.

I suggest we seriously consider the priorities, I've shared, to protect ourselves, our loved ones, and our community.

Thank You,
Denise R. McCoy, Et al
AB617 South Sacramento – Florin
Steering Community Member

p.s. And let me say that I owe ya'll some reading material on the fine line between respectful engagement, and tone policing. Thank you.

Comments on
South Sacramento – Florin Community Air Monitoring Plan

By Earl Withycombe

May 8, 2020

General

The South Sacramento – Florin Community Air Monitoring Plan (Plan) is generally well conceived and structured. The use of a tiered monitoring approach is cost-effective, but may extend the monitoring program for up to two years depending on the proposals to quantify seasonal variability and the uncertainty regarding commencement of the third phase (Phase III) of air quality monitoring.

The U.S. Environmental Protection Agency (U.S. EPA) requires the development of a Quality Assurance Project Plan (QAPP) for any data collection or analysis project that is fully or partially funded by the agency. This requirement has been in place since 1998, and the agency has published a series of guidance documents dictating the contents of a QAPP. The Steering Committee should give serious consideration to the addition of Plan components that conform with QAPP requirements.¹

Pollutants

The primary emission source concern of the Steering Committee, as summarized in the Executive Summary, is on-road vehicular traffic, especially that on California State Route 99. The pollutants emitted by on-road vehicle traffic include oxides of nitrogen (NO_x), toxic air contaminants (TAC), and Diesel particulate matter (DPM). Attachment 1 contains an emission inventory for several federal air quality standard pollutants showing the relative contribution of on-road motor vehicles to the total emission inventory in Sacramento County.²

The Plan focuses on quantifying the levels and distribution of PM_{2.5} concentrations as a marker for DPM in the study area in Phase 1, but does little to address levels and distributions of NO_x in either Phase 1 or Phase 2. PM_{2.5} concentrations in Sacramento County comply with federal air quality standards, but exceedances of the federal NO_x standard of 0.10 ppm – 1 hour average occur at the CARB monitoring station at 13th and T Streets annually. NO_x is an oxidant gas that, in elevated concentrations, causes inflammation of airways and contributes to upper airway diseases including asthma and chronic bronchitis. Attachment 2 presents screenprints of daily maximum 1-hour NO_x

¹ <https://www.epa.gov/quality/quality-assurance-project-plan-development-tool>, accessed on May 6, 2020.

² https://www.arb.ca.gov/app/emsinv/2019ozsip/fcmasterdetail_sip2019.php, accessed on May 4, 2020.

concentrations recorded at this downtown site in 2017 through 2019. The 13th and T Street site is located 0.26 miles from State Route 50 and 0.81 miles from Interstate 5.

By comparison, the next nearest NO_x monitoring site to the study area is the Del Paso Manor station, which is about 1.82 miles from Interstate 5 and about 8.57 miles. Far fewer exceedances of the federal 1-hour NO_x are recorded at this site. This difference demonstrates that substantial variations in NO_x concentrations occur spatially across the Sacramento region. Like PM_{2.5}, NO_x concentrations near freeways can be up to double those measured a mile away. Because of these gradients, the Plan should include NO_x monitoring using low-cost sensors in Phase I of the Plan to determine how substantial the differences in NO_x concentrations are across the study area.

Data Quality Indicators

Table 6-1 lists Data Quality Objectives for each monitor proposed for use in the Plan. In the paragraphs preceding Table 6-1, mention is made of data quality indicators (DQI) for U.S. EPA approved Federal Reference Method (FRM) and Federal Equivalence Method (FEM) monitors. FRM and FEM monitors are carefully certified by U.S. EPA as the data produced by these instruments serves as the basis for air quality regulatory decisions, such as whether an area is determined to attain federal ambient air quality standards or not. The reference to FRM and FEM monitors in the Plan is misplaced as AB 617 monitoring is conducted for research, not regulatory, purposes. Likewise, some of the DQIs (labeled as Data Quality Objectives) in Table 6-1 borrow from the U.S. EPA regulatory framework that is not applicable to this Plan.

The DQIs in Table 6-1 should reflect quality goals for the monitoring conducted under this Plan. There is no reason to list any indicator as “Not Applicable”. Values for these indicators should be included and set on the basis of manufacturer’s test data, regulatory agency test data, or actual monitoring experience. The reason for establishing values for all DQIs is to alert monitoring and management staff at the Sacramento Metropolitan Air Quality Management District (District) when corrective action is needed as a result of monitor construction defect, mis-installation, mis-operation, mis-calibration, or operational failure. In the absence of DQIs for precision, bias, accuracy, sensitivity, and completeness, District staff cannot judge whether the data or operational parameters being recorded fall within an approved uncertainty range.

One of DQI levels in Table 6-1 that has been borrowed from the U.S. EPA regulatory monitoring framework is the 75% goal for completeness. This goal is used in the regulatory framework to determine whether sufficient data has been collected during an hour, day, season, or year on which to base a regulatory decision that carries substantial consequences. For typical FRM, FEM, and meteorological sensor operation, this is a relatively easy goal to achieve. Examples of this capability can be seen in the completeness statistics for meteorological sensors operated by the District and the California Air Resources Board in Sacramento County as shown in screenprints

in Attachment 3. In these screenprints from CARB's Air Quality Monitoring Information System (AQMIS) report data completeness as "Obs for Year", or hours of data recorded per 8,760-hour years. These screenprints demonstrate, for example, average levels of data completeness at all sites listed were 84.8% in 2017, 84.8% in 2018, and 85.8% in 2019. Based on these data, the data completeness goal of the meteorological monitors used in the Plan should be nothing less than 85%. With such a goal established, District staff will know that sensor maintenance or replacement is needed if data capture levels fall below 85%.

Another example of actual data completeness levels can be seen in the NO_x monitoring tables in Attachment 2. The blank days in each of these table in the middle of months represent days in which the monitor was not recording data in conformance with all applicable protocols. The numbers of complete monitoring days in these tables for the two monitoring sites ranges from 350 to 365 days per year. This range equates to data completeness levels from 95.9% to 100%. As a result, the data completeness goal for NO_x monitoring using FRM instruments should be nothing less than 95%. Whenever data completeness levels for such instruments in monitoring under the Plan falls below this level, this should be a signal to District staff that more maintenance is needed. Without realistic DQIs embedded in Table 6-1 of the Plan, District staff will not be held accountable for unacceptable levels of monitor performance.

A final example involves the Clarity Nodes that are now being deployed to monitor PM_{2.5} at fixed locations. The South Coast Air Quality Management District in Southern California tests low-cost monitors, including the Clarity Node, and publishes their findings online, including data of precision, accuracy, and data completeness. Their test report for the Clarity Node states that the data recovery (data completeness) level for each unit tested was higher than 97%.³

Measured performance data for every monitor included in the Plan is available online in one form or another. These data should be added to Table 6-1 where there are currently blanks or default minimum values.

Temporal Representativeness

Section 6.4 (Temporal Representativeness) of the Plan states that "staff reviewed historical air monitoring data and wind patterns by season". The findings that staff made and conclusions drawn from this review should be discussed either in the Plan or in an appendix.

Aeroqual AQY 1

Section 7.1.1.2 indicates that "the District will deploy one Aeroqual 1 monitor during Phase 1. If only one of these monitors is acquired, determining the actual precision of this instrument will be unattainable. The Plan should consider the acquisition of a

³ <http://www.aqmd.gov/docs/default-source/aq-spec/field-evaluations/clarity-node---field-evaluation.pdf?sfvrsn=6>, accessed on May 6, 2020.

minimum of two of these monitors so that their precision can be establishing in pre-deployment side-by-side testing.

VOC Canisters and Sampling System

Section 7.1.3.1 of the Plan states that the District will use a Xonteck Model 901 Canister Sampler or equivalent to collect air samples for laboratory analysis. From the Equipment and Laboratory Cost table presented to the Steering Committee on September 24, 2019, it appears that the District is proposing to purchase an equivalent ATEC 8001-2P Canister Sampler at a cost of \$20,000. The Plan does not indicate whether the District will have a use for this instrument after the Phase III monitoring project is completed. Given that the instrument collects samples that must be analyzed by a third party laboratory, continued use of the instrument after Phase III would impose a demand on successive District budgets. If the instrument is not proposed to be used by the District for ongoing research work like Phase III tasks, then the Steering Committee and the District may want to consider either renting this instrument for only the Phase III work or purchasing a used version of the 8001-2P. Used versions of this instrument are available for sale on the Internet for as low as \$1,500.⁴

The option of either renting or purchasing used instruments also applies to the Air Metrics MiniVol Samplers (Section 7.1.2.2), the sorbent tube sampling system (Section 7.1.3.2) and the Met One SASS (Section 7.1.3.6), all of which require the laboratory analysis of samples that imposes ongoing costs to the District.

Spare Low-Cost Monitors

Section 9.1 of the Plan indicates that the Aeroqual and Clarity Node low-cost monitors are not user serviceable. As a result, the Plan should state how many spares of the monitors will be acquired for instrument replacement in the event of failure. In the absence of spare monitors in inventory, data completeness will suffer as District staff undertake acquisition and receipt of replacement monitors.

Data Review Procedures

Section 10.1 of the Plan states that “the District implements data review procedures to reduce these errors in the final, reviewed dataset. The Plan should explicitly state what these procedures are in honoring its commitment to transparency. The procedures can be described in an appendix to the Plan.

Data Download Schedule

Section 10.1.2 of the Plan indicates that air quality data collected by low-cost monitors will be downloaded from the manufacturers’ websites. The Plan should identify the

⁴ https://spwindustrial.com/atec-model-2200-canister-air-sampler-atmospheric-technology-environmental/?gclid=CjwKCAjwwMn1BRAUEiwAZ_inEtyWnCcNLdaTUX0nC3WMO0lpcCO_PODhEQVMGWnjmtoxUW9HNi0LhRoCXeAQAvD_BwE, accessed on May 6, 2020.

frequency at which data will be downloaded and how it will be reviewed for quality assurance.

Automated Data Review

Section 10.2.3 of the Plan states that “data from monitors with ability to transmit data will be checked automatically by the datalogger”. The Plan should detail the explicit algorithms or limits that will be programmed into the dataloggers for flagging data that is out-of-range, repeating, or too variable.

Unfinished footnote 15 should also be completed.

Commencement of Phase III

Section 11.1.3 of the Plan states “the third phase will be deployed after enough monitoring data is collected from the enhanced screening monitors, which is expected to be determined after some Phase II monitoring”. The Plan should explicitly state what criteria will be used to make this determination, or what goals must be achieved to constitute “enough” monitoring.

Attachment 1

Sacramento County 2020 Emission Inventories by Pollutant

Sacramento County 2020 Annual Average Day Emission Inventory							
Source:	CARB CEPAM 2019						
AREA	SOURCE TYPE	CATEGORY	SUB CATEGORY	NOx	ROG	PM10	PM2.5
SACRAMENTO COUNTY	STATIONARY	FUEL COMBUSTION	ELECTRIC UTILITIES	0.500	0.102	0.104	0.104
SACRAMENTO COUNTY	STATIONARY	FUEL COMBUSTION	COGENERATION	0.003	0.001	0.001	0.000
SACRAMENTO COUNTY	STATIONARY	FUEL COMBUSTION	OIL AND GAS PRODUCTION (COM	0.004	0.001	0.000	0.000
SACRAMENTO COUNTY	STATIONARY	FUEL COMBUSTION	MANUFACTURING AND INDUSTRI	0.141	0.025	0.028	0.027
SACRAMENTO COUNTY	STATIONARY	FUEL COMBUSTION	FOOD AND AGRICULTURAL PROCE	0.140	0.021	0.013	0.013
SACRAMENTO COUNTY	STATIONARY	FUEL COMBUSTION	SERVICE AND COMMERCIAL	0.678	0.063	0.077	0.077
SACRAMENTO COUNTY	STATIONARY	FUEL COMBUSTION	OTHER (FUEL COMBUSTION)	0.188	0.037	0.008	0.008
SACRAMENTO COUNTY	STATIONARY	WASTE DISPOSAL	SEWAGE TREATMENT	0.000	0.018	0.000	0.000
SACRAMENTO COUNTY	STATIONARY	WASTE DISPOSAL	LANDFILLS	0.032	0.564	0.008	0.008
SACRAMENTO COUNTY	STATIONARY	WASTE DISPOSAL	INCINERATORS	0.040	0.002	0.011	0.003
SACRAMENTO COUNTY	STATIONARY	WASTE DISPOSAL	SOIL REMEDIATION	0.000	0.000	0.000	0.000
SACRAMENTO COUNTY	STATIONARY	WASTE DISPOSAL	OTHER (WASTE DISPOSAL)	0.000	0.224	0.000	0.000
SACRAMENTO COUNTY	STATIONARY	CLEANING AND SURFACE COATING	LAUNDERING	0.000	0.024	0.000	0.000
SACRAMENTO COUNTY	STATIONARY	CLEANING AND SURFACE COATING	DEGREASING	0.000	0.884	0.000	0.000
SACRAMENTO COUNTY	STATIONARY	CLEANING AND SURFACE COATING	COATINGS AND RELATED PROCES	0.000	1.633	0.000	0.000
SACRAMENTO COUNTY	STATIONARY	CLEANING AND SURFACE COATING	PRINTING	0.000	1.087	0.000	0.000
SACRAMENTO COUNTY	STATIONARY	CLEANING AND SURFACE COATING	ADHESIVES AND SEALANTS	0.000	0.475	0.000	0.000
SACRAMENTO COUNTY	STATIONARY	CLEANING AND SURFACE COATING	OTHER (CLEANING AND SURFACE	0.000	0.260	0.000	0.000
SACRAMENTO COUNTY	STATIONARY	PETROLEUM PRODUCTION AND M	OIL AND GAS PRODUCTION	0.000	0.531	0.000	0.000
SACRAMENTO COUNTY	STATIONARY	PETROLEUM PRODUCTION AND M	PETROLEUM REFINING	0.000	0.000	0.000	0.000
SACRAMENTO COUNTY	STATIONARY	PETROLEUM PRODUCTION AND M	PETROLEUM MARKETING	0.003	1.981	0.000	0.000
SACRAMENTO COUNTY	STATIONARY	PETROLEUM PRODUCTION AND M	OTHER (PETROLEUM PRODUCTION	0.000	0.000	0.000	0.000
SACRAMENTO COUNTY	STATIONARY	INDUSTRIAL PROCESSES	CHEMICAL	0.065	0.362	0.046	0.022
SACRAMENTO COUNTY	STATIONARY	INDUSTRIAL PROCESSES	FOOD AND AGRICULTURE	0.002	0.374	0.152	0.086
SACRAMENTO COUNTY	STATIONARY	INDUSTRIAL PROCESSES	MINERAL PROCESSES	0.187	0.052	0.951	0.191
SACRAMENTO COUNTY	STATIONARY	INDUSTRIAL PROCESSES	METAL PROCESSES	0.006	0.005	0.007	0.005
SACRAMENTO COUNTY	STATIONARY	INDUSTRIAL PROCESSES	WOOD AND PAPER	0.000	0.022	0.195	0.113
SACRAMENTO COUNTY	STATIONARY	INDUSTRIAL PROCESSES	ELECTRONICS	0.000	0.000	0.004	0.002
SACRAMENTO COUNTY	STATIONARY	INDUSTRIAL PROCESSES	OTHER (INDUSTRIAL PROCESSES)	0.018	0.342	0.012	0.009
			Stationary Source Total	2.007	9.089	1.616	0.669
SACRAMENTO COUNTY	AREAWIDE	SOLVENT EVAPORATION	CONSUMER PRODUCTS	0.000	10.024	0.000	0.000
SACRAMENTO COUNTY	AREAWIDE	SOLVENT EVAPORATION	ARCHITECTURAL COATINGS AND I	0.000	3.642	0.000	0.000
SACRAMENTO COUNTY	AREAWIDE	SOLVENT EVAPORATION	PESTICIDES/FERTILIZERS	0.000	0.294	0.000	0.000
SACRAMENTO COUNTY	AREAWIDE	SOLVENT EVAPORATION	ASPHALT PAVING / ROOFING	0.000	0.475	0.011	0.010
SACRAMENTO COUNTY	AREAWIDE	MISCELLANEOUS PROCESSES	RESIDENTIAL FUEL COMBUSTION	2.309	6.482	5.042	4.861
SACRAMENTO COUNTY	AREAWIDE	MISCELLANEOUS PROCESSES	FARMING OPERATIONS	0.000	1.701	1.008	0.149
SACRAMENTO COUNTY	AREAWIDE	MISCELLANEOUS PROCESSES	CONSTRUCTION AND DEMOLITIO	0.000	0.000	10.468	1.046
SACRAMENTO COUNTY	AREAWIDE	MISCELLANEOUS PROCESSES	PAVED ROAD DUST	0.000	0.000	5.355	0.804
SACRAMENTO COUNTY	AREAWIDE	MISCELLANEOUS PROCESSES	UNPAVED ROAD DUST	0.000	0.000	0.945	0.094
SACRAMENTO COUNTY	AREAWIDE	MISCELLANEOUS PROCESSES	FUGITIVE WINDBLOWN DUST	0.000	0.000	0.391	0.065
SACRAMENTO COUNTY	AREAWIDE	MISCELLANEOUS PROCESSES	FIRES	0.012	0.044	0.065	0.061
SACRAMENTO COUNTY	AREAWIDE	MISCELLANEOUS PROCESSES	MANAGED BURNING AND DISPOS	0.049	0.106	0.158	0.148
SACRAMENTO COUNTY	AREAWIDE	MISCELLANEOUS PROCESSES	COOKING	0.000	0.132	0.909	0.909
SACRAMENTO COUNTY	AREAWIDE	MISCELLANEOUS PROCESSES	OTHER (MISCELLANEOUS PROCES	0.000	0.000	0.000	0.000
			Areawide Source Total	2.370	22.900	24.351	8.147

Sacramento County 2020 Annual Average Day Emission Inventory							
Source:	CARB CEPAM 2019						
AREA	SOURCE TYPE	CATEGORY	SUB CATEGORY	NOx	ROG	PM10	PM2.5
SACRAMENTO COUNTY	MOBILE	ON-ROAD MOTOR VEHICLES	LIGHT DUTY PASSENGER (LDA)	1.881	2.713	1.017	0.426
SACRAMENTO COUNTY	MOBILE	ON-ROAD MOTOR VEHICLES	LIGHT DUTY TRUCKS - 1 (LDT1)	0.390	0.671	0.105	0.045
SACRAMENTO COUNTY	MOBILE	ON-ROAD MOTOR VEHICLES	LIGHT DUTY TRUCKS - 2 (LDT2)	1.166	1.411	0.345	0.144
SACRAMENTO COUNTY	MOBILE	ON-ROAD MOTOR VEHICLES	MEDIUM DUTY TRUCKS (MDV)	1.112	1.306	0.247	0.104
SACRAMENTO COUNTY	MOBILE	ON-ROAD MOTOR VEHICLES	LIGHT HEAVY DUTY GAS TRUCKS -	0.378	0.449	0.055	0.024
SACRAMENTO COUNTY	MOBILE	ON-ROAD MOTOR VEHICLES	LIGHT HEAVY DUTY GAS TRUCKS -	0.047	0.048	0.008	0.004
SACRAMENTO COUNTY	MOBILE	ON-ROAD MOTOR VEHICLES	MEDIUM HEAVY DUTY GAS TRUCKS	0.103	0.063	0.016	0.007
SACRAMENTO COUNTY	MOBILE	ON-ROAD MOTOR VEHICLES	HEAVY HEAVY DUTY GAS TRUCKS	0.003	0.002	0.000	0.000
SACRAMENTO COUNTY	MOBILE	ON-ROAD MOTOR VEHICLES	LIGHT HEAVY DUTY DIESEL TRUCKS	1.724	0.107	0.067	0.038
SACRAMENTO COUNTY	MOBILE	ON-ROAD MOTOR VEHICLES	LIGHT HEAVY DUTY DIESEL TRUCKS	0.450	0.032	0.023	0.012
SACRAMENTO COUNTY	MOBILE	ON-ROAD MOTOR VEHICLES	MEDIUM HEAVY DUTY DIESEL TRUCKS	3.099	0.174	0.165	0.106
SACRAMENTO COUNTY	MOBILE	ON-ROAD MOTOR VEHICLES	HEAVY HEAVY DUTY DIESEL TRUCKS	4.682	0.160	0.135	0.083
SACRAMENTO COUNTY	MOBILE	ON-ROAD MOTOR VEHICLES	MOTORCYCLES (MCY)	0.267	0.976	0.004	0.002
SACRAMENTO COUNTY	MOBILE	ON-ROAD MOTOR VEHICLES	HEAVY DUTY DIESEL URBAN BUSES	0.019	0.003	0.004	0.001
SACRAMENTO COUNTY	MOBILE	ON-ROAD MOTOR VEHICLES	HEAVY DUTY GAS URBAN BUSES (H)	0.005	0.001	0.002	0.001
SACRAMENTO COUNTY	MOBILE	ON-ROAD MOTOR VEHICLES	SCHOOL BUSES - GAS (SBG)	0.003	0.002	0.004	0.002
SACRAMENTO COUNTY	MOBILE	ON-ROAD MOTOR VEHICLES	SCHOOL BUSES - DIESEL (SBD)	0.347	0.005	0.028	0.013
SACRAMENTO COUNTY	MOBILE	ON-ROAD MOTOR VEHICLES	OTHER BUSES - GAS (OBG)	0.028	0.012	0.004	0.002
SACRAMENTO COUNTY	MOBILE	ON-ROAD MOTOR VEHICLES	OTHER BUSES - MOTOR COACH - C	0.080	0.004	0.004	0.002
SACRAMENTO COUNTY	MOBILE	ON-ROAD MOTOR VEHICLES	ALL OTHER BUSES - DIESEL (OBD)	0.143	0.011	0.007	0.005
SACRAMENTO COUNTY	MOBILE	ON-ROAD MOTOR VEHICLES	MOTOR HOMES (MH)	0.071	0.006	0.007	0.004
			On-Road Motor Vehicle Total	15.999	8.155	2.249	1.023
SACRAMENTO COUNTY	MOBILE	OTHER MOBILE SOURCES	AIRCRAFT	1.419	0.407	0.071	0.071
SACRAMENTO COUNTY	MOBILE	OTHER MOBILE SOURCES	TRAINS	0.609	0.018	0.010	0.009
SACRAMENTO COUNTY	MOBILE	OTHER MOBILE SOURCES	COMMERCIAL HARBOR CRAFT	0.011	0.001	0.000	0.000
SACRAMENTO COUNTY	MOBILE	OTHER MOBILE SOURCES	RECREATIONAL BOATS	0.442	1.899	0.118	0.090
SACRAMENTO COUNTY	MOBILE	OTHER MOBILE SOURCES	OFF-ROAD RECREATIONAL VEHICLES	0.008	0.147	0.001	0.001
SACRAMENTO COUNTY	MOBILE	OTHER MOBILE SOURCES	OFF-ROAD EQUIPMENT	3.438	3.158	0.230	0.193
SACRAMENTO COUNTY	MOBILE	OTHER MOBILE SOURCES	FARM EQUIPMENT	1.072	0.202	0.067	0.061
SACRAMENTO COUNTY	MOBILE	OTHER MOBILE SOURCES	FUEL STORAGE AND HANDLING	0.000	0.546	0.000	0.000
			Other Mobile Source Total	6.999	6.378	0.496	0.424
			Grand Total	27.375	46.523	28.712	10.263
			On-Road Motor Vehicle Portion	58%	18%	8%	10%

Attachment 2
Daily Maximum 1-hour NO_x Concentrations at
13th & T Street and Del Paso Manor Stations
2017-2019

Sacramento-T Street Daily Max 1 Hr Avg Oxides of Nitrogen Data 2017 Parts Per Million (ppm)												
Day	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
1	0.011	0.072	0.114	0.019	0.016	0.011	0.006	0.021	0.051	0.007	0.054	0.146
2	0.012	0.029	0.129	0.036	0.012	0.015	0.004	0.010	0.070	0.059	0.023	0.062
3	0.017	0.015	0.115	0.041	0.015	0.006	0.007	0.016	0.038	0.037	0.026	0.017
4	0.020	0.022	0.015	0.019	0.018	0.006	0.007	0.019	0.017	0.075	0.012	0.013
5	0.030	0.051	0.009	0.041	0.015	0.019	0.007	0.004	0.019	0.115	0.036	0.041
6	0.025	0.012	0.026	0.008	0.012	0.008	0.022	0.003	0.012	0.068	0.055	0.118
7	0.029	0.022	0.068		0.009	0.007	0.023	0.006	0.007	0.032	0.099	0.201
8	0.007	0.033	0.102		0.017	0.013	0.026	0.006	0.027	0.015	0.036	0.160
9	0.014	0.026	0.068		0.027	0.009	0.006	0.006	0.012	0.045	0.022	0.178
10	0.014	0.020	0.061	0.020	0.007	0.006	0.007	0.007	0.041	0.069	0.045	0.160
11	0.012	0.010	0.049	0.019	0.006	0.014	0.007	0.007	0.024	0.014	0.074	0.213
12	0.057	0.041	0.063	0.030	0.016	0.016	0.008	0.006	0.015	0.067	0.054	0.166
13	0.065	0.049	0.091	0.019	0.015	0.034	0.007	0.006	0.008	0.100	0.027	0.191
14	0.055	0.081	0.085	0.023	0.011	0.018	0.009	0.006	0.006	0.091	0.084	0.180
15	0.053	0.073	0.039	0.034	0.019	0.016	0.015	0.008	0.029	0.090	0.050	0.167
16	0.050	0.031	0.034	0.036	0.008	0.019	0.022	0.008	0.008	0.125	0.013	0.038
17	0.088	0.020	0.056	0.019	0.030	0.013	0.015	0.010	0.007	0.124	0.037	0.063
18	0.036	0.016	0.031	0.019	0.030	0.011	0.007	0.006	0.017	0.115	0.055	0.168
19	0.015	0.009	0.017	0.018	0.050	0.011	0.018	0.005	0.018	0.011	0.066	0.179
20	0.010	0.009	0.013	0.014	0.032	0.016	0.009	0.004	0.024	0.091	0.035	0.043
21	0.014	0.011	0.019	0.020	0.019	0.016	0.011	0.006	0.029	0.073	0.069	0.049
22	0.019	0.045	0.014	0.020	0.027	0.017	0.010	0.013	0.024	0.059	0.059	0.058
23	0.033	0.097	0.045	0.010	0.018	0.007	0.009	0.016	0.018	0.082	0.050	0.087
24	0.073	0.053	0.025	0.012	0.007	0.004	0.008	0.008	0.046	0.093	0.038	0.086
25	0.088	0.042	0.020	0.022	0.006	0.003	0.009	0.020	0.058	0.132	0.047	0.083
26	0.034	0.049	0.009	0.010	0.020	0.004	0.008	0.051	0.055	0.131	0.039	0.107
27	0.095	0.080	0.036	0.014	0.018	0.005	0.019	0.021	0.084	0.139	0.027	0.145
28	0.102	0.069	0.007	0.013	0.007	0.006	0.012	0.042	0.073	0.069	0.051	0.146
29	0.130		0.026	0.017	0.006	0.007	0.007	0.008	0.017	0.028	0.131	0.112
30	0.130		0.007	0.015	0.009	0.007	0.008	0.009	0.034	0.010	0.138	0.156
31	0											

Sacramento-T Street Daily Max 1 Hr Avg Oxides of Nitrogen Data 2018 Parts Per Million (ppm)												
Day	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
1	0.103	0.073	0.008	0.018	0.028	0.019	0.007	0.007	0.010	0.023	0.102	0.050
2	0.124	0.122	0.041	0.021	0.017	0.044	0.008	0.009	0.009	0.011	0.088	0.052
3	0.122	0.109	0.028	0.054	0.005	0.018	0.007	0.021	0.005	0.019	0.048	0.034
4	0.058	0.088	0.024	0.017	0.013	0.012	0.005	0.031	0.007	0.006	0.072	0.026
5	0.033	0.074	0.075	0.010	0.012	0.009	0.009	0.009	0.008	0.028	0.023	0.025
6	0.044	0.081	0.083	0.012	0.004	0.008	0.027	0.044	0.009	0.012	0.114	0.060
7	0.031	0.088	0.089	0.005	0.020	0.006	0.011	0.011	0.047	0.007	0.084	0.223
8	0.047	0.102	0.033	0.022	0.012	0.011	0.005	0.017	0.009	0.029	0.010	0.078
9	0.015	0.141	0.041	0.038	0.006	0.004	0.011	0.048	0.012	0.038	0.150	0.044
10	0.077	0.080	0.049	0.013	0.016	0.005	0.025	0.017	0.017	0.027	0.147	0.089
11	0.073	0.030	0.050	0.010	0.007	0.021	0.010	0.010	0.012	0.037	0.142	0.117
12	0.049	0.051	0.043	0.042	0.007	0.027	0.009	0.006	0.022	0.047	0.165	0.086
13	0.046	0.117	0.010	0.029	0.003	0.014	0.013	0.009	0.010	0.040	0.114	0.118
14	0.018	0.104	0.019	0.018	0.006	0.007	0.006	0.008	0.018	0.037	0.185	0.085
15	0.030	0.044	0.028	0.009	0.006	0.008	0.005	0.007	0.007	0.054	0.156	0.042
16	0.074	0.081	0.014	0.025	0.010	0.006	0.007	0.008	0.010	0.138	0.219	0.032
17	0.058	0.042	0.024	0.039	0.020	0.004	0.007	0.012	0.013	0.095	0.172	0.065
18	0.015	0.024	0.047	0.033	0.007	0.008	0.014	0.014	0.012	0.089	0.143	0.084
19	0.032	0.044	0.070	0.038	0.004	0.006	0.008	0.006	0.057	0.084	0.182	0.025
20	0.074	0.054	0.048	0.053	0.004	0.006	0.009	0.012	0.085	0.088	0.187	0.019
21	0.039	0.041	0.012	0.018	0.010	0.013	0.004	0.006	0.062	0.022	0.068	0.025
22	0.016	0.024	0.009	0.038	0.008	0.019	0.004	0.014	0.008	0.026		0.027
23	0.099	0.072	0.025	0.034	0.005	0.019	0.006	0.007	0.012	0.020		0.020
24	0.021	0.071	0.012	0.018	0.013	0.023	0.009	0.007	0.062	0.072		0.018
25	0.031	0.029	0.012	0.016	0.011	0.005	0.018	0.016	0.042	0.050		0.010
26	0.063	0.016	0.007	0.006	0.005	0.011	0.007	0.004	0.065	0.095	0.038	0.044
27	0.045	0.058	0.030	0.010	0.011	0.007	0.007	0.006	0.061	0.039	0.043	0.023
28	0.077	0.031	0.039	0.014	0.021	0.009	0.008	0.006	0.007	0.012	0.014	0.013
29	0.117		0.028	0.008	0.021	0.032	0.005	0.007	0.011	0.018	0.013	0.067
30	0.113		0.045	0.015	0.007	0.011	0.013	0.025	0.016	0.014	0.099	0.046
31	0.124		0.036		0.007		0.014	0.016		0.055		

Sacramento-T Street Daily Max 1 Hr Avg Oxides of Nitrogen Data 2019 Parts Per Million (ppm)												
Day	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
1	0.034	0.022	0.044	0.052	0.028	0.026	0.007	0.007	0.012	0.042	0.146	0.005
2	0.116	0.009	0.034	0.016	0.032	0.003	0.009	0.012	0.007	0.065	0.116	0.024
3	0.106	0.011	0.038	0.024	0.029	0.010	0.014	0.010	0.007	0.037	0.106	0.035
4	0.138	0.006	0.021	0.008	0.005	0.016	0.006	0.005	0.021	0.059	0.128	0.025
5	0.150	0.050	0.053	0.031	0.004	0.020	0.006	0.010	0.007	0.056	0.113	0.040
6	0.008	0.072	0.009	0.028	0.008	0.007	0.005	0.011	0.008	0.082	0.092	0.044
7	0.022	0.150	0.014	0.008	0.009	0.019	0.005	0.006	0.005	0.086	0.075	0.009
8	0.048	0.071	0.011	0.016	0.008	0.006	0.006	0.006	0.008	0.069	0.150	0.011
9	0.021	0.011	0.009	0.010	0.006	0.018	0.006	0.008	0.012	0.016	0.096	0.054
10	0.043	0.014	0.007	0.012	0.012	0.041	0.005	0.009	0.013	0.080	0.086	0.044
11	0.021	0.044	0.012	0.009	0.004	0.043	0.009	0.011	0.031	0.135	0.130	0.033
12	0.051	0.031	0.069	0.021	0.003	0.042	0.009	0.015	0.045	0.117	0.117	0.027
13	0.083	0.038	0.010	0.027	0.008	0.006	0.006	0.020	0.056	0.050	0.108	0.026
14	0.051	0.007	0.028	0.008	0.005	0.005	0.006	0.038	0.033	0.077	0.024	0.017
15	0.019	0.017	0.056	0.012	0.009	0.004	0.015	0.031	0.007	0.088	0.052	0.049
16	0.008	0.016	0.046	0.034	0.013	0.004	0.009	0.026	0.008	0.040	0.087	0.060
17	0.014	0.025	0.061	0.036	0.010	0.009	0.013	0.004	0.041	0.021	0.099	0.060
18	0.045	0.010	0.069	0.043	0.010	0.034	0.008	0.004	0.016	0.045	0.082	0.033
19	0.039	0.024	0.062	0.042	0.026	0.006	0.006	0.006	0.025	0.021	0.033	0.053
20	0.009	0.026	0.017	0.008	0.030	0.006	0.004	0.007	0.055	0.056	0.021	0.085
21	0.049	0.016	0.027	0.013	0.008	0.016	0.006	0.014	0.048	0.022	0.094	0.093
22	0.030	0.089	0.023	0.013	0.016	0.016	0.013	0.021	0.037	0.068	0.080	0.047
23	0.089	0.025	0.014	0.031	0.018	0.010	0.007	0.011	0.018	0.089	0.078	0.075
24	0.083	0.020	0.045	0.028	0.005	0.009	0.018	0.004	0.043	0.044	0.107	0.044
25	0.103	0.026	0.024	0.010	0.004	0.007	0.017	0.006	0.042	0.130	0.050	0.017
26	0.061	0.019	0.012	0.020	0.004	0.007	0.007	0.020	0.046	0.099	0.026	0.016
27	0.056	0.007	0.011	0.006	0.006	0.007	0.012	0.012	0.005	0.004	0.016	0.069
28	0.145	0.030	0.023	0.006	0.007	0.008	0.012	0.005	0.010	0.044	0.019	0.053
29	0.068		0.074	0.008	0.013	0.009	0.006	0.006	0.012	0.042	0.045	0.018
30	0.082		0.025	0.017	0.007	0.006	0.007	0.015	0.016	0.076	0.021	0.073

Del Paso Manor - 2017

Sacramento-Del Paso Manor Daily Max 1 Hr Avg Oxides of Nitrogen Data 2017 Parts Per Million (ppm)												
Day	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
1	0.006	0.100	0.077	0.011	0.015	0.008	0.004	0.013	0.024	0.003	0.016	0.075
2	0.007	0.024	0.091	0.016	0.010	0.008	0.004	0.009	0.020	0.055	0.015	0.073
3	0.005	0.006	0.088	0.027	0.012	0.007	0.006	0.016	0.014	0.036	0.013	0.019
4	0.019	0.009	0.007	0.019	0.012	0.003	0.009	0.014	0.008	0.098	0.006	0.006
5	0.027	0.026	0.006	0.018	0.007	0.014	0.007	0.003	0.006	0.076	0.020	0.034
6	0.028	0.004	0.023	0.038	0.006	0.012	0.012	0.003	0.008	0.041	0.049	0.098
7	0.018	0.013	0.055	0.004	0.005	0.007	0.018	0.007	0.005	0.024	0.049	0.111
8	0.002	0.012	0.065	0.010	0.008	0.006	0.015	0.011	0.018	0.010	0.030	0.095
9	0.009	0.009	0.045	0.023	0.029	0.009	0.004	0.007	0.008	0.021	0.010	0.103
10	0.002	0.014	0.060	0.013	0.003	0.004	0.007	0.008	0.017	0.043	0.019	0.090
11	0.013	0.007	0.051	0.012	0.003	0.004	0.005	0.011	0.013	0.026	0.039	0.144
12	0.070	0.026		0.016	0.007	0.005	0.006	0.006	0.020	0.049	0.030	0.156
13	0.057	0.034		0.009	0.006	0.011	0.009	0.004	0.005	0.064	0.017	0.110
14	0.023	0.053		0.036	0.004	0.011	0.011	0.005	0.004	0.037	0.042	0.102
15	0.056	0.038		0.026	0.010	0.011	0.014	0.005	0.011	0.043	0.023	0.156
16	0.050	0.015		0.014	0.006	0.017	0.016	0.005	0.007	0.056	0.007	0.025
17	0.078	0.006		0.009	0.028	0.011	0.012	0.007	0.007	0.053	0.023	0.044
18	0.019	0.005		0.008	0.029	0.008	0.009	0.007	0.005	0.072	0.067	0.106
19	0.010	0.003		0.009	0.027	0.008	0.011	0.005	0.018	0.007	0.072	0.120
20	0.004	0.004		0.012	0.007	0.011	0.007	0.002	0.009	0.033	0.016	0.060
21	0.003	0.006		0.015	0.010	0.016	0.010	0.006	0.011	0.046	0.069	0.017
22	0.007	0.023		0.005	0.011	0.008	0.008	0.008	0.017	0.044	0.046	0.064
23	0.009	0.053		0.002	0.013	0.007	0.005	0.010	0.012	0.039	0.044	0.075
24	0.078	0.054	0.006	0.006	0.005	0.005	0.006	0.009	0.028	0.048	0.028	0.078
25	0.065	0.016	0.014	0.008	0.002	0.002	0.009	0.013	0.030	0.067	0.040	0.053
26	0.056	0.034	0.006	0.004	0.003	0.004	0.009	0.049	0.031	0.080	0.016	0.079
27	0.079	0.055	0.025	0.009	0.003	0.005	0.015	0.032	0.050	0.068	0.021	0.117
28	0.071	0.053	0.006	0.007	0.003	0.008	0.014	0.024	0.031	0.034	0.036	0.105
29	0.077		0.031	0.011	0.003	0.010	0.004	0.010	0.018	0.014	0.066	0.165
30	0.116		0.003	0.016	0.004	0.008	0.004	0.011	0.028	0.005	0.085	0.140
31	0.121		0.005		0.006		0.006	0.023		0.023		0.106
MAX:	0.121	0.100	0.091	0.038	0.029	0.017	0.018	0.049	0.050	0.098	0.085	0.165
GraphIt												
MIN:	0.002	0.003	0.003	0.002	0.002	0.002	0.004	0.002	0.004	0.003	0.006	0.006
Download Data: Quick or Select Format												

Del Paso Manor - 2018

Sacramento-Del Paso Manor Daily Max 1 Hr Avg Oxides of Nitrogen Data 2018 Parts Per Million (ppm)												
Day	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
1	0.081	0.053	0.004	0.011	0.009	0.014	0.004	0.008	0.005	0.020	0.052	0.007
2	0.096	0.071	0.025	0.022	0.008	0.017	0.006	0.010	0.006	0.008	0.047	0.051
3	0.081	0.047	0.011	0.028	0.005	0.008	0.006	0.011	0.004	0.012	0.037	0.058
4	0.049	0.041	0.016	0.013	0.012	0.010	0.003	0.009	0.007	0.005	0.043	0.036
5	0.018	0.060	0.069	0.010	0.011	0.006	0.007	0.008	0.010	0.021	0.037	0.019
6	0.046	0.035	0.073	0.004	0.003	0.006	0.021	0.019	0.008	0.012	0.051	0.061
7	0.026	0.080	0.062	0.002	0.010	0.004	0.014	0.012	0.020	0.005	0.064	0.068
8	0.033	0.070	0.028	0.011	0.012	0.007	0.004	0.014	0.008	0.017	0.018	0.074
9	0.010	0.098	0.040	0.020	0.005	0.003	0.006	0.017	0.007	0.029	0.097	0.031
10	0.045	0.057	0.038	0.008	0.009	0.004	0.013	0.020	0.013	0.018	0.110	0.089
11	0.049	0.035	0.053	0.008		0.011	0.010	0.009	0.013	0.023	0.089	0.035
12	0.064	0.041	0.047	0.028	0.003	0.010	0.006	0.004	0.007	0.038	0.083	0.055
13	0.047	0.058	0.006	0.025	0.001	0.011	0.008	0.010	0.008	0.024	0.082	0.074
14	0.012	0.080	0.016	0.011	0.003	0.006	0.005	0.006	0.020	0.019	0.093	0.046
15	0.034	0.056	0.015	0.003	0.002	0.007	0.003	0.004	0.005	0.041	0.100	0.032
16	0.042	0.092	0.007	0.010	0.005	0.004	0.007	0.009	0.005	0.050	0.116	0.016
17	0.017	0.043	0.013	0.039	0.009	0.003	0.008	0.011	0.013	0.048	0.099	0.041
18	0.008	0.016	0.028	0.016	0.006	0.008	0.010	0.007	0.012	0.043	0.067	0.028
19	0.033	0.057	0.060	0.031	0.003	0.008	0.008	0.004	0.039	0.059	0.084	0.019
20	0.056	0.049	0.021	0.033	0.002	0.005	0.014	0.012	0.029	0.032	0.099	0.016
21	0.024	0.045	0.005	0.010	0.009	0.007	0.003	0.003	0.047	0.023	0.036	0.014
22	0.006	0.039	0.003	0.018	0.004	0.014	0.003	0.008	0.010	0.023	0.004	0.024
23	0.059	0.062	0.012	0.020	0.002	0.013	0.007	0.007	0.013	0.022	0.002	0.015
24	0.024	0.077	0.006	0.012	0.007	0.008	0.007	0.006	0.045	0.033	0.022	0.011
25	0.013	0.023	0.008	0.011	0.004	0.003	0.011	0.007	0.027	0.066	0.037	0.007
26	0.058	0.027	0.002	0.007	0.009	0.008	0.011	0.003	0.044	0.063	0.097	0.038
27	0.055	0.025	0.014	0.005	0.006	0.005	0.008	0.004	0.030	0.025	0.025	0.023
28	0.052	0.020	0.032	0.004	0.014	0.005	0.008	0.005	0.011	0.008	0.006	0.011
29	0.106		0.033	0.004	0.012	0.011	0.006	0.007	0.003	0.022	0.006	0.058
30	0.104		0.031	0.009	0.004	0.015	0.010	0.010	0.005	0.027	0.050	0.036

Sacramento-Del Paso Manor
Daily Max 1 Hr Avg Oxides of Nitrogen Data
2019
Parts Per Million (ppm)

Download Data: [Quick](#) or [Select Format](#)

Attachment 3
Sacramento County Wind Data Completeness
2017 – 2019

Sacramento Wind Data Completeness

2017 Average Observations Per Year = 7432 = 84.8% Completeness



Sacramento County
Data Selection for Resultant Wind Data

Get **Only Screened Data** ▼ for **January** ▼ **1** ▼ to **January** ▼ **1** ▼ in **2017**

Use Data for **ALL SITES** or **ONLY IF CHECKE**

Bas	Cnty	Site Name	Obs for Year	
SV	SAC	Bryte	7067	<input type="checkbox"/>
SV	SAC	Fair Oaks #2	8472	<input type="checkbox"/>
SV	SAC	Folsom-Natoma Street	8658 p	<input type="checkbox"/>
SV	SAC	Sacramento-Bercut Drive	8016 p	<input type="checkbox"/>
SV	SAC	Sacramento-Del Paso Manor	8699 p	<input type="checkbox"/>
SV	SAC	Sacramento-Executive Airport	8615 p	<input type="checkbox"/>
SV	SAC	Sacramento-Goldenland Court	3594 p	<input type="checkbox"/>
SV	SAC	Sacramento International Airport	8675 p	<input type="checkbox"/>
SV	SAC	Sacramento Mather Airport	6032 p	<input type="checkbox"/>
SV	SAC	Sacramento-T Street	8670 p	<input type="checkbox"/>
SV	SAC	Sloughhouse	8646 p	<input type="checkbox"/>
SV	SAC	SOCARBCV1	4242 p	<input type="checkbox"/>
SV	SAC	SOCARBUS1	6020 p	<input type="checkbox"/>
SV	SAC	Twitchell Island	8611	<input type="checkbox"/>

[Get Additional Information on Sites](#)

Sacramento Wind Data Completeness

2018 Average Observations Per Year = 7512 = 85.8% Completeness



Data after 2017 may be preliminary
AQMS data are in PST

Sacramento County
Data Selection for Resultant Wind Data

Get Only Screened Data ▼ for January ▼ 1 ▼ to December ▼ 31 ▼ in 2018

Use Data for ALL SITES or ONLY IF CHECKE

Bas	Cnty	Site Name	Obs for Year	
SV	SAC	Bryte	7108	<input type="checkbox"/>
SV	SAC	Fair Oaks #2	7691	<input type="checkbox"/>
SV	SAC	Folsom-Natoma Street	8705 p	<input type="checkbox"/>
SV	SAC	Sacramento-Bercut Drive	8648 p	<input type="checkbox"/>
SV	SAC	Sacramento-Del Paso Manor	8726 p	<input type="checkbox"/>
SV	SAC	Sacramento-Executive Airport	8723 p	<input type="checkbox"/>
SV	SAC	Sacramento International Airport	8740 p	<input type="checkbox"/>
SV	SAC	Sacramento Mather Airport	6568 p	<input type="checkbox"/>
SV	SAC	Sacramento-T Street	8751 p	<input type="checkbox"/>
SV	SAC	Sloughhouse	8669 p	<input type="checkbox"/>
SV	SAC	SOCARBCV1	8274 p	<input type="checkbox"/>
SV	SAC	SOCARBUS1	1684 p	<input type="checkbox"/>
SV	SAC	SOCARBUS2	3950 p	<input type="checkbox"/>
SV	SAC	Twitchell Island	7811	<input type="checkbox"/>

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Sacramento Wind Data Completeness

2019 Average Observations Per Year = 7430 = 84.8% Completeness



Data after 2017 may be preliminary
AQMS data are in PST

Sacramento County
Data Selection for Resultant Wind Data

Get Only Screened Data ▼ for January ▼ 1 ▼ to December ▼ 31 ▼ in 2019

Use Data for ALL SITES or ONLY IF CHECKE

Bas	Cnty	Site Name	Obs for Year	
SV	SAC	Bryte	7046	<input type="checkbox"/>
SV	SAC	Elk Grove-Bruceville Road	4887	<input type="checkbox"/>
SV	SAC	Fair Oaks #2	8340	<input type="checkbox"/>
SV	SAC	Folsom-Natoma Street	4849	<input type="checkbox"/>
SV	SAC	Sacramento-Bercut Drive	8585 p	<input type="checkbox"/>
SV	SAC	Sacramento-Del Paso Manor	8756	<input type="checkbox"/>
SV	SAC	Sacramento-Executive Airport	8714 p	<input type="checkbox"/>
SV	SAC	Sacramento International Airport	8750 p	<input type="checkbox"/>
SV	SAC	Sacramento Mather Airport	6518 p	<input type="checkbox"/>
SV	SAC	Sacramento-T Street	8715	<input type="checkbox"/>
SV	SAC	Sloughhouse	8383	<input type="checkbox"/>
SV	SAC	SOCARBCV1	8084 p	<input type="checkbox"/>
SV	SAC	SOCARBUS1	6196 p	<input type="checkbox"/>
SV	SAC	SOCARBUS2	6159 p	<input type="checkbox"/>
SV	SAC	Twitchell Island	8723	<input type="checkbox"/>

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Written comments received via email from Vincent Valdez, Steering Committee member, on May 8, 2020

From: vincent valdez <vvaldez63@sbcglobal.net>

Sent: Friday, May 8, 2020 4:23 PM

To: Janice Lam Snyder <JLam@airquality.org>; David Yang <DYang@airquality.org>

Subject: CAMP suggestions

*** THIS EMAIL ORIGINATED OUTSIDE AIRQUALITY.ORG ***

Pg 2.7 Emission Inventory Some source category methodologies to develop emission inventory will be based on surrogate information from the community (i.e. population, fuel usage, purchase records). Community air monitoring will help fill in some of the data gaps and may be used to identify other potential emissions sources not identified by the emission inventory. Does not imply we are confident we are going to get good sampling from our monitors or useful data.

Pg 4.4 Our monitoring sample is going to be 1 in every 6 months because that is what the budget allows. Maybe we should shorten the 6 month sampling periods and get better sampling of the seasons we are targeting.

Should we have some language to state that due to Covid 19 our air sampling is going to be of a different than normal condition due to less traffic and social distancing restraints. I feel our CAMP data will be impacted by Covid 19 conditions

 **Vinnie V** 

Supplemental Comments on
South Sacramento – Florin Community Air Monitoring Plan

By Earl Withycombe

May 8, 2020

Phase III

Concern 4 of the Plan – Emissions Impacts from Businesses – offers Objective 4 – “determine which source categories the emissions are coming from and whether the emissions from the sources contribute significantly to poor air quality in nearby areas”. This objective appears to drive the design of Phase III of the Community Air Monitoring Plan (Plan). The monitoring approach proposed in Phase III includes a mobile trailer equipped with research-grade instruments to detect specific hydrocarbon species, constituents of primary carbon, aerosolized metals, criteria pollutant gases, and PM_{2.5}.

The use of a mobile monitoring platform to quantify concentrations of criteria and trace pollutants suggests a lack of knowledge of unique pollutant hotspots that are presently unknown to the public and regulatory agencies. If this is the driving motivation behind Phase III, then the Plan may want to consider an alternative approach which may be outside the purview of the Steering Committee, but which may return more air quality benefit to the community for the expenditures proposed.

A lack of knowledge of unique pollutant hotspots is more efficiently and effectively resolved by expanded ground trothing by District enforcement inspectors, than by one-time mobile monitoring. Just as low-cost air quality monitors can be used in a network to quantify the gradient of pollutant concentrations across a large area, low-cost sensors to detect the presence of pollutants are available for source inspection. Adding hand held sensors to the toolbox of District enforcement inspectors will enable them to screen for source hotspots during annual or more frequent inspections, and cover an area more intensively than can be investigated by a mobile monitoring platform.

District enforcement inspector teams should, at a minimum, be equipped with:

- Draeger tube kits customized to the potential criteria and trace gases of community and regulatory concern;
- Infrared temperature sensors for quantifying the temperatures of process operations and exhaust plumes;
- Forward Looking Infrared (FLIR) cameras for observing hydrocarbon plumes;
- Portable flame ionization detectors for finding hydrocarbon leaks;

- Handheld hydrogen sulfide sensors;
- Handheld PM_{2.5} particle counters;
- Multi-gas detectors;
- Handheld velocity meters; and
- Tablets for quick download and upload of inspection information to a District server.

Expanding and improving the capabilities of the District's enforcement inspector teams will pay substantial benefits in identifying and quantifying sources and characteristics of emissions that the District is not present aware of. Businesses will also benefit through knowledge of excess – and controllable - emissions resulting from maintenance failures, control equipment failures, and leaks.