

April 30, 2018

Mr. Richard Corey, Executive Director  
c/o Laura Zaremba-Schmidt  
California Air Resources Board  
9480 Telstar Avenue #4  
El Monte, California 91731

**Subject: Submittal of the Sacramento Region's Initial Assessment of Potential Locations for AB 617 Community Protection Action**

Dear Mr. Corey:

The Sacramento Metropolitan Air Quality Management District (District) is pleased to submit to the California Air Resources Board (CARB) the *Initial Assessment of Potential Locations for AB 617 Community Protection Action* (Report). It identifies potential Sacramento community areas for further analysis for the development of community air quality monitoring campaigns and/or community emission reduction programs. This Report complies with the submittal requirements outlined in CARB's *Draft Process and Criteria for 2018 Community Selections*.

The District has prepared a preliminary technical assessment based on the criteria set forth in AB 617. It is based on multiple indicators of regional health outcomes and disparities and goes beyond the application of CalEnvrioScreen 3.0. In addition to the locations of disadvantaged communities, the preliminary technical assessment includes locations of low income communities and communities with the greatest health needs, emission sources of toxic air contaminants and greenhouse gases, and sensitive receptors. The technical assessment shows four potential target areas in the Sacramento region where community air monitoring and community emission reduction programs may be warranted to better protect public health and help to reduce excess cumulative impacts of air pollution.

The District will continue to expand engagement and inclusion efforts to better understand community issues and needs based on the local realities. Additional information from this process will be used to prioritize the identified community areas, establish community boundaries and further evaluate the impacts from all emission sources. This information, along with the feedback from the community engagement process, will be used in the final list of recommended locations submitted to CARB on July 31, 2018.

If you have any questions regarding this Report, please contact Mr. Mark Loutzenhiser at 916-874-4872 or MLoutzenhiser@airquality.org. Thank you.

Sincerely,



Alberto Ayala, Ph.D., M.S.E.  
Executive Director/Air Pollution Control Officer

Attachments:

Initial Assessment of Potential Locations for AB 617 Community Protection Action

cc: Karen Magliano, Division Chief, Office of Community Air Protection, CARB  
Mark Loutzenhiser, Division Manager, Program Coordination Division,  
SMAQMD  
Janice Lam Snyder, Program Manager, Program Coordination Division,  
SMAQMD

SACRAMENTO METROPOLITAN



**AIR QUALITY**  
MANAGEMENT DISTRICT

**Initial Assessment of Potential  
Locations for AB 617 Community  
Protection Action**

**April 30, 2018**

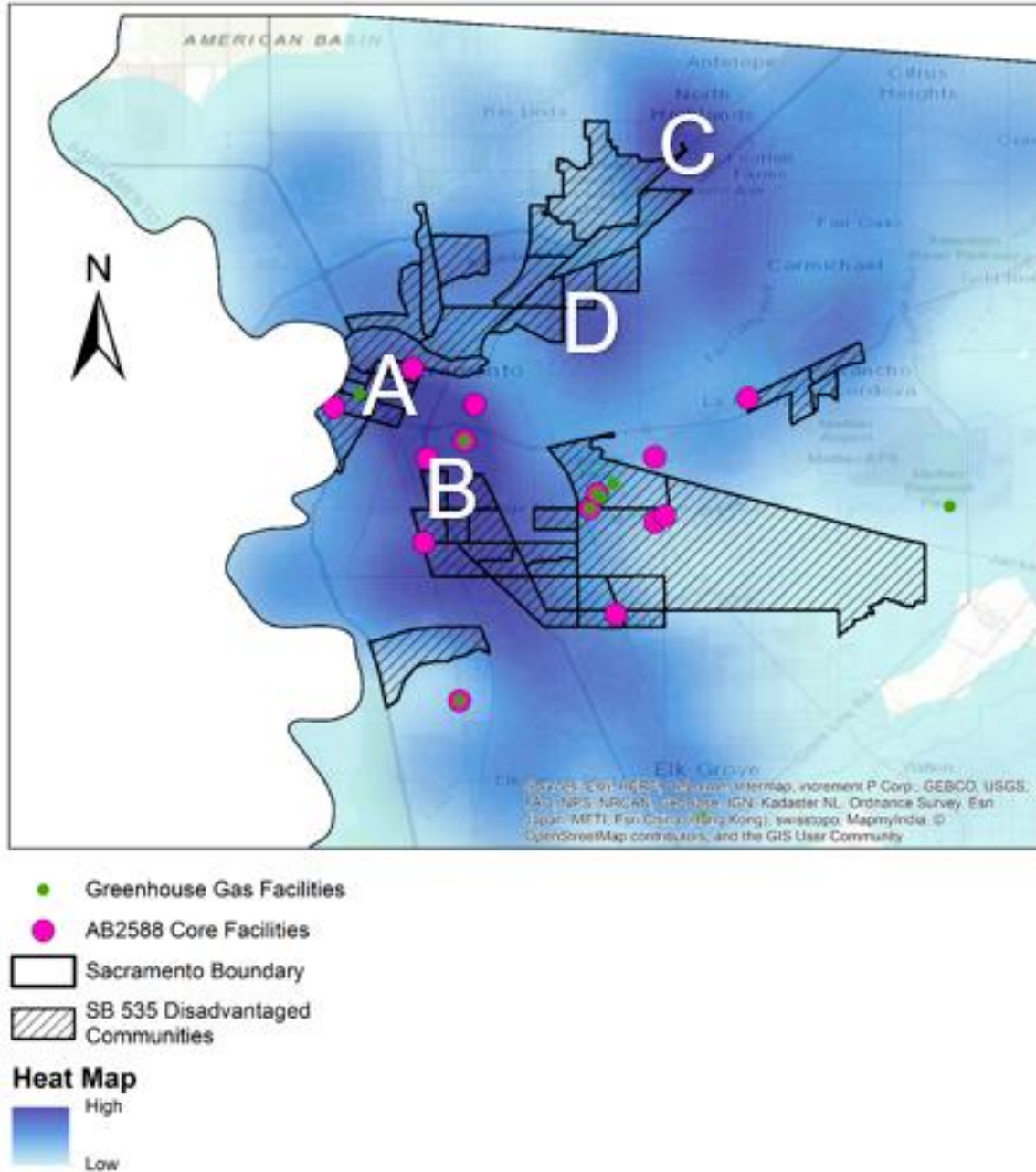
**Submitted to the:  
Office of Community Air Protection Program  
California Air Resources Board**

## I. EXECUTIVE SUMMARY

Assembly Bill (AB) 617<sup>1</sup> prioritizes new efforts to address cumulative air quality impacts in California communities. AB 617 requires that the California Air Resources Board (CARB) identify communities that have the highest cumulative exposure burden to air pollution and select an initial list of communities by October 1, 2018, for deployment of community air monitoring systems and/or preparation of community emission reduction programs. The legislation directs CARB to receive input from air districts and communities for the identification of potential communities. CARB is requesting that air districts provide initial suggestions for recommended communities by April 30, 2018, followed by a final list of communities by July 31, 2018. The Sacramento Metropolitan Air Quality Management District (SMAQMD or District) has conducted a preliminary technical assessment based on multiple indicators of health disparities in the region including the locations of disadvantaged and low income communities in the capital area, communities with the greatest health needs, location of emission sources of toxic air contaminants (TACs) and greenhouse gases (GHG), and the locations of sensitive receptors. Using heat maps to display the layering of the different indicators, the District identified four potential general areas for further evaluation and consideration by CARB. These are: A) Downtown Sacramento, B) South Sacramento, C) North Highlands, and D) Del Paso/Arcade as shown in Figure A below. These general areas will undergo additional analysis and refinement to be included in the District's final recommendations to CARB. The District implemented a community engagement and inclusion process with multiple stakeholders, including the SMAQMD Board. The District will continue to expand these efforts with local stakeholders in the region in subsequent work. This community engagement process will provide the District with a better understanding of the region's issues and needs as they relate to excess air pollution impacts.

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<sup>1</sup> AB 617, Garcia, C., Chapter 136, Statutes of 2017.



**Figure A. Initial Community Recommendation Areas for Further Analysis. Preliminary technical assessment is based on multiple indicators of health disparities in the region including the locations of disadvantaged and low income communities.**



## II. INTRODUCTION

AB 617 mandates a localized focus and renewed urgency to reduce exposure in California communities most impacted by air pollution. The first step in this new mandate is to identify potential locations with disproportionately high cumulative burdens due to TACs and criteria air pollutants. AB 617 requires CARB, by October 1, 2018, to identify communities with the highest exposure burden and select priority communities to deploy air monitoring systems and/or community emission reduction programs. Air districts and community members are encouraged to provide CARB with recommendations on potential communities to be selected. Initial community recommendations from air districts are required to be submitted to CARB by April 30, 2018, with final community recommendations due to CARB by July 31, 2018. Submittal requirements are outlined in CARB's *Draft Process and Criteria for 2018 Community Selections*<sup>2</sup>. This report provides a discussion of the District's identification of community pollution burdens, "readiness" to implement localized community monitoring, outlines and addresses submittal requirements, details the preliminary technical assessment of community impacts based on various indicators, and identifies an initial list of candidate areas in the Sacramento region suggested for CARB's consideration.

### **Experience in Community Monitoring**

CARB's *Draft Process and Criteria for 2018 Community Monitoring Selections*, states that the implementation in the first year should focus on communities with the greatest readiness to implement air monitoring systems to ensure that the program will provide near-term success in reducing emissions. The District is well experienced in the implementation of community monitoring and can readily leverage its existing knowledge of the region to implement a successful community-scale monitoring program. A recent study provides a very relevant underpinning for the anticipated work. In 2015, the District was awarded a grant by the U.S. Environmental Protection Agency (EPA) to monitor and analyze air toxics variations and contributions from wood smoke in Sacramento communities. Fortuitously, this study consisted of many of the design elements of AB 617, including community-scale monitoring including the process of selection of communities, community engagement, identification and monitoring of targeted air pollutants, and designing monitoring strategies to ensure actionable data is collected. As part of this study, the District engaged extensively with community members and stakeholders on community air quality monitoring priorities. This recent community engagement process has provided the District with a solid understanding to build upon for efforts in AB 617. The communities included in the study fall within areas identified in the preliminary assessment for AB 617, and many prior stakeholders and participants would like to see the earlier study continued and expanded upon. For more information, the final report is available for download on the District's website: <http://www.airquality.org/Air-Quality-Health/Air-Monitoring>.

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<sup>2</sup> California Air Resources Board. Draft Process and Criteria for 2018 Community Selections. Sacramento, CA: February 7, 2018.

### III. SUBMITTAL REQUIREMENTS

CARB's *Draft Process and Criteria for 2018 Community Selections* outlines the submittal requirements for the initial list of candidate community areas. Table 1 identifies the section in this report that addresses each of the required elements for the initial submittal.

**Table 1. Submittal Requirements**

Submittal Requirement	Addressed in:
Provide specific information for each candidate community.	CANDIDATE COMMUNITIES
Describe which data sources, tools and approaches, including community-specific considerations, the air district used to assess high cumulative exposure burden for this community recommendation process. An assessment using CalEnviroScreen 3.0 should be performed and the results provided.	PRELIMINARY TECHNICAL ASSESSMENT
Describe the type of criteria the air district will use to prioritize the recommended communities considered in their region.	CANDIDATE COMMUNITIES
Provide a list of all of the communities with high cumulative exposure burdens that were considered as candidates and provide a brief description of each community.	CANDIDATE COMMUNITIES
Describe the proposed public outreach approach and schedule to move from the preliminary list to the final recommendations for 2018.	PUBLIC OUTREACH
Describe the air district's relationships with members of the recommended communities or community-based organizations located in the recommended communities.	PUBLIC OUTREACH

### IV. PRELIMINARY TECHNICAL ASSESSMENT

The District conducted a preliminary technical assessment to identify potential community areas in the Sacramento region for further evaluation. This section describes the methodology, data sources, tools and approach the District used to identify communities with high cumulative exposure burdens from air pollution, consistent with AB 617 expectations.

#### **Data Sources**

The process to identify potential community areas was based on the following key criteria as specified by AB 617:

- Locations of disadvantaged communities as defined in Section 39711 of the California Health and Safety Code (CHSC);
- Communities with high exposure burdens for TACs and criteria air pollutants; and
- Locations of sensitive receptors, such as licensed healthcare facilities, schools, daycare centers, and other locations determined by the District or CARB.

To incorporate these key criteria, the District used the following data sources and general approach to determine potential areas for initial community selection. As a starting point, the

District considered Senate Bill (SB) 535 Disadvantaged Communities (DAC) – CalEnviroScreen 3.0 (CES3) and Assembly Bill 1550 low income communities (AB 1550) tools as these are recognized to be the preferred state tools for identification of impacted communities in California. CARB has acknowledged that other tools may be used to represent local air quality health impacts. Upon consideration of input from local elected officials and other stakeholders with deep on-the-ground community knowledge, the District’s assessment of the two state tools revealed that they provide an incomplete view of the Sacramento region by not recognizing a range of significant disadvantaged, low-income communities, and populations of interest. In part, tools like CalEnviroScreen include multiple pathways such as water and soil contamination—areas that will not benefit from AB 617 efforts. Therefore, the District sought to conduct a more comprehensive assessment of communities and explored several additional indicators that could aid in the goals of AB 617 for community identification. The outcome of the expanded analysis represents a better identification of excess burdens in the Sacramento region. The additional tools include the Sacramento County Community Health Needs Assessment (CHNA), the AB 2588 Air Toxics “Hot Spots” Program core facilities, large stationary sources of greenhouse gas (GHG) in the region, and locations of District-identified sensitive receptors. The addition of these tools incorporates indicators for the areas with the greatest health disparities, air pollution sources that impact nearby communities, and potentially-impacted sensitive receptors. With these additions, the District strengthens its analysis by adding indicators to complement the information provided by the CES3 and AB1550 tool.

The use of multiple indicators identifies communities that are considered disadvantaged and/or low income, and it accounts for the air pollution and air pollution-related health impacts that are burdening these communities. This approach will be refined through conversations with community groups and stakeholders to determine on-the-ground issues that the communities face. These conversations will also allow the District to better define the community boundaries. Each data source is described below.

**SB 535 Disadvantaged Communities:** SB 535<sup>3</sup> required the California Environmental Protection Agency (CalEPA) to identify DAC so that 25 percent of the California’s Greenhouse Gas Reduction Funds go to projects that provide a direct benefit to these communities. SB 535 defines DAC, which is codified in CHSC Section 39711, to include areas disproportionately affected by environmental pollution and other hazards that can lead to adverse public health effects, exposure, or environmental degradation and/ or areas with concentration of people that are of low income, high unemployment, low levels of homeownership, high rent burden, sensitive populations, or low levels of educational attainment. To identify DAC, CalEPA used the results from the California Communities Environmental Health Screening Tool Version 3.0<sup>4</sup> (CalEnviroScreen 3.0 or CES3). CES3 is a mapping tool developed by CalEPA and the Office of Environment Health and Hazard Assessment (OEHHA) to evaluate and score each community in California based on pollution burdens and population social-economic characteristics. DACs are identified through 20 statewide indicators that measure pollution burden and population characteristics. Cumulative pollution burdens are defined as the exposure to multiple pollution

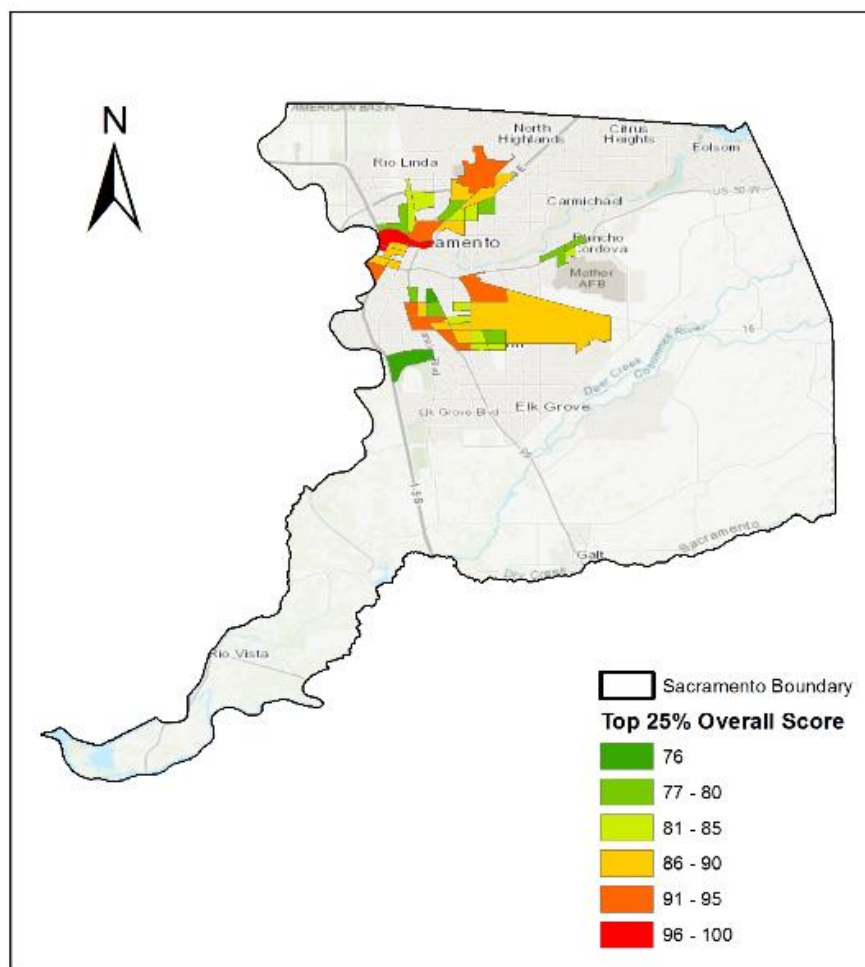
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<sup>3</sup> SB 535, De León, Chapter 830, Statutes of 2012

<sup>4</sup> <https://oehha.ca.gov/calenviroscreen>



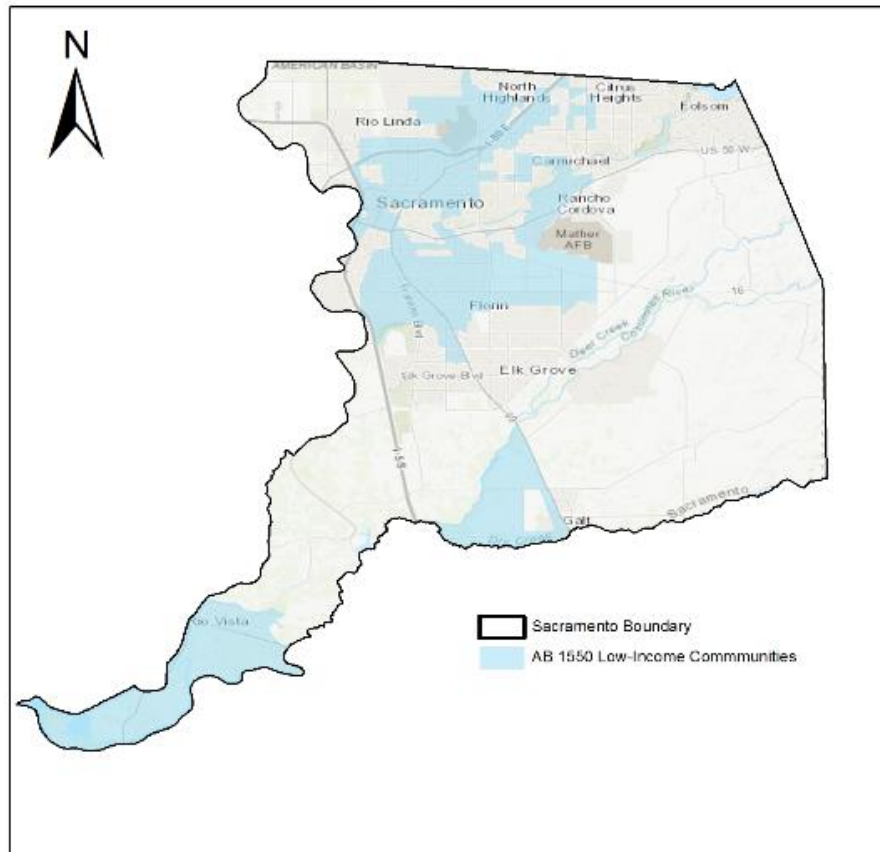
sources, including ozone, fine particulate matter (PM<sub>2.5</sub>), diesel particulate matter, and toxic releases from facilities. Population characteristics are defined by the socioeconomic factors for each community, including associated health impacts, education, housing burden, and linguistic isolation. The overall score in CalEnviroScreen 3.0 indicates how each community is cumulatively impacted, where a higher score indicates a greater impact by pollution to and vulnerability of the population in the community. DAC are determined to be the areas that correspond to census tracts with a CES3 overall score in the top 25<sup>th</sup> percentile of all California areas. The DAC results from CES3 for census tracts in the top 25<sup>th</sup> percentile overall score in the Sacramento region are shown in Figure 1. One limitation of CES3 for AB 617 purposes is its inclusion of non-air quality environmental burdens. While these burdens are important considerations in understanding overall cumulative impacts, the inclusion of only this tool would limit the effectiveness of AB 617 in monitoring community air quality and reducing risk.



**Figure 1. CES3 Disadvantaged Communities for Sacramento Region.**

**AB 1550 Low Income Communities:** AB 1550 requires that 25% of the California Greenhouse Gas Reduction Fund investments directly benefit low income households regardless of whether those households are in DAC. AB 1550 defines low income communities as the census tracts with median household incomes at or below 80 percent of the statewide median income or with median

household incomes at or below the threshold designated as low income by the Department of Housing and Community Development's State Income Limits adopted pursuant to CHSC Section 50093. Based on this definition,, CARB developed a map for California that identifies low income communities in relation to DAC<sup>5</sup>. Figure 2 includes additional census tracts of low income areas that are outside of areas already included in the DACs located in Figure 1. The District used this map to identify low income communities in the Sacramento region and as one of the criteria in identifying potential community areas for new localized monitoring. Figure 2 shows the AB 1550 low income communities for the Sacramento region.



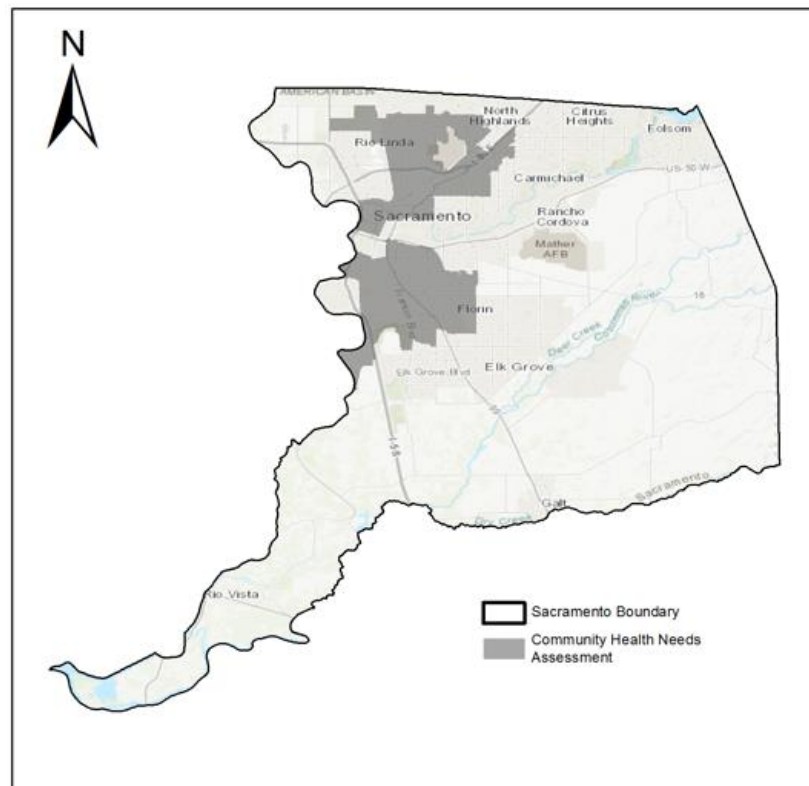
**Figure 2. Sacramento Region AB 1550 Low Income Communities.**

Sacramento County Community Health Needs Assessment: In 2012, Valley Vision, commissioned by Sierra Health Foundation, conducted a community health needs assessment for Sacramento County<sup>6</sup>. Sierra Health Foundation is an organization that promotes healthy living and looks to reduce health disparities in California. The Patient Protection and Affordable Care Act requires all nonprofit hospitals to conduct a CHNA every three years and adopt a plan to address the community health needs identified in the process. The CHNA is extensive. The assessment of overall health status and disparities in health outcomes is based on multiple

<sup>5</sup> <https://www.arb.ca.gov/cc/capandtrade/auctionproceeds/communityinvestments.htm>

<sup>6</sup> Valley Vision for the Healthy Sacramento Coalition. Sacramento County Health Needs Assessment. September 2012.

indicators including measures of both mortality and morbidity, risk behaviors, health drivers and conditions, and social inequities. Given this comprehensive scope, the District considered the CHNA to be a very important tool consistent with the intent of AB 617. The assessment identified and focused on communities that experienced the greatest socioeconomic inequalities and the highest rates of disease and mortality. Many of the indicators considered in the CHNA focused on health impacts from exposure to air pollution, such as cardiovascular disease, stroke and asthma. The Sierra Health Foundation developed an update in 2016 to the Valley Vision CHNA assessment<sup>7</sup>, which showed a similar pattern of health disparities in the focused communities in 2012 and 2016. The District included the CHNA and the identified focused communities as one additional indicator in assessing the cumulative exposure burdens of air pollution due to the well-established links between air pollution and health impacts. Fundamentally, the CHNA is complementary to the use of CES3 and the AB1550 considerations because the CHNA includes indicators that are not included in the other data sources. Figure 3 shows the areas identified in the CHNA assessment that have the greatest health disparities in the Sacramento region.



**Figure 3. Sacramento Communities Identified in the CHNA with Greatest Health Disparities.**

<sup>7</sup> Sierra Health Foundation. Sacramento County Community Health Needs Assessment. Sacramento, CA: 2016.

**AB 2588 Air Toxics “Hot Spots” Program Core Facilities:** The AB 2588<sup>8</sup> program requires applicable emissions sources to monitor and report toxic emissions, perform detailed health risk assessments (HRAs) for some facilities, and, where toxic risks are high (defined in Table 2 below), take actions to mitigate those emissions. These emissions contribute to the cumulative exposure burden. Core facilities are facilities with toxic emissions that meet specific toxic/risk thresholds and are shown in Table 2 and identified by pink markers in Figure 4. These core facilities are identified as having a high, intermediate (Int) or low risk, which indicates the potential for adverse health impacts to nearby receptors. The District considered locations of these core facilities in this assessment relative to nearby downwind areas, especially in areas that have a high number of facilities and/or areas where facilities have high cancer risk levels. Core facilities are used as an indicator in this assessment because one high risk facility or a concentration of multiple low risk facilities can increase the pollution burden on a community area. The District works closely with these core facilities and understands the type and amount of toxic emissions from these sources. This information will assist in identifying pollutants to monitor and potentially reduce if a nearby community area is selected for community monitoring. This information specific to the Sacramento region adds another indicator that goes beyond the information in the State-wide tools, and it provides a better picture of the cumulative impacts to the local communities. In addition, some core facilities are also stationary sources of GHG emissions as shown in Table 2.

**Table 2. AB 2588 Core Facilities and GHG Stationary Sources**

<b>AB2588 Facility ID</b>	<b>Facility Name</b>	<b>Cancer Risk Level<sup>1</sup></b>	<b>GHG <sup>3</sup></b>
1	AEROJET ROCKETDYNE, INC.	Int (TBD <sup>2</sup> )	No
14	AMERICAN RIVER AGGREGATES	Int (Low)	No
27	PROCTER & GAMBLE	Low (Int)	Yes
37	SFPP, LP	Int (High)	No
60	CHEVRON USA	Low <sup>6</sup> (Low)	No
61	STATE OF CALIF GS	NA	Yes
67	BLUE DIAMOND GROWERS	Int (Low)	No
112	MITSUBISHI RAYON CARBON FIBER AND COMPOSITES INC	Int (Int)	No
124	BIMBO BAKERIES USA	Int (Int)	No
126	HUHTAMAKI, INC.	Int (Int)	No
128	AIR PRODUCTS MFG CORP	NA	Yes
154	SACRAMENTO RENDERING CO	NA	Yes
160	CONSOLIDATED FABRICATORS	Low (Low)	No
171	UCD MEDICAL CENTER	Int (Int)	Yes
192	A. TEICHERT & SON - PERKINS PLANT	Int (Int)	No
193	CARSON ENERGY/SMUD	Low (Int)	Yes
194	SACRAMENTO POWER AUTHORITY	Low (Low)	No

<sup>8</sup> AB 2588, Information and Assessment Act of 1987, Connelly

195	SACRAMENTO COGENERATION (SCA COGEN)	Low (Low)	Yes
196	COUNTY OF SACRAMENTO PW (KIEFER LANDFILL)	Low (Low)	Yes
995	D & T FIBERGLASS <sup>4</sup>	Int <sup>6</sup> (Low) <sup>6</sup>	No
1342	MERCY GENERAL HOSPITAL	Int <sup>5</sup>	No
3042	PARAMOUNT PETROLEUM	NA	Yes
3456	SMUD COSUMNES POWER PLANT	NA	Yes
5159	HP HOOD, LLC	NA	Yes

<sup>1</sup> Except where noted, cancer risk levels (Low: < 1 in a million, Int-Intermediate: ≥ 1 and < 10 in a million, or High: ≥ 10 in a million) not shown in parenthesis were based on health risk assessments (HRA) conducted before 2011 using the 2003 OEHHA guidance. In the parenthesis, the District estimated the cancer risk levels using the 2015 OEHHA guidance.

<sup>2</sup>TBD – To Be Determined. Data will not be available until June 2018.

<sup>3</sup> GHG stationary sources were identified if the facility is subject to the GHG Mandatory Reporting Requirement Program.

<sup>4</sup> Source was selected based on the previous permitted emissions and not the actual emissions.

<sup>5</sup> Cancer risk level was based on the HRA conducted in 2014 using the draft 2015 OEHHA guidance.

<sup>6</sup> No cancer risk level was calculated; these levels are based on prioritization score.

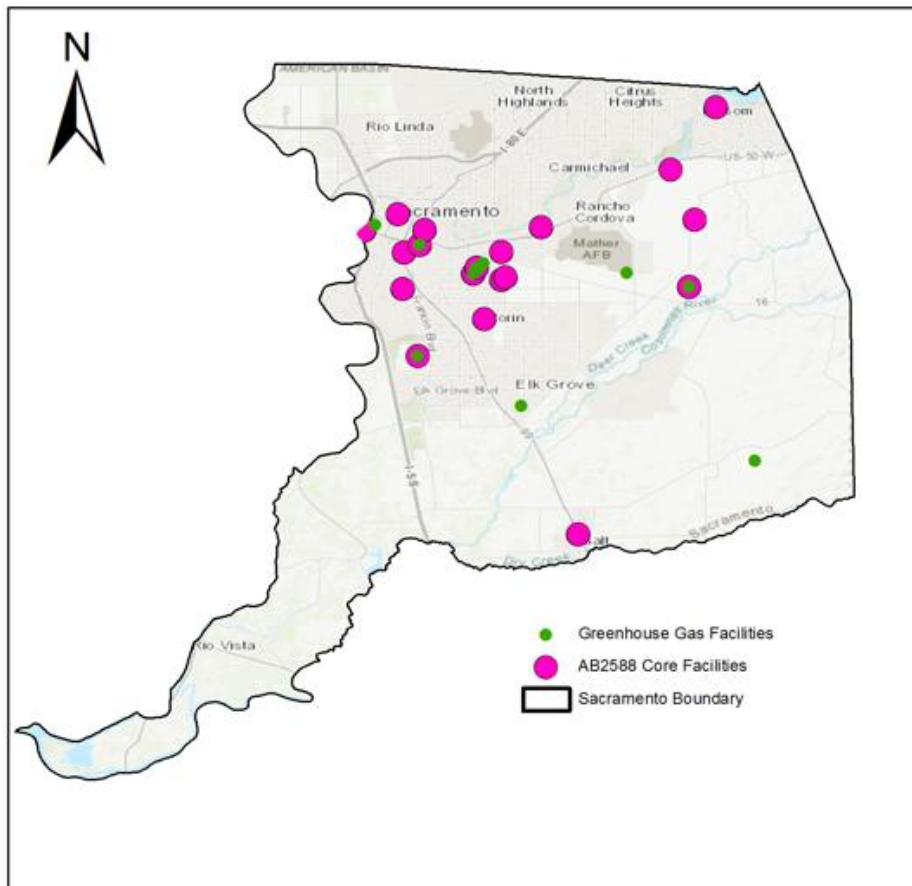


Figure 4. Map of AB 2588 Core Facilities and GHG Stationary Sources.

Stationary Sources of Greenhouse Gas Emissions: These are operations that are subject to CARB's GHG Mandatory Reporting Requirement Program<sup>9</sup>. Most of these facilities are those that have GHG emissions greater than 10,000 metric tons per year, which is the reporting threshold for most GHG stationary sources. The District considered the locations of GHG stationary sources in the region as one of the indicators for identifying potential areas with high cumulative exposure burdens of air pollution because these GHG stationary sources are some of the largest stationary sources in the District. The District works closely with these sources and have specific knowledge and detailed information about their operations and associated emissions. This information specific to the Sacramento region goes beyond what is included in the State-wide tool, and it helps build a more accurate picture of the pollution burden to nearby community areas. Some GHG stationary sources identified in this analysis are also sources of elevated TACs as determined by their associated cancer risk levels. GHG stationary sources are shown in Table 2 and are identified by green markers in Figure 4.

Sensitive Receptors: One criteria established by AB 617 is sensitive receptors. Sensitive receptors include residential communities, schools, day care centers, parks and playgrounds, hospitals and medical facilities<sup>10</sup>. These receptors are disproportionately susceptible to air pollution if these areas suffered from high cumulative exposure burdens of air pollution. The locations of these sensitive receptors in relation to distance from sources of air pollution will be an important criterion to identifying which communities will be priority areas to monitor and/or to develop community reduction plans. In this assessment, locations of schools, parks, and licensed healthcare facilities from the Sacramento region<sup>11</sup> were included in the analysis. Figure 5 shows the sensitive receptors in the Sacramento region.

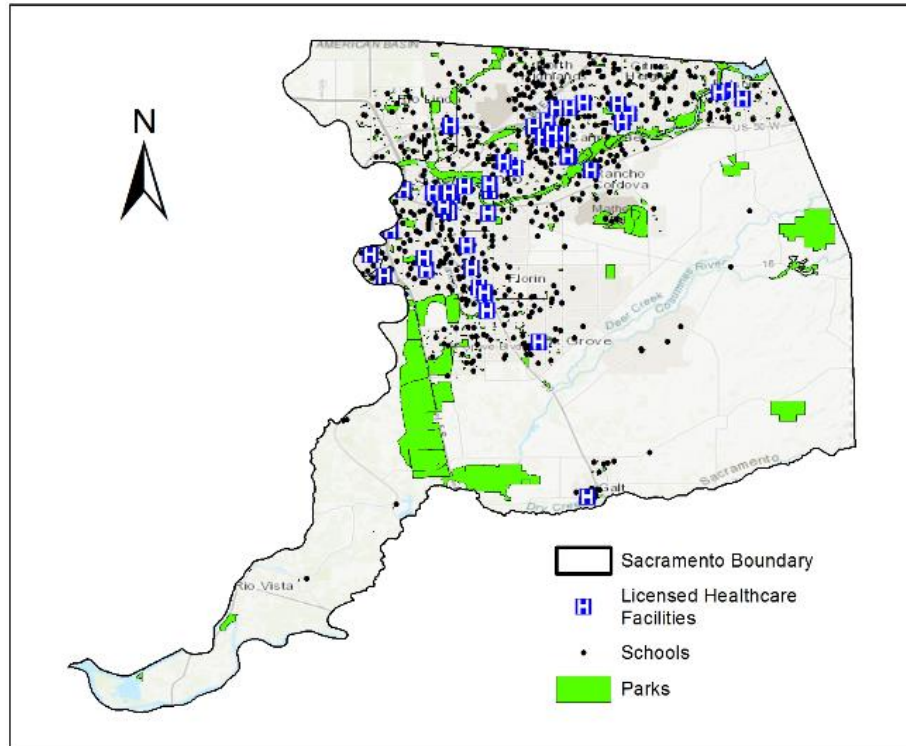
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<sup>9</sup> CHSC Section 38530 and Title 17, California Code of Regulations, Sections 95100 - 95158

<sup>10</sup> California Environment Protection Agency, California Air Resources Board, Air Quality and Land Use Handbook: A Community Health Perspective (2005), Page 2. [www.arb.ca.gov/ch/landuse.htm](http://www.arb.ca.gov/ch/landuse.htm)

<sup>11</sup> School and Park data courtesy of City of Sacramento Open Data Portal: <http://data.cityofsacramento.org/>; Licensed Healthcare Facility data courtesy of California Health & Human Services Open Data Portal: <https://data.chhs.ca.gov/>





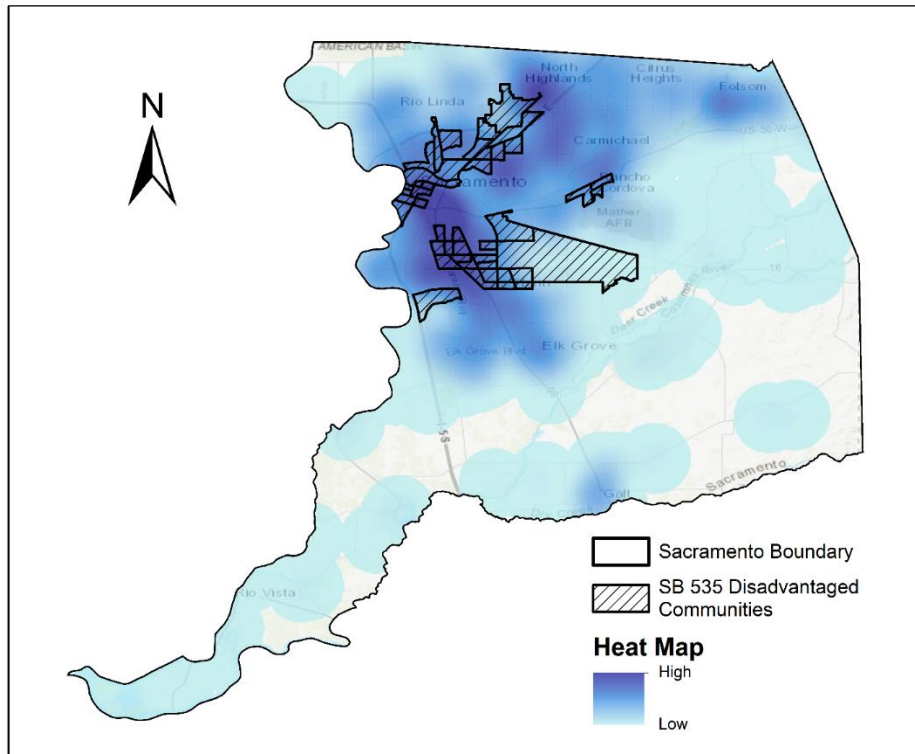
**Figure 5. Sensitive Receptors in the Sacramento Region.**

### **Analysis Tools and Methodology**

The District considered the multiple indicators of impacts described above, layered geographically over the region, to determine the areas for consideration for the initial list of candidate communities subject to air monitoring and/or community emission reduction program. Geographic information system (GIS) software<sup>12</sup> was used to create individual layers for mapping the cumulative output of the various indicators in the analysis. The representative points on a map for each of the indicators were determined by (1) the locations of AB 2588 facilities, (2) the locations for GHG stationary sources, (3) sensitive receptors, (4) the centroid of each census tract that was identified in DAC, (5) low income communities, and (6) CHNA areas. All layers, one for each of the indicators, were combined into a composite representation of the region shown as a heat map illustrated in Figures A, 6 and 8. The heat map displays the density of representative points. The areas with higher intensity, shown in the darker blue, indicate the higher concentration of indicators in an area. The areas with lower intensity, shown in the lighter blue, indicate a lower concentration of data points. In addition, the DAC boundaries were overlaid on the resulting

<sup>12</sup> Maps throughout this assessment were created using ArcGIS® software by Esri. ArcGIS® and ArcMap™ are the intellectual property of Esri and are used herein under license. Copyright © Esri. All rights reserved. For more information about Esri® software, please visit [www.esri.com](http://www.esri.com). Base map sources: Esri, DeLorme, HERE, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, and the GIS User Community.

mapping exercise to show correlation. Each indicator displayed on a map layer was given equal weighting in this analysis. In the future, the District may expand this analysis and consider assigning weighting factors to the data. The use of weighting factors, among other topics, is expected to be part of the on-going process with community engagement.



**Figure 6. Sacramento Region Heat Map.**

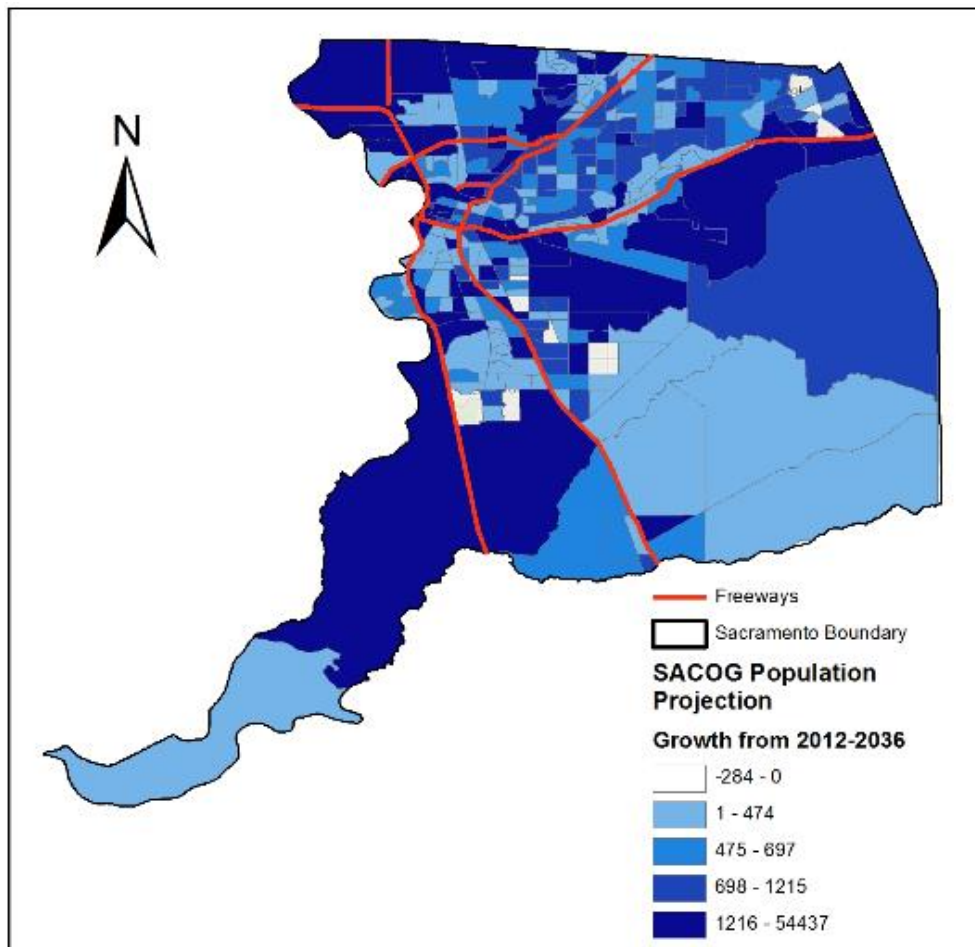
### **Additional Criteria and Data Sources for Further Analysis**

The technical assessment to determine potential community areas is based on a preliminary set of indicators deemed to adequately represent the health status and disparities in health outcomes in the Sacramento region. The District will consider the use of other data sources and criteria as the District moves forward with the outreach efforts and receives feedback from the communities and stakeholders on localized issues and needs relating to the impacts of air pollution. The following description identifies additional factors that the District will examine and consider for incorporation into the final recommendation for potential community areas.

**CARB Toxic Modeling:** CARB is performing air quality modeling for several areas in California, including the Sacramento Valley. The model will determine the cancer risks and the cancer burdens based on multiple air pollution sources, such as mobile sources (i.e. diesel trucks), area-wide sources (i.e. residential wood burning devices and gas dispensing facilities), and stationary sources (i.e. Title V facilities and AB 2588 facilities). CARB has provided preliminary results for the Sacramento Valley; however, CARB is refining the model based on the District's input regarding specific sources and other issues found in the preliminary results. Air quality modeling is a very resource-intensive process, and the final results may not be available prior to the final list of recommended communities due to CARB by July 31, 2018. Final modeling results will be

considered for the District's technical assessment if CARB makes those available in a timely manner.

**Projected Population Growth:** The District obtained population (along with housing population and total employment) growth projections that identify the rate of growth of each census tract in Sacramento County from the Sacramento Area Council of Governments (SACOG). SACOG provided data for 2012, 2024 and 2036. Based on this information, the change in population growth between 2012 and 2036 was calculated and mapped for each census tract as shown in Figure 7. This information is used to determine the population density, areas that are still continuing to see population growth, and areas that are already developed. This growth projection may be important because as population grows in specific areas, these communities may experience increased air pollution burdens from the increases in emission sources and traffic density to that area. Also, as real estate becomes limited in the urban core of Sacramento, residential communities may begin to develop closer in proximity to established emission sources. This data may be considered during the outreach process to help define a specific community.



**Figure 7. Population Growth from 2012 to 2036.**

### **Weighing Factors**

For this technical assessment, each indicator was weighed equally. The District acknowledges that a further refinement in the future analysis may include the development of a weighing scheme such that some factors more representative of health disparities specific for the region's communities may be emphasized in the final process of community identification. It is reasonable to expect that some sources may have greater impacts in determining exposure burdens of air pollution. The District expects to include this topic in future community engagement in order to capture this feedback for the final analysis. The District will consider other data sources and criteria as more information is received from the community during the outreach efforts. Community engagement and feedback is critical to get a better understanding of the criteria and factors impacting specific areas in the Sacramento region.

## **V. CANDIDATE COMMUNITIES**

In this analysis, the District defines community as a group of people living in the same place, or having a particular characteristic in common, defined by physical and administrative boundaries, local groups and organizations, local activities, or various community participation roles.

### **Candidate Community Areas**

Potential areas were selected to be considered as candidate communities based on the density of representative indicators described in the technical assessment. Four general community areas have been identified by the heat map (Figure 8), which the District has identified are in need of further evaluation. These community areas have not been prioritized. Identification of specific community area boundaries and community area prioritization will occur after input is received from the public and as part of the final submittal in July 2018. Figure 8 shows the four general community areas that the District is looking to do further evaluation. Each general community area is described in Table 3.

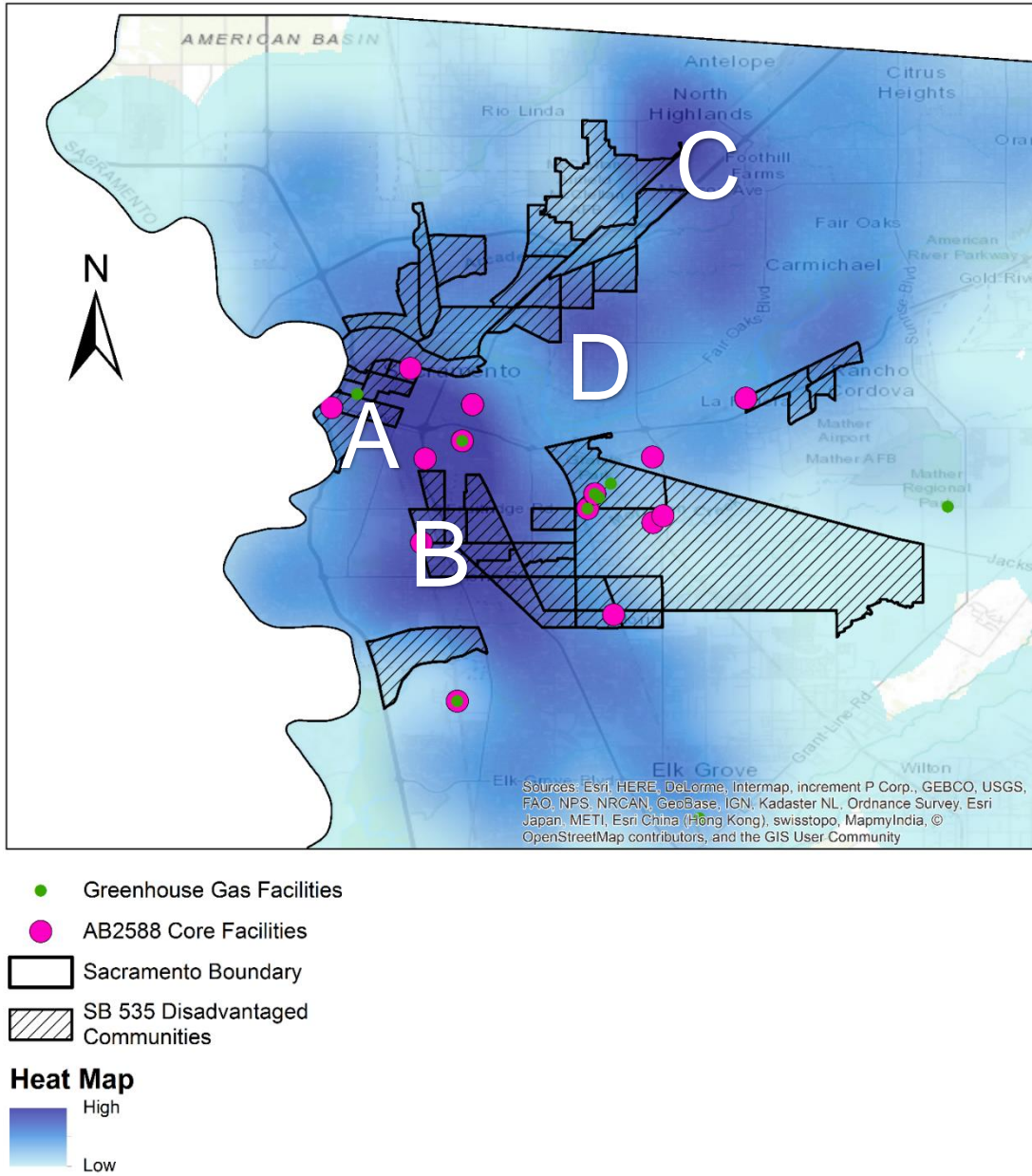


Figure 8. Four Potential Community Areas.

**Table 3. Community Area Identification and Description**

<b>Area</b>	<b>Description</b>
Downtown Sacramento (Area A)	This area is located in the general downtown Sacramento area. It contains a large percentage of DAC, including three census tracts which are in the top 10% (91 -100 %) of affected DAC areas. The small percentage of area outside of the DAC are located within AB 1550 low income communities. Emission sources include stationary sources (six AB 2588 facilities and two GHG stationary source), and on–road mobile sources (several major freeways run through this area including Interstate 80, US50, Interstate 5, and Business Route 80, with high traffic congestion especially during commute hours). Population, employment and dwelling units are all expected to increase substantially in the future according to SACOG projections. This continued economic and population growth, and higher employment rates, will further increase emissions. Downtown Sacramento represents the employment center for the county and has a dense road network. Within this area there is also a high density of railroad tracks, which contribute to diesel particulate matter concentrations in the area. Diesel locomotives rise to the top priority for incentives for cleaner technology.
South Sacramento (Area B)	This densely populated area is located south of downtown Sacramento (Area A). This area is located almost entirely within DAC and AB 1550 low income communities. Three of the census tracts in this area are within the 91 – 95 percentile of CES3 and represent about half of the population of the area. Emission sources include mobile source emissions from Highway 99, which runs through the center of this area and several major arterial roads; a stationary and greenhouse gas facility source; and many sensitive receptors, especially schools and parks.
North Highlands (Area C)	This area includes part of McClellan Air Force Base and an area located just northeast of McClellan. This area is almost entirely located within AB1550 low income communities. Emissions from mobile sources include Interstate 80, which runs through the center of this area and railroad lines, which parallel Interstate 80. Sensitive receptors are densely distributed in this area.
Del Paso/Arcade (Area D)	This area is located northeast from downtown Sacramento. This area is located almost entirely within AB1550 low income communities. This area serves densely populated, established communities. Most of the census tract represent areas that are within the 80 – 90 percentile of CES3. There are many sensitive receptors, especially schools located in this area. There are also numerous heavily trafficked arterial routes through this area.



### **Criteria to Prioritize Community Areas for the Final Assessment**

The District expects to develop an approach for prioritizing community areas for the final recommendation to CARB that will benefit from additional community engagement and stakeholder feedback on community issues and needs on AB 617. A ranking system based on the multiple indicators in the analysis is expected to include the following data sources:

- SB 535 Disadvantaged Communities (DAC) – Average CES3 Overall Score for all census tracts in the candidate community area
- AB 1550 Low Income Communities – Number of census tracts identified as low income communities in the candidate community area
- Sacramento County CHNA – Number of census tracts identified in the CHNA that are in the candidate community area
- AB 2588 Air Toxics “Hot Spots” Program core facilities – Cumulative cancer risk levels from core facilities in the candidate community area
- GHG stationary sources – Amount of GHG emissions from GHG stationary sources in the candidate community area
- Sensitive receptors – Number of sensitive receptors in the candidate community area

In addition, CARB air toxic modeling results will be incorporated into the technical assessment criteria if they become available for the final District analysis. The ranking for the data will be summed, and the area with the highest overall score will likely be recommended as the area with highest priority to be evaluated for community monitoring and community emission reduction plans. This approach will be discussed during the District’s subsequent public outreach effort.

## **VI. PUBLIC OUTREACH**

Beginning in early 2018, the District promoted numerous stakeholder conversations as shown in Table 4, where staff had discussion broadly of all the elements of the new mandate and specifically of aspects of implementation and/or community selection criteria related to AB 617, DAC, and/or AB 134<sup>13</sup>. These meetings included representatives from community groups, automobile manufacturers, public, stakeholder groups, Board of Director members, elected officials, and staff representatives from cities and counties. The listed outreach to key stakeholders and community leaders/representatives has allowed the District to receive important feedback about community priorities and concerns with respect to the implementation of AB 617, including community selection areas. Regional AB 617 efforts involving business, health organizations and air districts to better represent the region with local and state elected officials. Community meetings focused on funding opportunities, both current and potential, as it relates to our most impacted communities. Public and community meetings that have discussed the District’s AB 617 plans and thoughts on technical assessment.

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<sup>13</sup> AB 134, Committee on Budget, Chapter 14, Statutes of 2017. AB134 was adopted to fund community air quality projects.

**Table 4. Public Outreach Meetings on Various Aspects of AB 617**

<b>Date</b>	<b>Stakeholder</b>	<b>Description</b>
1/4/2018	Valley Vision	Discussion on leveraging funding for emission reduction for community protection for the Sacramento Federal Nonattainment Area and DAC for AB 617 implementation.
1/30/2018	Electrify America	Discussion on DAC specific projects and community engagement efforts.
2/5/2018	Thor Trucks	Potential local electric tractor trucks for community use.
2/5/2018	Staffs of SACOG, SacRT, SMAQMD	Tri-agency meeting. Discussion included regional AB 617 efforts and funding opportunities in DAC communities.
2/6/2018	Valley Vision	Technical Advisory Committee meeting – regional effort to identify Cap and Trade funding opportunities and the relationship with AB 617
2/7/2018	TESLA	Potential local heavy duty (HD) electric tractor trucks and Light Duty electric vehicle (EV) for DAC.
2/21/2018	Meeting with Legislative Staff	Clean Air Meeting regarding AB 617 funding.
2/21/2018	CARB	State lead discussion on AB 617 Communities Implementation Meeting with stakeholders.
2/23/2018	General Mexican Consulate	Potential community engagement among Latino communities.
2/24/2018	Motiv	Utilization of AB 617 funding for: Potential Medium Duty EV delivery vehicles for communities in DAC like Franklin Blvd and Downtown; potential micro-shuttles.
2/26/2018 – 2/27/2018	Community Toxics from Wood Smoke Study Community Workshop	District hosted Community based workshops on the results of the Community Toxics from Wood Smoke Study with discussions with community members on the District' implementation and participation in AB 617.
2/27/2018	County of Sacramento General Plan EJ Element Meeting	District provided overview of AB 617, including community identification and how it parallel's the County's SB 1000 <sup>14</sup> equity and outreach work mandated for their General Plan EJ Element.
2/28/2018	Mercedes Benz & PEV Collaborative	Mercedes Benz potential for EV and EV Community engagement.
3/1/2018	CARB, SMAQMD Board Members and general public	Gain initial feedback on technical approach for community selection for AB 617 community monitoring.
3/1/2018	Cleaner Air Summit	Public meeting of state elected representative and local elected officials to discuss AB 617 funding and implementation.
3/2/2018	Ryder & Chando's Restaurant	Discussion with local business owners on Potential Medium Duty EV delivery vehicles implementation.
3/5/2018	Phil Haupte Electric	Discussion with local business owners on the deployment of electric vehicle supply equipment (EVSE) within DAC.
3/6/2018	Grassroots organizations,	Informed them about open solicitation to apply for the AB 617 Community Air Grants Program.

<sup>14</sup> SB 1000, Leyva, Chapter 587, Statutes of 2016

Date	Stakeholder	Description
	WalkSacramento & VG Consulting	
3/9/2018	Electrify America & Clean Cities	Public workshop with Clean Cities to educate vendors and community organizations regarding AB 617 implementation and AB134.
3/9/2018	Urban Sustainability Directors Network's (USDN) grant project	Provided feedback that every sector of the environmental agencies are trying to address equity right now: Energy, Land Use and Air Quality.
3/13/18	District Board Member Larry Carr	Discussed technical assessment, proposed criteria, and how best to meet with communities in his District.
3/20/2018	Green Tech	Meeting with community organization focusing on educating young adults within DAC about green technology.
3/21/2018	Valley Vision	Discussion on the implementation of AB 617.
3/22/18	SMAQMD Board of Director's Meeting	Provided an update on methodology of community selection on efforts for AB 617 to the SMAQMD Board. The District Board of Directors consists of 14 members, including all five Sacramento County Supervisors, four members of the Sacramento City Council, one member each from the cities and Citrus Heights, Elk Grove, Folsom and Rancho Cordova, and one member representing the cities of Galt and Isleton.
3/23/2018	Clean Air Partnership Luncheon	AB 617 presentations and discussions.
3/27/2018	County of Sacramento's General Plan EJ Element Meeting	Discussed coordinated joint outreach with other agencies/collaborative working groups/organizations to combine resources and provide more effective events/meetings for the target communities.
3/28/2018	Breathe Board Meeting	Discussed AB 617, regional efforts, and local considerations being evaluated by SMAQMD in our technical assessment.
4/9/2018	County of Sacramento's General Plan EJ Element – subcommittee meeting for Reducing Pollution Exposure & AQ EJ Element topic	Discussed proposed changes to existing County policies in relation to EJ and reducing pollution exposure/air quality. Also, discussed how existing CARB regulations and the new AB 617 mandates will further reduce pollution exposure in DAC and EJ areas.
4/9/2018	Valley Vision	Discussion of AB 617 funding for reducing emission impacts in communities in the region.
4/10/2018	Community Resource Projects	Meeting with community organization working in DAC .
4/13/2018	Grid Alternatives	Meeting with community organization working in DAC.

<b>Date</b>	<b>Stakeholder</b>	<b>Description</b>
4/16/2018	City of Sacramento Neighborhood Services Division	Meeting with city staff to strategize on community engagement.
4/16/2018	City of Sacramento Council Member Jay Schenirer	Meeting with Council Member Jay Schenirer on how to engage AB1550 low income communities and DAC.
4/17/2018	Franklin Blvd. Business Partnership	Potential Franklin Blvd. EV projects and community engagement.
4/18/2018	Planning and Climate Change Forum	SMAQMD was invited to speak on the District's AB 617 efforts.
4/24/2018	County of Sacramento's General Plan EJ Element – 5th Advisory Committee meeting	Discussed subcommittee's work on environmental justice areas and with discussions on potential District AB 617 community recommendation areas (North Highlands, West Arden-Arcade, South Sacramento) where the County's SB 1000 EJ map overlaps with the District's AB 617 map.
4/25/2018	Placer County Air Pollution Control District	SMAQMD staff discussed the District's AB 617 community identification efforts.
4/26/2018	SMAQMD Board of Director's Meeting	Discussed the results of the Community Toxic from Wood Smoke study and how this community-scale study can assist with the District's AB 617 efforts.
4/26/2018	Sacramento Region Air Quality Planners	Shared and discussed overview of District's AB 617 community identification methodology with Yolo-Solano Air Quality Management District (AQMD), Placer County Air Pollution Control District, El Dorado County AQMD planners.

The District will continue to expand these efforts with key local stakeholders in the region in the subsequent work. Also, the District has a great working relationship with the District Board of Directors and will work with city and county officials to reach out to the potential community areas. Local stakeholders and elected officials have a better understanding of the issues impacting the Sacramento region communities, and with the AB 617 effort, the District will work closely with them to identify ways to improve air quality in local communities.

The District will continue to solicit information from local stakeholders, and identify opportunities for community engagement prior to the final recommendations made to CARB. This community outreach effort will provide the District with a better understanding of the community issues and needs as it relates to air pollution and its impacts. Community engagement and feedback is critical in this process. The District is planning to conduct additional outreach efforts between May and July 2018. The initial community areas will be refined after the community engagement process.

In the District's effort to be transparent in the AB 617 process, the District has developed a webpage (<http://www.airquality.org/air-quality-health/community-air-protection>) to help disseminate information on AB 617. This webpage provides an overview of AB 617, how the

requirements affect the District, and what the District is doing to implement AB 617. The District will update this webpage as necessary to ensure that public is aware of the District's continued efforts to implement AB 617.

## **VII. CONCLUSION**

The District has identified four potential areas in the Sacramento region where community air monitoring and community emission reduction plans may be necessary to determine and reduce excess cumulative impacts of air pollution. To identify potential communities for AB 617, the District performed a preliminary technical assessment based on the criteria set forth in AB 617. It was based on multiple indicators of regional health outcomes and disparities and went beyond the application of only CES3. The technical assessment included the evaluation of emission sources, DAC locations, people who are most vulnerable because of socioeconomic factors and proximity to emission sources, and locations of sensitive receptors.

The District will continue to expand engagement and inclusion efforts to better understand community issues and needs based on the local realities. Additional information is needed to prioritize the identified community areas, establish community boundaries and further evaluate the impacts from all emission sources, including the drivers/factors that are influencing the cumulative impacts in these potential community areas. The District is also working with CARB on air quality modeling of emission sources for the county to determine and define areas that are being affected by emissions of air toxics, criteria air pollutants, and greenhouse gases. CARB's modeling will provide an additional assessment of both the density and magnitude of contributing emissions from stationary, area-wide and mobile sources within the recommended community areas. This information will be used along with the feedback from the community engagement process to finalize a list of recommended locations.

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