Review of the South Sacramento - Florin Monitoring Plan

This is the CARB review of the draft South Sacramento - Florin community air monitoring plan (CAMP) dated March 2020. We summarize the CAMP and give broad observations, followed by detailed comments as part of the checklist of key features from Appendix E of the CARB Community Air Protection Blueprint (Blueprint). Overall, the plan is of high quality and meets all the criteria laid out in the Blueprint well.

The CAMP clearly summarizes the process of forming the community steering committee (CSC) and outlining the meetings that have taken place. The process to extend the monitoring boundary is detailed and the identification of primary air quality concerns and sources affecting the community are listed, namely emissions from traffic and highways, emissions from local businesses, increasing rates of asthma in the community, and education of the community on air quality issues. The duration of monitoring, species of interest, and instruments required are detailed in the document. A three-phase approach to monitoring is proposed, with low-cost sensor $PM_{2.5}$ and NO_2 monitoring deployed in the community prior to the July 1st, 2019 deadline. The roles and responsibilities of the District members and the steering committee are documented. The data quality objectives (DQO), quality control (QC), and deployment procedures for the monitoring are defined for the instruments across each phase of the monitoring. Priority areas for monitoring, that were decided by the CSC, are characterized and the required spatial and temporal representativeness of the monitoring considered. Data management and review processes are documented. The process for evaluating the effectiveness of monitoring is tackled and steps for making alteration to the monitoring duration and locations are laid out. The information to be communicated to the public and the tools to use are considered and summarized. Finally, relevant documentation from CSC meetings and the materials provided to committee members are presented in appendices.

The District has made a strong effort to cover the elements, sub-elements, and other recommendations of the Blueprint. The CAMP captures the concerns and the objectives defined by the CSC and is well presented. The executive summary is a valuable addition and will make

the document more accessible to community members. The comments from CARB are requests for clarification, minor corrections, as well as some additional ideas to include in the document.

The sections describing methods to evaluate effectiveness and to interpret the data could be improved. In particular, the CAMP may benefit from more specific monitoring objectives, where possible. In turn, this would simplify the process of evaluating the effectiveness and interpreting the data to achieve the objectives set out. For example, reference concentrations of key pollutants (e.g. regional regulatory measurements) could provide a benchmark to identify if monitoring sites are capturing elevated concentrations. Specific criteria can then be set to determine when additional monitoring is needed at a location or monitoring in a region can be considered complete and resources targeted elsewhere. Ideally, the data quality objectives and pollutants measured at a location should directly inform whether a particular action should be taken if the community moves to a CERP. Similarly, source attribution is discussed as an analysis method in the document, and would likely be essential for identifying particular source categories to target for emissions reduction. However, it is not clear from the CAMP whether the data collection meets the necessary requirements to be able to perform a robust source attribution analysis using data generated from this CAMP.

Specific comments and clarifications that we believe would strengthen the CAMP are included in the checklist below. We hope the comments are useful and can be considered by the District when further developing this living document.

MONITORING PLAN EXECUTIVE SUMMARY
Key Suggestions: *None. The executive Summary is a valuable addition.*
Comments: *Executive Summary, Page ii, line 13, Element 2: Clarify the reasons for monitoring were determined through the steering committee* *Executive Summary: page v, line 2, toxic chemicals: Consider referencing appendix C which contains Monitoring Phase 2 Analytes* *Executive Summary, page v, line 23, sensitive groups: Possibly provide examples of sensitive groups (e.g., elderly, youth, etc.).*

MONITORING PLAN ELEMENT 1: FORM COMMUNITY PARTNERSHIPS	
CRITERIA	✓
Identifies community steering committee members and their affiliation.	☑
Documents community steering committee meeting information: • Date of first meeting. • Date, time, number of attendees for all meetings that have been held. • Frequency of future meetings and required attendees.	☑
Details level of community involvement in planning and resources made available to accommodate community's desired level of involvement throughout implementation.	☑
Provides link to air district webpage dedicated to community air monitoring and documents what will be posted on this webpage.	☑
Identifies dedicated contact person to address questions on the community-specific air monitoring plan.	☑
Key Suggestions: *None. All element criteria are fully covered.*	
Comments: *The meetings (agenda, presentations, attendees, notes) are all archived on the SMAQMD website (linked). This is a good idea and keeps the CAMP more streamlined.* *We recommend that Section 1.4 explain that attendee information can be found on the website, or to include the table of meeting attendees in an appendix.* *The frequency of meetings and required attendees are not noted in the document. However, the website does list all of the previous meetings and the Steering Committee members. Please consider including this in the list of Section 1.6.*	

MONITORING PLAN ELEMENT 2: STATE THE COMMUNITY-SPECIFIC PURPOSE FOR AIR MONITORING	
CRITERIA	✓
Identifies the community-specific air monitoring need(s).	☑
Provides background information on how the need was discovered.	☑
Documents relevant information from previous, ongoing, and proposed air monitoring and identifies gaps that this community air monitoring will address.	☑
Explores alternative approaches to investigating and addressing the air quality monitoring need(s).	☑

Key Suggestions:

None. All element criteria are fully covered.

Comments:
Section 2.1 points to the Final Assessment of Proposed Monitoring Locations (Technical Assessment) for more detailed background on the community selection.

Section 2.2 clearly lists the potential sources that the CSC used to narrow down to key concerns with additional information in footnotes.

Table 2-1 summarizes the previous regional monitoring concisely. There is a lack of prior monitoring information in the community boundary; however, this is acknowledged in Section 2.4 and a large part of the CAMP is dedicated to understanding the air quality and potential sources to fill this knowledge gap.

Section 2.5 lists multiple approaches to monitoring that were discussed with the CSC. However, this section was originally intended to also discuss alternatives to air monitoring (e.g. vehicle counts, health data) to assess air quality. Please consider including additional information on other non-air monitoring data sources.

MONITORING PLAN ELEMENT 3: IDENTIFY SCOPE OF ACTIONS	
CRITERIA	✓
Defines action(s) that air monitoring aims to support.	☑

Key Suggestions:

All element criteria are covered.

As a general comment, the CAMP could benefit from more information on the factors influencing high asthma rates and respiratory complications (as mentioned on pg 3-2, line 13). The health implications of the air pollutants being targeted are a key concern of the community; therefore, we suggest adding statements on how the monitoring data will specifically lead to the proposed monitoring plan actions in preparation for reducing emission or exposure within the community.

For example, the CAMP could include links to literature that make clear that monitoring PM2.5 in Phase 1 is addressing Concerns #2 and #3 on a broad level because of evidence that PM2.5 increases the incidence of asthma and that black carbon, measured in Phase #2, may also indicate asthma incidence as well as a tracer for diesel emissions. The monitoring proposed could be used to track progress if the community ultimately moves to a CERP.

MONITORING PLAN ELEMENT 4: DEFINE AIR MONITORING OBJECTIVES	
CRITERIA	✓
States the air monitoring objective(s) that will address the stated community-specific purpose for air monitoring.	☑
Specifies the community air monitoring design: • Type(s) of data needed. • Measurements to be made. • Duration of monitoring.	☑
Defines other information necessary to address objective(s), such as: • Supporting measurements (e.g., meteorology). • Action limits, threshold levels, regulatory information. • Data sources to be accessed and used.	☑
Includes reference information and materials (e.g., maps, diagrams, previous studies).	☑

Key Suggestions:

In Objective #3 (pg 4-1, line 23) comparison with Federal and State health standards is mentioned but we suggest including a methodology for how the comparison will be made and how this will inform future actions is included in the CAMP. For example, stating that toxics data will be compared with OEHHA RELs, where available and relevant, to provide context for the concentrations observed and inform Phase #3 deployment.

Comments:

Helpful references to previous studies, sources, and cancer risk assessment data that were used to inform the CSC objectives are included in the appendix.

Source attribution is mentioned and will be a useful tool in meeting the objective of the CSC. It may be valuable to provide the requirements of monitoring to allow for source attribution, for example, the number of pollutants, duration, marker specificity, measurement frequency, meteorological measurements, etc. This would help support the statement "monitoring will help determine which source categories are likely to pose the most significant health impact" in Objective #4 (pg 4-1, line 32).

In Section 4.2, we recommend including specific action limits and threshold levels.

In Section 4.3, we suggest including more detail on supporting measurements, such as links to potential data sources, for meteorology and other non-air monitoring data, that will be used as part of the analysis.

MONITORING PLAN ELEMENT 5: ESTABLISH ROLES AND RESPONSIBILITIES	
CRITERIA	✓
Identifies all parties responsible for major aspects or phases of air monitoring (includes contractors).	☑
Clarifies group roles and interactions; specifies training requirements for individuals conducting air monitoring.	☑

Key Suggestions:

None. All element criteria are fully covered.

Comments:

In Section 5.1, roles and responsibilities for parties are defined clearly in Table 5-1 and an organizational chart given in Figure 5-3.

Ideally, individuals and contractors should be named in the document. These could be included in an Appendix if making regular edits to Table 5-1 with staff role changes is an issue. Alternatively, the point contact mentioned in Section 1.7 could be reiterated here.

Please consider including other City, County, and State agencies with regards to their necessary involvement. E.g. actions to alleviate traffic-related exposure, as outlined in Objective 2, might require transportation departments to be involved. Alternatively, consider including those representatives in relevant discussions and TAG meetings.

MONITORING PLAN ELEMENT 6: DEFINE DATA QUALITY OBJECTIVES	
CRITERIA	✓
Sets performance and acceptance criteria for all data to be collected.	☑
Identifies precision, bias, accuracy, sensitivity, and data completeness needs.	☑
Defines temporal and spatial representativeness.	☑

Key Suggestions:

None. All element criteria are fully covered.

Comments:

Figure 6-1 (pg 6-2) may be misleading in terms of conflating accuracy and sophistication on the y-axis (e.g. something could be simple, but accurate). Please consider revising and discussing more qualitatively.

In Section 6.2 (pg 6-3, line 16), the discussion of DQI for FRM and FEM paragraph may be confusing to readers. This could be clarified by simplifying the language used as well as by explaining "FRM/FEM standards" and differentiating them from the DQI.

In Table 6-1, please explain the terms and the rationale behind the "RMSE < $\sigma_{reference}$" precision for the reader.

In Table 6-1, please clarify whether the data completeness refers to a single node or the network as a whole for the Phase 1 monitoring.

In Table 6-1, "Not Applicable" for professional-grade $PM_{2.5}$ precision and bias may be interpreted as no DQO is deemed necessary for the monitoring. However, DQOs could be determined using collocated samplers. Can this be clarified?

In Table 6-1, field and lab DQOs may need to be listed separately as each has its own DQO. Grouping field and lab DQOs together may be confusing to readers.

General comment: DQOs are related to the fitness for purpose, rather than performance specifications. Therefore, the low-cost sensor DQO objective could be determined based on the requirements of the monitoring. If the DQO used for sensors in Table 6-1 are determined based on real-world performance or manufacturer's specifications, this should be explained.

In Section 6.3, efforts are made to account for spatial representativeness that is effective for the objectives. However, a discussion of how to gauge the impact of a source at a distance, e.g. the influence of Highway 99 at schools and hospitals, would be valuable here or in Element 13. For example, also listing methods such as pollution roses, time-of-day, and day-of-week analysis.

6.4 "…review maximum concentration analysis and wind rose" for temporal representativeness. Please expand on these methods and how adequate sampling will be determined.

6.4 – It may be beneficial to discuss the key points of the seasonal and diurnal patterns in pollutants and how the monitoring will ensure that these are captured.

MONITORING PLAN ELEMENT 7: SELECT MONITORING METHODS AND EQUIPMENT	
CRITERIA	✓
Identifies and describes method(s) and equipment selected (e.g., make, model, characteristics).	☑
Justifies suitability of the method to meet the level of action required by monitoring objective.	☑
Provides field and lab Standard Operating Procedures that will be followed.	☑
Key Suggestions: *None. The CAMP provides sufficient instrument information for each phase of monitoring. The relevance to the objectives is detailed for each and SOP references given where available.*	
Comments: *In Section 7.2.1 (pg 7-6, line 7), please include references to highlight the enhanced health risks due to UFP or simplify and consider just discussing PM2.5 more broadly. Given the health risks due to UFP, was there consideration for including it as part of the monitoring plan?* *In Section 7.2.2 (pg 7-7, line 11), it isn't clear if the MiniVols will be used for PM2.5, PM10, or TSP from this section. Can this be clarified?* *In Section 7.2.3.1 (pg 7-8, line 35), the Xonteck 901 is only mentioned in Phase 3 and not Phase 2. Please can you also mention the Xonteck in Phase 2 if it is being used in both Phases?* *In Section 7.2.3.2 (pg 7-9, line 1), we recommend mentioning the Xonteck 924 to be consistent with naming in other sections.*	

MONITORING PLAN ELEMENT 8: DETERMINE MONITORING AREAS	
CRITERIA	✓
Indicates where monitoring will be conducted within the community.	☑
Describes rationale and considerations for each monitoring area.	☑
Details location characteristics (e.g., meteorology, sources, land use) and important logistical details (e.g., site access, security, power availability).	☑
Key Suggestions: *None. All element criteria are fully covered.*	
Comments: *General Comment: The value of a sub-region to be considered a background (Priority Area 4) for the community is interesting but without adequate sampling density this may or may not be a good background. The wider Sac Metro regulatory monitoring may be more useful for that. The background area was suggested by the CSC but we recommend considering using the broader region for comparison too.* *In Section 8.3 (pg 8-4, line 36), it would be helpful to discuss the expected results at each site and a description of the siting. For example, what is each location's objective? Is the site intended to represent the average neighborhood concentration or the highest concentration near a facility?* *Section 8.3 (pg 8-5, line 5) states that the location of all monitoring phases are shown in Appendix E; however, it appears only Phase 1 is shown. Please clarify.*	

MONITORING PLAN ELEMENT 9: DEVELOP QUALITY CONTROL PROCEDURES	
CRITERIA	✓
Specifies quality control activities for each type of measurement and the frequency at which they should be conducted – this includes, if applicable: • Reference materials. • Calibration. • Ongoing quality control measures (e.g., zero point, span point, one point). • Blanks. • Spikes. • Duplicates/collocation. • Audits.	☑
Details process to follow when control limits are exceeded.	☑
Key Suggestions: *None. All element criteria are fully covered.*	

Comments:

General comment: please consider outlining a process that will be followed if QC limits are exceeded.

In Section 9.1 (pg 9-1, line 21), the low-cost sensor pre-calibration is stated as 14-day (but potentially 7-day). This duration may lead to high uncertainty in the bias. Can the uncertainty in the bias be characterized for each sensor?

The District is using a sensor collocated with a reference monitor. This is valuable for providing a better constraint on uncertainty and allow for updated bias correction throughout the study. This is not mentioned in Section 9.1 but is a useful step that the District plans on taking. The methodology and the targets for pre-calibration and continuous calibration could be included.

Please consider adding the met instrument QC in Section 9.3.

In Section 9.3.2 (pg 9-3, line 20), should the SOP referenced be the Xonteck 924?

MONITORING PLAN ELEMENT 10: DESCRIBE DATA MANAGEMENT	
CRITERIA	✓
Describes the data management system by identifying all of the following: • Data descriptors. • Data storage attributes. • Data review and flagging procedures.	☑
Identifies measures that will be taken to account for errors.	☑
Key Suggestions: *None. All element criteria are fully covered.*	
Comments: *Section 10.1.1 could benefit from listing the attributes to be stored for each instrument. The document does state that the AQS system will be used, but further explanation may aid readers in understanding this section.* *Will the data heritage and adjustment history be logged by the District? Some discussion on this topic in Section 10.1.1 would be helpful.* *Naming data loggers and data management systems in Section 10.1.2 would be beneficial. SOPs on how to use these systems could be included, where available.* *Do the procedures in Section 10.2. apply to Phase 1 monitors? If not, we suggest indicating that they will be treated differently.* *In Section 10.2.3 (pg 10-4, line 17) we recommend listing the specifics for each monitor. E.g. will the max concentration threshold for a BAM be the same for a Clarity Node? Is QC performed on minute or hourly data?*	

MONITORING PLAN ELEMENT 11: PROVIDE WORK PLAN FOR CONDUCTING FIELD MEASUREMENTS	
CRITERIA	✓
Identifies field procedures and materials to be utilized for conducting community air monitoring.	☑
Defines field communication and coordination steps.	☑
Provides timeline that denotes air monitoring duration, frequency, and milestones.	☑
Key Suggestions: *None. All element criteria are fully covered.*	

Comments:

It is unclear whether the duration of Phase 2 monitoring will provide enough data to evaluate seasonal trends or source attribution based on the information in Section 11.1.2. Please consider including a discussion in the document of whether seasonality can be inferred from long-term measurements, and what actions will be taken if the data collected is not sufficient.

Section 11.1.3 (pg 11-1, line 41) states that "The trailer is expected to monitor at one location for approximately one year, unless data analysis collected after three months of sampling show low pollution impact". It is previously stated as "at least 6 months" (Section 4.4, pg 4-5, line 26). Please clarify.

In reference to the quotation above, low concentrations over a 3-month period may not be indicative of low pollution year-round. How will this be determined?

There are some inconsistencies in the sampling duration and frequency between Table 11-1 and Table 4-2, e.g. the sampling duration for metals and VOCs. Please consider including the duration and the frequency in both tables also.

In Table 11-1 Please clarify the method of determining PM2.5 from the MiniVol.

In Section 11.2.3.1 (pg 14-1, line 36), should the Xonteck 901 be named here?

In Section 11.2.3.3 (pg 15-1, line 10), the BAM-1020 is stated to be measuring PM2.5. This is inconsistent with the previous BAM-1020 setup stating that PM10 will be monitored (Section 7.1.3.3).

MONITORING PLAN ELEMENT 12: SPECIFY PROCESS FOR EVALUATING EFFECTIVENESS	
CRITERIA	✓
Identifies evaluation process that will be utilized to ensure air monitoring objectives are being met, including number, frequency, and types of evaluations that will be conducted.	☑
Describes how issues will be documented and addressed.	☑
Defines an end point for air monitoring.	☑
Key Suggestions: *All element criteria are covered.* *We suggest that a sunset date or exit strategy for discontinuing monitoring is included. This is mentioned in Section 12.2 but the plan might benefit from making this clear in a dedicated section.*	

Comments:

General comment: The objectives of the CAMP are laid out clearly and concisely. However, elaborating on the monitoring objectives in this section may help lay out more quantifiable targets to evaluate the effectiveness of the monitoring. Below are some examples of how elaboration on the objectives could help in evaluating effectiveness.

In Objective 1 (pg 12-1, line 22) effectiveness via polling is mentioned briefly. The CAMP may benefit from a discussion of the methodology for polling (e.g. before and after surveys, surveys on outreach experience).

Objective 2 (pg 12-1, line 39) states that the annual report will determine whether the Phase 2 monitoring is sufficient to assess hot spots and health risk. Please consider adding a path forward if the data is found to be insufficient. A decision tree may be useful in cases such as these. For example, the plan could state that the analysis will determine if sufficient data is available and whether redeployment to collect more data is an option (and whether this will be in the same location or in new locations).

Objective 3 (pg 12-2, line 3) states that seasonal coverage will be assessed. However, it may be implicit in Objective 3 that concentrations are also put into context relative to regional air quality to assess effectiveness at the chosen locations.

In Objective 4 (pg 12-2, line 8), how will the District know if the first 6 months of data collection will be sufficient for source attribution analysis and how will they revise the monitoring if not? We suggest including some discussion of this here.

Objective 4 (pg 12-2, line 8) indicates that Phase 3 monitoring is not slated to start until after 6 months of the initial monitoring; therefore, Phase 3 monitoring data won't be available for use in the first evaluation after the acceptance of the CAMP. We suggest stating this explicitly.

Objective 4 (pg 12-2, line 19) Since the district is still in the process of analyzing data from the Phase 1 monitors, does this description still reflect the process that was used to identify the Phase 2 locations?

MONITORING PLAN ELEMENT 13: ANALYZE AND INTERPRET DATA	
CRITERIA	✓
Documents data preparation procedures that will be utilized.	☑
Describes how data will be analyzed to address the stated community-specific purpose for air monitoring.	☑

Key Suggestions:

All element criteria are covered.

Section 13.2 (pg 13-2, line 5) states that "The data will be used to help determine the key source categories that may be contribute to the elevated emissions concentration in the community." How will the monitoring data achieve this? Will this be in conjunction with emission inventories and modeling? Rather than a commitment to a particular methodology, ideally this could include some discussion of what types of attribution are possible with the proposed monitoring (e.g. is Positive Matrix Factorization possible or would the data require Chemical Mass Balance modeling?).

Comments:

The goal of linking the monitoring data to health concerns is valuable and targets the concerns of the CSC. To aid in that goal, please consider a comparison to OEHHA limits, or target concentrations, and to the wider Sac Metro region (alongside long-term trends, spatial and temporal trends mentioned). These could be included as a data use in Table 13-1.

Please consider including examples of summary figures and tables to be presented in the reports in this data analysis and interpretation section.

Given the expected duration of monitoring is less than 1 year, how will measurement data be compared to NAAQS or RELs given that these benchmarks are based on annual averages? In this section, please describe what analyses will be performed to show that this sampling period is sufficient for these comparisons. If it is not feasible to compare to NAAQS, it may be useful to explain that.

Screening criteria should be defined in Table 13-1, where possible.

Weekly cycle analysis may provide an additional, basic analysis to understand potential sources, especially for concerns related to vehicles. Please consider including this as the section is expanded.

The estimated timeline for presentation of data to the CSC should be included in this section. If outside experts will be brought in, this could be included here also.

MONITORING PLAN ELEMENT 14: COMMUNICATE RESULTS TO SUPPORT ACTION	
CRITERIA	✓
Establishes process for information sharing and communication with community throughout air monitoring.	☑
Indicates how results will be delivered to affected community, stakeholders, CARB, and other decision-makers (e.g., content, frequency).	☑
Details what information will be provided on district webpage (e.g., factsheets, notices, timeline, meeting agendas) and the frequency at which material and progress updates will be provided.	☑
Defines the format and schedule of reports.	☑
Key Suggestions: *None. All element criteria are fully covered.*	

Comments:

The section summarizes well the different locations and mediums through which the CSC identified they would like the information to be disseminated.

Some form of air quality training materials may be necessary to ensure that the information provided is accessible to the target audience in the community.

In Section 14.4.4 (pg 14-4, line 30), the list of items that the report will include does not contain the results of the analysis of the data. Will this be in the annual report? Will a high-level summary and a technical report be provided?

In Section 14.4.4 (pg 14-4, line 28) "All reports", Please provide timeframe for district annual reports.

MONITORING PLAN: GENERAL MINOR COMMENTS AND KEY SUGGESTIONS

Key Suggestions:

Element 14 - Section 14.4.2:

- Currently AQview allows community members to access community air quality monitoring data from our download tool.
- By Fall 2020 an enhanced version of the data download tool will be launched, giving users functionality for defining download queries such as specifying the date range, pollutant, location, and other parameters.
- AQview will have continuous incremental launches through July 2022 and we anticipate making Phase 1 of our air quality visualization platform (including a map) publicly available in July 2021.

Comments:

MONITORING PLAN EXECUTIVE SUMMARY

Executive Summary: page i, line 17, the citation for (CARB) is incomplete.

MONITORING PLAN ELEMENT 1: FORM COMMUNITY PARTNERSHIPS

In section 1-1, page 1-2, last two bullets, Since they are similar, is it possible to combine them into one?

In section 1-4, page 1-2, element 1.4, Clarify what the charter states in regards to decision making process

In section 1-4, page 1-3, element 1.4, Clarify the process of how public comments were handled in meetings

MONITORING PLAN ELEMENT 2: STATE THE COMMUNITY-SPECIFIC PURPOSE FOR AIR MONITORING

Section 2.4, page 2-9, line 9, the citation for (Sac Metro Air District) appears to be incomplete..

In Section 2.5, pg 2-11, line 12, 'Emissions' should be 'Ambient Air Quality' in the Mobile Monitoring bullet

MONITORING PLAN ELEMENT 3: IDENTIFY SCOPE OF ACTIONS

In Section 3.1 the concerns of the community are summarized clearly into 4 key areas with the desired actions listed. Consider using bullets rather than numbering or include language to convey that these are not in priority order.

MONITORING PLAN ELEMENT 6: DEFINE DATA QUALITY OBJECTIVES

In Section 6.2 (pg 6-3, line 19) the statement "for the professional-grade monitors." is redundant. Please consider removing.

MONITORING PLAN ELEMENT 7: SELECT MONITORING METHODS AND EQUIPMENT

In Section 7.1.3.3 (pg 7-3, line 23), it is not clear why PM10 is chosen rather than PM2.5, based on the monitoring objectives. This is potentially a typographical error.

MONITORING PLAN ELEMENT 8: DETERMINE MONITORING AREAS

In Section 8.1 (pg 8-3, line 27), the text "is not is not" is repeated.

MONITORING PLAN ELEMENT 10: DESCRIBE DATA MANAGEMENT

Please refer to "AQ-View" as "AQview" throughout the CAMP.

MONITORING PLAN ELEMENT 11: PROVIDE WORK PLAN FOR CONDUCTING FIELD MEASUREMENTS

There may be an issue with the page numbers at the end of this section (e.g. 12-1, 13-1, and 14-1 should be 11-2, 11-3, and 11-4 when following the convention of the rest of the document).

MONITORING PLAN ELEMENT 13: ANALYZE AND INTERPRET DATA

In Section 13.2 (pg 13-2, line 6) please remove "be" from "may be contribute".

Section 13.2 (pg 13-2, line 4) states that "Data analysis for the data collected by this CAMP is important because it will help characterize the emissions in the community." Please consider revising/clarifying this statement.

MONITORING PLAN ELEMENT 14: COMMUNICATE RESULTS TO SUPPORT ACTION

In Section 14.2 (pg 14-4, line 14), there is extra added language "to the general audience" that probably wasn't meant to be added there.

In Section 14.4.2 (pg 14-4, line 4) "February 2020" This date works. To ensure consistency CARB will coordinate with Sac Metro to make their air quality data dating back to February publicly available from AQview.

In section 14.4.2 (pg 14-4, line 10) we request that "CARB has developed specific expectations for AQ-View by 2021 and 2024" is deleted.

In Section 14.4.2 (pg 14-4, line 16) please change "data transparency" to "transparency of data quality"

In Section 14.4.6 (pg 14-5) "Community Events", Identify how the district will work with the CSC to recognize appropriate languages for translating materials and for providing interpretation services.

Sac Metro Air District's Responses to CARB's Comments on the CAMP

CARB Key Suggestions:

- **ELEMENT 3 - As a general comment, the CAMP could benefit from more information on the factors influencing high asthma rates and respiratory complications (as mentioned on pg. 3-2, line 13). The health implications of the air pollutants being targeted are a key concern of the community; therefore, we suggest adding statements on how the monitoring data will specifically lead to the proposed monitoring plan actions in preparation for reducing emission or exposure within the community. For example, the CAMP could include links to literature that make clear that monitoring PM2.5 in Phase 1 is addressing Concerns #2 and #3 on a broad level because of evidence that PM2.5 increases the incidence of asthma and that black carbon, measured in Phase #2, may also indicate asthma incidence as well as a tracer for diesel emissions. The monitoring proposed could be used to track progress if the community ultimately moves to a CERP.**
    - *A statement has been added to Concern C in Element 4 about asthma and PM2.5, but the first half of this comment is well outside the scope of a CAMP and requires a public health expert. The District has provided more about the standards (NAAQS and REL) that will be used to evaluate air quality.*

- **ELEMENT 4 - In Objective #3 (pg 4-1, line 23) comparison with Federal and State health standards is mentioned but we suggest including a methodology for how the comparison will be made and how this will inform future actions is included in the CAMP. For example, stating that toxics data will be compared with OEHHA RELs, where available and relevant, to provide context for the concentrations observed and inform Phase #3 deployment.**
    - *See previous response.*

- **ELEMENT 12 - We suggest that a sunset date or exit strategy for discontinuing monitoring is included. This is mentioned in Section 12.2 but the plan might benefit from making this clear in a dedicated section.**
    - *Exit conditions have been added to 12.3*

- **ELEMENT 13 - Section 13.2 (pg 13-2, line 5) states that "The data will be used to help determine the key source categories that may be contribute to the elevated emissions concentration in the community." How will the monitoring data achieve this? Will this be in conjunction with emission inventories and modeling? Rather than a commitment to a particular methodology, ideally this could include some discussion of what types of attribution are possible with the proposed monitoring (e.g. is Positive Matrix Factorization possible or would the data require Chemical Mass Balance modeling?).**

- *Objective B data analysis now specifically references the EPA Chemical Mass Balance model.*

Comments:

Executive Summary:

- **Executive Summary, Page ii, line 13, Element 2: Clarify the reasons for monitoring were determined through the steering committee**
  - *Text on page iii has been added to clarify that the Steering Committee determined the reasons for monitoring.*
- **Executive Summary: page v, line 2, toxic chemicals: Consider referencing appendix C which contains Monitoring Phase 2 Analytes**
  - *The reference has been added.*
- **Executive Summary, page v, line 23, sensitive groups: Possibly provide examples of sensitive groups (e.g., elderly, youth, etc.).**
  - *Examples have been added.*

Element 1

- **The meetings (agenda, presentations, attendees, notes) are all archived on the SMAQMD website (linked). This is a good idea and keeps the CAMP more streamlined.**
- **We recommend that Section 1.4 explain that attendee information can be found on the website, or to include the table of meeting attendees in an appendix.**
  - *A statement to this effect has been added to Section 1.4.*
- **The frequency of meetings and required attendees are not noted in the document. However, the website does list all of the previous meetings and the Steering Committee members. Please consider including this in the list of Section 1.6.**
  - *The frequency of meeting is given in Section 1.4.*

Element 2

- **Section 2.1 points to the Final Assessment of Proposed Monitoring Locations (Technical Assessment) for more detailed background on the community selection.**
- **Section 2.2 clearly lists the potential sources that the CSC used to narrow down to key concerns with additional information in footnotes.**
- **Table 2-1 summarizes the previous regional monitoring concisely. There is a lack of prior monitoring information in the community boundary; however, this is acknowledged in Section 2.4 and a large part of the CAMP is dedicated to understanding the air quality and potential sources to fill this knowledge gap.**

- **Section 2.5 lists multiple approaches to monitoring that were discussed with the CSC. However, this section was originally intended to also discuss alternatives to air monitoring (e.g. vehicle counts, health data) to assess air quality. Please consider including additional information on other non-air monitoring data sources.**
    - *A bullet has been added at the end of this section to state that the District will look at other data sources, including traffic counts.*

Element 3

- **As a general comment, the CAMP would benefit from more information on the factors influencing high asthma rates and respiratory complications (as mentioned on pg 3-2, line 13). The health implications of the air pollutants being targeted are a key concern of the community; therefore, we suggest adding statements on how the monitoring data will specifically lead to the proposed actions in reducing emission or exposure within the community. For example, the CAMP could include links to literature that make clear that monitoring PM2.5 in Phase 1 is addressing Concerns #2 and #3 on a broad level because of evidence that PM2.5 increases the incidence of asthma and that black carbon, measured in Phase #2, may also indicate asthma incidence as well as a tracer for diesel emissions. The monitoring proposed could be used to track progress if the community ultimately moves to a CERP.**
    - *Added a statement to Concern C about asthma and PM2.5, but the first half of this comment is well outside the scope of a CAMP and requires a public health expert.*

Element 4

- **Helpful references to previous studies, sources, and cancer risk assessment data that were used to inform the CSC objectives are included in the appendix.**
- **Source attribution is mentioned and will be a useful tool in meeting the objective of the CSC. It may be valuable to provide the requirements of monitoring to allow for source attribution, for example, the number of pollutants, duration, marker specificity, measurement frequency, meteorological measurements, etc. This would help support the statement "monitoring will help determine which source categories are likely to pose the most significant health impact" in Objective #4 (pg 4-1, line 32).**
    - *Examples that are needed for meeting the objectives has been added to section 4.2.*
- **In Section 4.2, we recommend including specific action limits and threshold levels.**
    - *The District has expanded discussion of Objective C to state the District will compare data to NAAQS and District stations.*
- **In Section 4.3, we suggest including more detail on supporting measurements, such as links to potential data sources, for meteorology and other non-air monitoring data, that will be used as part of the analysis.**
    - *A statement has been added that "Pollutants exceeding RELs will be targeted for additional investigation or mitigation as appropriate and as resources allow." In*

Objective B. Added a statement that the District uses the Spare the Air program to inform the public of poor air quality for criteria pollutants in Section C.

Element 5

- **In Section 5.1, roles and responsibilities for parties are defined clearly in Table 5-1 and an organizational chart given in Figure 5-3.**
  Ideally, individuals and contractors should be named in the document. These could be included in an Appendix if making regular edits to Table 5-1 with staff role changes is an issue. Alternatively, the point contact mentioned in Section 1.7 could be reiterated here.
    - *The point of contact has been restated and the contact information has been provided in Section 5.1.*

- **Please consider including other City, County, and State agencies with regards to their necessary involvement. E.g. actions to alleviate traffic-related exposure, as outlined in Objective 2, might require transportation departments to be involved. Alternatively, consider including those representatives in relevant discussions and TAG meetings.**
    - *The District outreach process is ongoing. The CAMP notes potential stakeholders, and the Steering Committee is in the process of forming a TAG.*

Element 6

- **Figure 6-1 (pg 6-2) may be misleading in terms of conflating accuracy and sophistication on the y-axis (e.g. something could be simple, but accurate). Please consider revising and discussing more qualitatively.**
    - *The District has considered this comment and decided to leave the figure as-is. A statement about low-cost monitors producing accurate data but noting that it must be compared to more sophisticated monitors has been added.*
- **In Section 6.2 (pg 6-3, line 16), the discussion of DQI for FRM and FEM paragraph may be confusing to readers. This could be clarified by simplifying the language used as well as by explaining "FRM/FEM standards" and differentiating them from the DQI.**
    - *The District's use of FRM and FEM has been reviewed and revised throughout the document.*
- **In Table 6-1, please explain the terms and the rationale behind the "RMSE < σreference" precision for the reader.**
    - *A more complete of DQI selection has been added in Section 6.3.*
- **In Table 6-1, please clarify whether the data completeness refers to a single node or the network as a whole for the Phase 1 monitoring.**
    - *A statement in Section 6.3 has been included to indicate that it is evaluated on both levels.*

- **In Table 6-1, "Not Applicable" for professional-grade PM2.5 precision and bias may be interpreted as no DQO is deemed necessary for the monitoring. However, DQOs could be determined using collocated samplers. Can this be clarified?**
    - *A more complete of DQI selection has been added in Section 6.3.*
- **In Table 6-1, field and lab DQOs may need to be listed separately as each has its own DQO. Grouping field and lab DQOs together may be confusing to readers.**
    - A table of separate laboratory DQO has been added. (Table 6-2)
- **General comment: DQOs are related to the fitness for purpose, rather than performance specifications. Therefore, the low-cost sensor DQO objective could be determined based on the requirements of the monitoring. If the DQO used for sensors in Table 6-1 are determined based on real-world performance or manufacturer's specifications, this should be explained.**
    - *A more complete of DQI selection has been added in Section 6.3. DQO are not based on real-world performance or manufacturer specifications.*
- **In Section 6.3, efforts are made to account for spatial representativeness that is effective for the objectives. However, a discussion of how to gauge the impact of a source at a distance, e.g. the influence of Highway 99 at schools and hospitals, would be valuable here or in Element 13. For example, also listing methods such as pollution roses, time-of-day, and day-of-week analysis.**
    - *A reference to Element 13 has been added and Element 13 has been expanded.*
- **6.4 "…review maximum concentration analysis and wind rose" for temporal representativeness. Please expand on these methods and how adequate sampling will be determined.**
    - *A statement about the review and discussion with the Steering Committee has been added to the section (Updated to Section 6.5). Discussion of the data analysis is included in Element 13.*
- **6.4 – It may be beneficial to discuss the key points of the seasonal and diurnal patterns in pollutants and how the monitoring will ensure that these are captured.**
    - *Seasonal patterns are included in Appendix D. A statement that temporal patterns will be evaluated in the analysis has been added to the section (now Section 6.5) and a reference to the data analysis in Element 13 has been added. A statement that Phases 1 and 3 will include continuous monitoring for seasonal and diurnal coverage has been added.*

Element 7

- **In Section 7.2.1 (pg. 7-6, line 7), please include references to highlight the enhanced health risks due to UFP or simplify and consider just discussing PM2.5 more broadly. Given the health risks due to UFP, was there consideration for including it as part of the monitoring plan?**
    - *The reference to UFP has been removed to avoid confusion.*
- **In Section 7.2.2 (pg. 7-7, line 11), it isn't clear if the MiniVols will be used for PM2.5, PM10, or TSP from this section. Can this be clarified?**
    - *The text has been revised to indicate that the samplers are configured for PM10.*

- **In Section 7.2.3.1 (pg. 7-8, line 35), the Xonteck 901 is only mentioned in Phase 3 and not Phase 2. Please can you also mention the Xonteck in Phase 2 if it is being used in both Phases?**
    - *We have updated the plan to show that we are using an ATEC Model 8001-2P instead of Xonteck 901 in Phase 3. Phase 2 monitoring stations are small shacks that do not have the space or power for a Xonteck 901 or ATEC Model 8001-2P. VOC sampling in Phase 2 will be done with a simple Summa canister and flow controller setup.*
- **In Section 7.2.3.2 (pg 7-9, line 1), we recommend mentioning the Xonteck 924 to be consistent with naming in other sections.**
    - *We have updated the plan to show that we are using an ATEC Model 8000-2 instead of Xonteck 924 in Phase 3. The ATEC Model 8000-2 has been referenced in Section 7.2.3.2*

Element 8

- **General Comment: The value of a sub-region to be considered a background (Priority Area 4) for the community is interesting but without adequate sampling density this may or may not be a good background. The wider Sac Metro regulatory monitoring may be more useful for that. The background area was suggested by the CSC but we recommend considering using the broader region for comparison too.**
    - *The District no longer views Priority Area 4 as a background sample. The reference has been removed.*
- **In Section 8.3 (pg. 8-4, line 36), it would be helpful to discuss the expected results at each site and a description of the siting. For example, what is each location's objective? Is the site intended to represent the average neighborhood concentration or the highest concentration near a facility?**
    - *Added a table showing the purpose of each monitor in place. The Table is included in Appendix E.*
- **Section 8.3 (pg. 8-5, line 5) states that the locations of all monitoring phases are shown in Appendix E; however, it appears only Phase 1 is shown. Please clarify.**
    - *The text has been revised to indicate that Phases 1 and 2 are shown.*

Element 9

- **General comment: please consider outlining a process that will be followed if QC limits are exceeded. In Section 9.1 (pg. 9-1, line 21), the low-cost sensor pre-calibration is stated as 14-day (but potentially 7-day). This duration may lead to high uncertainty in the bias. Can the uncertainty in the bias be characterized for each sensor?**
    - *The District has added a statement in Element 6 that the data not meeting QC limits will be reviewed to determine whether it is suitable for use in the analysis. A similar statement is in Element 13.*
- **The District is using a sensor collocated with a reference monitor. This is valuable for providing a better constraint on uncertainty and allow for updated bias correction throughout the study.**

This is not mentioned in Section 9.1 but is a useful step that the District plans on taking. The methodology and the targets for pre-calibration and continuous calibration could be included.

- *The District is reviewing calibration of bias and precision on a per-monitor basis. It is collocating low-cost monitors at a regulatory monitoring station for the duration of the Phase 1 sampling. A statement about the collocation has been added to Section 9.1. The District does not have sufficient data at this time to determine the methodology for calibration.*

- **Please consider adding the met instrument QC in Section 9.3.**
  - *This has been added in Section 9.3.9*
- **In Section 9.3.2 (pg. 9-3, line 20), should the SOP referenced be the Xonteck 924?**
  - *We have updated the plan to use an ATEC Model 8000-2 instead of the Xonteck 924. The reference has been changed to User's manual for ATEC Model 8000-2.*

Element 10

- **Section 10.1.1 could benefit from listing the attributes to be stored for each instrument. The document does state that the AQS system will be used, but further explanation may aid readers in understanding this section.**
  - *A narrative description of the data has been added. A technical description of database structure and parameters is unnecessarily technical for the CAMP and may make it more difficult to understand.*
- **Will the data heritage and adjustment history be logged by the District? Some discussion on this topic in Section 10.1.1 would be helpful.**
  - *A statement indicating that the data management system records any adjustments has been added.*
- **Naming data loggers and data management systems in Section 10.1.2 would be beneficial. SOPs on how to use these systems could be included, where available.**
  - *The datalogger/database model/name has been added to the CAMP in Section 10.1.2. The Envista software setup manual has been added as a reference.*
- **Do the procedures in Section 10.2. apply to Phase 1 monitors? If not, we suggest indicating that they will be treated differently.**
  - *A statement that the District is developing QA measures for the Phase 1 data has been added. That review will include an evaluation of whether the monitors have met the DQI in Element 6. Additional QA may be included.*
- **In Section 10.2.3 (pg. 10-4, line 17) we recommend listing the specifics for each monitor. E.g. will the max concentration threshold for a BAM be the same for a Clarity Node? Is QC performed on minute or hourly data?**
  - *The District will work with CARB to develop parameters such as the maximum concentration and sticking values that can be used to automatically flag data in the AQview system. An explanation of those values will be made available when the process is implemented.*

Element 11

- **It is unclear whether the duration of Phase 2 monitoring will provide enough data to evaluate seasonal trends or source attribution based on the information in Section 11.1.2. Please consider including a discussion in the document of whether seasonality can be inferred from long-term measurements, and what actions will be taken if the data collected is not sufficient.**
    - *The goal of Phase 2 is to provide data that will be used to determine where Phase 3 will be located. Phase 3 will be operated to provide data for seasonal trends and source attribution.*
- **Section 11.1.3 (pg. 11-1, line 41) states that "The trailer is expected to monitor at one location for approximately one year, unless data analysis collected after three months of sampling show low pollution impact". It is previously stated as "at least 6 months" (Section 4.4, pg 4-5, line 26). Please clarify.**
    - *Added statement to 4.4 stating that the expected duration of monitoring is 12 months.*
- **In reference to the quotation above, low concentrations over a 3-month period may not be indicative of low pollution year-round. How will this be determined?**
    - *Added paragraph describing that sampling was determined by the Steering Committee.*
- **There are some inconsistencies in the sampling duration and frequency between Table 11-1 and Table 4-2, e.g. the sampling duration for metals and VOCs. Please consider including the duration and the frequency in both tables also.**
    - *The tables have been revised for clarity and consistency*
- **In Table 11-1 Please clarify the method of determining PM2.5 from the MiniVol.**
    - *The analysis will include gravimetric analysis. The Minivols are set for PM10 and this has been added as an analyte in Phase 2 throughout.*
- **In Section 11.2.3.1 (pg 14-1, line 36), should the Xonteck 901 be named here?**
    - *We have updated the plan to show that we are using an ATEC Model 8001-2P instead of Xonteck 901.The equipment reference has been added.*
- **In Section 11.2.3.3 (pg 15-1, line 10), the BAM-1020 is stated to be measuring PM2.5. This is inconsistent with the previous BAM-1020 setup stating that PM10 will be monitored (Section 7.1.3.3).**
    - *The reference in 7.1.3.3 has been changed.*

Element 12

- **General comment: The objectives of the CAMP are laid out clearly and concisely. However, elaborating on the monitoring objectives in this section may help lay out more quantifiable targets to evaluate the effectiveness of the monitoring. Below are some examples of how elaboration on the objectives could help in evaluating effectiveness.**
- **In Objective 1 (pg. 12-1, line 22) effectiveness via polling is mentioned briefly. The CAMP may benefit from a discussion of the methodology for polling (e.g. before and after surveys, surveys on outreach experience).**

- *A statement has been added to 12.1 to indicate that the process of evaluating effectiveness is an ongoing collaboration.*

- **Objective 2 (pg. 12-1, line 39) states that the annual report will determine whether the Phase 2 monitoring is sufficient to assess hot spots and health risk. Please consider adding a path forward if the data is found to be insufficient. A decision tree may be useful in cases such as these. For example, the plan could state that the analysis will determine if sufficient data is available and whether redeployment to collect more data is an option (and whether this will be in the same location or in new locations).**
  - *The District has added a brief discussion of considerations that might lead to redeployment to the discussion of Objective A (formerly Objective 2). "This evaluation will review air quality data to determine whether traffic-related pollutants are being detected at each monitoring location. If those pollutants are not being detected, the District will discuss relocating air monitors. That analysis will also show pollutant detection limits in comparison to air quality standards."*

- **Objective 3 (pg. 12-2, line 3) states that seasonal coverage will be assessed. However, it may be implicit in Objective 3 that concentrations are also put into context relative to regional air quality to assess effectiveness at the chosen locations.**
  - *Element 13 discusses data analysis and includes discussion of community data in a regional perspective.*
- **In Objective 4 (pg. 12-2, line 8), how will the District know if the first 6 months of data collection will be sufficient for source attribution analysis and how will they revise the monitoring if not? We suggest including some discussion of this here.**
  - *The District has provided more explanation of the evaluation process and potential changes if the data are not sufficient.*
- **Objective 4 (pg. 12-2, line 8) indicates that Phase 3 monitoring is not slated to start until after 6 months of the initial monitoring; therefore, Phase 3 monitoring data won't be available for use in the first evaluation after the acceptance of the CAMP. We suggest stating this explicitly.**
  - *This statement has been added.*
- **Objective 4 (pg. 12-2, line 19) Since the district is still in the process of analyzing data from the Phase 1 monitors, does this description still reflect the process that was used to identify the Phase 2 locations?**
  - *The process used to determine the location of Phase 2 monitors has been updated in Element 11.*

Element 13

- **The goal of linking the monitoring data to health concerns is valuable and targets the concerns of the CSC. To aid in that goal, please consider a comparison to OEHHA limits, or target concentrations, and to the wider Sac Metro region (alongside long-term trends, spatial and temporal trends mentioned). These could be included as a data use in Table 13-1.**

- *This Element has been substantially expanded with a more detailed discussion of the analysis.*

- **Please consider including examples of summary figures and tables to be presented in the reports in this data analysis and interpretation section.**
  - *Descriptions of the types of summary figures have been added*
- **Given the expected duration of monitoring is less than 1 year, how will measurement data be compared to NAAQS or RELs given that these benchmarks are based on annual averages? In this section, please describe what analyses will be performed to show that this sampling period is sufficient for these comparisons. If it is not feasible to compare to NAAQS, it may be useful to explain that.**
  - *This comparison has been added to Objective D with the caveat described.*
- **Screening criteria should be defined in Table 13-1, where possible.**
  - *The screening is an ongoing discussion with the Steering Committee. Several more specific analyses have been added to this Element.*
- **Weekly cycle analysis may provide an additional, basic analysis to understand potential sources, especially for concerns related to vehicles. Please consider including this as the section is expanded.**
  - *Weekday/weekend analysis is included as part of the analysis for Objective A.*
- **The estimated timeline for presentation of data to the CSC should be included in this section. If outside experts will be brought in, this could be included here also.**
  - *Frequency of reports (annual) is described in Element 14.*

Element 14

- **The section summarizes well the different locations and mediums through which the CSC identified they would like the information to be disseminated.**
- **Some form of air quality training materials may be necessary to ensure that the information provided is accessible to the target audience in the community.**
  - *The District agrees that training and outreach may be necessary. The District will work with the Steering Committee to determine the specifics of the outreach and training.*
- **In Section 14.4.4 (pg. 14-4, line 30), the list of items that the report will include does not contain the results of the analysis of the data. Will this be in the annual report? Will a high-level summary and a technical report be provided?**
  - *A reference to Element 13 has been added. A bullet has been added to make it clear that a summary findings and conclusions will be included.*
- **In Section 14.4.4 (pg. 14-4, line 28) "All reports", Please provide timeframe for district annual reports.**
  - *The District is committing to annual reports. It cannot commit to a specific timeline without having the data or knowing what resources will be available.*

Editorial Updates/Edits:

- **Executive Summary: page i, line 17, the citation for (CARB) is incomplete.**
    - *All citations have been edited to include the year of the document being referenced.*
- **In section 1-1, page 1-2, last two bullets, since they are similar, is it possible to combine them into one?**
    - *The first of the referenced bullets has been removed.*
- **In section 1-4, page 1-2, element 1.4, Clarify what the charter states in regards to the decision-making process**
    - *The decision-making process from the charter has been added to the CAMP.*
- **In section 1-4, page 1-3, element 1.4, Clarify the process of how public comments were handled in meetings**
    - *A paragraph on the public comment process to has been added to section 1.4.*
- **Section 2.4, page 2-9, line 9, the citation for (Sac Metro Air District) appears to be incomplete.**
    - *All citations have been edited to include the year of the document being referenced.*
- **In Section 2.5, pg 2-11, line 12, 'Emissions' should be 'Ambient Air Quality' in the Mobile Monitoring bullet**
    - *Revised per comment*
- **In Section 3.1 the concerns of the community are summarized clearly into 4 key areas with the desired actions listed. Consider using bullets rather than numbering or include language to convey that these are not in priority order.**
    - *This has been reordered and labeled and a statement that they are not prioritized has been added.*
- **In Section 6.2 (pg 6-3, line 19) the statement "for the professional-grade monitors." is redundant. Please consider removing.**
    - *This edit has been made.*
- **In Section 7.1.3.3 (pg 7-3, line 23), it is not clear why PM10 is chosen rather than PM2.5, based on the monitoring objectives. This is potentially a typographical error.**
    - *This is an error that has been corrected.*
- **In Section 8.1 (pg 8-3, line 27), the text "is not is not" is repeated.**
    - *This repeated text has been removed.*
- **Please refer to "AQ-View" as "AQview" throughout the CAMP.**
    - *This revision has been made.*
- **There may be an issue with the page numbers at the end of this section (e.g. 12-1, 13-1, and 14-1 should be 11-2, 11-3, and 11-4 when following the convention of the rest of the document).**
    - *The District has reviewed the page numbers and no changes were necessary.*
- **In Section 13.2 (pg 13-2, line 6) please remove "be" from "may be contribute".**
    - *This typo has been corrected*

- **Section 13.2 (pg 13-2, line 4) states that "Data analysis for the data collected by this CAMP is important because it will help characterize the emissions in the community." Please consider revising/clarifying this statement.**
    - *Objective B data analysis now specifically references the EPA CMB model.*
- **In Section 14.2 (pg 14-4, line 14), there is extra added language "to the general audience" that probably wasn't meant to be added there.**
    - *We have reviewed the use of the phrase "to the general audience" and believe that it is used correctly in both instances.*
- **In Section 14.4.2 (pg 14-4, line 4) "February 2020" This date is fine, but Sac Metro data will need to be made available in the AQview download tool starting back from February.**
    - *The District is providing raw data to AQview. The statement is correct as written. It is intended to describe the functionality of AQview.*
- **In section 14.4.2 (pg 14-4, line 10) we request that "CARB has developed specific expectations for AQ-View by 2021 and 2024" is deleted.**
    - *The timeline for AQView functionality in the CAMP has been revised based on additional information provided by CARB.*
- **In Section 14.4.2 (pg 14-4, line 16) please change "data transparency" to "transparency of data quality"**
    - *This edit has been made*
- **In Section 14.4.6 (pg 14-5) "Community Events", Identify how the district will work with the CSC to recognize appropriate languages for translating materials and for providing interpretation services.**
    - *Text has been added to this section indicating that this is an area of ongoing collaboration with the Steering Committee.*