



**ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY  
PUBLIC HEALTH DEPARTMENT**

**Alex Briscoe, Director  
Muntu Davis, Director and Health Officer**

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September 15, 2014

Mary Nichols, Chairman  
California Environmental Protection Agency  
Air Resources Board  
1001 I Street  
Sacramento, CA 95814

Re: Implementation of SB 535 (De León, Chapter 830, Statute of 2012) and Public Health

Dear Chairman Nichols and Board members:

I am writing to share comments on behalf of the Alameda County Public Health Department (ACPHD) regarding the identification of disadvantaged communities and guidance for State agencies receiving monies from the Cap and Trade Auction Proceeds. As the Health Officer and Director for the agency responsible for monitoring health status of our communities and advising on the development of policies and practices that protect and promote health and well-being within our county, **I recommend 1) choosing the most inclusive Method to identify disadvantaged communities (DAC) – Method 1 with a 25% cutpoint, and 2) adopting guiding principles that strengthen the criteria for the evaluation of projects as the Greenhouse Gas Reduction Funds are distributed throughout the State.**

Based on our analysis of the Office of Environmental Health and Human Hazard Assessment's "Approaches to Identifying Disadvantaged Communities", we urge that the Board select the method and cutpoint that is most inclusive of communities that are known to be disadvantaged according to socioeconomic and cumulative health burdens (see Appendices A and C). While our analysis focuses on Alameda County where we work, we support an approach that is most inclusive for all highly impacted communities across the state. In Alameda County, there are 44 communities that are heavily impacted by high poverty ( $\geq 20\%$  of residents live in poverty) and low life expectancy (residents are in the lowest quartile for life expectancy countywide and can expect to live  $< 79.5$  years). These "red flag" communities are captured most fully using a 25% cutpoint for Method 3 (Population Characteristics only). However, as Method 3 only meets three of the four SB 535 criteria, the next best option is Method 1 using a 25% cutpoint. In Alameda County and statewide, population characteristics like neighborhood poverty are powerful determinants of life expectancy (see Appendix B), and so it's critical that they be taken into account along with pollution burden to identify "disadvantaged" communities that are at risk of environmental and cumulative health impacts.

SB 535 directs CalEPA to identify disadvantaged communities based on geographic, socioeconomic, public health, and environmental hazard criteria. These criteria may include: 1) areas disproportionately affected by environmental pollution and other hazards that can lead to negative public health effects, exposure, or environmental degradation; and

2) areas with concentrations of people that are low income, high unemployment, low levels of homeownership, high rent burden, sensitive populations, or low levels of educational attainment.

For future revisions to CalEnviroScreen 2.0, we support the formation of a working group that includes public health representatives and low-income community residents and advocates to further assess the tool and to continue to improve its accuracy and relevance to the purpose of SB 535. Even with Method 1, 66% of “red flag” communities in Alameda County are missed in being identified as “disadvantaged” (29 out of the 44 “red flag” census tracts with high poverty and low life expectancy are missed, as shown in Appendix C). Some refinements to consider to strengthen the CalEnviroScreen tool in the future include:

- Consider adding a Health Disadvantage Index that more comprehensively and systematically accounts for the broad factors that are known to impact public health and cumulative health burden, such as the index currently being developed by the Health Development Index Advisory Group, a statewide working group of public health professionals collaborating through the Public Health Institute.
- Reconsider equal weighting of Pollution Burden with Population Characteristics and include life expectancy among the Sensitive Population indicators. In our analysis (see Appendix B), the Pollution Burden score is very weakly correlated with life expectancy statewide ( $r=-0.071$ ) and weakly correlated with life expectancy in Alameda County ( $r=-0.230$ ), while the Population Characteristics score has a moderate to strong correlation with life expectancy ( $r=-0.485$  in California and  $r=-0.668$  in Alameda County). Thus, Population Characteristics should be weighted more heavily than Pollution Burden. While we understand that CalEnviroScreen uses a limited set of indicators in order to keep the model simple, we believe that life expectancy is an important public health indicator to add that can represent a contrasting health outcome related to the cumulative burdens of persistent social and health inequities and of the impacts of historical and ongoing racism.
- Consider more heavily weighting Population Characteristics indicators like poverty that are well-established key determinants of environmental and cumulative health burdens and Pollution Burden indicators like PM 2.5 concentrations and diesel PM emissions that have strong negative effects on public health.
- Consider adding indicators that take into account important regional variations, like a housing and/or transportation affordability measure that factors in differences in costs of living across regions.
- Consider adding an index or indicators that measure susceptibility to climate change.

For the “Interim Guidance to Agencies Administering Greenhouse Gas Reduction Fund Monies”, I recommend working in accordance with key principles to ensure the monies are used to maximize benefits to our most disadvantaged communities. Key principles to consider include:

1. Making sure the health needs of Disadvantaged Communities (DAC) are met, including detailed monitoring and reporting that is made publicly available on Agency websites. Whenever possible, projects should address an important community need identified by advocates and residents, or address a key factor that led to the area being identified as a DAC (see Table 3: Common Needs of Disadvantaged Communities).
2. Maximizing co-benefits in DAC and giving more weight in the scoring process for the selection of projects that do so (see Table 3: Common Needs of Disadvantaged Communities).
3. Ensuring that projects avoid harm or substantial burdens and using a health framework to assess and outline potential negative impacts - i.e. displacement, net loss of affordable housing or local businesses.
4. Developing performance measures, metrics and thresholds to maximize the benefits and demonstrate that the primary beneficiaries will be the DAC and to determine that benefits are significant to the DAC - i.e. number and quality of jobs, where located, etc.

5. Requiring that Expenditure Records (page 20) or other program evaluation and oversight processes rigorously track the use of funds to meet the needs of DAC and making data publicly available on Agency websites.

To strengthen the criteria for evaluating projects, I have some specific recommendations (see Appendix 1). Regarding the criteria for Low-Carbon Transit Projects (1-1), I recommend further specifying ways to address co-benefits and ensuring increasing access to vulnerable populations, including the following:

1. Ensure that all projects seeking to improve transit and intercity rail service located within a DAC specify that the project should facilitate access to jobs, school, and daily needs and services.
2. Ensure that transit incentives to DAC residents include free bus passes for youth, seniors and low-income people.
3. Ensure all projects that seek to improve connectivity specify improving transit connectivity for pedestrians, vulnerable populations (seniors, disabled populations), and bicyclists in order to support Complete Streets/ all modes of transportation.
4. Ensure older, more polluting equipment is scrapped when implementing projects that create infrastructure or equipment that reduces air pollution.

Regarding the criteria for the Affordable Housing and Sustainable Communities Projects (1-2):

1. I strongly support the criteria in Step 1 that projects must be designed to avoid displacement of DAC residents and businesses. In addition, I recommend ensuring that projects specify how they will address “unintended consequences” such as displacement – e.g. replace any housing that is destroyed as a result of a project.
2. Give bonus points for projects that incorporate anti-displacement measures.<sup>1</sup>
3. Prioritize very low-income households (at or below 50% of area median income) for affordable housing development.

Regarding Low Carbon Transportation projects (1-3), I recommend strengthening the criteria so as to maximize the public health benefits from the investments, including the following:

1. Ensure that all projects for vehicles and equipment result in a reduction of overall air pollution, with priority for projects that reduce exposure of DACs to diesel particulate matter and neighborhood impacts in a DAC, such as idling and parking in neighborhoods. Examples include projects that scrap more polluting vehicles or equipment that operate in East Oakland and are replaced by zero or near zero-emissions vehicles or equipment. Also, include examples of best available engine standards that correlate to zero or near zero-emissions for various engine types and equipment.
2. Ensure that all projects can adequately show benefits to the DACs. It is unclear how having a physical address in the DAC is enough to show that a project will benefit the DAC. For example, a trucking business may have a physical address in a DAC, but have routes well outside the 1/2 mile criteria.

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<sup>1</sup> Causa Justa::Just Cause with Alameda County Public Health Department (2014). *Development without Displacement: Resisting Gentrification in the Bay Area*. Available at <http://cjjc.org/publications/reports/item/1421-development-without-displacement-report>

3. Reconsider the criteria for car-sharing projects until barriers to car-sharing programs are addressed. There are barriers for low-income communities to participate in car-sharing services, which tend to require credit cards to participate.
4. Include criteria that are in the Low Carbon Transit Projects section so that there is a strong threshold of project hours performed by residents in DACs and for work performed by residents of a DAC in a job training program that leads to credentials and certifications.

Regarding the Energy Efficiency and Water Efficiency Projects (1-4 and 1-5):

1. Consider allowing projects within a ½ mile of DAC as well.

Implementation of SB 535 provides a historic and important opportunity to promote health equity in California. Our department has long been working to monitor and address health inequities and has found large and persistent gaps in health between population groups based on income, race/racism, and place in our county. These wide differences in health outcomes are unjustly caused by factors outside an individual's control. For example, there is a 15-year life expectancy gap between an African American child who grows up in East Oakland and a White child from the Oakland Hills. This health inequity is directly linked to long-standing inequities in exposure to harmful conditions such as air pollution and in access to essential social goods like education, housing, transportation, and employment. Being exposed to multiple environmental, social, and economic risk factors leads to cumulative health impacts that powerfully determine how long and how well people can live. We have used this cumulative health impact lens along with our best available data to assess the proposed methods to identify disadvantaged communities and would like to be engaged in future discussions to develop public health indicators to make the tools employed more robust.

As the implementation of SB 535 will impact the health of communities across the state and provide an opportunity to strategically address some of the causes of health inequities, we look forward to continuing to work together to achieve Greenhouse Gas reduction goals while maximizing public health and other valuable co-benefits. Please feel free to contact me with any questions or concerns.

Sincerely,



Muntu Davis, MD, MPH  
Health Officer and Public Health Department Director  
Alameda County

cc: Board member John Balmes  
Board member Sandra Berg  
Board member Hector De La Torre  
Board member John Eisenhut  
Board member John Gioia  
Board member Judy Mitchell  
Board member Barbara Riordan  
Board member Ron Roberts  
Board member Phil Serna  
Board member Alexander Sherriffs  
Board member Daniel Sperling

Appendix A: Analysis and Ranking of 5 Proposed Methods and 3 Possible Cut-Points for Identifying "Disadvantaged" Communities in Alameda County

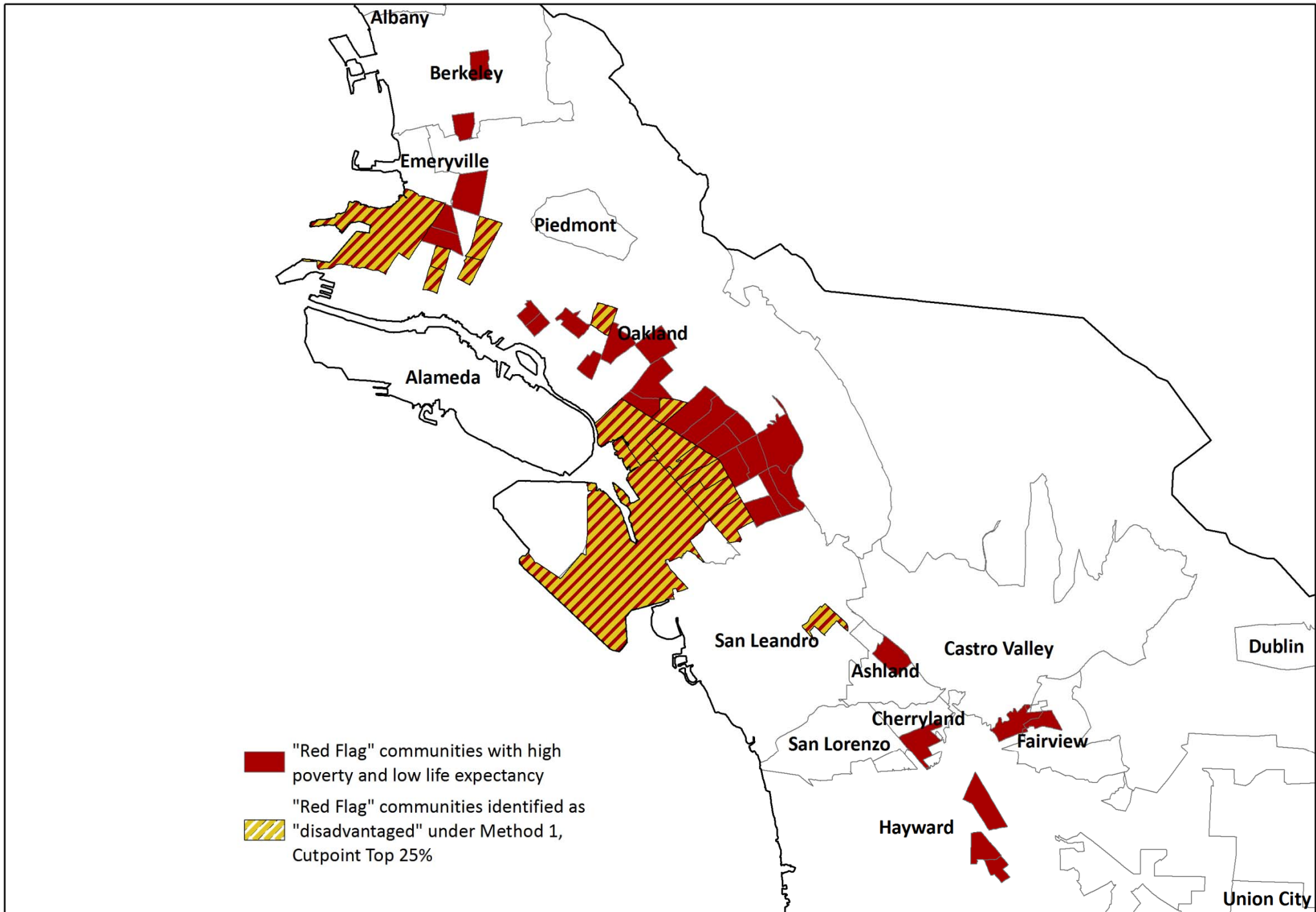
|                                      |  | <b>Method 1</b>                   | <b>Method 2</b>       | <b>Method 3</b>          | <b>Method 4</b>             | <b>Method 5</b>                |
|--------------------------------------|--|-----------------------------------|-----------------------|--------------------------|-----------------------------|--------------------------------|
|                                      |  | Top CalEnviroScreen scores        | Pollution Burden only | Pop Characteristics only | Equal Cutpoints             | Low-Med-High Categories        |
|                                      |  | <b>CalEnviroScreen score ≥76%</b> | <b>PB score ≥75%</b>  | <b>PC score ≥75%</b>     | <b>PB and PC score ≥75%</b> | <b>Medium PB &amp; High PC</b> |
|                                      |  | <b>(Top 25%)</b>                  | <b>(Top 25%)</b>      | <b>(Top 25%)</b>         | <b>(Top 25%)</b>            |                                |
|                                      |  | <b>Rank: #4</b>                   | <b>Rank: #8</b>       | <b>Rank: #1</b>          | <b>Rank: #12</b>            | <b>Rank: #5</b>                |
|                                      | Number of CTs identified as "Disadvantaged"        | <b>32</b>                         | <b>7</b>              | <b>77</b>                | <b>0</b>                    | <b>18</b>                      |
| Low LE = <79.5                       | "Disadvantaged" CTs with low life expectancy (LE)  | 19                                | 2                     | 48                       |                             | 9                              |
|                                      | % of "disadvantaged" CTs with low LE               | <b>59%</b>                        | <b>29%</b>            | <b>62%</b>               |                             | <b>50%</b>                     |
| High poverty = ≥20% in poverty       | "Disadvantaged" CTs that are high poverty          | 23                                | 3                     | 55                       |                             | 14                             |
|                                      | % of "disadvantaged" CTs that are high poverty     | <b>72%</b>                        | <b>43%</b>            | <b>71%</b>               |                             | <b>78%</b>                     |
|                                      | % of "disadvantaged" CTs that are NOT high poverty | 28%                               | 57%                   | 29%                      |                             | 22%                            |
| Affluent = <10% in poverty           | "Disadvantaged" CTs that are affluent              | 1                                 | 2                     | 6                        |                             | 1                              |
|                                      | % of "disadvantaged" CTs that are affluent         | 3%                                | 29%                   | 8%                       |                             | 6%                             |
| "Red flag" = High poverty and Low LE | "Red flag" CTs in Alameda County                   | 44                                | 44                    | 44                       |                             | 44                             |
|                                      | "Red flag" CTs identified as "Disadvantaged"       | 15                                | 2                     | 37                       |                             | 7                              |
|                                      | "Red flag" CTs missed                              | 29                                | 42                    | 7                        |                             | 37                             |
|                                      | % of "Red flag" CTs missed                         | <b>66%</b>                        | <b>95%</b>            | <b>16%</b>               | <b>100%</b>                 | <b>84%</b>                     |
|                                      |  | <b>CalEnviroScreen score ≥81%</b> | <b>PB score ≥80%</b>  | <b>PC score ≥80%</b>     | <b>PB and PC score ≥80%</b> | <b>High PB &amp; Medium PC</b> |
|                                      |  | <b>(Top 20%)</b>                  | <b>(Top 20%)</b>      | <b>(Top 20%)</b>         | <b>(Top 20%)</b>            |                                |
|                                      |  | <b>Rank: #6</b>                   | <b>Rank: #10</b>      | <b>Rank: #2</b>          | <b>Rank: #13</b>            | <b>Rank: #9</b>                |
|                                      | Number of CTs identified as "Disadvantaged"        | <b>17</b>                         | <b>3</b>              | <b>61</b>                | <b>0</b>                    | <b>4</b>                       |
| Low LE = <79.5                       | "Disadvantaged" CTs with low LE                    | 7                                 | 0                     | 39                       |                             | 2                              |
|                                      | % of "disadvantaged" CTs with low LE               | <b>41%</b>                        | <b>0%</b>             | <b>64%</b>               |                             | <b>50%</b>                     |
| High poverty = ≥20% in poverty       | "Disadvantaged" CTs that are high poverty          | 12                                | 1                     | 50                       |                             | 2                              |
|                                      | % of "disadvantaged" CTs that are high poverty     | <b>71%</b>                        | <b>33%</b>            | <b>82%</b>               |                             | <b>50%</b>                     |
|                                      | % of "disadvantaged" CTs that are NOT high poverty | 29%                               | 67%                   | 18%                      |                             | 50%                            |
| Affluent = <10% in poverty           | "Disadvantaged" CTs that are affluent              | 1                                 | 2                     | 2                        |                             | 0                              |
|                                      | % of "disadvantaged" CTs that are affluent         | 6%                                | 67%                   | 3%                       |                             | 0%                             |
| "Red flag" = High poverty and Low LE | "Red flag" CTs in Alameda County                   | 44                                | 44                    | 44                       |                             | 44                             |
|                                      | "Red flag" CTs identified as "Disadvantaged"       | 6                                 | 0                     | 33                       |                             | 0                              |
|                                      | "Red flag" CTs missed                              | 38                                | 44                    | 11                       |                             | 44                             |
|                                      | % of "Red flag" CTs missed                         | <b>86%</b>                        | <b>100%</b>           | <b>25%</b>               | <b>100%</b>                 | <b>100%</b>                    |
|                                      |  | <b>CalEnviroScreen score ≥86%</b> | <b>PB score ≥85%</b>  | <b>PC score ≥85%</b>     | <b>PB and PC score ≥85%</b> | <b>High PB &amp; High PC</b>   |
|                                      |  | <b>(Top 15%)</b>                  | <b>(Top 15%)</b>      | <b>(Top 15%)</b>         | <b>(Top 15%)</b>            |                                |
|                                      |  | <b>Rank: #7</b>                   | <b>Rank: #11</b>      | <b>Rank: #3</b>          | <b>Rank: #14</b>            | <b>Rank: #12</b>               |
|                                      | Number of CTs identified as "Disadvantaged"        | <b>4</b>                          | <b>2</b>              | <b>46</b>                | <b>0</b>                    | <b>0</b>                       |
| Low LE = <79.5                       | "Disadvantaged" CTs with low LE                    | 3                                 | 0                     | 32                       |                             |                                |
|                                      | % of "disadvantaged" CTs with low LE               | <b>75%</b>                        | <b>0%</b>             | <b>70%</b>               |                             |                                |
| High poverty = ≥20% in poverty       | "Disadvantaged" CTs that are high poverty          | 3                                 | 0                     | 38                       |                             |                                |
|                                      | % of "disadvantaged" CTs that are high poverty     | <b>75%</b>                        | <b>0%</b>             | <b>83%</b>               |                             |                                |
|                                      | % of "disadvantaged" CTs that are NOT high poverty | 25%                               | 100%                  | 17%                      |                             |                                |
| Affluent = <10% in poverty           | "Disadvantaged" CTs that are affluent              | 0                                 | 2                     | 1                        |                             |                                |
|                                      | % of "disadvantaged" CTs that are affluent         | 0%                                | 100%                  | 2%                       |                             |                                |
| "Red flag" = High poverty and Low LE | "Red flag" CTs in Alameda County                   | 44                                | 44                    | 44                       |                             |                                |
|                                      | "Red flag" CTs identified as "Disadvantaged"       | 2                                 | 0                     | 26                       |                             |                                |
|                                      | "Red flag" CTs missed                              | 42                                | 44                    | 18                       |                             |                                |
|                                      | % of "Red flag" CTs missed                         | <b>95%</b>                        | <b>100%</b>           | <b>41%</b>               | <b>100%</b>                 | <b>100%</b>                    |

Appendix B: Correlations between CalEnviroScreen,  
Pollution Burden, Population Characteristic Scores  
and 2009-2011 Life Expectancy

| <u>California State (Data available for 7,653 Census Tracts)</u> |          |               |          |
|--|----------|---------------|----------|
|  |          | Column 1      | Column 2 |
| <b>CalEnviroScreen score vs. Life Expectancy</b>                 | Column 1 | 1             |          |
| <i>Weak correlation</i>  | Column 2 | <b>-0.341</b> | 1        |
|  |          |               |          |
|  |          | Column 1      | Column 2 |
| <b>Pollution Burden score vs. Life Expectancy</b>                | Column 1 | 1             |          |
| <i>Very weak correlation</i>                                     | Column 2 | <b>-0.071</b> | 1        |
|  |          |               |          |
|  |          | Column 1      | Column 2 |
| <b>Population Characteristic score vs. Life Expectancy</b>       | Column 1 | 1             |          |
| <i>Moderate correlation</i>                                      | Column 2 | <b>-0.485</b> | 1        |
|  |          |               |          |
|  |          |               |          |
|  |          |               |          |
| <u>Alameda County (Data available for 330 Census Tracts)</u>     |          |               |          |
|  |          | Column 1      | Column 2 |
| <b>CalEnviroScreen score vs. Life Expectancy</b>                 | Column 1 | 1             |          |
| <i>Moderate-strong correlation</i>                               | Column 2 | <b>-0.641</b> | 1        |
|  |          |               |          |
|  |          | Column 1      | Column 2 |
| <b>Pollution Burden vs. Life Expectancy</b>                      | Column 1 | 1             |          |
| <i>Weak correlation</i>  | Column 2 | <b>-0.230</b> | 1        |
|  |          |               |          |
|  |          | Column 1      | Column 2 |
| <b>Population Characteristic score vs. Life Expectancy</b>       | Column 1 | 1             |          |
| <i>Moderate-strong correlation</i>                               | Column 2 | <b>-0.668</b> | 1        |
|  |          |               |          |

Source: CAPE, with data from CalEnviroScreen 2.0 and 2010 CA & Alameda County Vital Statistics

# Appendix C: Red Flag Communities with High Poverty and Low Life Expectancy



Source: CAPE, with data from CalEnviroScreen 2.0 and 2010 Alameda County Vital Statistics