



**AB 617 Community Air Protection Program  
Steering Committee Meeting Agenda  
ECRMC Community Education Center  
3451 Dogwood Rd.  
El Centro, CA 92243**

**MEETING AGENDA**

**Wednesday, May 22, 2019**

**5:30 p.m. – 7:30 p.m.**

**Facilitator: Amy Ramos of Harder Co.**

**Chair of Meeting: Luis Olmedo**

**WELCOME**

- 1. Roll Call/Opening Remarks by CSC Members** **Co-Chairs**
  
- 2. PUBLIC COMMENT PERIOD**
  
- 3. ACTION ITEM(S):**
  - No Action Items
  
- 4. PRESENTATIONS**
  - Draft Community Air Monitoring Plan **Ramboll**
    - Presentation of updated Community Air Monitoring Plan including remaining elements 6-14. (*Attachment: Draft Community Air Monitoring Plan*)
  
- 5. CSC ACTIVITY**
  - Interactive Monitoring Mapping Activity
    - Interactive mapping activity for the Community Steering Committee following up on the suggested monitoring sites and the CSC's suggestions.
    - Input for locations where community monitors want to be put up by the AB 617 CSC. (*Attachment: CSC Activity*)
  
- 6. AGENCY UPDATES** **ICAPCD & CCV**
  
- 7. AGENDA TOPICS FOR NEXT MEETING** **Co-Chairs**
  
- 8. CLOSING REMARKS/ADJOURNMENT**



**Attachment:**  
**Draft Community Air**  
**Monitoring Plan**





## AIR POLLUTION CONTROL DISTRICT

**DRAFT**

# IMPERIAL COUNTY YEAR 1 COMMUNITY AIR MONITORING PLAN FOR THE EL CENTRO-HEBER-CALEXICO CORRIDOR

**XXXXX 2019**

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### Co-Authors

**Imperial County El Centro-Heber-Calexico Steering Committee**  
[individual names, as desired]

**California Air Resources Board**  
**Office of Community Air Protection**  
[individual staff, as desired]

**Imperial County Air Pollution Control District**  
Matt Dessert            Air Pollution Control Officer  
Reyes Romero        Assistant Air Pollution Control Officer  
Belen Leon            Air Pollution Control Project Manager  
Thomas Brinkerhoff   Air Pollution Control Project Manager  
Katie Burnworth      Air Pollution Control Special Projects Coordinator  
Gil Rebolgar           Air Pollution Control Administrative Analyst

**Comite Civico del Valle**  
Luis Olmedo – Executive Director  
Christian Torres – Special Projects Manager  
Miguel Hernandez – Communications Coordinator  
Alex Solis – Policy Consultant

**Ramboll US Corporation**

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**IMPERIAL COUNTY  
YEAR 1 COMMUNITY AIR MONITORING PLAN  
FOR THE EL CENTRO-HEBER-CALEXICO CORRIDOR**

Prepared for  
Imperial County AB 617 Steering Committee

Prepared by  
Ramboll US Corporation  
350 S Grand Avenue, Suite 2800  
Los Angeles, CA 90071

XXXXXX 2019



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- Appendix B: AB 617 Community Steering Committee Charter (DRAFT)
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## Abbreviations and Acronyms

AB 617	Assembly Bill 617
AC	alternating current
AQI	air quality index
CAFO	concentrated animal feeding operations
CAL	community air quality level
CAPP	Community Air Protection Program
CAP	criteria air pollutant
CARB	California Air Resources Board
CCV	Comite Civico del Valle, Inc.
CFR	Code of Federal Regulations
CH <sub>4</sub>	methane
CO	carbon monoxide
FEM	Federal Equivalency Method
FRM	Federal Reference Method
GPS	global positioning system
ICAPCD	Imperial County Air Pollution Control District
IVAN	Identifying Violations Affecting Neighborhoods
Pb	lead
NAAQS	National Ambient Air Quality Standards
NH <sub>3</sub>	ammonia
NO <sub>2</sub>	nitrogen dioxide
O <sub>3</sub>	ozone
OEHHA	Office of Environmental Health Hazard Assessment
OHV	off-highway vehicle
PM	particulate matter
PM <sub>10</sub>	respirable particulate matter
PM <sub>2.5</sub>	fine particulate matter
QA/QC	quality assurance/quality control
SCAQMD	South Coast Air Quality Management District
SIP	State Implementation Plan
SO <sub>2</sub>	sulfur dioxide
TAC	toxic air contaminant
µg	microgram
USEPA	United States Environmental Protection Agency

## 1 Introduction and Background

### 1.1 Introduction

This Year 1 Community Air Monitoring Plan ("Monitoring Plan" or "Plan") presents objectives and methodologies for community air monitoring in the El Centro-Heber-Calexico Corridor in Imperial County, California ("Community"). This Plan was developed in response to the selection of this Community to conduct community air monitoring under the California Air Resources Board (CARB) Community Air Protection Program (CAPP), a program established to help implement California Assembly Bill 617 (AB 617). This Plan specifically addresses the 14 elements laid out in CARB's Community Air Protection Blueprint ("Blueprint"), a guidance document developed for the CAPP.<sup>1</sup> Each of these elements ultimately serve to address three main objectives, which are to:

- Determine the reason for conducting community air monitoring;
- Describe how the community air monitoring will be conducted; and
- Identify how the data will support action to reduce air pollution within the Community.

When brought together, the 14 elements demonstrate how the Community plans to conduct air monitoring at the local scale to generate air quality data that is accurate, accessible, transparent, and understandable, and ultimately useful towards improving local air quality.

### 1.2 Background

#### 1.2.1 Assembly Bill 617

On July 26, 2017, California Governor Jerry Brown signed into law AB 617, an act to amend and add sections regarding air pollution to California's Health and Safety Code. The bill directs CARB and local air districts throughout the state (including the Imperial County Air Pollution Control District [ICAPCD or "District"]) to enact measures to promote public health and welfare by reducing air pollution on a local scale, particularly in communities that are disproportionately burdened by air pollution. AB 617 was designed to accomplish this via the establishment of the CAPP, which puts the emphasis on community-focused actions that go beyond the regional and statewide air quality programs already in place.

AB 617 was designed to specifically improve air quality in communities with increased concentrations of criteria air pollutants<sup>2</sup> (CAPs) and toxic air contaminants<sup>3</sup> (TACs). These

<sup>1</sup> California Air Resources Board. 2018. *Community Air Protection Blueprint*. October. Available at: [https://ww2.arb.ca.gov/sites/default/files/2018-10/final\\_community\\_air\\_protection\\_blueprint\\_october\\_2018.pdf](https://ww2.arb.ca.gov/sites/default/files/2018-10/final_community_air_protection_blueprint_october_2018.pdf). Accessed: May 2019.

<sup>2</sup> Includes the six federally regulated air pollutants with National Ambient Air Quality Standards established by the USEPA as a requirement of the Clean Air Act. Additional information available at: <https://www.epa.gov/criteria-air-pollutants>. Accessed: May 2019.

<sup>3</sup> Defined by the California Health and Safety Code as air pollutants which may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health. Additional information available at: <https://oehha.ca.gov/air/toxic-air-contaminants>. Accessed: May 2019.

improvements are to be accomplished through community emissions reductions programs, community air monitoring, or both. Section 1.2.2 describes the process by which the first round of communities was selected, including the El Centro-Heber-Calexico Corridor in Imperial County.

### 1.2.2 Community Nomination Overview

As part of the CAPP, CARB's Governing Board selected California communities to participate by implementing a community air monitoring program, a community emissions reduction program, or both. AB 617 stipulated that selection of the first round of communities was to be completed by October 1, 2018 and annually thereafter (i.e., beginning January 1, 2020). Each year, the selection process will involve three steps: Identification, Assessment, and Selection. During the Identification phase, CARB staff will update the running list of potential communities for participation in the CAPP. Input will be collected from air districts across the state and from the Office of Environmental Health Hazard Assessment (OEHHA), as well as internally from CARB's own experience and data resources. Community members will also be able to nominate their own or other communities for consideration. Once this broad list of potential communities has been updated, the next step is to assess the options.

In the Assessment phase, CARB staff will continue to consult with community stakeholders, OEHHA, and the air districts to determine which potential communities are experiencing disproportionate burdens due to cumulative air pollution exposure. The CAPP Blueprint details the factors that are to be evaluated during this phase, which may include concentrations of specific CAPs and TACs, quantified health risk estimates based on modeling, the proximity of sensitive populations to significant sources of air pollution, and socio-economic factors. Once the available and relevant data has been assessed, the final phase, Selection, is initiated.

### 1.2.3 Imperial County Community Nominations

In anticipation of the selection of communities to participate in the CAPP, both local air districts and citizens alike identified communities and submitted nominations to CARB. Ahead of the first selection due date of October 1, 2018, ICAPCD partnered with a local advocacy and environmental justice group known as *Comite Civico del Valle, Inc.* ("CCV") to author a report entitled *Imperial County AB 617 Community Nominations*,<sup>4</sup> with the purpose of informing CARB on which communities within Imperial County should be selected to participate in the first year of the CAPP. This report included relevant data regarding health, socioeconomic, and air quality monitoring for two cities (Calexico and El Centro) and one unincorporated community (Heber) within Imperial County. The geographic proximity of these three areas lent to their being grouped together as a single AB 617-nominated community known as the El Centro-Heber-Calexico Corridor ("Corridor"), which ICAPCD nominated as its first community for participation in the CAPP.

<sup>4</sup> Available at: <https://ww2.arb.ca.gov/resources/documents/imperial-county-ab617-community-nominations-submitted-partnership-comite-civico>. Accessed: May 2019.

On September 27, 2018, the CARB Board made final its selections for the Year 1 communities to participate in the CAPP.<sup>5</sup> The El Centro-Heber-Calexico Corridor was chosen for both community air monitoring and a community emissions reduction program.

#### 1.2.4 Community Steering Committee

A hallmark of the CAPP is community-driven action. AB 617 was designed to allow members from within the selected communities to take an active role in the development of their own air monitoring plans and emission reduction programs. Those who live and work in a selected community are both the most familiar with it and the most invested in promoting its environmental quality. Thus, AB 617 places an emphasis on community-driven action achieved under the oversight of groups known as community steering committees. These committees are to be comprised primarily of individuals who live and work within the communities they will represent. The CAPP Blueprint suggests that these committees include "participants from local community-based environmental justice organizations, schools, land use planning agencies, transportation agencies, local health departments (e.g., hospitals, clinics, physical rehabilitation centers, public health counseling services), academic researchers, and labor organizations, as appropriate."<sup>6</sup>

In late 2018, ICAPCD in conjunction with CCV assembled the steering committee for the El Centro-Heber-Calexico Corridor. Referred to as the AB 617 Community Steering Committee ("Steering Committee"), this group is intended to be involved with all aspects of the Monitoring Plan and community emissions reduction program ("Emissions Reduction Program"), including participant recruitment, identification of key objectives, monitoring site selection, emission reduction strategy selection, and evaluation and dissemination of results. The Steering Committee is also intended to maintain communication with other Community members throughout the planning process to gather input from concerned citizens and facilitate ongoing discussion.

#### 1.3 Objective

While the El Centro-Heber-Calexico Corridor was designated as a community to develop both a community air monitoring plan and a community emissions reduction program, this Plan serves to satisfy the requirements of only the former. It was developed according to the guidelines laid out in the CAPP Blueprint. The goal in developing this Monitoring Plan is ultimately to better understand the impacts of air pollution in the Community through gathering more detailed information and data about air quality on a local scale. This information will in turn be used to inform and support the Emissions Reduction Program that is to be developed concurrently. Ultimately, these programs contribute to the overall objective of promoting public health and welfare in the Community through improvements in local air quality.

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<sup>5</sup> California Air Resources Board. 2018. *Resolution 18-37: Assembly Bill 617 Community Air Protection Program – Community Selection*. Available at: <https://www.arb.ca.gov/board/res/2018/res18-37.pdf?qa=2.16620022.1778124676.1548719155-1155382275.1462320702>. Accessed May 2019.

<sup>6</sup> California Air Resources Board. 2018. *Community Air Protection Blueprint*. October. Available at: [https://ww2.arb.ca.gov/sites/default/files/2018-10/final\\_community\\_air\\_protection\\_blueprint\\_october\\_2018.pdf](https://ww2.arb.ca.gov/sites/default/files/2018-10/final_community_air_protection_blueprint_october_2018.pdf). Accessed: May 2019.

**1.4 Document Organization**

This Plan was developed and organized following the guidelines laid out in the CAPP Blueprint prepared by CARB. Specifically, each of the subsequent chapters in this Plan addresses one or more of the 14 planning elements (summarized in [Table 1.1](#) below).

<b>Table 1.1. Community Air Monitoring Plan Elements</b>	
<i>What is the reason for conducting community air monitoring?</i>	
1	Form community partnerships.
2	State the community-specific purpose for air monitoring.
3	Identify scope of actions.
4	Define air monitoring objectives.
5	Establish roles and responsibilities.
<i>How will monitoring be conducted?</i>	
6	Define air quality objectives.
7	Select monitoring methods and equipment.
8	Determine monitoring areas.
9	Develop quality control procedures.
10	Describe data management.
11	Provide work plan for conducting field measurements.
<i>How will data be used to take action?</i>	
12	Specify process for evaluating effectiveness.
13	Analyze and interpret data.
14	Communicate results to support action.

## 2 Element 1 – Form Community Partnerships

### 2.1 Element 1 Overview

The first element presented in the CAPP Blueprint is to form community partnerships. Community members are well suited for providing direct insight on the air quality issues in their community and their input is necessary to ensure effective community-focused monitoring. As part of this element, a community steering committee must be formed to facilitate communication between community members and the air district, as well as to carry out air monitoring goals and objectives. Additionally, a community steering committee is used to develop outreach opportunities to ensure that the community is able to participate in the decision-making process. The Steering Committee formed by the ICAPCD and CCV fulfills the requirements of this element.

### 2.2 Community Steering Committee

The purpose of the Steering Committee is to create and execute air monitoring objectives, provide information to Community members, and support local actions related to air monitoring. The Steering Committee for the El Centro-Heber-Calexico Corridor was convened by a collaborative effort between ICAPCD and CCV, following the selection of the Corridor as a CAPP Year 1 Community. Since its formation, the Steering Committee has been involved with all aspects of both this Monitoring Plan and the Emissions Reduction Program. In the formation of this Plan, Steering Committee activities have included and will continue to include participant recruitment, identification of key objectives, monitoring site selection, and evaluation and dissemination of results. Additionally, the Steering Committee was intended to serve as a communication channel with other Community members to gather input from concerned citizens and facilitate ongoing discussion.

On November 1, 2018, the ICAPCD hosted an informational meeting regarding the development of an AB 617 steering committee for the El Centro-Heber-Calexico Corridor. Open to the general public, the purpose of this meeting was to allow Community members to obtain information about the Community's upcoming community air monitoring and emission reduction programs. Topics discussed at the meeting included the background of AB 617, the initial efforts of CCV and ICAPCD conducted to that point, plans for upcoming community projects to be implemented as part of CAPP participation, and development of the Steering Committee.

At the November 1 meeting, emphasis was placed on getting the Steering Committee up and running, with the goal of holding its first meeting on November 14. ICAPCD staff explained that one of the initial objectives would be to develop bylaws for the group. Applications for the Steering Committee were distributed, and a due date was set for November 5. The application form posed specific questions to applicants designed to gauge their level of interest, as well as gather what special knowledge or perspective they could contribute to the group towards ensuring that the larger Community is being fairly represented and its wellbeing considered throughout the AB 617 process.

Following this application period, Steering Committee members were evaluated and selected. **Table 2.1** displays the members who were chosen for the first AB 617 Steering Committee for the Community, the majority of which are residents of the El Centro-Heber-Calexico Corridor.



**Table 2.1. AB 617 Community Steering Committee Members, 2018-2019**

Representing	Members	Alternates
Co-Chair (ICAPCD)	Matt Dessert	Reyes Romero
Co-Chair (CCV)	Luis Olmedo	<i>Pending</i>
Community Corridor	Mersedes Martinez	Rosa Guerrero
Community Corridor	Dora Alvarez	Yvette Herrera
Community Corridor	Diahna Garcia-Ruiz	Bob Fischer
Community Corridor	Rene Felix	<i>Pending</i>
Community Corridor	Mireya Diaz	Sandra Mendivil
Community Corridor	Kristian Salgado	<i>Pending</i>
Community Corridor	Blake Plourd	Steven Snow
Community Corridor	Sergio Cabanas	Michael Moore
Community Corridor	Mark Baza	Virginia Mendoza
Community Corridor	Aide Fulton	Diego Gamboa
Community Corridor	Mary Salazar	Irene Garcia
Community Corridor	John Hernandez	Paul Monarrez
Community Corridor	Jose Celaya	Tyler Salcido

Commented [A1]: Per CARB feedback, potentially update with member affiliations.

As Table 2.1 displays, the Steering Committee consists of 15 members made up of two *ex-officio* co-chairs (representing ICAPCD and CCV) and 13 Community representatives. Some of these Community representatives are affiliated with various organizations around Heber, El Centro, and Calexico, including school districts, local government commissions, businesses, and non-profit organizations. They were selected to participate in the Steering Committee based on their potential to act as leaders and contribute technical expertise during planning. In the event that any Steering Committee members are unable to perform their duties, alternates were selected to step in.

In January 2019, staff from ICAPCD and CCV developed a draft AB 617 Steering Committee Charter (“draft Charter”) for consideration by the Steering Committee. The draft Charter was discussed and approved by the Steering Committee during the February 13<sup>th</sup> Steering Committee Meeting. The Charter was then submitted to the ICAPCD Governing Board, comprised of the Imperial County Board of Supervisors. Formally approved by the Board on March 19, 2019, the



Charter establishes the authority and purpose of the Steering Committee along with its bylaws, and the intended structure and schedule for regular Steering Committee meetings.<sup>7</sup>

The Steering Committee is responsible for holding regular meetings to discuss topics related to the CAPP and provide recommendations for action to the ICAPCD Board. Topics of discussion can include approaches for community engagement and outreach, sources contributing to the Community's air quality challenges, strategies for developing and implementing the emissions monitoring and reductions programs, targets and goals, and metrics to track progress. The Charter specifies that these meetings be held at least once per month, unless there is a lack of agenda topics, in which case a vote may be held to cancel the following month's meeting. Special meetings may also be held as required. A summary of the Steering Committee meetings conducted to date is available in **Appendix A**. A copy of the Charter is presented as **Appendix B**.

### 2.3 Outreach Overview

As part of the commitment to community engagement and outreach, ICAPCD staff operates a website dedicated to AB 617 activity in Imperial County.<sup>8</sup> The site offers background information on AB 617 and has pages for information on the Steering Committee members, meetings and events (including notes and recordings from past meetings), contact information, and links to important resources such as the CARB home page and websites for local air monitoring networks. Additionally, both District and CCV staff have maintained that they will be available as resources to anyone with questions or just looking to gather more information about CAPP implementation in Imperial County. Information regarding the dedicated District contact person for this Plan is provided below.

<p style="text-align: center;"><b>Dedicated ICAPCD Contact Person</b></p> <p style="text-align: center;"><b><i>Belen Leon</i></b> <i>Air Pollution Control Project Manager</i> Phone: 442-265-1800 Email: <a href="mailto:belenleon@co.imperial.ca.us">belenleon@co.imperial.ca.us</a></p>
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The Steering Committee meetings are open to the public. They are advertised via email notifications, as well as flyers posted to the District's website. To enhance public understanding and participation, a professional interpretation service is available at each meeting to provide translation services. At each meeting, a specific agenda item is included to allow for the public to issue comments. These comments are either addressed during the meeting or included as a discussion point for future meetings.

<sup>7</sup> [PLACEHOLDER - LINK FOR FINAL CHARTER]

<sup>8</sup> ICAPCD. AB 617 Imperial County: Calexico, Heber, El Centro Corridor. Available at: <https://www.icab617community.org/>. Accessed: May 2019.

Community input received during the Steering Committee meetings has demonstrated the value of collaborating with members of the Community on both the Monitoring Plan and the Emissions Reduction Program. Going forward, the Steering Committee will continue to engage with the public through monthly meetings. The flyer notification system has worked well in terms of spreading the word about meetings and promoting attendance, so it will continue to be utilized.

Finally, the ICAPCD has an established social media presence which they utilize to promote engagement by the Community in matters related to air quality and the AB 617 plans. The District operates a Facebook page<sup>9</sup> where regular posts are made to notify the public about important items such as high wind advisories, times when burning is and is not permitted, and daily air quality reports that provide summaries of ambient pollutant measurements recorded at regulatory monitoring stations around the County, as well as advertisements for upcoming Steering Committee meetings and photos and videos from past meetings. Similar posts are also made to the District's Instagram<sup>10</sup> and Twitter pages.<sup>11</sup>

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<sup>9</sup> Available at: <https://www.latest.facebook.com/Countyair/>. Accessed: May 2019.

<sup>10</sup> Available at: [https://www.instagram.com/county\\_air/](https://www.instagram.com/county_air/). Accessed: May 2019.

<sup>11</sup> Available at: [https://twitter.com/county\\_air](https://twitter.com/county_air). Accessed: May 2019.

### **3 Element 2 – State the Community-Specific Purpose for Air Monitoring**

#### **3.1 Element 2 Overview**

While the common goal of the CAPP at large is to improve air quality in specific communities throughout California, not all regions are facing the same issues. Thus, the CAPP Blueprint specifies that community air monitoring plans must clearly define the purpose for conducting monitoring in the given community. Particular pollutants of concern and potential locations of their sources should be provided as support for the decision to conduct air monitoring in the community. Additionally, the Blueprint specifies that if there is already some sort of air monitoring program in place in the community, a plan should be identified for expanding it to suit the requirements for monitoring plans under AB 617. Alternative approaches beyond existing monitoring programs should also be evaluated for their potential to benefit the monitoring plan.

As described in the sections below, the El Centro-Heber-Calexico Corridor is characterized with impaired air quality and the broader region has been designated as a federal nonattainment area for multiple National Ambient Air Quality Standards (NAAQS). Emissions from both sides of the international border have been shown to contribute to the air quality burden in the Community. The Emission Reduction Program, being developed concurrently with this Plan, will look to improve current conditions by identifying emission reduction strategies focused on sources on the United States side of the border. It will also identify strategies for reducing human exposure to air pollution, which will be effective regardless of where emissions originate. Monitoring can be a useful tool in tracking emission reductions as well as informing a community of its current exposure to air pollution. While both regulatory and community monitoring exists within the El Centro-Heber-Calexico Corridor, this Plan seeks to leverage and build upon that monitoring to meet the needs of the Community. Ultimately, the community-specific purpose for air monitoring is defined by the Community's desire to 1) to formally track the progress of the Emission Reduction Program and 2) provide higher resolution real-time air quality data that is easy to understand and access.

#### **3.2 Air Quality Issues Facing the Community**

##### **3.2.1 Federal Attainment Status**

As shown in **Table 3.1** below, the El Centro-Heber-Calexico Corridor is located within a region that is nonattainment for the 8-hour ozone, 24-hour respirable particulate matter (PM<sub>10</sub>), and 24-hour and annual fine particulate matter (PM<sub>2.5</sub>) NAAQS. The NAAQS are standards established by the United States Environmental Protection Agency (USEPA) which are designed to be protective of human health. These standards are periodically revised to accurately reflect the latest scientific knowledge. When air quality in an area deteriorates to the point where a NAAQS is exceeded, regulatory mechanisms are triggered which typically require the area to create a State Implementation Plan (SIP) to address the underlying issues. These extensive documents usually take several months to years to develop and include many facets such as analyses of monitoring data, emissions modeling, emissions inventories development, control measures review, and even implementation of new control measures. Within the past two years, the District

has developed and approved SIPs for PM<sub>10</sub>,<sup>12</sup> PM<sub>2.5</sub>,<sup>13</sup> and ozone (O<sub>3</sub>).<sup>14</sup> While beneficial, these plans are designed to address air quality issues at the regional level for Imperial County. In contrast, this Community Monitoring Plan prepared in accordance with AB 617 expands upon previous efforts in the SIPs while specifically focusing on the El Centro-Heber-Calexico Corridor.

**Table 3.1. National Ambient Air Quality Standards and Attainment Status for El Centro-Heber-Calexico Corridor**

Pollutant	Averaging Period	Federal Standard <sup>[a]</sup>	Attainment Status
Ozone (O <sub>3</sub> )	8-hour	0.075 ppm <sup>[b]</sup>	Nonattainment
Respirable Particulate Matter (PM <sub>10</sub> )	24-hour	150 µg/m <sup>3</sup>	Nonattainment
Fine Particulate Matter (PM <sub>2.5</sub> )	24-hour	35 µg/m <sup>3</sup>	Nonattainment
	Annual	12 µg/m <sup>3</sup>	Nonattainment
Carbon Monoxide (CO)	1-hour	35 ppm	Unclassified/Attainment
	8-hour	9 ppm	Unclassified/Attainment
Nitrogen Dioxide (NO <sub>2</sub> )	1-hour	0.100 ppm	Unclassified/Attainment
	Annual	0.053 ppm	Unclassified/Attainment
Lead (Pb)	Rolling 3-month average <sup>[c]</sup>	0.15 µg/m <sup>3</sup>	Unclassified/Attainment
Sulfur Dioxide (SO <sub>2</sub> )	1-hour	0.075 ppm	Unclassified/Attainment
	3-hour <sup>[d]</sup>	0.5 ppm	Unclassified/Attainment
	24-hour	0.14 ppm	Unclassified/Attainment
	Annual	0.03 ppm	Unclassified/Attainment

**Notes:**

<sup>[a]</sup> Federal standard levels obtained from the USEPA NAAQS Table. Note that some federal standards include a level (such as the concentrations shown in the Table) and a form (often a statistical form or based on excluding a certain number of exceedances of the standard level over a given number of years). Exceedances of the standard level are not necessarily violations or exceedances of the standard. Available at: <https://www.epa.gov/criteria-air-pollutants/naaqs-table>. Accessed: May 2019.

<sup>12</sup> ICAPCD. 2018. *Imperial County 2018 Redesignation Request and Maintenance Plan for Particulate Matter Less Than 10 Microns in Diameter*. Available at: <https://www.arb.ca.gov/planning/sip/planarea/imperial/sip.pdf>. Accessed: May 2019.

<sup>13</sup> ICAPCD. 2018. *2018 State Implementation Plan for the Imperial County 12 ug/m3 Annual PM<sub>2.5</sub> Standard*. Available at: <https://www.co.imperial.ca.us/AirPollution/PublicNotices/PDFs/PublicHearings/20180424PM25AnnualSIP/DraftVersion/2018ICPM25SIPDRAFTv3.pdf>. Accessed: May 2019.

<sup>14</sup> ICAPCD. 2017. *Imperial County 2017 State Implementation Plan for the 2008 8-hour Ozone Standard*. Available at: [https://www.arb.ca.gov/planning/sip/planarea/imperial/2017O3sip\\_final.pdf](https://www.arb.ca.gov/planning/sip/planarea/imperial/2017O3sip_final.pdf). Accessed: May 2019.

**Table 3.1. National Ambient Air Quality Standards and Attainment Status for El Centro-Heber-Calexico Corridor**

Pollutant	Averaging Period	Federal Standard <sup>[a]</sup>	Attainment Status
<sup>[b]</sup> 2008 Federal standard level. 2015 federal standard level is 0.070 ppm but attainment designations are pending ( <a href="http://www.arb.ca.gov/desig/feddesiq.htm">http://www.arb.ca.gov/desig/feddesiq.htm</a> ). <sup>[c]</sup> Final rule signed October 15, 2008. The 1978 lead standard (1.5 µg/m <sup>3</sup> as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved. <sup>[d]</sup> This is a secondary standard.			

### 3.2.2 Additional Community Information

Imperial County is located in a primarily desert region of southern California and shares an international border with Mexico. The economy in the region is predominantly tied to agriculture, which can result in emissions from agricultural activities (e.g., tilling, burning), concentrated animal feeding operations (CAFOs), off-road equipment (e.g., tractors and pumps), on-road vehicles, and unpaved roads. In addition to the agricultural economy, Imperial County also has industrial energy sources and a significant amount of off-highway vehicle (OHV) activity in the outlying desert. Due to its proximity to the international border, there is also a large amount of emissions that can be attributed to vehicles idling at and traveling through the main ports-of-entry. Apart from anthropogenic (i.e., "human caused") activity, the area is also susceptible to high wind events, which can lead to elevated concentrations of particulate matter. **Table 3.2** below summarizes the types of air pollutants generally associated with the sources discussed above.

**Table 3.2. Examples of Key Emission Sources in Imperial County and Associated Pollutants**

Emissions Source	Associated Pollutants
Agricultural Activities (tilling)	PM <sub>10</sub> , PM <sub>2.5</sub>
Agricultural Activities (burning)	PM <sub>2.5</sub>
Concentrated Animal Feeding Operations	PM <sub>10</sub> , PM <sub>2.5</sub> , methane (CH <sub>4</sub> ), ammonia (NH <sub>3</sub> )
Off-Road Equipment	Combustion By-products <sup>[a]</sup>
On-Road Vehicles	Combustion By-products <sup>[a]</sup>
Unpaved Roads	PM <sub>10</sub> , PM <sub>2.5</sub>
Industrial Energy Production	Combustion By-products <sup>[a]</sup>
Off-Highway Vehicles	PM <sub>10</sub> , PM <sub>2.5</sub>
Regional Wind Events	PM <sub>10</sub> , PM <sub>2.5</sub>
Notes:	

<sup>[a]</sup> Combustion by-products will vary by fuel type but will generally include carbon dioxide, carbon monoxide, sulfur dioxide, nitrogen oxides, particulate matter, and toxics.

Due to measured concentrations of pollutants in the region, OEHHA's CalEnviroScreen 3.0<sup>15</sup> ranks portions of the Corridor in the 74<sup>th</sup> to 78<sup>th</sup> percentile for ozone, as high as the 95<sup>th</sup> percentile for particulate matter (PM), and as high as the 96<sup>th</sup> percentile for asthma incidences. Both ozone and PM have been documented to contribute to asthma and other lung-related diseases.<sup>16</sup> The California Health Interview Survey<sup>17</sup> provides data on the prevalence of both active and lifetime asthma in California. Active asthma prevalence is the proportion of people who have ever been diagnosed with asthma by a healthcare provider and report they still have asthma and/or had an episode or attack within the past 12 months. Lifetime asthma prevalence is the proportion of people who have ever been diagnosed with asthma by a healthcare provider. For 2015-2016, Imperial County had an active asthma prevalence of 12.1% (ranked 8<sup>th</sup> out of 58 counties in California), and a lifetime prevalence of 15.1% (ranked 23<sup>rd</sup>). Both prevalence rates are above the respective statewide averages.

### 3.3 Existing Monitoring Efforts

Within the El Centro-Heber-Calexico Corridor, there are two regulatory monitors and nine community monitors. The community monitors are a part of CCV's Identifying Violations Affecting Neighborhoods (IVAN) network. The locations of all eleven monitors, plus three additional community monitors located adjacent to the Corridor, are presented in [Figure 3.1](#).

#### 3.3.1 Regulatory Monitoring

Existing regulatory monitors within the Corridor include the El Centro monitoring station and the Calexico-Ethel monitoring station. The El Centro monitoring station was installed in 1986 and is maintained by ICAPCD staff. It is located at 150 9th Street in El Centro. The monitoring station is classified as urban and surrounded by government and commercial buildings, with large agricultural areas to the east and west of the El Centro city boundaries. The El Centro monitoring station records measurements for O<sub>3</sub>, carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), PM<sub>2.5</sub>, and PM<sub>10</sub>. The Calexico-Ethel monitoring station was installed in 1994 and is operated and maintained by CARB. It is located at 1029 Belcher Street in Calexico. This monitoring station is surrounded by a suburban neighborhood and is approximately 0.75 miles north of the United States-Mexico border. The Calexico-Ethel station monitors O<sub>3</sub>, CO, NO<sub>2</sub>, sulfur dioxide (SO<sub>2</sub>), PM<sub>2.5</sub>, PM<sub>10</sub>, lead (Pb), and toxics. Data from the El Centro and Calexico-Ethel monitors are validated and used to

<sup>15</sup> Available at: <https://oehha.ca.gov/calenviroscreen>. Accessed: May 2019.

<sup>16</sup> USEPA. *Asthma and Outdoor Air Pollution*. Available at: <https://www3.epa.gov/airnow/asthma-flyer.pdf>. Accessed: May 2019.

<sup>17</sup> Additional information on the California Health Interview Survey can be found at: <http://healthpolicy.ucla.edu/chis/Pages/default.aspx>. Accessed: May 2019.



determine the federal attainment status for Imperial County.<sup>18</sup> Both monitoring stations feature meteorological sensors that measure temperature, humidity, wind direction, and wind speed. Since these monitors are used for regulatory purposes, results are not immediately available to the public. Additionally, some pollutants are only monitored once every three days or once every six days.

### 3.3.2 Community Monitoring

The IVAN network is a collection of 40 air quality monitors located throughout the Imperial Valley, nine of which are located within the El Centro-Heber-Calexico Corridor, plus an additional three which are located adjacent to the Corridor.<sup>19</sup> The network was developed and is managed by CCV, the California Environmental Health Tracking Program (“Tracking California”), and the University of Washington School of Public Health. The monitors began collecting data in September 2016 and currently monitor for particulate matter. The collected data is reported in real time to a website that can be viewed by community members directly. The data is also used to calculate community air quality levels (CALs), which describe current air quality and provide health recommendations to the community. Currently, the data from the IVAN network cannot be used to determine attainment status or other air quality requirements.

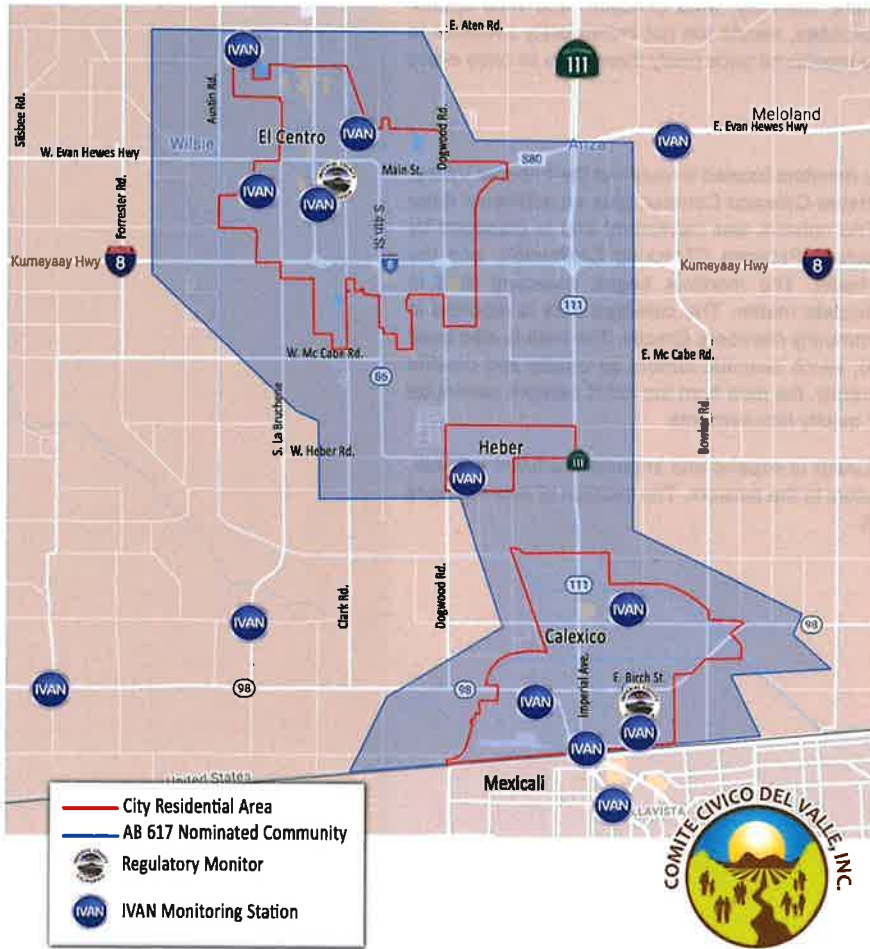
In 2018, CCV received a \$500,000 grant from CARB to expand and improve the IVAN network, as well as pilot test the addition of methane monitors to the network. The location of new monitors would be determined based on community input.

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<sup>18</sup> There are three additional regulatory monitoring stations in Imperial County which are located outside of the Corridor. These include the Brawley monitoring station, the Niland monitoring station, and the Westmorland monitoring station.

<sup>19</sup> Additional information on the IVAN network can be found at: <https://ivanonline.org/>. Accessed: May 2019.

**Figure 3.1. Locations of Air Quality Monitors in the El Centro-Heber-Calexico Corridor**



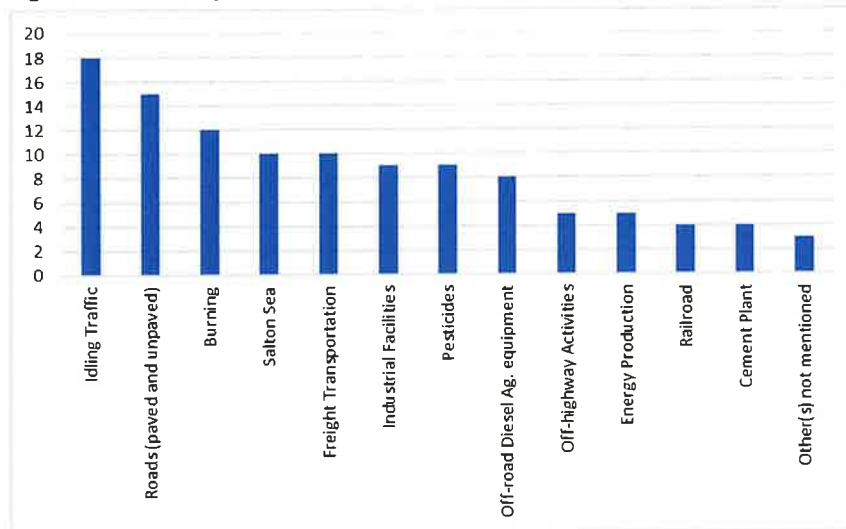
### 3.4 Community Input

During the fourth Steering Committee meeting, held on January 30, 2019, a survey was presented to the Steering Committee which asked questions relevant to Element 2. These questions included, "What do you think has contributed to worsening air quality in the corridor?", "What pollutants should we monitor?", and "Where in the corridor should we monitor?" The results from this survey are reproduced in Figures 3.2 through 3.4 below and generally show that the Steering



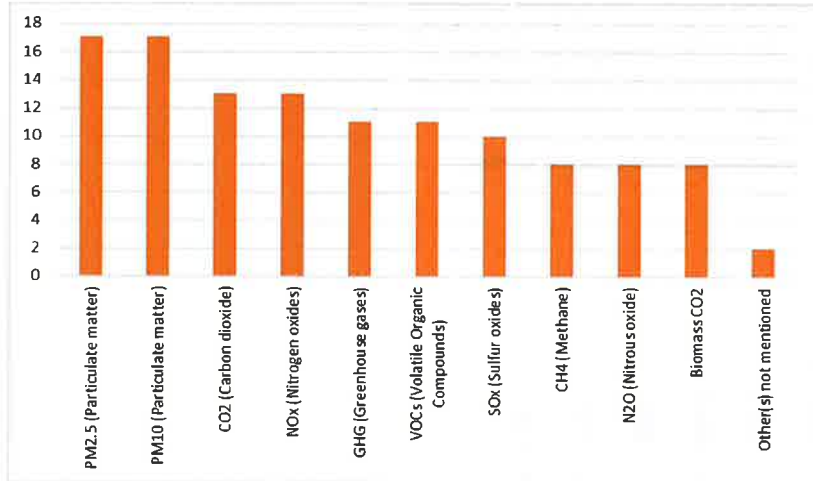
Committee attributes the worsening air quality in the Corridor to emissions from traffic (including paved and unpaved roads), agricultural burning, and industrial facilities. The Steering Committee also identified particulate matter and greenhouse gases as the main pollutants of concern. As far as where potential monitoring should take place, the Steering Committee indicated that the international border was the area of highest interest, with some concern for areas associated with agriculture, the inner city, energy production, and construction.

**Figure 3.2. What do you think has contributed to worsening air quality in the corridor?**



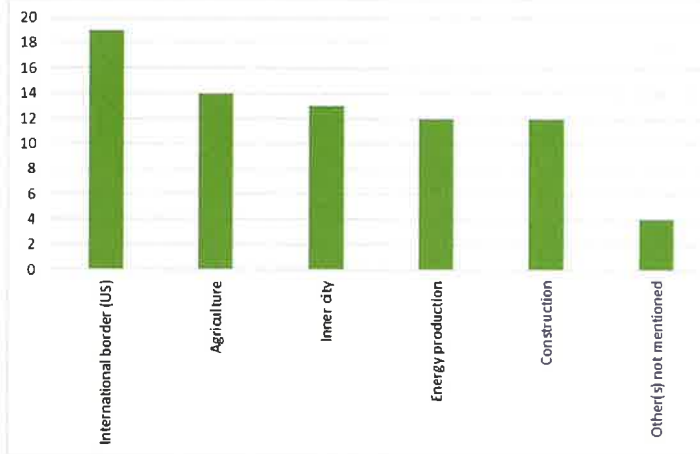
(Data obtained from January 30, 2019 polling of the Steering Committee)

**Figure 3.3. What pollutants should we monitor?**



(Data obtained from January 30, 2019 polling of the Steering Committee)

**Figure 3.4. Where in the corridor should we monitor?**



(Data obtained from January 30, 2019 polling of the Steering Committee)

### 3.5 Potential Alternative Strategies

As part of the Emission Reduction Program, ICAPCD and the Steering Committee are evaluating strategies separate from air quality monitoring that could be used to address some of the Community's priorities and concerns. These may include both emission reduction and exposure reduction strategies. For additional information on these strategies, see the draft plan for the Emission Reduction Program.<sup>20</sup>

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<sup>20</sup> Available at: [\[PLACEHOLDER – LINK FOR DRAFT EMISSION REDUCTION PROGRAM PLAN\]](#)

## **4 Element 3 – Identify Scope of Actions**

### **4.1 Element 3 Overview**

Before a monitoring program can be designed, the scope of actions that it will support must be determined so that it can be tailored to the specific initiatives to be pursued. Potential actions to consider could include the development of a real-time air quality notification system, identification of areas that are most heavily burdened by air pollution and tracking medium- and long-term trends in air quality. Each of these actions could require different types of systems to implement and levels of data quality to collect, so pre-determining which will be incorporated into the community air monitoring plan is essential for its design.

### **4.2 Community Input**

At the public Steering Committee meetings conducted concurrent to the drafting of this Plan, discussions were held among members and other citizens of the Community regarding how to best implement the Monitoring Plan. Topics of discussion were carefully selected to generate Community input that would be useful in preparing this Plan in accordance with the 14 elements of the CAPP Blueprint. Among these, Element 3 was explored during the fourth Steering Committee meeting, held on January 30, 2019. Following an introductory presentation by CCV to provide background on the first five elements of the Blueprint, Steering Committee members were split into small groups to discuss their ideas for what goals to set for the Plan's scope of actions and answer the question, "What are we going to do with the data we collect?". The input collected from the Steering Committee during this discussion forms the basis of the scope of action for this Plan.

### **4.3 Community Goals**

During the breakout sessions, each small group discussed their desires for which items to include in the Plan's scope of action and prepared a short list to share with the overall group of meeting attendees. Although the groups held independent discussions, there were many common sentiments among them. Common suggestions for actions to include in the Plan's scope were 1) increased outreach efforts to educate the Community on air quality issues and interpreting basic data and alerts, 2) new or improved systems for notifying the public when pollutant levels are unhealthy, 3) and expanding the existing monitoring network to target areas with higher concentrations of air pollutants (also known as "hotspots"). Each group also discussed which areas within the Community they believed to be hotspots and would be strategic locations for new monitoring stations.

#### **4.3.1 Expansion of Existing Monitoring Network**

One objective that was supported by the Steering Committee and Community members present at the meeting was to add more air monitors to complement the existing regulatory and IVAN air monitoring networks. As discussed in [Section 3.3](#), there are currently two regulatory monitors and nine community monitors in the Corridor footprint. The regulatory monitors are generally designed to track regional air quality and are used to determine the attainment status of Imperial County. They are subject to rigorous quality assurance/quality control (QA/QC) requirements and thus

produce high-quality data. Ultimately, these monitors can be used to track the progress of the Emission Reduction Program.

On the other hand, the existing community monitors, which are part of the IVAN network, provide a neighborhood-level representation of air quality. These monitors are able to provide a stream of localized air quality data in the form of particulate matter air concentration measurements recorded every five minutes. While this data is useful, it may not represent all of the areas of interest in the Community. Particulate levels can vary even over small distances, so a higher density of monitors could help provide a more precise picture of the air quality status in the Community at any given time. Installing additional monitors at strategic locations would allow for the collection of a more robust data set that could be used to notify citizens of unhealthy air quality conditions when it is more likely to directly affect them. During the small group discussions of Steering Committee Meeting 4, attendees listed some of the areas where they would like to see more air monitors. These areas included roads and intersections with high traffic densities, the region along the United States-Mexico border (with an emphasis on ports-of-entry), and those near specific, large stationary sources such as cattle feedlots. More details on the specific air monitoring objectives are presented in [Chapter 5](#).

#### 4.3.2 Notification Systems

The topic of utilizing real-time air monitoring data to notify the Community when pollutant levels are unhealthy was brought up by many attendees of Steering Committee Meeting 4. While there are already some applications and alert systems in place as part of ICAPCD's regulatory network and the IVAN network, many community members felt it could be improved upon. An improved system for handling monitoring data and alerting the public could be implemented along with the expansion of the existing monitoring network. One possibility would be to utilize GPS systems and mobile phone applications to alert Community members of unhealthy pollutant levels based on their current location. This option would become increasingly useful as more monitors are added to the network and more precise data becomes available. Attendees of the Steering Committee meeting expressed interest in a notification system that is more localized, user friendly, and able to provide data to users that is accessible in a timely manner (i.e., as soon as possible after air pollutant levels become unhealthy). An improved notification system that works with existing and newly installed monitors could satisfy this goal. This system could also be linked to the local school flag program, which looks to advertise the air quality conditions of the day through a flag or other visual (e.g., a marquee).

#### 4.3.3 Education and Outreach

While not explicitly related to air monitoring, members of the Community expressed interest in including education and outreach activities in the scope of action for the Plan. Suggested topics for public education included:

- Interpreting air quality data;
- How poor air quality can impact health; and
- Understanding the difference between community monitoring and regulatory monitoring and their associated indices.

There is a lot of complicated science and regulatory jargon involved with air quality monitoring and regulation, so making this information more digestible for the Community could broaden the impact of air monitoring. The goal of the Plan is ultimately to promote public health and welfare, so efforts must be made to ensure that members of the Community understand how to use the information generated for their own benefit.

#### 4.4 Potential Future Goals

Air quality data collected through an expanded monitoring network in the Community will be useful for developing and improving notification systems, as discussed. However, additional uses for the data will also be explored in the coming years. For example, as more long-term data is collected, there will be opportunities for data analysis and trend identification using the community monitors, rather than through the regulatory monitors alone.

## 5 Element 4 – Define Air Monitoring Objectives

### 5.1 Element 4 Overview

Related to the scope of actions described in Element 3, specific air monitoring objectives must also be determined ahead of Plan development, as they inform the technical needs for data collection and analysis. Having clearly defined goals simplifies the process for evaluating the progress of the Monitoring Plan and ensuring that the Community is on track to complete its goals by the specified deadlines. The CAPP Blueprint suggests objectives that community monitoring plans may want to incorporate, such as determining which specific areas are experiencing disproportionate burdens from air pollution, identifying specific sources and measuring or estimating their emissions, and making real-time air quality data available to the community. In addition to the air monitoring objectives, the Blueprint describes how monitoring plans should include objectives for collecting other types of data, such as meteorological data and tracking of pollutants not on the CAP or TAC lists. Finally, if there already exists a monitoring program in the community, plans should document their current scope and explain how new monitoring efforts will be employed to expand or complement them.

### 5.2 Air Monitoring Objectives for this Plan

As stated in **Section 2** of this Plan, the community-specific purpose for air monitoring is defined by the Community's desire to 1) to formally track the progress of the Emission Reduction Program and 2) to provide higher resolution real-time air quality data that is easy to understand is access. For the Community, the pollutants of concern are particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) and ozone. In recent years, these pollutants have exceeded their respective NAAQS in Imperial County, triggering the requirement to prepare SIPs. While the efforts laid out in the SIPs have begun addressing the issue at a regional level, implementation of this Plan will push the efforts further while focusing on improving air quality in the El Centro-Heber-Calexico Corridor specifically. To accomplish this, the Plan establishes the following main air monitoring objectives: to utilize the data collected by the regulatory monitors to track the progress of the Emissions Reduction Program and to implement sufficient monitoring to be able to provide real-time air quality data to the Community that is easy to understand and covers a greater area with increased resolution compared to the current monitoring networks. This will be achieved by adding new monitors around the Community ("AB 617 Community Monitors") in strategic locations where the pollution burden is greatest.

It is important to note that the main air monitoring objectives of the Plan focus only on particulate matter pollution. The existing community monitors in the Corridor only monitor PM<sub>10</sub> and PM<sub>2.5</sub> concentrations and the newly installed AB 617 Community Monitors will follow suit. The regulatory monitors track a broader suite of pollutants, including ozone. However, the reason that ozone will not be monitored as part of the Plan despite it being a known issue in Imperial County is because of the nature of ozone formation. Ground-level ozone in the atmosphere is formed over time by the reaction of precursor pollutants rather than being directly emitted by sources. The complex chemical reactions that form ozone occur on a regional scale, widely dispersed from wherever the precursors were originally emitted. In contrast, particulate matter (and specifically PM<sub>2.5</sub>) in the atmosphere is the result of both regional and localized emissions. Thus, targeted emissions reductions on a local scale can reduce particulate exposure in overburdened areas in a way that

reductions of ozone precursor emissions cannot. For this reason, the air monitoring objectives of the Plan focus on particulate matter.

Similarly, while the Steering Committee expressed interest in monitoring greenhouse gases (e.g., carbon dioxide and methane) as part of the Plan (as described in Section 3.4), that issue is better handed on a regional or even global scale. Elevated greenhouse gas concentrations in the atmosphere represent a legitimate concern with regard to climate change, but they often do not cause direct health impacts. Considering the mechanism and scale of how greenhouse gas emissions impact the environment, monitoring at the community level does not present a benefit in line with the objectives of this Plan. Nevertheless, CCV is conducting a pilot program to monitor methane which has the potential to address this Community concern.

### 5.2.1 Monitoring Design

The existing regulatory monitors have been designed and sited according to the requirements outlined in Title 40 Part 58 of the Code of Federal Regulations (CFR). As a result, no change to the design of the regulatory monitors is being proposed as part of this Plan. To facilitate the comparison of data and leverage the knowledge gained from the IVAN network, the AB 617 Community Monitors would be similar in design to the IVAN monitors. They would be programmed to measure and record both PM<sub>10</sub> and PM<sub>2.5</sub> levels. Using telemetry technology, the data collected at each monitor would be transmitted to a database for recordkeeping and analysis. One key analysis would be to compute an average concentration for each type of particulate matter that is consistent with the averaging times used for the NAAQS. The NAAQS or a fraction thereof could then be used as an action level which when exceeded, triggers an automated community notification system. The goal would be to maintain these monitoring efforts indefinitely so long as there remains interest and support among members of the Community. More detailed information on the Plan's monitoring methods and equipment can be found in Section 8.

### 5.2.2 Locations for New Monitors

As mentioned above, the existing regulatory monitors have been designed and sited according to the requirements outlined in 40 CFR Part 58. As a result, no change to the location of the regulatory monitors is being proposed as part of this Plan. In regards to the AB 617 Community Monitors, on several occasions the Steering Committee was polled for their input on possible monitor locations. Based on the input received, Steering Committee members seemed to prioritize location selection based on two main factors: proximity to potential pollutant hotspots and proximity to sensitive receptors. Among the suggestions were to install new monitors along the United States-Mexico border (with emphasis on ports-of-entry), near high traffic areas where vehicles travel and idle, and near high populations of sensitive receptors like children and the elderly. These comments collected were considered along with another factor, distance to the nearest existing monitor, so that areas not covered by the current monitoring networks would also be prioritized. Eventually, locations were selected to install the new monitors. More details on these specific locations are provided in Section 9 of this Plan.



### 5.3 Additional Data

Data gathered from other sources aside from the regulatory and AB 617 Community Monitors will be useful for implementing the Plan and assessing its progress. In particular, the Imperial County SIPs for PM<sub>2.5</sub> and PM<sub>10</sub> provide a detailed insight into the particulate matter situation in the region, pre-AB 617. While not specific to the local area of the Community, the SIPs contain a trove of information related to current and historic levels of ambient particulate matter, emissions inventories, and control measures for mitigating emissions. Data from the SIPs will provide a general baseline level for ambient concentrations of particulate which can be compared against future measurements collected by the regulatory and AB 617 Community Monitors.

In addition to past data obtained from the SIPs, ongoing meteorological (“met”) data collection will be useful for the Plan. As of now, the number of stations actively collecting met data around the Community is adequate for meeting the needs of the monitoring objectives. There are currently four stations collecting met data that are located within the El Centro-Heber-Calexico Corridor. Two of these are associated with the regulatory monitors, where one is located in Calexico and one in El Centro. These stations monitor wind direction and speed in addition to various air pollutants. There are also two weather stations in the Community, again one in Calexico and one in El Centro. These stations monitor a variety of met conditions, including air temperature, humidity, wind speed and direction, and precipitation. While these four stations provide adequate geographical coverage for supporting the air monitoring objectives of the Plan, the potential addition of more met stations may be evaluated in the future.

### 5.4 Evaluating Plan Progress

Progress of the Plan will be periodically assessed to ensure that its goals are being met in a timely manner. The Plan will be evaluated against a set of benchmarks selected to gauge its progress. The first major milestone is the completion of the written Monitoring Plan, i.e. this Plan. This Plan was drafted during the first half of 2019 and completed ahead of the June 30, 2019 goal date. The Plan lays out how data from the regulatory monitors will be analyzed and how the AB 617 Community Monitors will be designed, where they will be located, and how the data collected by them will be handled. The following benchmarks have been established for the regulatory monitors and AB 617 Community Monitors:

1. At the end of each calendar year for the next **five** years, particulate matter data from the El Centro and Calexico regulatory monitors will be analyzed to evaluate the progress of emission reduction strategies under the Emission Reduction Program.
2. Within **three** months of the completion of the Monitoring Plan, all AB 617 Community Monitors will be installed and transmitting data.
3. After collecting data from AB 617 Community Monitors for **one** year, the placement of monitors and the need for further expansion of the network will be evaluated.
4. **[OPTIONAL BENCHMARK FOR GO-LIVE DATE OF NEW/IMPROVED NOTIFICATION SYSTEM]**

## 6 Element 5 – Establish Roles and Responsibilities

### 6.1 Element 5 Overview

Following the identification of monitoring objectives, the next step is to establish roles and responsibilities for all major aspects of the Monitoring Plan. The CAPP Blueprint describes how the Plan should specify the individual tasks, duties, and training that participants should complete as they work towards accomplishing air monitoring objectives. These responsibilities should be tailored to each role that individuals or groups take on. Completing this step is essential for ensuring that all aspects of the Monitoring Plan are assigned to willing and competent individuals so that their progress can be tracked as the overall group works towards development and implementation of the Monitoring Plan. To achieve the goal for this element of the Plan, an organizational chart was developed and is presented below in [Figure 6.1](#).

**Figure 6.1. El Centro-Heber-Calexico Corridor Community Monitoring Organizational Chart**

[PLACEHOLDER]

### 6.2 Parties Involved

Developing the Plan has been a collaborative effort with many different parties involved. Initially, CARB was the body to select the El Centro-Heber-Calexico Corridor as an AB 617 Community following a nomination prepared by ICAPCD and CCV. These two local organizations took the lead on forming the Community Steering Committee and authoring the Plan. Support from contractors was also solicited as necessary, to assist with aspects of the development and implementation of the Plan requiring particular expertise. This included equipment vendors, software application developers, and environmental consultants. The following sections describe in further detail the roles and responsibilities of these groups.

#### 6.2.1 Community Steering Committee Responsibilities

Based on the Steering Committee's charter, their role is to "support active community involvement and collaboration in the development of the Program by providing a forum for identifying community issues and potential solutions with all relevant parties". This was done mainly through the hosting of Steering Committee meetings, held at least once per month since the initial planning stages of the Plan in late 2018. The charter also lists out a more specific set of responsibilities which include providing recommendations to the ICAPCD Board for approaches for community engagement and outreach, Plan targets and strategies, and Plan enforcement, among others. Essentially, the Steering Committee was tasked with overseeing development of the Plan while continuing to engage not only with ICAPCD and CCV, but also with the Community members, to ensure that their concerns were heard and addressed by the Plan.

#### 6.2.2 ICAPCD Responsibilities

From a technical standpoint, ICAPCD is the authority for air quality matters in Imperial County. Their knowledgeable and capable staff oversee the County's regulatory monitoring network and are responsible for preparing the County's SIPs, which are comprehensive plans for addressing air pollution in the region. Through decades of research, enforcement, and data collection,

**Commented [A2]:** This section will be further revised to provide more detail on roles and responsibilities (e.g., who will be responsible for network maintenance, data review, training, deployment of equipment, quality control, etc.)

ICAPCD has developed extensive knowledge of the various pollution sources across the County. A substantial part of SIP development is analyzing available control measures and determining how best to implement or enhance them to effect permanent emission reductions. When the time comes to begin instituting emission reduction strategies in the Community as part of AB 617, ICAPCD will be well positioned to assist and advise. They will be able to take advantage of their knowledge of control measures and how they might intersect with the various rules, laws, and control measures already implemented by federal, state, and their own District actions. It will be the responsibility of ICAPCD to support CCV and the Steering Committee with this knowledge toward the successful execution of the Plan.

### **6.2.3 CCV Responsibilities**

The local environmental justice organization, CCV, will play an integral role in Plan implementation, particularly regarding community air monitoring. CCV has valuable experience with low cost, community air monitoring, having developed the IVAN network. As the AB 617 Community Monitors will be similar in design to the IVAN monitors, CCV's knowledge of monitor siting and data handling will be advantageous for a successful and efficient execution of these aspects of the Plan. Additionally, CCV has extensive experience working closely with the Community on environmental matters. They understand the nuances of the air quality issues in Imperial County and the specific concerns that Community members have. The connections that CCV has made within the Community will be invaluable in conducting outreach and galvanizing involvement by Community members.

### **6.2.4 Community Involvement**

Community-based action is a central tenant of AB 617. Keeping this in mind, the Steering Committee made sure Community members had the opportunity to be involved in Plan development every step of the way. In fact, the Steering Committee members were selected with the expectation that they would communicate with and voice the sentiments of their fellow Community members. In addition, Community members were invited to every public Steering Committee meeting and encouraged to voice their opinions during public comment and workshop activities. In the end, this produced a monitoring plan that truly belonged to the Community, designed to address its personalized air quality needs.

## 7 Element 6 – Define Data Quality Objectives

### 7.1 Element 6 Overview

Obtaining quality data from an air monitoring network is essential to achieving the objectives defined in Element 4 of this Plan. The CAPP Blueprint describes the types of data quality indicators one may want to consider when developing an air monitoring network, including precision, bias, accuracy, sensitivity, completeness, and representativeness. Defining data quality objectives is essential for determining the appropriate technology to use for monitoring.

### 7.2 Data Quality Objectives for Regulatory Monitors

[PLACEHOLDER – REGULATORY MONITOR WRITE-UP]

### 7.3 Data Quality Objectives for AB 617 Community Monitors

As mentioned in Section 5.2.1, to facilitate the comparison of data and leverage the knowledge gained from the IVAN network, the AB 617 Community Monitors would be similar in design to the IVAN monitors. The IVAN monitors currently utilize Dylos DC1700 units, which are low-cost air quality sensors that use a light-scattering particle counter to measure PM particle counts. In establishing the data quality objectives for the AB 617 Community Monitors, one can look to the data quality achieved by the Dylos DC1700 units. Table 7.1 below summarizes data quality information regarding the Dylos DC1700 units. Some of this information was obtained from the manufacturer, while some was obtained from field studies performed by CCV and the South Coast Air Quality Management District (SCAQMD).

<b>Data Quality Indicator</b>	<b>Description</b>
Precision	Field tests performed by the SCAQMD <sup>[a]</sup> have shown low intra-model variability for the mass concentrations of PM <sub>2.5</sub> and PM <sub>10</sub> .
Bias	During the field validation of the IVAN monitors <sup>[b]</sup> the observed bias ranged from 28.3% to -31.4%, when the Dylos DC1700 units were evaluated against E-BAM monitors.
Accuracy	When compared against high-accuracy Federal Reference Method (FRM) and Federal Equivalency Method (FEM) monitors, the Dylos DC1700 units have shown R <sup>2</sup> (i.e., correlation) values between 0.70 and 0.80. <sup>[b]</sup>
Sensitivity	Custom firmware allows the Dylos DC1700 units to measure particles at four different sizes: >0.5 micrograms (µg), >1.0 µg, >2.5 µg, and >10 µg.

Completeness	A minimum data completeness level of 75% is generally sought when air quality monitoring data is used for analysis and comparison against air quality standards.
Representativeness	The high correlation observed between the Dylos DC1700 units and high-accuracy monitors <sup>[b]</sup> indicate that data collected from the Dylos DC1700 units are reasonably representative of real-time conditions.
<p><b>Notes:</b></p> <p><sup>[a]</sup> SCAQMD. AQ-SPEC Field Evaluation of Dylos DC1700. Available at: <a href="http://www.aqmd.gov/docs/default-source/aq-spec/field-evaluations/dylos-dc1700-pm--field-evaluation.pdf?sfvrsn=12">http://www.aqmd.gov/docs/default-source/aq-spec/field-evaluations/dylos-dc1700-pm--field-evaluation.pdf?sfvrsn=12</a>. Accessed: May 2019.</p> <p><sup>[b]</sup> Graeme N. Carvlin, Humberto Lugo, Luis Olmedo, Ester Bejarano, Alexa Wilkie, Dan Meltzer, Michelle Wong, Galatea King, Amanda Northcross, Michael Jerrett, Paul B. English, Donald Hammond &amp; Edmund Seto (2017). Development and field validation of a community-engaged particulate matter air quality monitoring network in Imperial, California, USA, <i>Journal of the Air &amp; Waste Management Association</i>, 67:12, 1342-1352, DOI: 10.1080/10962247.2017.1369471.</p>	

## 8 Element 7 – Select Monitoring Methods and Equipment

### 8.1 Element 7 Overview

After determining the data quality needs of the monitoring devices, the actual equipment and methods can be selected. Air monitoring methods refer to air monitoring equipment and how it is operated and applied. Air monitoring equipment is specifically the technology used for air monitoring.

### 8.2 Monitoring Methods and Equipment for Regulatory Monitors

[PLACEHOLDER – REGULATORY MONITOR WRITE-UP]

### 8.3 Monitoring Methods and Equipment for AB 617 Community Monitors

As mentioned in Section 5.2.1, to facilitate the comparison of data and leverage the knowledge gained from the IVAN network, the Steering Committee is proposing to use similar or identical equipment as the existing IVAN monitors, which currently feature Dylos DC1700 air quality sensors and custom relative humidity and temperature sensors with a microcontroller board. These units could be customized by CCV, which could save time in their development and installation.

Dylos DC1700 units use a light-scattering particle counter to measure particulate matter counts. These units could be modified to enable wireless internet connectivity and count particles in four size bins ( $>0.5 \mu\text{g}$ ,  $>1.0 \mu\text{g}$ ,  $>2.5 \mu\text{g}$ , and  $>10 \mu\text{g}$ ). The particle counts could then be converted to particle mass concentrations using calculated constants from regression models developed during the establishment of the IVAN network.<sup>21</sup>

The field operating procedures for the AB 617 Community Monitors could be modeled after those established by CCV for the IVAN monitors.<sup>22</sup> A high-level description of these procedures is provided below:

- The AB 617 Community Monitors would be sited to guidelines established by CARB and the USEPA.<sup>23</sup>
- The AB 617 Community Monitors would be inspected and cleaned following manufacturer guidelines.<sup>24</sup> At a minimum, the monitors would be inspected every 45 days for routine maintenance.
- Reactive troubleshooting for any offline monitors would occur within 48 hours of technician availability or as soon as access is guaranteed to the monitor host site.

<sup>21</sup> Graeme N. Carvlin, Humberto Lugo, Luis Olmedo, Ester Bejarano, Alexa Wilkie, Dan Meltzer, Michelle Wong, Galatea King, Amanda Northcross, Michael Jerrett, Paul B. English, Donald Hammond & Edmund Seto (2017). Development and field validation of a community-engaged particulate matter air quality monitoring network in Imperial, California, USA, *Journal of the Air & Waste Management Association*, 67:12, 1342-1352, DOI: 10.1080/10962247.2017.1369471.

<sup>22</sup> Available at: [PLACEHOLDER – LINK FOR DRAFT CCV TECHNICAL MONITORING MANUAL]

<sup>23</sup> Available at: [PLACEHOLDER – LINK FOR RELEVANT CARB/USEPA GUIDELINES]

<sup>24</sup> Available at: [PLACEHOLDER – LINK FOR RELEVANT MANUFACTURER'S GUIDELINES]

- The AB 617 Community Monitors would be field-calibrated every twelve months, which may include sensor replacement if needed to address performance issues.
- Field logs will be used to document all activities conducted at the monitoring sites. At a minimum, the information collected would include: date of activity, activity type, activity outcome, and images of location/event.

Since Dylos DC1700 units use light-scattering technology, there are no filters or other samples to be analyzed in the laboratory. Therefore, there are no standard operating procedures for the laboratory setting at this time.



## 9 Element 8 – Determine Monitoring Areas

### 9.1 Element 8 Overview

Monitoring areas were selected based on public input, review of existing air monitoring data, locations of source emissions, and locations of sensitive populations. The Corridor has some existing air quality monitors that help to track air quality in the community. The additional monitoring areas will provide a greater resolution of data that will cover more of the Corridor. The locations were chosen in order to obtain data that will allow community members to make informed choices related to community exposure burden.

### 9.2 Review of Existing Data

[PLACEHOLDER – DISCUSSION OF EXISTING DATA INCLUDING INFORMATION ON THE EXISTING AIR QUALITY BURDEN, KEY EMISSION SOURCES, AND LOCATIONS OF SENSITIVE RECEPTORS]

### 9.3 Location of Regulatory Monitors

[PLACEHOLDER – REGULATORY MONITOR WRITE-UP]

### 9.4 Location of AB 617 Community Monitors

The El Centro-Heber-Calexico Corridor is unique in its air quality issues due to its proximity to the international border. For this reason, one of the first recommended monitoring areas by the Steering Committee is along the international border. Another area of interest is performing monitoring at schools within the Corridor that currently do not have nearby monitoring. There are still many schools in the Corridor that do not have a community or regulatory monitor nearby but are near unpaved traffic areas, vacant lots, and/or agriculture. Examples include the Enrique Camarena Jr High School in Calexico and the Heber Dogwood Elementary School in Heber.

In addition, the Steering Committee has identified areas in the Corridor that have not been monitored to a satisfactory extent for potential air quality impacts or for informational benefit. One such area is the freight hub in northwest Calexico around Portico Blvd. This location is a concentration activity area for shipping, cargo transportation, and idling trucks. While this area has also been preselected by CARB for mobile data monitoring, that study will only occur for a short period during the summer season.

The criteria considered in the selection of monitoring areas included input from the Community and final selection by the Steering Committee during the mapping activity conducted during the May 22, 2019 Steering Committee meeting. During that exercise, the Steering Committee was given guidelines and offered suggested monitoring sites that CCV identified using Steering Committee input and with consideration of the locations of active community monitoring sites. In addition, the following logistical concerns were taken into consideration in the selection of monitoring sites:

1. The site needs to be a secure location where the monitor can be installed, at the appropriate height per siting criteria guidelines.



2. The site needs to provide safe access, so that the monitor operator is not in danger when installing or maintaining the monitor (e.g., stairway or elevator access to rooftop is preferred).
3. The site needs to support the physical installation of the monitor. The monitor must be affixed to a building via:
  - a. A metal pole that would then be directly affixed to the building (such as to the side of the building); or
  - b. A tripod that would then be bolted to the ground (preferred) or held down by sandbags (less ideal, as heavy winds can still tip this over).
4. The site needs to provide a safe alternating current (AC) power supply (such that installation of the monitors and use of power would not pose any safety concerns).
5. The site needs to provide internet access; use of the building's internet via Ethernet cable or Wi-Fi would be ideal. If this is not possible, the AB 617 Community Monitor would be fitted with a separate cellular hotspot.

[PLACEHOLDER – description of the characteristics of the selected sites; to be written after May 22 meeting]

## 10 Element 9 – Develop Quality Control Procedures

### 10.1 Element 9 Overview

Quality control procedures are essential to ensure that data quality objectives are being met and the resulting data is scientifically defensible. Technical quality control activities are routinely performed to measure or estimate the effect of errors and determine whether corrective action must be taken. The CAPP Blueprint includes reference materials, calibration, ongoing quality control measures, blanks, spikes, duplicates/collocation, and audits as options for quality control procedures. However, specific quality control procedures depend on the method used for monitoring.

### 10.2 Quality Control Procedures for Regulatory Monitors

[PLACEHOLDER – REGULATORY MONITOR WRITE-UP]

### 10.3 Quality Control Procedures for AB 617 Community Monitors

The quality control procedures for the AB 617 Community Monitors would be similar in nature to the current procedures in place for the IVAN network and would leverage some of calibration analyses performed in the creation of the IVAN network. For instance, in the establishment of the IVAN network, the IVAN monitors underwent a five-month collocation period to develop a calibration equation, unique to the Imperial County region, that converts particle counts to particle mass concentrations.<sup>25</sup> CCV is currently looking to perform additional collocation studies to possibly develop calibration equations for more specific areas of Imperial County. It's possible these equations could be used with the AB 617 Community Monitors.

Separate from field collocations and calibrations, the AB 617 Community Monitors would undergo a laboratory calibration every time the monitors are sent to the manufacturer for service. This would occur at a minimum of once every two years or more frequently if the monitor is damaged in the field.

[PLACEHOLDER – DISCUSSION ON PRECISION/ACCURACY CHECKS AND DRIFT]

Auditing of the AB 617 Community Monitors would occur every sixty (60) days. During each audit the monitors would be examined for any developing issues, including evaluation of hardware and host site location. Noted hardware issues would be addressed as soon as possible to maintain data quality. Should the monitors develop issues outside of an audit, a technician would address those issues as soon as possible, as availability of technicians and site host access allowed.

[PLACEHOLDER – ADDITIONAL DISCUSSION REGARDING THE QA/QC PROCESS]

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<sup>25</sup> Graeme N. Carvlin, Humberto Lugo, Luis Olmedo, Ester Bejarano, Alexa Wilkie, Dan Meltzer, Michelle Wong, Galatea King, Amanda Northcross, Michael Jerrett, Paul B. English, Donald Hammond & Edmund Seto (2017). Development and field validation of a community-engaged particulate matter air quality monitoring network in Imperial, California, USA, *Journal of the Air & Waste Management Association*, 67:12, 1342-1352, DOI: 10.1080/10962247.2017.1369471.

## 11 Element 10 – Describe Data Management

### 11.1 Element 10 Overview

Data management is essential to providing quality results. It begins with the collection of analytical results. In addition to capturing particulate matter concentrations, additional descriptors such as instrument identifiers, measured units, date stamps, and other parameters identifying important attributes of the data are collected. The second phase of data management is data storage. Data storage includes not only the data descriptors described above, but also data quality indicators, data qualifiers, ingest dates, and chains of custody. The parameters and values collected in the data acquisition and storage phases provide tools for the operator and system to conduct detailed reviews of the data. Data review and flagging procedures will be utilized to ensure that data quality is maintained.

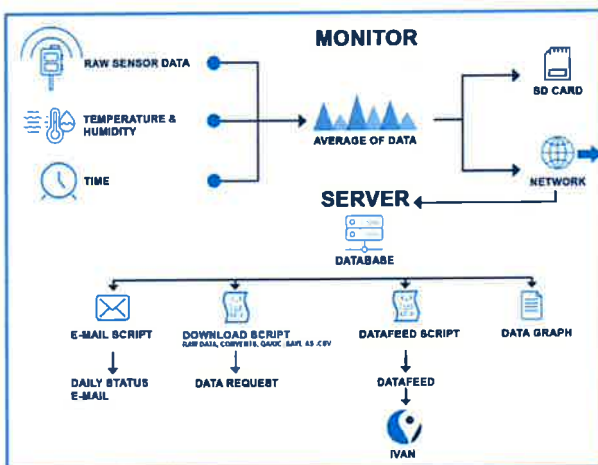
### 11.2 Data Management for Regulatory Monitors

[PLACEHOLDER – REGULATORY MONITOR WRITE-UP]

### 11.3 Data Management for AB 617 Community Monitors

Data collection by the AB 617 Community Monitors will follow similar guidelines to those established for the IVAN network<sup>26</sup> and will ensure that all data fields required by CARB's AQ View data portal will be fulfilled. Ultimately, the dataflow for the AB 617 Community Monitors would follow the flow presented in Figure 11.1 below.

Figure 11.1. AB 617 Community Monitor Data Flow

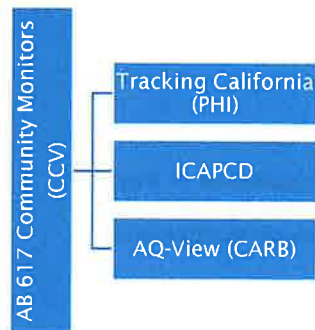


<sup>26</sup> Available at: [PLACEHOLDER – LINK FOR IVAN DATA MANAGEMENT GUIDELINES]

Data storage at the AB 617 Community Monitors would occur at two different. Data would be physically stored at the monitor on an SD card and stored on a cloud server database. Data would not be altered during the QA/QC processes as every step of QA/QC would create a new copy of the database files. This results in at least four sets of the data: two raw data files (SD card and server database), one dataset flagged by QA/QC processes, and one post-QA/QC dataset available for data requests.

To meet the AQ View requirements, the data feed would also be directed to CARB through the best available method, when determined by AQ View staff.

Data chain of custody would be as follows:



First, CCV will be responsible for the operation and maintenance of the AB 617 Community Monitors and will ensure the successful collection of data. Next, the data will be shared with Tracking California, who will assist in performing QA/QC tasks. Both raw and QA/QCed data will be shared with ICAPCD to maintain on their own servers. QA/QCed data will also be shared with CARB to fulfill the AQ View requirement.

First, the AB 617 Community Monitors will be registered with the AQ View portal using the following required fields:

- Monitor ID
- Monitor Purpose
- Monitor manufacturer
- Monitor model
- Firmware
- Purchase date
- Last service date
- Start date
- Parameters:
  - Measurement technique

- Measurement units
- Sampling duration
- Sampling frequency
- Last calibration timestamp

Next, as data is collected by the AB 617 Community Monitors, the following parameters will be supplied to CARB on a regular basis for upload to the AQ View portal:

- Site ID – to be chosen by provider
- Monitor ID – to be chosen by provider
- Date – timestamp for our data
- Start Time – timestamp for our data
- Measurement Value – measured value at time of upload
- Measurement Units – 3-digit Air Quality System unit code as distributed by AQ View

## 12 Element 11 – Provide Work Plan for Conducting Field Measurements

### 12.1 Element 11 Overview

An effective work plan describes field procedures that will be followed by those conducting measurements. Field procedures describe individual tasks with enough detail that trained air district staff and community members can complete the tasks. The timeline established in the work plan determines the duration of the field measurements and denotes milestones for completing tasks. The work plan also describes communication and coordination steps that ensure field personnel know whom to contact for questions, and how work products are delivered, and includes safety procedures.

### 12.2 Field Procedures for Regulatory Monitors

[PLACEHOLDER – REGULATORY MONITOR WRITE-UP]

### 12.3 Field Procedures for AB 617 Community Monitors

Field procedures for the AB 617 Community Monitors will be logged using a mobile data collection tool. Use of mobile tool will allow for in-the-field notes to be uploaded to a cloud server where team members can view records as needed to answer inquiries or provide supporting information.

Upon installation of AB 617 Community Monitors, a record of the monitor host site will be established. Information collected will include: site point of contact, site availability, materials used, site peculiarities, wireless connection information, and any other details as needed.

The AB 617 Community Monitors will be equipped with a physical label that will include the contact information for technician staff to report any monitor or host site issues. Additionally, the monitors will feature a label intended for the public that will direct them to the location where they can observe the data collected by the monitor.

Safety considerations for the AB 617 Community Monitors will include providing proper access for technicians to install, maintain, and continue ongoing operations of the monitors in a safe manner. In addition, proper insulation for the electrical components of the monitors will need to be used. If a new power access point is created for the monitors, proper insulation will need to be installed. [PLACEHOLDER - SAFETY REQUIREMENTS TO BE EXPANDED]

Upon the installation of the AB 617 Community Monitors, CCV will coordinate with the AQ View team at CARB and ICAPCD to ensure the seamless transmission of data. The auditing procedures described in Element 9 will be followed to ensure all QA/QC requirements are met.

As described in Element 4, after data is collected from the AB 617 Community Monitors for one year, the placement of the monitors and the need for further expansion of the network will be evaluated. Site locations are subject to change depending on the Steering Committee's concerns and recommendations.

## 13 Element 12 – Specify Process for Evaluating Effectiveness

### 13.1 Element 12 Overview

A process for evaluating effectiveness serves as a check to ensure that air monitoring objectives are being met in a timely fashion. Additionally, it is necessary to understand how the monitoring plan will be revised or corrected if air monitoring objectives or the timeline are not being met.

### 13.2 Evaluating Effectiveness of Regulatory Monitors

[PLACEHOLDER – REGULATORY MONITOR WRITE-UP]

### 13.3 Evaluating Effectiveness of Community Monitors

[PLACEHOLDER – COMMUNITY MONITOR WRITE-UP]

## 14 Element 13 – Analyze and Interpret Data

### 14.1 Element 13 Overview

Data analysis and interpretation is crucial to ensure the objectives of the Community Monitoring Plan are being met. This section describes how data analysis will be conducted, including data preparation procedures, and how air monitoring results will be translated into actions. Thorough documentation of data preparation procedures and types of analyses that are conducted is pivotal to ensuring that conclusions drawn are accurate and defensible.

### 14.2 Data Analysis and Considerations for Regulatory Monitors

[PLACEHOLDER – REGULATORY MONITOR WRITE-UP]

### 14.3 Data Analysis and Considerations for Community Monitors

Prior to being uploaded to public-facing data displays, the data collected by the AB 617 Community Monitors will be converted using an algorithm designed to convert particle counts to particle mass concentrations. This algorithm also allows for the data to be used to calculate a community air quality level (CAL). The CAL utilizes a scale similar to that of the USEPA's Air Quality Index (AQI) and features color coding to communicate the current air quality conditions to the public.

To ensure data quality, the data collected by the AB 617 Community Monitors will undergo the QA/QC processes described under [Element 9](#). These processes are open to further development as more resources become available to the AB 617 Community Monitoring team. The current processes use an application to automatically flag data that is out of normal trends. The data team then manually reviews the flagged events and considers notes from technician's field logs when doing so.

[PLACEHOLDER – ADDITIONAL DISCUSSION ON HOW DATA WILL BE ANALYZED AND INTERPRETED]



## **15 Element 14 – Communicate Results to Support Action**

### **15.1 Element 14 Overview**

Air monitoring results must be clearly and effectively communicated in order to ensure that they result in effective action. Results of air monitoring will be discussed with Community members, decision makers, and organizations that are able to take action in ICAPCD. Ongoing monitoring activities, interim progress updates, and final results will be communicated to the above entities. Information will be made available on the District and CARB webpages.

### **15.2 Communicating Results of Regulatory Monitoring**

[PLACEHOLDER – REGULATORY MONITOR WRITE-UP]

### **15.3 Communicating Results of Community Monitoring**

[PLACEHOLDER – COMMUNITY MONITOR WRITE-UP]

## 16 References

[TO BE POPULATED]

**APPENDIX A  
COMMUNITY MEETING SUMMARY**

**APPENDIX B  
AB 617 COMMUNITY STEERING COMMITTEE  
CHARTER (DRAFT)**

**APPENDIX C**  
**[UPDATE]**

**APPENDIX D**  
**[UPDATE]**

**APPENDIX E**  
**[UPDATE]**





# Attachment:

# **CSC Activity**





## AB 617 Community Air Protection Program Community Air Monitoring Plan Worksheet

**Dear Steering Committee Members,**

During our meeting on May 22, 2019 we will focus on drafting a Community Air Monitoring Plan. To help facilitate consensus on the location of the monitors, we are asking you to complete this worksheet in advance of the meeting. Please bring a completed worksheet to the meeting. During the meeting, we will plot your desired locations on an interactive map. The committee will have an opportunity to identify where monitors will be placed.

Priorities	Rank Order	Location of Monitor*	Rationale**
<b>Top 5 most needed locations:</b> Based on your knowledge identify where monitors most needed.	#1		
	#2		
	#3		
	#4		
	#5		
<b>5 sites where monitors could be placed:</b> Based on expertise identify alternative locations that could benefit from air monitoring.	#6		
	#7		
	#8		
	#9		
	#10		

\*Provide the address of where the monitor should be located. If you don't know the address, please provide the intersection (e.g., the two cross roads).

\*\*Please provide your rationale for justifying why the monitor should be located in the identified location.

**Thank you,**

Your AB 617 Steering Committee Facilitators





## Community Air Monitoring Plan

### Suggested sites for the Calexico-Heber-El Centro Corridor

#### Calexico:

- Border gradient along the Calexico/Mexicali border (proposed by APCO and CCV)
- East Calexico; school sites on newer residential areas not covered under current monitors (i.e. Enrique Camarena JHS)
- North Calexico; freight traffic incoming to Calexico (i.e. Portico Blvd) not being monitored under current community network
- Ports of Entry
- New River

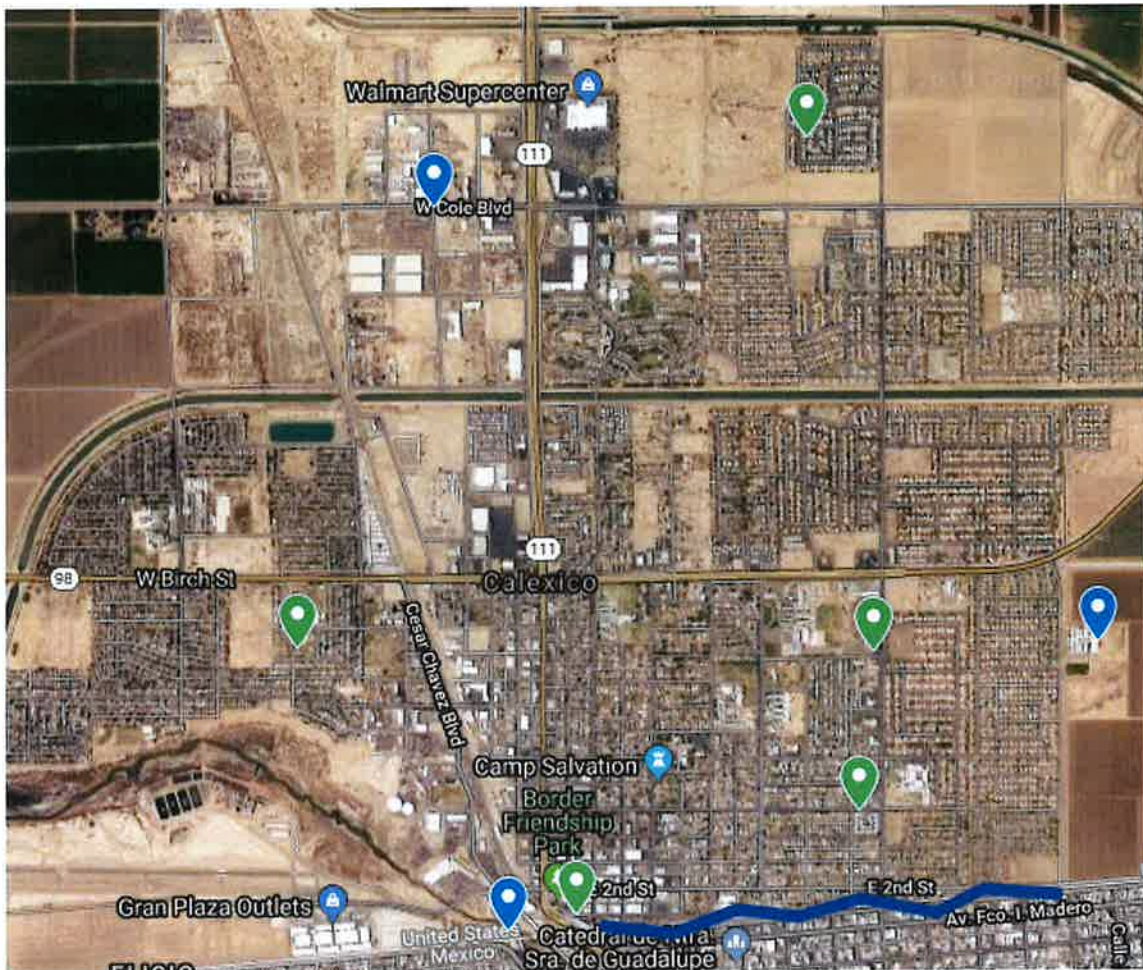


Figure 1 - Blue (proposed location) | Green (active monitor)

Heber

- During monitoring presentation, CSC member suggested areas near industries in the Heber communities
- Heber Community Center
- Heber parks
- Heber schools

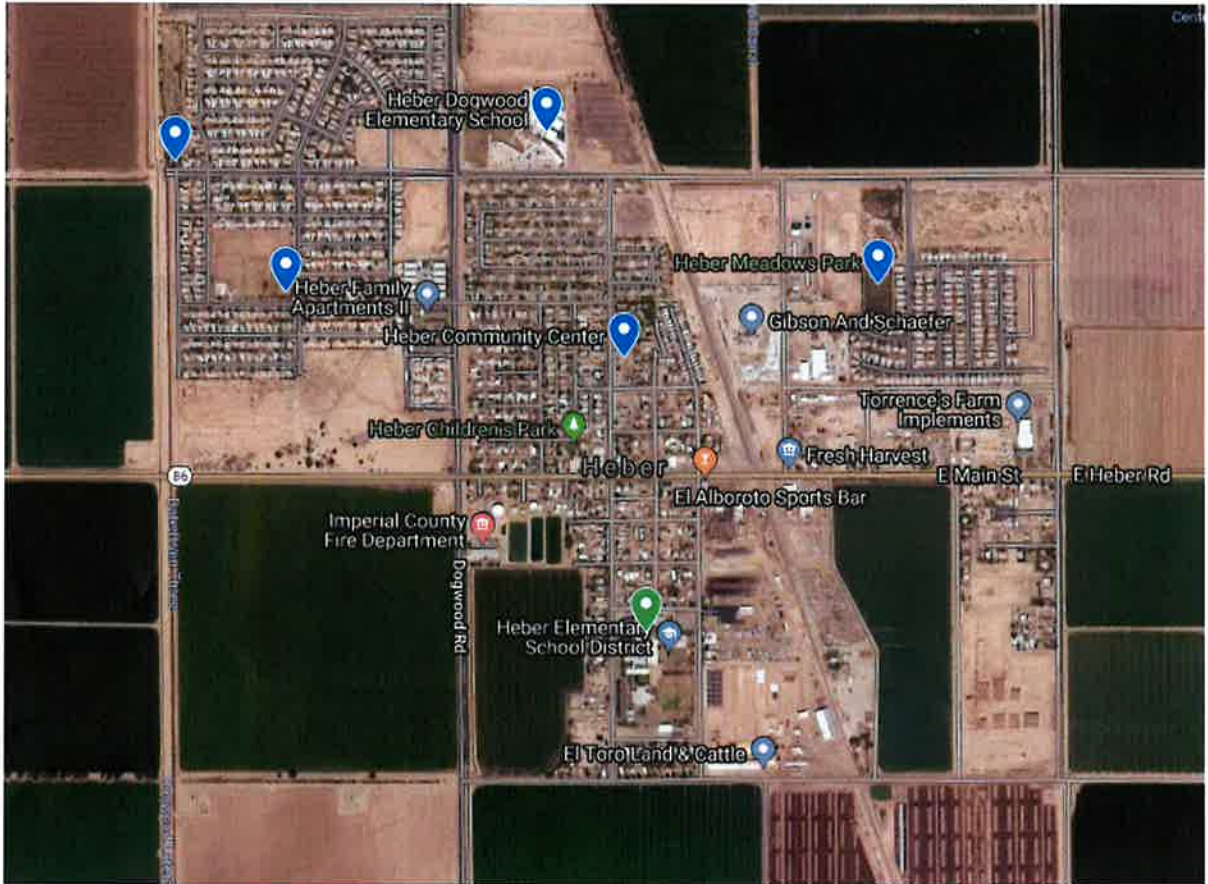


Figure 2 - Blue (proposed location) | Green (active monitor)







# IVAN Air

To support the successful operation of the community monitor, the building should have:

1. A secure location where the monitor can be installed, at the appropriate height per siting guidelines by CARB and EPA
2. Safe access, so that the monitor operator is not in danger when installing or maintaining the monitor (e.g., stairway or elevator access to rooftop)
3. Ability to support physical installation. The monitor must be affixed to the building via
  - a. A metal pole that would then be affixed to the building (such as to the side of the building)
  - b. Or a tripod that would then be bolted to the ground (preferred) or held down by sandbags (less ideal, as heavy winds can still tip this over)
4. Safe AC power supply (such that installation of the monitors and use of power should not pose any safety concerns)
5. Internet access- Use of the building's internet via Ethernet cable or Wi-Fi is ideal.

