



**BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT**

April 25, 2018

Richard Corey, Executive Officer
California Air Resources Board
1001 "I" Street
Sacramento, CA 95812

RE: Initial Submittal: Technical Assessment to Develop an Initial List of Candidate Communities for the Community Air Protection Program

Dear Mr. Corey,

This letter serves as the Bay Area Air Quality Management District's (Air District) Initial Submittal on "candidate communities" for the state's Community Air Protection Program, as required by the California Air Resources Board. The Community Air Protection Program was established by the state to implement Assembly Bill 617 (C. Garcia, Chapter 136, Statutes of 2017). AB 617 directs the state, in consultation with local air districts, to select communities that have a "high cumulative exposure burden" to air pollution. Once selected, these communities then become eligible to work with local air districts on community emission reduction programs and/or community monitoring campaigns.

State law also requires the Air Resources Board to identify priority communities from the full list of candidate communities submitted by local air districts. Identification of priority communities is necessary due to resource limitations, which only allow for a small number of candidate communities to be selected each year to develop emission reduction programs or monitoring campaigns. The state will select communities that will go forward with either action plans or monitoring in the first year of the program on October 1, 2018, with subsequent communities to be selected each year thereafter. State selection of priority communities is to be based on local air district priority community recommendations. The Air District is required to submit recommendations on priority communities to the Air Resources Board by July 31, 2018.

To respond to the Air Resources Board initial submittal information requirements (See Attachment A), a description of all candidate communities for the San Francisco Bay Area is provided below. The Air District's Community Air Risk Evaluation (CARE) program¹ has historically served as the Air District's foundation for identifying communities impacted by and vulnerable to health impacts associated with cumulative air pollution. The identification process, described below, builds on that foundation, and incorporates additional areas identified with new data sources, tools, approaches and community-specific considerations. As required by the state, the Air District has developed an outreach plan and a schedule for working with community members to narrow down the full list of candidate communities to priority recommendations. The Air District's outreach plan, as well as a summary of existing community relationships, is also provided below.

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SONOMA COUNTY
Teresa Barrett
Shirlee Zane

Jack P. Broadbent
EXECUTIVE OFFICER/APCO

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Bay Area Air District:



¹ <http://www.baaqmd.gov/plans-and-climate/community-air-risk-evaluation-care-program>

1. Description of Candidate Communities

As demonstrated in Figure 1, the Air District has identified high cumulative exposure burden areas, or candidate communities, in every county in the San Francisco Bay Area.² To identify areas for recommendation to the state, the Air District primarily considered communities that are within the Air District's CARE areas. The Air District also recommends areas not within CARE that have large sources of air pollution or have been identified via statewide screening tools as areas with pollution and/or health burden vulnerability. The Air District also recommends areas that have low life expectancy.³

Most candidate community areas in the SF Bay Area are in the region's urban core, with a few locations in more suburban or semi-rural areas. Approximately half of the Bay Area's population live in the identified areas.⁴ In general, communities identified as high cumulative exposure burden areas have high levels of environmental exposures and/or

experience social or economic disadvantages. They may also have health burdens that increase vulnerability to environmental exposures. Specifically, identified communities experience higher levels of exposure to fine particles, diesel PM, and other pollutants, higher vehicle traffic and related impacts, more asthma emergency room visits, higher rates of cardiovascular disease, greater unemployment, lower educational attainment, lower life expectancy and higher incidences of poverty. These areas are also more racially and ethnically diverse; many areas are communities of color, where Hispanic, African-American and other non-white populations predominately live.

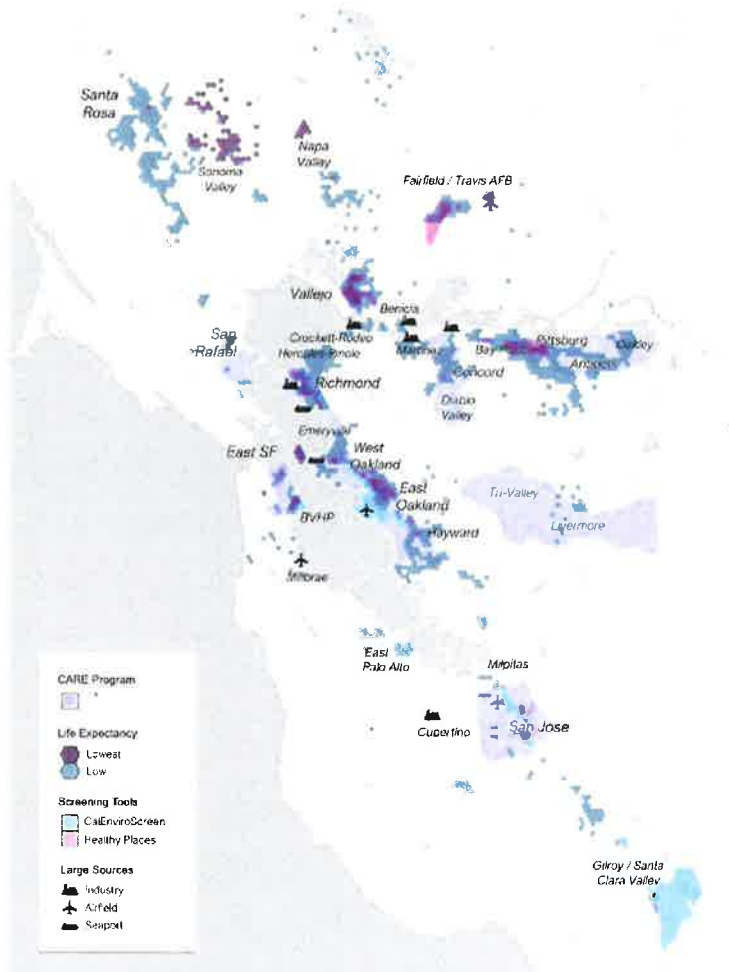


Figure 1: High Cumulative Exposure Burden Communities, SF Bay Area

² See Attachment B for full page version of Figure 1

³ For a full description of the methodology used to identify high cumulative exposure burden areas, see response to question 2.

⁴ U.S. Census Bureau

In the North Bay, areas of Sonoma and Solano and Napa Counties have been identified as high cumulative exposure burden areas. In Sonoma County, portions of Santa Rosa and in the rural areas of Sonoma Valley have been identified, primarily due to low life expectancy. In Marin County, areas of San Rafael have been included as high cumulative exposure burden areas due to exceedances of the 24-hr PM_{2.5} standards in recent years and low life expectancy. Most of San Rafael is also a designated CARE area.

In Solano County, candidate communities include much of Vallejo, Benicia, and portions of Fairfield. Vallejo is near large industrial facilities and experiences high levels of PM_{2.5} and health vulnerability, according to statewide screening tools; much of Vallejo is a designated CARE area and experiences low life expectancy. Benicia is impacted by petroleum refining facilities. Areas in Fairfield experience high cumulative health and exposure burden, have low life expectancy and are impacted by highway traffic and Travis Air Force Base.

In the East Bay, in Contra Costa County, along the Highway 4 corridor, areas in both Pittsburg and Antioch, as well as portions of Bay Point, Oakley and Brentwood, have been identified as having high cumulative exposure burden. Communities along the Highway 4 corridor experience high levels of traffic emissions, are in a designated CARE area, and have lower life expectancy, as well as health and exposure burden, as identified in statewide tools.

In western Contra Costa County, communities from El Cerrito to Crockett, including most of Richmond, North Richmond, San Pablo, Pinole, Hercules, and Rodeo, are also identified as high cumulative exposure burden areas. Richmond and Rodeo are home to petroleum refining facilities, and numerous other industrial, waste, goods movement and rail facilities. The Richmond- San Pablo area is in the region's CARE program, and experience low life expectancy.

In central Contra Costa County, along the Interstate 680 corridor, areas of Concord, Martinez, Pleasant Hill and Walnut Creek are identified as high cumulative exposure burden areas. Petroleum refining facilities impact Concord and Martinez communities, while heavy traffic impacts this entire region of the County. This part of central Contra Costa County, along I-680 is also in the region's CARE program. Areas around Concord and Martinez experience lower life expectancy. In the southern portion of the county, areas of north San Ramon, along Interstate 680, just north of the I-680 and I-580 interchange, are also included as candidate high cumulative exposure burden areas, as they fall within the Air District's CARE boundaries and have high ozone concentrations. The San Ramon area also experiences high levels of freeway traffic and associated impacts.

In northern and eastern Alameda county, along the I-680 and I-580 interchange, and along the I-580 corridor, areas in Dublin, Pleasanton and Livermore have been identified based on having the highest ozone concentrations, and therefore being a designated CARE area. Areas around Livermore also experience low life expectancy.

In western Alameda County, the I-580, I-237 and I-80 corridors, including portions of Hayward, San Leandro, large segments of Oakland, Emeryville and up the I-80 corridor, through Berkeley and Albany, have been identified as high cumulative exposure burden

areas. The Port of Oakland, Oakland Airport, a concentration of indirect and magnet sources, and railyards are all located in these communities. Virtually all the identified communities in western Alameda County are also in the Air District's CARE program, experience very low life expectancy, and pollution and health burden vulnerabilities, as identified in statewide tools.

In San Francisco County, communities in eastern San Francisco, including areas of the Tenderloin, Chinatown and Bay View Hunters Point are CARE areas and experience low life expectancy, and therefore have been designated as high cumulative exposure burden areas. Eastern San Francisco is impacted by high traffic freeways and railyards, in addition to numerous smaller sources of air pollution. Eastern San Francisco has pockets of poverty, very low employment and higher levels of diesel PM exposure.

On the Peninsula, in San Mateo County, portions of Millbrae, Redwood City and East Palo Alto have been identified as high exposure burden areas. San Francisco Airport and high freeway traffic volumes impact the Millbrae area. In addition, Millbrae, as well as areas in Redwood City and East Palo Alto, experience low life expectancy.

In Santa Clara County, in the South Bay, most of San Jose, areas near Alviso and much of Cupertino are identified as high cumulative exposure areas. Large sources in or near these areas include a cement manufacturer, power plants, water treatment plants, and landfills, in addition to major freeways and distribution centers. The San Jose area is also a designated CARE area, and there are numerous pockets of low life expectancy. The Gilroy area has also been identified due to high cumulative health and pollution burdens, as indicated by statewide screening tools. A water treatment plant, and steel and concrete plant impact the Gilroy area, in addition to mobile source emissions from major freeways and agricultural equipment.

Specific community boundaries for each of the areas described above will be determined in partnership with communities - as the Air District works with community members to identify priority areas, and on specific community monitoring campaigns and/or emission reduction programs.

2. Data Used to Identify High Cumulative Exposure Burden Areas

To identify candidate communities that experience high cumulative exposure burden in the SF Bay Area, the Air District considered geographic areas that fell into one of four categories: 1) the Air District's CARE areas; 2) areas with large sources of air pollution; 3) areas identified via statewide screening tools, including both CalEnviroScreen 3.0 and the California Healthy Places Index; and 4) areas with low life expectancy.

Air District CARE Program

The Air District first initiated a comprehensive program to address regional disparities in air pollution exposure and health effects in 2006. The Community Air Risk Evaluation (CARE) program is used to identify areas within the Bay Area where air pollution is most

contributing to negative health impacts and where populations are most vulnerable to air pollution.

Communities designated under the CARE Program have been identified using modeled concentrations of toxic air contaminants to estimate cancer risk and using increased mortality and illnesses from modeled and measured fine particulate matter (PM_{2.5}) and ozone above levels experienced by other Bay Area communities. Population vulnerability was accounted for in estimating health impacts from air pollution by using a community's existing baseline rates of mortality and illnesses (from health records) to determine increases in mortality and illness from air pollution. Areas with episodic "exceedances" of ambient air quality standards for particulate matter or ground-level ozone were also identified through the CARE program.

Large Sources

Communities located near, or substantially impacted by large industrial sources and/or large goods movement facilities and other concentration of mobile sources, such as petroleum refining facilities, cement-kilns, rail yards, seaports and/or airports are also included in the Air District's recommendation for high cumulative exposure burden areas. Some communities in the Bay Area's recommended universe of high cumulative exposure burden areas that have large sources include: Vallejo, Benicia; Crockett-Rodeo; Cupertino; Fairfield; Hercules-Pinole; Richmond, Martinez, Millbrae; Milpitas; Oakland; and San Jose.

Statewide Screening Tools

CalEnviroScreen⁵ is a mapping tool that uses environmental, health and socioeconomic information from state and federal government sources to identify California communities that are most affected by multiple sources of pollution, and where people are especially vulnerable to pollution's effects. CalEnviroScreen uses environmental, health, and socioeconomic data to produce scores for every census tract in the state. The scores are mapped so that different communities can be compared. Census tracts in the Bay Area that were ranked within the top 25 percent of statewide scores are included in the Air District's identification of high cumulative exposure burden areas.

The California Healthy Places Index⁶, developed by the Public Health Alliance of Southern California, includes diverse non-medical economic, social, political and environmental factors that influence physical and cognitive function, behavior and disease. The total score is used to screen for places with higher health burden. Census tracts in the Bay Area that rank within the top 25 percent of statewide scores are included in the Bay Area's recommendation for high cumulative exposure burden areas.

Life Expectancy at Birth

Communities with low life expectancy at birth are also included in the Air District's submittal of high cumulative exposure burden areas. Life expectancy data was obtained

⁵ <https://oehha.ca.gov/calenviroscreen>

⁶ <http://healthyplacesindex.org/>

from the California Healthy Places Index project. The average expected lifespan for a person born in the Bay Area in 2010 varies widely by community, generally ranging from 70 to 90 years. Approximately one-quarter of the Bay Area's population was identified as residing in a community with low average life expectancy, defined as 80 years or less.

3. Type of Criteria Used to Select Priority Communities

To select priority communities from the universe of high cumulative exposure burden areas, the Air District is considering air pollution source characteristics and air pollution exposures, including from particulate matter, ozone, and toxic air contaminants. The Air District is also considering health burden and vulnerability factors that may lead to health sensitivities, including low life expectancy at birth.

4. List of All High Cumulative Exposure Burden Areas Considered as Candidates

All high cumulative exposure burden areas in the Bay Area that were considered as candidate communities have been included in this submittal. All candidate communities are described in response to item 1, above and depicted in Attachment B.

5. Outreach Plan to Select Priority Communities

Below is a summary of an outreach plan, or outreach events, the Air District will hold to ensure community participation in the implementation of AB617 in the San Francisco Bay Area, especially with the identification of high cumulative exposure burden communities, and the selection of priority communities.

2018 Monthly Activities

January

- Hold first regional meeting to inform key stakeholders about AB 17 and the Community Air Protection Program.
- Update Air District website and online engagement tool, Open-Air Forum, with community selection process information and send e-blast to list-serve for community nominations. Begin planning community meetings in the spring.

February

- Online survey through Open Air Forum on community selection criteria for high cumulative exposure burden "universe."
- Consult key stakeholders, including Air District Board, to inform planning of Spring workshops.
- Participate in CARB Bay Area Technical Summit and CARB Air Grants Program meetings on February 22nd.
- Contact Counties and/or Cities to solicit assistance with identifying venues, key stakeholders, and outreach lists.

March

Develop and finalize locations and dates for community meetings in the following 11 areas based on the preliminary list of candidate communities. The community listed after dates below is the location where the meeting will be held, while communities in parenthesis are the communities who are invited to attend.

- **March 28:** San Leandro (San Leandro, Hayward, East Oakland)
- **April:** Vallejo (Vallejo, Benicia, Crocket, Fairfield)
- **April:** Pittsburg (Pittsburg, Bay Point, Antioch, Brentwood, Oakley, Bethel Island)
- **April:** Pleasant Hill (Martinez, Clyde, Concord, Pleasant Hill, Pacheco, Walnut Creek)
- **May:** San Pablo (Richmond, North Richmond, San Pablo, Pinole, Hercules, Rodeo)
- **May:** Tri Valley (Livermore, Pleasanton, Dublin, San Ramon)
- **May:** San Jose (Alviso, Redwood City, East Palo Alto, Cupertino, Milpitas, Fremont, Gilroy, San Jose)
- **May:** Fairfield (Fairfield, Napa, and surrounding area)
- **June:** Santa Rosa (Marin City, Canal District, Santa Rosa, San Rafael)
- **June:** Oakland (Alameda, Albany, Berkeley, Emeryville, Oakland)
- **June:** San Francisco, South San Francisco (Marin, San Francisco)

Meeting goals:

- Present information and background of AB617
- Begin to prioritize all candidate communities into list for years 1 – 5 priority communities
- Begin to identify potential local partners and relevant stakeholders
- Solicit stakeholder guidance on community selection and grants

April

- Reach out to community stakeholders in each planned workshop area.
- Work together with community stakeholders to craft each local agenda.
- Hold three local meetings: Vallejo, Pittsburg, Pleasant Hill

May

- Reach out to community stakeholders in each planned workshop area.
- Work together with community stakeholders to craft each local agenda.
- Hold four local meetings: San Pablo, Tri-Valley, San Jose, Fairfield

June

- Reach out to community stakeholders in each planned workshop area.
- Work together with community stakeholders to craft each local agenda.
- Hold three local meetings: Santa Rosa, Oakland, San Francisco
- Summarize feedback from local meetings and Open Air Forum
- Hold regional meeting for final input on priority communities

July

- Summarize feedback from local meetings and Open Air Forum.
- Begin local engagement with years 2 – 5 communities.

6. Community Relationships in High Cumulative Exposure Burden Areas

The Air District has a long history of engaging with local communities in the region, and specifically in communities within identified high cumulative exposure burden areas. Over the years the Air District has conducted research, provided grants, developed plans, held workshops for rules, provided information and education, conducted outreach, provided sponsorships, conducted special air monitoring studies, and other community engagement activities. Below is a preliminary list of the Air District's community partners in high cumulative exposure burden communities. The Air District will seek to expand and enhance community partnerships as we implement AB 617.

Pittsburg, Bay Point, Antioch Area:

- Ambrose District
- La Clinica de La Raza
- Pittsburg Freedom Breathers
- Pittsburg Unified School District

Benicia Area:

- Benicians for a Safe and Healthy Community
- Citizens Climate Lobby of Contra Costa
- Interfaith Council of Contra Costa

Berkeley Area:

- Community Science Institute
- West Berkeley Community Alliance
- Global Community Monitor
- Communities for a Better Environment

Concord:

- Center for Human Development
- Monument Crisis Center
- Monument Impact
-

Crocket, Rodeo, Hercules Area:

- Citizens Climate Lobby of Contra Costa
- CRUDE
- Interfaith Council of Contra Costa
- P66 Fenceline Committee
- Rodeo Citizens Association

Livermore, Pleasanton, San Ramon, Dublin Area:

- Organizing for Action

Martinez Area:

- Local residents

Oakland Area:

- Bay Planning Coalition
- Breakthrough Communities
- Communities for a Better Environment
- Earth Justice
- East Oakland Building Healthy Communities
- East Oakland Collective
- Higher Ground Neighborhood Development Corp
- Idle-Free Oakland
- Mujeres Unidas
- Planting Justice
- Prescott-Joseph Center
- Rooted in Resilience
- Rose Foundation/New Voices Are Rising
- Urban Releaf
- Unity Council
- West Oakland Environmental Indicators Project
- West Oakland Health Collaborative

Richmond Area:

- APEN
- Citizens Climate Lobby of Contra Costa
- Communities for a Better Environment
- Generacion Vision y Futuro
- Neighborhood House of North Richmond
- North Richmond MAC
- Interfaith Council of Contra Costa
- Richmond Progressive Alliance
- Sunflower Alliance
- 350 Bay Area
- Rich City Rides
- RYSE
- Healthy Richmond
- The Latina Center
- West County Toxics Coalition

San Francisco Area:

- BVHP Advocates
- GreenActionBrightline
- EBHP EJ Response Task Force

- Hunters Point Families
- PODER
- Literacy for Environmental Justice
- Rafiki Coalition

San Jose Area:

- Sustainable Silicon Valley
- San Jose Green Ninja
- Boys and Girls Club

San Leandro, Hayward Area:

- Barbara Lee Center
- Ditching Dirty Diesel Collaborative
- Healthy 880 Coalition

San Rafael Area:

- Canal Alliance
- Canal Welcome Center
- Families for Clean Air
- Huckleberry Youth Programs

Vallejo Area:

- Fresh Air Vallejo
- Community Air Network
- Vallejo Activists

Milpitas Area:

- Milpitas Odor Group
- South Bay Eco Citizens

Cupertino Area:

- Citizens Against Pollution
- Breathe California
- Bay Area for Clean Environment

East Palo Alto:

- Youth United for Community Action

Regional Organizations:

CA Cleaner Freight Coalition, Center for Environmental Health, Greenlining Institute, TransForm, Sunflower Alliance, Air Watch Bay Area, Sierra Club, Brightline Defense, Citizens Climate Lobby, Friends of the Earth, 350 Bay Area, League of Women Voters, Regional Asthma Management and Prevention, Local Clean Energy Alliance, APEN, Rooted in Resilience, Breathe California, Families for Clean Air, Vision y Compromiso, Breakthrough Communities

7. Additional Information: Information Submitted by Community Members

On January 31st, 2018 the Air District hosted a kick-off meeting attended by more than 60 members of the public representing a variety of stakeholder groups including, but not limited to, community-based organizations, residents, business/industry, academia, local, state and regional government, and health professionals. At this meeting, attendees learned about AB 617 from a panel comprised of Air Resources Board and Air District staff and community-based clean air advocates.

During the question and answer portion of the event, attendees shared ideas and concerns regarding AB 617. Summarized below are only the comments shared regarding candidate communities, or community selection and/or priorities:

- Vallejo: Vallejo is an impacted community and should be included as a priority candidate community. *Air District Note: Vallejo is included as a candidate community.*
- Benicia: Benicia is an impacted community and should be included as a candidate community. *Air District Note: Benicia is included as a candidate community.*
- Milpitas: Milpitas is an impacted community and should be included as a candidate community *Air District Note: Milpitas is included as a candidate community.*
- Bay Area: The Air District should consider monitoring campaigns in areas with high levels of residential wood burning.
- Bay Area: The Air District should prioritize communities in which there is community readiness for action. Communities with engaged partners and existing infrastructure to hold the demands of being an AB 617 Community.

After the Air District's kick-off meeting, the public had the opportunity to learn about and weigh in on the methods used to identify candidate communities through an online community engagement tool called Open Air Forum. As of March 26th, close to 150 unique visitors viewed Open Air Forum and 22 of them responded to a survey. The survey asked respondents to rate their level of support for the methods proposed to identify candidate communities. The respondents overwhelmingly support the use of CARE (79 percent), additional impacts (79 percent), and other large sources (79 percent).

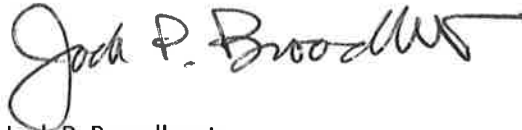
Respondents were asked to provide additional criteria that the Air District should consider, respondents recommend that the Air District consider:

- Odors
- Heavy idling
- History of regulatory violations
- Income, race, and other factors that magnify health impacts
- Historical contamination: military bases & heavy industry

Respondents were also provided the opportunity to recommend a community that was not captured by our proposed methods. Seven out of the twenty-two respondents

recommended the following communities: Vallejo, Mare Island, Pt. Richmond, Rodeo-Crocket, Benicia, Alviso and parts of Napa. All recommended communities are already included as Air District candidate communities.

Sincerely,

A handwritten signature in black ink that reads "Jack P. Broadbent". The signature is written in a cursive style with a large initial "J" and a long horizontal stroke at the end.

Jack P. Broadbent
Air Pollution Control Officer

cc: Laura Zaremba-Schmidt, California Air Resources Board
Karen Maglian, Division Chief, California Air Resources Board
Veronica Eady, Assistant Executive Officer, California Air Resources Board

Attachment A: Air Resources Board, Initial Submittal Information Requirements

Initial submittal: Technical assessment to develop an initial list of candidate communities

Due: April 30, 2018

Air districts submitting communities for consideration must provide information on the following elements in the initial submittal:

- 1) Provide specific information for each candidate community; including community description, identifying characteristics, and/or preliminary geographic boundaries.
- 2) Describe which data sources, tools, and approaches, including community-specific considerations, the air district used to assess high cumulative exposure burden (toxics and/or criteria pollutants) for this community recommendation process. An assessment using CalEnviroScreen 3.0 should be performed and the results provided. We expect many districts will use additional tools for analysis. If additional data sources, tools, and/or approaches are considered the submittal should include a description of the additional data sources (i.e., detail, refinement, representativeness) in the air district's response when discussing each community recommended or being considered.
- 3) Describe the type of criteria the air district will use to prioritize the candidate communities considered in their region. Submit any relevant information that may be used to make its 2018 recommendation.
- 4) 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.
- 5) Describe the proposed public outreach approach and schedule to move from the preliminary list to the final recommendations for 2018.
- 6) Describe the air district's relationships with members of the recommended communities or community-based organizations located in the recommended communities.
- 7) Any additional information, including information submitted by community members, that helped inform the air district recommendations.

Attachment B: High Cumulative Exposure Burden Areas, SF Bay Area

