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August 3, 2018

Karen Magliano, Director Office of Community Air Protection California Air Resources Board 1001 I Street, Sacramento, CA 95814

#### Re: Imperial County Community AB617 Community Nominations

Dear Ms. Magliano:

Attached is a copy of the Imperial County final submittal on "recommended communities" for the first five years of the state's Community Air Protection Program, as required by the California Air Resources Board (CARB). The Community Air Protection Program was established by the state to implement Assembly Bill 617 (AB 617) which directs the state, in conjunction with local air districts, to select communities that have a "high community exposure burden" to air pollution. This document is being submitted in partnership with Comite Civico del Valle, Inc.

Thank you for your attention to this request. Should you have any questions please do not hesitate to call.

Sincerely,

Matt Dessert Air Pollution Control Officer

cc: Mr. Luis Olmedo, Director, Comite Civico del Valle, Inc. Ms. Veronica Eady, Assistant Executive Officer, CA Air Resources Board

# Imperial County AB617 Community Nominations

SUBMITTED BY:

Imperial County Air Pollution Control District

In partnership with Comité Cívico del Valle, Inc.

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# Introduction

In response to Assembly Bill (AB) 617 (C. Garcia, Chapter 136, Statutes of 2017) and the California Air Resources Board (CARB) Community Air Protection Program (CAPP), which focuses on air pollution exposure reduction in communities, the Imperial County Air Pollution Control District (ICAPCD) is required to submit to CARB recommended communities based on documentation addressing 5 elements. The law mandates CARB select the first round of communities for the preparation of emissions reduction and air monitoring programs by October 1, 2018. These five (5) elements include:

- 1) List of all communities recommended for action that year, including community descriptions, identifying characteristics, geographic boundaries, and applicable census tract(s):
  - A description of any air district assessments of communities identified for recommendation.
  - A description of each community's capacity to participate, including a summary of the air district's relationships with members of the recommended communities or two (2) community-based organizations located in the recommended communities.
- 2) Description of the process used to refine the list communities.
- 3) If the communities are recommended for community air monitoring, a description of the known monitoring needs.
- 4) If the communities are recommended for community emissions reduction programs, provide the following information:
  - Description of air quality challenges affecting the community, and potential sources.
  - Confirmation that emissions sources are well-characterized in the community.
  - Confirmation that air monitoring results are available that characterize the high air pollution exposure burden experienced by the community well enough to inform community emissions reduction program development.
  - Confirmation that sufficient data and resources are available to produce source attribution results for use in strategy development within the necessary time frames prescribed by statute.

For year 1, the ICAPCD has opted to expand the existing community air monitoring network operated by Comite Civico del Valle and develop a workplan for a community

emissions reduction program. For years, 2 through 5 and beyond, the ICAPCD will continue our commitment to both, continue working on the enhancement of the community air monitoring campaign and a community emissions reduction program. Imperial County residents assisted the ICAPCD staff to select the communities and the final communities for years 2 through 5.

To select year 1 through 5 communities, ICAPCD staff considered air quality and health data[1]. Air quality data was obtained from the recent developed State Implementation Plan for PM<sub>2.5</sub>, CalEnviro tool, ICAPCD monitors, and local emission inventory. The Public Health Department and the Child Asthma Coalition provided the health data for the community recommendation.

Other factors to determine the community recommendation were considered by community input, socioeconomic factors, and via statewide screening tools such as CalEnviro Screen.

## Year 1: Calexico, El Centro and Heber - (AB617 Nominated Community)

#### Community Air Monitoring

Originally, the ICAPCD had recommended the Calexico and Westmorland communities. However, after thorough review of technical data and community member guidance, the ICAPCD and the community organization Comite Civico del Valle officially recommend the community of Calexico, Heber and El Centro (AB617 Selected Community). In addition, air quality data from both regulatory and community monitoring network was used in the decision process, along with health data including the states pollution indicator tool CalEnviro Screen, to determine the communities for Year 1. For Year 1, the ICAPCD will begin an emissions reduction plan and enhance the existing Community Air Monitoring in Calexico, Heber, and El Centro as one community corridor.

#### Characteristics (AB617 Nominated Community)

Imperial County is located in the Southeast portion of California. It borders Mexico and Arizona with San Diego County and Riverside County. Imperial County is home to about 180,000 residents which live within seven cities (Brawley, **Calexico, El Centro**, Calipatria, Holtville, Imperial, and Westmorland) and nine unincorporated communities (Bombay Beach, **Heber**, Niland, Ocotillo, Palo Verde, Seeley, Salton City and Winterhaven – Quechan Indian Tribe). El Centro is the county seat. Much of the region is desert, the economy is heavily based on agriculture, and water is supplied from the Colorado River.

Farmers produce over 100 different agricultural products including the raising of cattle and sheep, which include over 30 confined animal feeding operations. In 2016 there were a total of 22,349 acres of agricultural crops burned. The community nominated for the 1st year provides over 100 different commodities making agriculture the top economic driver in the region. Producers, custom operators, transport refrigerant units, and processors operate approximately 20,000 pieces of off- road diesel fueled, mobile and stationary agriculture equipment, in addition to on road vehicles used in agricultural operations which include high NOx emitting diesel trucks to transport products within the transport corridor to the Calexico port of entry and to numerous warehouse facilities and cooling centers. Most of this equipment has been in operation for multiple decades contributing to the poor air quality in the area. Other emissions that weigh heavily on this community are emissions from unpaved and paved roads utilized by water & energy district department fleet, farmers, farm workers and community residents.

In addition to its rich agricultural history, the county also offers a wide range of industrial energy resources. The Salton Sea in the northwestern part of Imperial County is the largest receding inland lake in California and is considered an environmental and air quality disaster to the region. In addition, off-highway activities in the desert increase particulate matter in an already polluted community. There is also a direct nexus between

land use patterns and transportation-related emissions. The connection between land use and freight transportation (diesel) is a priority for our community and the State of CA. SB 375 requires that California be responsible for developing a Sustainable Communities Strategy (SCS) for the region's transportation plan. The SCS is intended to demonstrate how, through more coordinated land use decisions, we can reduce emissions indisadvantaged communities and each region can reduce per capita GHG emissions from Diesel Trucks. The community is in nonattainment for Ozone, PM<sub>10</sub>, and PM<sub>2.5</sub>.





Fig. 1: Identifies the AB 617 Nominated Communities within Imperial County. Calexico, Heber and El Centro are identified as a single corridor

## Calexico

#### **Community Location**

Calexico is located directly adjacent to the US-Mexico border. Two highways cross through the city: 111 and 98. The most affected area is in the Southwest region of the city, which also harbors the New River.

#### **Community Description**

The Imperial County recently adopted two State Implementation Plans (SIP) an 8-hr Ozone and an Annual PM2.5 SIP. Both SIPs demonstrate that Imperial County is heavily impacted by transport of Ozone and PM2.5 from Mexicali, Mexico. The SIPs also demonstrate that local actions have been taken to reduce emissions and provide ongoing health protection. However, more can be done. Calexico contains many emissions sources transportation, warehouse facilities, vehicle traffic, recycling, auto dismantling facilities [6], and an airport. Most toxic releases originate within 1.5 miles at the U.S.-Mexico border. Other sources of pollution include energy production, confined animal feeding operations, and trash accumulation along side homes, alleyways, and parks. Cardiovascular rates are consistently ranked at 92 percentile. Other CalEnviroScreen 3.0 ratings from 70-90th percentiles include education, linguistic isolation, poverty, unemployment, and impaired water. A list of feedlots and similar cattle operations are listed below.

#### Air Pollution Concern

Ozone is consistently rated at the 74th percentile in CalEnviroScreen, and PM at 95, with the exception of the outskirts-census tract, which rates at 69%. Because the border is a hotspot for traffic and population density, idling vehicles bring across combustion gases from both sides.

#### **Calexico Monitoring Station**

The Calexico-Ethel monitoring station was installed in 1994 and is operated and maintained by CARB. Located above sea level, it has an absolute location latitude 32°40'34" and longitude 115°28'59". Its relative location is 1029 Belcher Street within the property boundary on the southeast corner of the Calexico High School football field parking lot. To the north is located an athletic sports field used for football, baseball, and track. The monitoring station is surrounded by a suburban neighborhood directly to the south, southeast, and southwest and is approximately 0.75 miles (1.2kilometers) directly north of the international border crossing. The site currently records measurements for ozone (03), CO, N02, S02, PM2.5, PM10, Pb, and toxics.



Figure 2: Community Air Monitoring Data Graph – Calexico, CA

Fig. 2: The graph includes the daily averages and daily maximums for the Calexico Border Monitor during 2016 & 2017



Figure 3: CalEnviro Screen – Calexico, CA

Fig. 3: The CalEnviro Screen illustrates the 98th percentile



Figure 4: Industrial Facilities Fence Line to Homes – Calexico, CA

Fig. 4: Google maps utilized to illustrate the industrial facilities located near homes in Calexico, California



Figure 5: Industrial Facilities Fence Line to Homes - Calexico, CA

Fig. 5: Google maps utilized to illustrate the industrial facilities located near homes in Calexico, California

## **El Centro**

#### **Community Location**

The most impacted section of El Centro ranges from East of North Imperial Avenue and West of Dogwood Road, as well as North of Ross Avenue and South of Villa Avenue. City boundaries are neighbored with agricultural fields. The city has two major highway crossings: Kumeyaay and Highway 86.

#### **Community Description**

The Imperial County recently adopted two State Implementation Plans (SIP) an 8-hr Ozone and an Annual PM2.5 SIP. Both SIPs demonstrate that Imperial County is heavily impacted by transport of Ozone and PM2.5 from Mexicali, Mexico. The SIPs also demonstrate that local actions have been taken to reduce emissions and provide ongoing health protection. However, more can be done. El Centro is a disadvantaged community in the SB 535 DAC list. With an approximate population of 62,179 (CalEnviroScreen Census tract total), El Centro as the county seat is the largest city in Imperial County. The population self-identifies as Hispanic (65-92%) with unemployment rates of 39-100%. (CalEnviroScreen 3.0, range between census regions,

<u>https://oehha.ca.gov/calenviroscreen/maps-data</u>), with the majority of census-tract regions over the 70th percentile. The city houses a naval air facility, natural gas plant, cement factory, metal fabrication, auto recycling dismantlers and paint centers, hay compressing facilities, and a railroad that is in close proximity to homes and backyards. Other percentiles ranging at or above the 90th include hazardous waste facilities, education, poverty, unemployment, asthma, and cardiovascular disease.

#### Air Pollution Concern

High concentration of traffic and agriculture activities may be a contributing source to the constant elevated levels of ozone (O3) exposure in the 78<sup>th</sup> percentile which originate from particulate matter from combined pollution sources. The geographical location of El Centro puts it at extreme solar exposure; this increases the rate at which NOx and other greenhouse gases convert to O3. Asthma (95%, 69% Northwest) and cardiovascular (96%, 64% Northwest) are areas of concern for the El Centro community. The conditions of the region exacerbate air pollution, attributed to the flat surrounding dessert and agricultural land exposed to regional winds.

#### El Centro Monitoring Station

The El Centro monitoring station was installed in 1986. Located above sea level, its absolute location is latitude 32° 47' 32" and longitude 115°33' 47". Its relative location is 150 South 9th Street on the roof of the ICAPCD building. The monitoring station is surrounded by government and commercial buildings. It is the first monitoring site north of the City of Calexico, continuing the south-to-north monitoring network for Imperial County. The El Centro monitoring station is classified as urban with large agricultural areas to the east and west of the city's boundaries. This site records measurements for O3, CO, NO2, PM2.5, and PM10.



Fig. 6: The graph includes the daily averages and daily maximums for the El Centro Community Monitor during 2016 & 2017



Figure 7: CalEnviro Screen – El Centro, CA

Fig. 7: The CalEnviro Screen illustrates the 90th percentile

Figure 8: Industrial Facilities Fence Line to Homes – El Centro, CA



Fig. 8: Google maps utilized to illustrate the industrial facilities located near homes in El Centro, California



Figure 9: Industrial Facilities Fence Line to Homes – El Centro, CA

Fig. 9: Google maps utilized to illustrate the industrial facilities located near homes in El Centro, California

#### Heber

#### **Community Location**

Heber is a smaller town to the southeast of El Centro that, while integrated with El Centro's census list, is isolated and surrounded by agricultural land. The community is in the 90th percentile range for hazardous waste, impaired water, solid waste, and linguistic isolation. Heber Elementary School is surrounded by large, open plots of exposed soil. Railroad tracks cross through the town, and an asphalt company has large dunes of aggregates exposed South of the town.

#### Community Description

For Heber, CalEnviroScreen 3.0 has ranked pesticide exposure in the 90th percentile, and O3 at the 78th. Asthma (61%) and cardiovascular disease (80%) are areas of concern in the community. The flat and sparse environment makes residents susceptible to pesticide exposure from near agricultural fields. Industrial vehicles and machinery is common, and transportation emissions can be sourced to Heber's proximity to highways.

#### Air Pollution Concern

Heber has a high concentration of agriculture activities including confined animal feeding operations, energy production, a railroad, and industrial facilities including a cement plant fenceline to homes. Transport from Below is a data from PM2.5.





Fig. 10: The graph includes the daily averages and daily maximums for the Heber Community Monitor

Figure 11: CalEnviro Screen – Heber, CA







Figure 12: Industrial Facilities Fence Line to Homes - Heber, CA

Fig. 12: Google maps utilized to illustrate the industrial facilities located near homes in Heber, California

Figure 13: Percentile for California



Fig. 13: Image illustrates the percentile rank in color





Fig. 14: Graphical illustration of the Imperial Valley Profile utilizing CalEnviroScreen 3.0

## Health

Children are highly susceptible to the impacts of air pollutants, as their lungs and immune systems are still developing. Over 6 million children in the US are living with asthma (ref CDC), making it the most commonly diagnosed chronic childhood disorder. As the prevalence of pediatric asthma continues to rise, trends suggest widening racial, ethnic and economic disparities. In this rural border region of southeastern CA, an estimated 35,000 residents - including 10,000 children - live near the Salton Sea. The region faces excess PM10 levels, with concentrations reaching 10 times the federal limits. One in 5 children is diagnosed with asthma and the rate of asthma-related pediatric emergency room visits and hospitalizations is double the CA state average. This vulnerable rural community is more than 80% Latino and faces a 20% unemployment rate, withmore than 1 in 3 children living in poverty.

Imperial County Race/Ethnicity						
*Race/Ethnicity	%					
Hispanic or Latino	84.3%					
White (Non Hispanic or Latino)	10.6 %					
Black or African American	3.4%					
American Indian and Alaska Native Alone	2.5%					
Asian alone	2.2%					
Native Hawaiian and Other Pacific Islander	0.2%					

TABLE 1

\*Source: United States Census Bureau 2017

Members of this disproportionately burdened community have raised concerns about the poor air quality and high rates of childhood asthma and have requested research to understand the health impacts of the disappearing Salton Sea, in particular the impact on the respiratory health of school-aged children. Understanding the impacts of these changing environmental conditions on the health and welfare of this community is critical to addressing public health needs as the Sea disappears. Perhaps as importantly, such research builds public awareness of particulate air pollution, exposure pathways, air monitoring, and the regulatory process. Although studies have been undertaken to characterize the seabed sediments and local fish, there are no known efforts to evaluate community health impacts of the receding Sea.

#### Causes of asthma

Children are at increased risk from dust-related respiratory conditions and particle deposition is higher in young children and asthmatics. Animal models support a role for wind-blown dust in respiratory disease; one study found that desert dust may provoke

inflammatory injury in the lower respiratory tract by inducing oxidative stress and the release of pro-inflammatory mediators in the respiratory epithelium. Among adults, dust storms have also been linked to increased emergency room visits and hospitalizations while others have demonstrated associations between desert dust with respiratory mortality, with the strongest effects associated with coarse desert PM10. Studies of children are few: research in Greece and Japan found associations between increases in PM10 related to dust storms with emergency hospital admissions for pediatric asthma, while others have reported association with increased airway inflammation among healthy school children. In addition, wind-blown PM may also be related to allergies, atopic conditions, and eye disease, including conjunctivitis in young children. Dust storm particles are linked to skin irritation and to pro-inflammatory and immunomodulatory changes in cultured epidermal cells. Given that early life insults to the lung may elevate the risk of long-term disease, it is critical to understand how increasing exposure to wind-blown dust may influence rising asthma incidence rates and long- term lung health.

According to California Breathing, in 2014 Imperial County Emergencies Department Visits were higher than the State Average for All Ages related to Asthma. Imperial County has consistently has been having higher than average asthma emergencies department visits over subsequent years.

Figure 15: Asthma Emergencies Department Visits Rates In Imperial County and California All Ages 2014 (per 10,000 residents)



Fig. 15: Graphical comparison of the rates of asthma emergency visits between Imperial County and California. Source: CDPH California Breathing 2014

For children, the rates for asthma emergencies department visits has been much higher than state averages as shown in 2014 for the same year.

Figure 16: Asthma Emergencies Department Visits Rates In Imperial County and California for Ages: 0-17: 2014 (per 10,000 residents)



Fig. 16: Graphical comparison of the rates of asthma emergency visits for ages 0 to 17. Source: CDPH California Breathing 2014

## Year 2: Year 2 through 5 recommended community

In years 2 through 5, the ICAPCD is recommending a community monitoring program as well as a community emissions reduction program in Imperial County as a whole.

Imperial County extends over 4,284 square miles[2]in the south-eastern corner of California. It is bordered on the south by Mexico, on the east by Arizona, on the west by the Coyote and Fish Creek Mountains (which are in San Diego County), and on the north by Riverside County. The Salton Trough runs approximately northwest to southeast through the center of the County and extends into Mexico. The elevation in Imperial County ranges from about 230 feet below sea level at the Salton Sea in the north to more than 2,800 feet on the mountain summits to the east.

Imperial County's population is about 184,500 and its principal industries are farming and retail trade. Most of the population, farming, and retail trade exist in a band of land that, on average, comprises less than one-fourth the width of the County, stretching from the south shore of the Salton Sea to the Mexican border. Table 5 lists the significant stationary sources of pollution in Imperial County.

Source Category	Allocation Method
Stationary Point Sources	GIS Analysis
Areawide Sources:	
I.C. Reciprocating Engines	Human Population/Industrial Employment
Agricultural Irrigation I.C. Engines	Irrigated Cropland Acreage
Residential Fuel Combustion	Human Population
Farming Operations – Tilling Dust	Human Population
Farming Operations – Feedlot Cattle	Average monthly cattle head counts in NA
Construction and Demolition	Human Population
Paved Road Dust	Human Population
Unpaved Road Dust	Human Population
Fugitive Windblown Dust	GIS Analysis
Agricultural Burning	Percent of Agricultural Cropland in NA
On-Road Mobile Sources	Direct Travel Impact Model Analysis
Off-Road Mobile Sources:	
Aircraft	100% in Nonattainment Area
Other than Aircraft	Human Population

TABLE 2Imperial County Stationary Sources

Air District rules and regulations that assist in improving source emissions and community exposure to pollutants are currently being reviewed and will be taken into consideration. At this time more review and data analysis needs to be conducted to make a determination. However, based on the Air District commitment in the State Implementation Plan (SIP), the Air District has committed to focusing on the following sources: Residential Wood Burning and Farming Operations, Unpaved Road, and Fugitive Windblown Dust.

#### **Residential Wood Burning**

According to USEPA wood stoves, fireplaces, or fireplace, or fireplace inserts used as the primary heating device to heat a house or room cause hazardous air pollutants (HAPs) and particle pollution. The pollutants resulting from the use of "Residential Wood Burning" and Transportation Conformity have the potential to cause cancer and damage lung tissue, which may lead to serious respiratory problems particularly for children and the elderly. Generally, homes are not built with fireplaces. The determination by a developer to build a home with a fireplace is a cost driven decision and not a necessity in Imperial County. In Imperial County, most existing fireplaces are found in homes that can be purchased by more affluent residents.

#### Farming Operations, Unpaved Roads, Fugitive Windblown Dust

Imperial County has adopted and is currently implementing regulatory control measures to address farming operations, unpaved roads, fugitive windblown dust and managed burning and disposal. The first three source categories - farming operations, unpaved road and fugitive windblown dust have U.S. EPA-approved BACM under Regulation VIII.

#### Work already started

#### Existing Community Monitoring in Imperial County

In 2014, Comite Civico del Valle (CCV) was approved for a first-of-its-kind Community Monitoring Project. The community monitoring project involved the installation of 40 low cost monitors throughout Imperial County (including Mexicali) in strategic places. The project was implemented in several phases. During the first phase, a set of 20 monitors were deployed at sites selected through a community process. In the second phase, 20 additional monitors were deployed based on the results of preliminary monitoring data obtained in Phase 1. This staged approach ensured that community priorities for monitoring locations was met in Phase 1, and that Phase 2 could be used to fill in any geographic gaps in data collection to ensure scientific integrity of subsequent spatial modeling conducted with the data.

CCV manages this science-based Community Air Monitoring Network (CAMN), designed and operated by local residents, that measures particulate matter concentrations at nearly 40 locations throughout the Imperial Valley. The Network, known as IVAN Air (Identifying Violations Affecting Neighborhoods), uses a low-cost air sensor that measures air pollutants on a real-time basis and require less field support infrastructure than other traditional air monitoring devices. Monitors in Calexico, Heber, and El Centro were installed in June 2015 using community-relevant monitor siting. Stated priority among both community steering committee and project team was also to ensure that the CAMN is considered valid and useful by scientific researchers, and that monitors in the network are co-located with regulatory monitors. Project researchers were able to use data from both to assess, calibrate and field validate the CAMN monitors. There are 9 monitors within this AB 617 Nominated Community, which began providing real time data to community on September 30 2016.

AB 617 includes the Community Air Grants Program (Air Grants) which supports community efforts to participate in the AB 617 implementation process by building capacity to become active partners with government in identifying, evaluating, and reducing air pollution and exposure to harmful emissions in communities.

The FY17-18 budget included \$5 million for these grants from the Greenhouse Gas Reduction Fund. In response to the air grants solicitation, CARB received 65 applications, requesting \$18.9M in funding. Applications were received from communities around the State and included innovative proposals for engaging communities in 617's local air quality improvement process. To respond to this high demand, CARB selected 28 projects totaling \$10 million for funding. The additional funding of \$5 million worth of

projects is contingent on the appropriation of those funds in the final fiscal year 2018-2019 budget bill passed by the legislature and signed by the Governor.

The air grant projects will support CBOs' participation in the implementation of AB 617, through the development of methods to acquire new or better information regarding air quality and related health impacts, as well as measures to reduce air pollution in overburdened communities, including:

- Community-led air monitoring support
- Development of emission reduction action Plans
- Community training and education on AB 617 concepts
- Travel and logistical support for meetings

The air grants will support community engagement and action in each community where they are established. They will strengthen the partnership between communities and agencies to better characterize the air quality, identify key emission sources, and take action to reduce emissions. The air grants go well beyond the limited number of communities for which community emission reduction programs are established in the early years of the program as they recognize that the vision of AB 617 is much broader.

#### \$500,000 / 3-year Project Timeline

This project aims to add 15 monitors to expand the existing IVAN air network into the eastern Coachella Valley, effectively covering the entire Salton Sea Air Basin. It will also provide methane monitoring, as this is a growing concern of the residents, and methane is not currently monitored. Through both the addition of PM2.5 and PM10 sites and the new methane sites, the CCV community steering committee will continue to educate residents on air pollution and incorporate new information about methane emissions. Residents will play a key role in selecting sites and implementing new monitoring as well.

#### Air Grants Conceptual Category Integration

Project contains all elements of **Informational** (community meetings and outreach), **Participatory** (CSC assists in selection of sites and design the communication strategies), and **Technical** (expansion of the IVAN Network and addition of methane monitoring network).

Air District(s), Imperial APCD, and South Coast AQMD Collaborations

- Allies in Reducing Emissions (AIRE Collaborative)
- Air Quality School Flag Program (Imperial County)
- California Environmental Health Tracking Program
- Community Advisory Committee Our Roots, Seeley Citizens United and Brawley Union High School

CCV existing Ozone and NO<sub>2</sub> Aeroqual low cost sensors network has a total of 12 monitors by which 6 monitors are in operation within the nominated community (Calexico, Heber, and El Centro).

#### TABLE 3 Monitor Site Identification and Location

A	В	c	D	E	F
	Aeroqual Monitor	Operator	Site Location	Address	INSTALLED
24	AQY-AA125	CCV	Port of Entry, Calexico, Site 12	123 E. 1st St, Calexico, CA 92231	32.665732
27	AQY-AA136	CCV	Kennedy MS, Site 9	900 N 6th St, El Centro, CA 92243	32.802153
32	AQY-AA141	CCV	Calexico Housing Authority East, Site 13	1006 E 5th St, Calexico, CA 92231	32.669573
33	AQY-AA142	CCV	Calexico High School CARB site	099-1001 E Belcher St, Calexico, CA 922	32.676184
34	AQY-AA143	CCV	Calexico Housing Authority West, Site 11	850 Eady Ave, Calexico, CA 92231	32.676401
47	AQY-AA156	CCV	Calexico West Home, Brockman Rd, Site 10	99-381 Brockman Rd, Calexico, CA 9223	32.678483

#### TABLE 4 Meteorological Stations

awley	32.979032	-115.53857	Missing wind vane
st, Brawley	32.986408	-115.52451	Attached to Dylos Station
d, El Centro	32.800717	-115.47419	Attached to Dylos station
Vista, Seeley	32.794969	-115.69221	Attached to Dylos station
Calipatria	33.114646	-115.45137	Attached to Dylos Station
Nestmorland	33.084024	-115.65709	Attached to Dylos Station
Calexico	32.674551	-115.51069	Attached to Dylos Station
iland	33.237537	-115.51773	On tripod setup. Offline since June 9th.
/estmorland	33.035928	-115.61847	On tripod setup
e, Imperial	32.821542	-115.5875	Attached to Dylos station
St, Calipatria	33.1244	-115.52443	Attached to Dylos station
W. Vaughn Rd El	32.759575	-115.73207	On tripod setup, co-located with Dept of Water Resources equipment.
		32.759575	32.759575 -115.73207

#### Figure 17: Toxic Air Pollutants and Other Criteria Pollutant Data

The Toxics Release Inventory (TRI) tracks the management of certain toxic chemicals that may pose a threat to human health and the environment. Certain industrial facilities in the U.S. must report annually how much of each chemical is recycled, combusted for energy recovery, treated for destruction, and disposed of or otherwise released on- and off-site. This information is collectively referred to as production-related waste managed.



Fig. 17: Quick facts for 2016



Figure 18: Existing Monitors within the AB 617 Nominated Community

Fig. 18: The image illustrates the  $PM_{10}$  and  $PM_{2.5}$  Dylos instruments. These monitors are part of a 39 monitor network established throughout Imperial County

Figure 19: Ethel, Calexico Community Monitor Collocated at CARB Station



Fig. 19: The image illustrates the  $PM_{10}$  and  $PM_{2.5}$  Dylos instruments collocated at the Calexico Ethel CARB operated station

#### Additional Community Air Monitoring Network and Outreach

The project will include additional methane monitors as an enhancement to the existing CCV methane program and an additional 15 particulate matter monitors to expand community air monitoring efforts. Meetings will occur to educate the community on methane as a short-lived climate pollutant as well as air pollution from toxic releases, etc. An Environmental Justice Community Steering Committee will guide the project and, based on their understanding of air pollution, will identify priority sites for monitor installations. Community outreach about existing 40 air monitoring stations will continue. Schools will also use this data to support ongoing air quality notification programs. Other monitoring efforts that have occurred and will continue include co-locating NOx and Ozone monitors with the community air monitoring stations. In addition, installation of weather stations will take place at monitoring locations. All this data will be utilized by the air district and the community to develop an emissions reduction plan for the area. Additional support and a maintenance plan for the current Community Air Monitoring Network and Data Website will also be part of the 1st year community selection priority work plan.

Outreach: Form a Technical Advisory Group

- Form a Community Steering Committee (CSC): Topics discussed will include Understanding of Air Pollution, Hazard Mapping Activities, Priority Site Selection, Guidance from the TAG, and emission reduction plans
- Monitor Deployment: CCV will install, operate and maintain monitors
- Data Display: Interpretation of Data Collected by Monitors for Particulate Matter
- Data Display: Interpretation of Data Collected by Monitors for Methane on IVAN Air Web Portal
- Sharing of Data and community actions (emissions reduction): Collaboration with CSC in developing communication materials and dissemination strategy for monitoring data

There is an ongoing effort to conduct community air monitoring in Imperial County. This effort will ensure that the air monitoring program in Imperial County is successful for year 1 through 5 and beyond. The Air District will work with Comite Civico del Valle to develop an emissions reduction plan based on monitoring data and other relevant data.

County	Community	Community Type	Lead Organization	Monitoring	Type of Monitoring	Emissions Reduction
Imperial County	El Centro	Rural	ICAPCD/CCV/ CARB	Yes	Methane	Yes
Imperial County	Heber	Rural	ICAPCD/CCV/ CARB	Yes	Methane	Yes
Imperial County	Calexico	Rural	ICAPCD/CCV/ CARB	Yes	Black Carbon VOC	Yes

TABLE 5 Meteorological Stations

#### Emission Reduction Program in Year 1 through 5 Communities

A new effort for year 1 through 5 is to implement an Emissions Reduction Program. At the July 11, 2018 workshops in Calexico and Westmorland, several community concerns and projects were recommended for consideration. These concerns and projects are found in the tables below.

Concerns for Year 1 Community Monitoring and Emissions Reduction Plan

Concerns	Projects		
Binational Calexico - Mexico	Tree Program		
New River	Cover New River		
Smog	Working Groups		
Working Groups – Action Plans	Traffic Mitigation		
Children Health – Asthma	Enhanced Ag Burning Rules		
Border Traffic	More Educational Programs		
Ag Burning	Incentive Programs for Ag Burning		
Lack of Information	Welfare Program for Outreach		
Boundaries/Land Use	Medical Supplies		
Emission Control	Regulate Recycling Facilities		
Medical Services	Paving/Repaving side roads		
Construction Projects	Publicity Projects		
Unregulated Recycling Facilities	Buses/ New buses/replacements		
Feedlots/odors	Education on Pesticides		
Shoulder Traffic Impacts	Make Reachable Goals		
Awareness	Involve Superintendents		
Outreach	Neutral Facilitator		
Open Areas Mitigation	Door to Door Outreach		
Community Involvement	Truck Route Redirection		
Geothermal Facilities	Community Linkage		
Permitting Process	Build Partnerships		
School Buses	Enhanced Roadways		
Pesticides	Awareness Programs		
Indoor Air Quality	Continue Flag Program		
Data Sharing	Open Area Mitigation		
	Steering Communities		
	Incorporate Youth/ Student		
	Geothermal regulation		
	Annual Smog For Mobile Sources		
	Plan to Engage Community		

#### TABLE 6 Calexico Workshop July 11, 2018

Concerns for 2nd Year Emissions Reduction Plan

Concerns	Projects				
Countywide AB617	Asthma Education – Home outreach				
Ag Burning in Mexicali	Expansion of existing Asthma program				
Dust Mitigation program	Westmorland Street Paving				
Outreach Health Programs to Households	Geothermal Research				
Outreach – Mexicali	Paving – Howenstein Rd & H Road				
Geothermal Sources	More trees and wetlands				
Trees, wetlands, wind breaks	Green Barriers				
Wind Events	Swimming Pool at Westmorland				
	elementary				
More Regulations	Solar Project Study and Mitigation				
Pollution from Mexico	Salton Sean				
Salton Sea	Pave Parking lot – Westmorland				
	Elementary and City Parks				
Open Areas	Flag Program				
Westmorland Elementary School	Gym w/Air Filtration – Indoor Air Quality				
Outreach – Community/Schools	Reroute Truck Traffic				
Advertising at public schools	Countywide Implementation of AB617				
Indoor Air Quality	Dust Mitigation Program in				
	Westmorland				
Traffic trucks					

#### TABLE 7 Westmorland Workshop July 11, 2018

#### **Resource Needs**

The implementation of AB 617 requires significant resources. For year 1 through 5, funding is imperative for the enhancement of the community monitoring program. Although Imperial County has its first-of-a-kind community air monitoring program in place, the program, as recommended by the Air District and CCV, its anticipated to be expanded to all Imperial County Communities, including tribal communities, and to engage these communities in emissions reduction program development, implementation and evaluation.

#### Community

Communities in years 1 through 5 will need funding for a variety of activities to build community readiness to eventually develop an emissions reduction program and/or enhance the community air monitoring plan. AB 617 is envisioned as a community-based endeavor, and therefore communities will be at the center of planning and decision-making regarding local priorities for action. However, not all communities are at the same

starting point or level of readiness for engaging in this process. At each stage of the process, community organizations will need financial assistance to support their participation. Funding is especially needed for capacity-building, plan development, and plan implementation and evaluation.

#### Air District

Assembly Bill 617 (AB 617) is the most impactful change in air quality regulation in the last 35 years. Increasing the focus on localized air pollution in overburdened communities is a welcome and necessary initiative for public health and equity. However, the development and implementation of this new Community Health Protection Program requires significant additional resources. During the first year of implementing, the state Community Air Protection Program, the Air District will incur nearly \$ 4.2 million in initial costs associated with the identification of a prioritized list of impacted communities, development and adoption of a Community Action Plan, development and implementation of a Community Action Plan, development and implementation of a mended regulations to gain benefits from the technology, and potential adoption of amended regulations to gain benefits from the technology. Much of this work will become ongoing, including working with impacted communities in advance of the development of additional community action and monitoring plans.

The Air Districts and its partners have made incredible progress in reducing regional air pollution. Those regional planning efforts must continue in order to attain and maintain federal and state air quality standards. Now, AB 617 brings focus to localized, neighborhood-scale, air pollution. This is a big step forward in protecting community health, but creates additional community engagement, planning, monitoring, and engineering requirements.

Most of the air pollution impacting overburdened communities is from mobile sources. Addressing the impacts of this pollution will require a cooperative effort between the local air districts and the California Air Resources Board (CARB). In addition, since Air Districts can only charge fees to stationary sources to address the impacts of their pollution, there is very little opportunity to raise the needed funds from fees.

The first year of AB 617 requires significant expenditures in several areas to set up this new program. Annual costs for specific Air District activities are provided in the table below.

Program Component		Cost
Community Monitoring	<ul> <li>Additional permanent, regulatory- quality, air quality monitoring equipment for tracking long-term progress.</li> <li>New equipment for mobile</li> </ul>	\$2.6 million
Community Emissions Reduction Plans	<ul> <li>Coordination of the AB 617 development process.</li> <li>New software for project tracking.</li> </ul>	\$0.3 million
Community Engagement	<ul> <li>Working with communities to prepare them for the AB 617 process.</li> <li>Grants to local communities for their participation and engagement.</li> </ul>	\$0.5 million
Review of Best Available Retrofit Control Technology	<ul> <li>Review existing controls for sources that contribute to emissions at facilities subject to Cap-and-Trade.</li> <li>Develop and conduct CEQA review on schedule to implement new control requirements.</li> </ul>	\$0.3 million
Emissions Reporting Coordination	<ul> <li>Develop new, statewide emissions calculations protocols.</li> <li>Software enhancements to improve quality of reported data.</li> </ul>	\$0.5 million
Overhead	<ul> <li>Executive time to coordinate/oversee program development.</li> <li>Legal services for CEQA analysis and regulatory development.</li> <li>Administrative overhead for new staff and contracts.</li> </ul>	Included
Total		\$4.2 million

TABLE 8 Annual Cost For Specific Air District Activities

**Public Process used to Identify, Prioritize and Select Recommended Communities** The Air District developed and implemented an extensive outreach plan to ensure community participation in the identification, prioritization, and then selection of recommended communities for the state's Community Air Protection Program. Outreach consisted predominantly of public workshops and online community engagement.

The Air District held a total of two workshops throughout the region on AB 617, and specifically on community identification and prioritization. Outreach for workshops include informational flyers posted at libraries, community centers and other popular gathering places, List-serv, social media posts on Facebook and Twitter, press releases and follow-up media advisories, posts in community calendars, targeted emails to key community stakeholders and targeted outreach at community events.

Date	Workshop Title	Venue	Attendees
July 11, 2018	Community Air Protection Program	City Of Calexico, 608 Heber Avenue Calexico, CA 92231	42
July 11, 2018	Community Air Protection Program	City of Westmorland Youth Hall, 200 W. 2 <sup>nd</sup> Street Westmorland, CA	39

#### TABLE 9 AB 617 Public Workshops

Workshop attendees learned about the public health context for addressing air quality concerns at the local level, the goals of AB 617, and the process for identifying, prioritizing and selecting communities. There was opportunity for discussion, where workshop participants could ask questions and share concerns. Following the presentations, Air District staff facilitated interactive sessions where attendees could prioritize communities for selection and early action, speak with local inspectors about local sources of pollution, guide criteria for selection, and shape program objectives.

Workshop attendees offered the following concerns as opportunities for improvement:

- Better outreach/more resident attendance.
- Better link the public health presentation to air quality
- Inform attendees about what selected communities will get out of being selected as an AB 617 community

Attendees were also provided the opportunity to recommend a community that was not captured by our proposed methods. One community recommended to including El Centro and Heber instead of Westmorland. After analyzing El Centro and Heber, it was determined that these communities are an exposure burden off considerable concern.

Therefore, the ICAPCD will recommended Calexico, El Centro, and Heber as one consolidated community.

These areas may also have health burdens and high levels of poverty, which exposure to air pollution can exacerbate, especially if residents have limited access to health care. However, AB 617 is intended to address cumulative air quality and health burden areas, namely; those areas that are impacted by multiple sources of air pollution, such as large industrial sources, congested freeways and roadways, and/or rail.

The ICAPCD is committed to reducing woodsmoke in communities impacted by the effects of wood burning. We will continue to address residential woodsmoke through additional incentive programs aimed at installing non-wood-burning technologies and we are considering further strengthening of our Wood-Burning Devices Rule.

#### AB617 Environmental Justice Community Steering Committee (AB617 EJCSC)

To ensure meaningful participation from the community, we, ICAPCD and the CCV, will create an Environmental Justice Community Steering Committee which will be comprised of representatives within the nominated community who experience cumulative impacts from exposure to multiple toxic air pollutants, including but not limited to, communities with minority or low income populations. This will allow for meaningful involvement in the development and, implementation of the Community Air Protection Program, which includes air monitoring and an emissions reduction plan.

Any monitoring siting and emissions reduction plan will be done, in consultation with the AB617 EJCSC. This advisory committee will engage in all stages of the process: the project, including: participant recruitment, execution of community hazard/asset mapping (Basara and Yuan 2008)[7], air monitoring site selection and operation, development and implementation of an emissions reduction plan interpretation and dissemination of results, and project evaluation.

The AB617 EJCSC members will be involved in the decisions on where to site monitors in a network with community participation or input; a continuing innovative idea of our project. We, ICAPCD and the CCV, will engage the community in the design and expansion of the air quality monitoring network, collect data, analyze and show progress while developing an emissions reduction plan. We will refine previously developed, scientifically rigorous site-selection methods and include community knowledge of important sources of air pollution, cumulative hazards, and vulnerable populations.

We will facilitate discussions with community members to identify neighborhoods of concern and to conduct community mapping to identify assets if necessary as well as environmental hazards that either are sources of air pollution or may act cumulatively to affect the health of the neighborhoods' residents, including outreach to the community.

# Attachment A

## CALEnviro Screening for Nominated Communities

	CES 3.0 Percentile	SB 535 Disadvant aged Communit Y	Ozone Pctl	PM2.5 Pctl	Diesel PM Pctl	Drinking Water Pctl	Pesticides Pctl
	71.08	No	73.93	94.67	78.02	30.20	0.00
	86.66	Yes	73.93	94.67	19.90	30.20	0.00
	77.56	Yes	73.93	94.67	55.64	30.20	0.00
	91.64	Yes	73.93	93.64	19.90	30.20	76.66
	87.92	Yes	73.93	69.14	10.06	46.94	90.30
	89.10	Yes	77.87	42.86	16.79	46.89	89.92
	86.77	Yes	73.93	30.70	6.37	47.97	88.82
	51.89	No	77.87	30.70	20.70	26.63	81.75
	66.20	No	77.87	20.16	35.36	27.39	0.00
	85.58	Yes	77.87	17.81	34.49	27.39	0.00
	72.67	No	77.87	17.81	26.21	27.39	64.58
	74.49	No	77.87	17.81	28.01	27.39	70.81
	54.28	No	77.87	17.81	26.21	25.57	86.63
	57.71	No	77.87	17.81	18.28	26.38	84.66
	90.65	Yes	77.87	17.81	32.35	27.39	61.22
	95.48	Yes	77.87	17.81	38.67	27.39	77.04
avg	77.48	0.5625	76.39	43.50	29.18	31.60	54.53
median	81.57		77.87	25.43	26.21	27.39	73.74
maximum score	95.48	85 - C	77.87	94.67	78.02	47.97	90.30
minimum score	51.89		73.93	17.81	6.37	25.57	0.00

Low Birth Weight Pctl	Cardiovas cular Disease Pctl	Education Pctl	Linguistic Isolation Pctl	Poverty Pctl	Unemploy ment Pctl	Housing Burden Pctl	Pop. Char. Pctl
47.79	93.64	73.80	94.76	63.56	83.18	57.34	80.68
46.47	93.64	94.28	99.67	99.12	99.34	80.59	93.14
67.72	93.64	96.47	97.57	97.27	99.90	36.48	92.24
48.19	93.64	96.06	97.52	88.80	96.67	47.33	88.40
19.22	92.49	86.60	95.72	75.46	77.40	68.05	77.80
58.11	79.59	86.00	96.21	71.68	84.73	29.06	79.82
41.87	94.08	79.57	84.50	78.88	84.10	23.51	84.76
21.33	96.42	54.38	39.43	17.89	38.51	8.35	52.11
85.66	96.42	72.82	76.31	70.28	72.98	38.06	92.00
69.28	96.42	77.98	83.39	84.95	99.68	91.95	98.02
32.86	96.42	65.64	68.34	69.75	71.82	67.35	82.09
25.90	72.00	84.62	95.69	98.37	98.76	71.34	86.93
61.09	96.42	42.59	28.62	19.95	49.49	0.41	59.35
11.32	63.65	50.79	65.02	36.22	79.15	20.17	48.63
37.05	96.42	91.56	96.41	93.01	87.12	64.81	94.10
52.98	96.42	94.55	87.47	95.25	90.40	82.18	97.26
45.43	90.71	77.98	81.66	72.53	82.08	49.19	81.71
47.13	93.86	82.10	91.11	77.17	84.41	52.34	85.85
85.66	96.42	96.47	99.67	99.12	99.90	91.95	98.02
11.32	63.65	42.59	28.62	17.89	38.51	0.41	48.63

Tox. Release Pctl	Traffic Pctl	Cleanup Sites Pctl	Groundwa ter Threats Pctl	Haz. Waste Pctl	lmp. Water Bodies Pctl	Solid Waste Pctl	Pollution Burden Pctl	Asthma Pctl
48.25	19.15	17.97	0.00	0.00	99.14	0.00	46.45	58.78
48.48	87.07	19.79	74.91	0.00	99.14	0.00	63.25	58.78
49.39	NA	2.01	0.00	0.00	99.14	0.00	46.20	58.78
49.09	92.57	19.79	0.00	0.00	99.14	78.52	83.10	58.78
47.92	17.30	32.71	49.72	54.01	99.43	96.96	85.31	57.60
40.67	37.92	17.97	29.18	94.94	99.43	98.68	85.64	61.19
22.05	19.00	80.17	92.77	0.00	99.14	85.57	75.79	93.57
41.58	31.91	59.85	8.85	0.00	71.61	10.12	44.06	95.20
40.68	45.01	0.00	42.85	0.00	71.61	32.80	27.28	95.20
40.31	58.00	22.93	42.85	77.41	71.61	52.84	50.94	95.20
40.56	39.58	4.54	36.38	83.74	71.61	0.00	47.83	95.20
12.96	43.28	4.54	54.27	83.74	71.61	0.00	46.88	82.50
33.67	16.23	0.00	21.88	69.19	71.61	0.00	39.55	95.20
13.62	46.10	90.51	46.01	65.56	71.61	12.36	61.92	68.78
28.11	45.86	55.60	55.16	82.30	71.61	68.45	72.35	95.20
40.06	55.32	55.80	56.62	43.11	71.61	91.56	79.84	95.20
37.34	43.62	30.26	38.22	40.88	83.69	39.24	59.77	79.07
40.61	43.28	19.79	42.85	48.56	71.61	22.58	56.43	88.03
49.39	92.57	90.51	92.77	94.94	99.43	98.68	85.64	95.20
12.96	16.23	0.00	0.00	0.00	71.61	0.00	27.28	57.60

# Attachment B

#### [6] Imperial Valley Inspection Summary Air

• The California Air Resources Board (CARB) conducted roadside inspections of heavy-duty diesel trucks in multiple locations throughout Imperial County, inspecting **87** trucks in total. CARB also, with some assistance from ICAPCD completed a total of **91** facility inspections in Imperial County, focusing on four distinct types of inspections: Freight hub enforcement, ICAPCD enforcement, and consumer products enforcement. In their freight hub enforcement section, CARB completed **34** inspections focused on inspecting vehicle and equipment (trucks, transport refrigeration units, large spark ignition engines) inspections at cold storage facilities. For their ICAPCD enforcement section, CARB and ICAPCD conducted **39** inspections focusing on geothermal facilities, asbestos, compliance with permit conditions for PM emissions, and refrigerant management at cold storage facilities. In the consumer products enforcement phase, CARB and other affiliated agencies conducted **18** inspections of discount stores with a focus on sampling chemically formulated consumer products.

#### Water

The State Water Resources Control Board worked closely with the Regional Water Board and the U.S. EPA to inspect facilities for discharge of pollutants into storm water, and to monitor their compliance with the state-issued storm water industrial general permits. Staff from this multi-agency effort completed **13** inspections across facilities including auto dismantlers, furniture and plastic manufactures, recycling facilities, trucking companies, and electroplating and anodizing facilities.

#### **Hazardous Waste**

• DTSC's Emergency Response Division and the Imperial County Certified Unified Program Agency conducted a total of <u>35</u>inspections in Imperial Valley, primarily focusing on assessing and promoting compliance of toxic waste treatment facilities with hazardous waste laws and regulations. Additionally, in cooperation with the CA Department of Motor Vehicles, DTSC's Office of Criminal Investigations inspected <u>11</u>facilities as part of the Auto Dismantler Task Force. This task force inspected these facilities with a focus on coordinating enforcement and compliance activities related to unlicensed and unregulated automobile dismantling in the cities of Calexico and El Centro, CA.

#### Solid Waste

• Working the County of Imperial Solid Waste Local Enforcement Agency, Cal Recycle conducted a total of <u>36</u>inspections in three types of facilities: solid waste facilities, beverage container recycling facilities, and businesses (tire stations, haulers, and end-use facilities). When inspecting solid waste facilities, CalRecycle ensured that these businesses met state standards for environmental protection and public health and safety. For recycling facilities, CalRecycle ensured these centers are not purchasing CRV material that has no refund value and that they properly pay for the materials that they purchase. Lastly, CalRecycle ensured that reusable and waste tires are safely transported, stored, processed for recycling, or disposed of in a manner to protect public health and safety and the environment.

#### **Pesticides/Produce**

The California Department of Pesticide Regulation staff conducted a total of <u>39</u>samples of 29 target commodities in Imperial County to test for illegal pesticide residues. Another part of their enforcement efforts was through their Product Compliance Unit, conducting Marketplace Surveillance Inspections at facilities where pesticides are sold/distributed. DPR completed a total of <u>10</u>of these inspections focused on identifying and monitoring pesticide products within the channels of trade to determine if they are properly registered and labeled, thus providing consumer protection and marketplace equity. The Imperial County Agricultural Commissioner's Pesticide Use Enforcement Division performed <u>104</u>inspections of pesticide applications near schools and residential areas, pesticide applications with higher potential for drift and taking into account the toxicity of the pesticide, and worker safety for fieldworkers and pesticide handlers.

#### Illegal Auto-Dismantling

• The CA DMV, along with 6 other state agencies, established the Vehicle Dismantler Industry Strike Team (VDIST) to inspect and identify unlicensed vehicle dismantlers. DVIST, and other involved parties, completed a total of <u>11</u>inspections of potential illegal auto dismantling sites.

# Attachment C

Total reports: 754

# Total reports this year: 330



34

Pesticide

Solid Waste

# Average monthly reports



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Other

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