

## **DRAFT PROJECT SCOPE**

### **IMPERIAL VALLEY MOBILE SOURCE DATA COLLECTION PROGRAM**

#### **A. PURPOSE**

The California Air Resources Board (CARB) plans to kick-off a data collection program within the communities of Calexico, El Centro, and Heber to collect necessary mobile source related data (e.g., on-road traffic counts) that can be used to improve community-level mobile source emission inventories. This program will help to develop a process and model for community-level mobile source data collection and engagement across the State.

#### **B. BACKGROUND**

For Assembly Bill 617 (AB 617, Chapter 136, Statutes of 2017) implementation, establishing community-scale emission inventories is critical for understanding existing baseline emissions, developing effective emission reduction plans and tracking future emission reductions within communities. Mobile sources significantly contribute to communities overall emissions and are a key piece of the community emission inventory. Existing CARB mobile source emissions inventories are regional in geographic scale and may not adequately characterize activity and emission impacts at the community-level. To fill these gaps in the current community-level mobile source inventories, CARB staff are proposing to conduct a data collection effort in the Calexico, El Centro and Heber communities.

For on-road mobile sources, CARB staff will use video footage acquired from Automated License Plate Readers (ALPR) to collect vehicle counts and license plate information from representative locations in the three communities. The license plate data will provide key vehicle characteristics (e.g., model year, weight class, emission control technologies) when linked to Department of Motor Vehicles (DMV) or International Registration Plan (IRP) data. Upon successful completion of this data collection effort, staff will start similar efforts in other AB 617 communities chosen for Community Emissions Reduction Programs.

#### **C. PROJECT SCOPE FOR ON-ROAD VEHICLES**

This project focuses on collecting license plate data from light- and heavy-duty vehicles in the Calexico, El Centro, and Heber communities. The project findings will assist CARB staff in improving mobile source emission inventories in the above-mentioned communities.

## 1. Proposed Locations for Data Collection

Locations 1-13 listed below are intersections with high heavy-duty truck counts and/or close proximity to major truck attractions, such as distribution centers (locations provided in Appendix A). Prior to data collection, staff will scout these locations for safety, appropriateness, traffic flow, etc.

Location	Cross Streets	City	Justification	# of Lanes
1	W 2nd Street & Cesar Chavez Blvd	Calexico	Major vehicular traffic. Close proximity to major highways, shopping center, airport, storage yard, and US-Mexico Border.	5-6
2	Hwy 111 & Hwy 98	Calexico	Close proximity to major roadways, recycling facilities, auto dismantling facilities, storage yard, and US-Mexico Border	5-6
3	W Birch St & Kloke Rd	Calexico	Close proximity to major roadways, recycling facilities, auto dismantling facilities, and storage yard	4
4	Portico Ct & Portico Blvd	Calexico	Close proximity to multiple freight facilities. Location where multiple commercial vehicle idling citations were issued in 2018	2-4
5	Hwy 98 & Bowker Rd	Calexico	Close proximity to major roadways, and storage yard. High heavy duty vehicle count	3-4
6	1791 Maggio Rd	Calexico	Location where multiple commercial vehicle idling citations were issued in 2018	2
7	Hwy 111 & E Heber Rd	Heber	Main intersection, with a gas station, and near truck traffic. High heavy duty vehicle count	4-6
8	E Main St & Heffeman Ave	Heber	Close proximity to freight facilities, and distribution centers	2-4
9	Hwy 111 & Kumyaay Hwy	El Centro	Major roadway intersection for I-8, Hwy 86, and Kumeyaay. High heavy duty vehicle count	4-6
10	Ross Ave & S 4th St	El Centro	Close proximity to multiple storage facilities	4-5
11	Adams Ave & S Imperial Ave	El Centro	Close proximity to cold storage facilities, and major intersections. High heavy duty vehicle count	5-6
12	Treshill Rd & Hwy 86	El Centro	Close proximity to major roadways, shopping centers, county airport, and agricultural fields	2-4
13	W Aten Rd & Austin Rd	El Centro	Close proximity to major distribution centers, naval air facility, and agricultural fields	4

## 2. Data Collection Campaign (Spring 2019)

CARB staff will be responsible for data collection at the thirteen selected locations over the course of two weeks or ten working days with the goal of acquiring up to 24 hours of video footage per location. Staff will take footage of vehicles using several cameras at each location to capture activity on multiple converging roadways simultaneously. The installation of non-permanent ALPR cameras requires staff to be present at all times during data collection. For safety considerations, staff will work in teams of two; each

team will collect data at one location from 8:00 am - 5:00 pm on every day of sampling (8 hours for data collection and; one hour for lunch). Currently, we are planning for two to three teams to conduct this effort (a total of four to six CARB staff in the field on each day).

### **3. Data Processing (Summer 2019)**

CARB staff will process video footage with commercial Automatic License Plate Recognition software, specifically OpenALPR, to obtain traffic counts. The processed license plate data will be used to estimate counts per day for each location. In addition, the car/truck split, age distribution, and gross vehicle weights for each survey site will be determined by linking recorded license plates to the DMV and IRP registration databases. OpenALPR also provides a time stamp for each license plate, making it possible to quantify hourly variation in vehicle counts at a given location. Although CARB staff are not able to collect data on nights or weekends, the agency will look into other data sources, such as trucks telematics data, to understand weekly and diurnal patterns in vehicle activity. These key results will corroborate existing community-level inventories for the Calexico, El Centro, and Heber communities and will be shared with air district staff, Imperial community based organizations, community members, and other interested stakeholders. Additionally, data collected from this project will inform ways to build, test and improve the methods for characterizing the mobile source emissions inventory at the community level.

## Appendix A - Map of Proposed Survey Locations in Imperial Valley

