



**City and County of San Francisco**  
**Edwin M. Lee, Mayor**

**Department of Public Health**  
**Barbara A. Garcia, MPA**  
**Director of Health**

Carolyn Flowers  
Office of Environmental Health and Hazard Assessment (OEHHA)  
P.O. Box 4010  
Sacramento, CA 95812-4010

October 18, 2016

Dear Ms. Flowers:

The San Francisco Department of Public Health appreciates the opportunity to comment on CalEnviroScreen (CES) v3.0. The San Francisco Department of Public Health is one of the largest health departments in California. Our mission is to protect and promote the health of all San Franciscans. We also support policies that work to prevent conditions that cause negative health impacts and exacerbate inequities within our county and regionally. We are committed to advocating for funding and resources for our most disadvantaged communities.

First and foremost, we want to recognize and thank the California Environmental Protection Agency (CalEPA) and Office of Environmental Health Hazard Assessment (OEHHA) for their continuing efforts to develop a statewide tool to identify the many disadvantaged communities throughout California. Based on our preliminary analysis on CES 3.0 we recommend the following changes in CES 3.0, along with future analysis and development of data required to ensure that the methodology adequately identifies populations of concern:

#### **Recommendations to CES 3.0**

- In lieu of providing differential weights for Environmental Exposure indicators, we suggest that the environmental exposure and effects indicators should be weighted equally. We believe there is no scientific evidence for weighting these indicators and not weighting other variables such as diesel PM.
- We appreciate the inclusion of a rent-adjusted income indicator and believe that there should also be an increase weighting of indicators of social and economic disadvantage relative to pollution burden. Households that are financially vulnerable are at higher risk for lower health outcomes and other factors that increase vulnerability to the impacts of pollution. The formula for calculating the CES score should place greater weighting on social and economic factors as they are most important in determining public health disadvantage.
- We believe that either the pesticide indicator should be removed or urban pesticide use should be included in the indicator's calculation. At least 50% of all pesticides used in California are used in urban areas, yet CES only incorporates pesticide use data for rural/agricultural areas.

This is because urban pesticide use is only reported at the county level, not at the census tract level. Without granular geospatial pesticide use data, CES will not be able to provide a truly equitable accounting of impacts to both rural and urban communities.

- We recommend pollution indicators be weighted by population density to account for the magnitude of the population exposed. Most Californians, 95%, live in urban areas, yet most of the land area that ranks high CES 3.0 is in rural areas. Because of the smaller census tracts in urban areas, census tracts in these areas tend to be underrepresented in pollution burden rankings. Using population density or a population density weight could help eliminate this bias.

#### **Future Considerations for Further Data Development and Analysis**

- We suggest the removal or refinement of the PM2.5 indicator. San Francisco's biggest pollution burden is from traffic related air pollution (specifically from PM 2.5). The mean annual concentration for all of the census tracts in San Francisco is approximately 8.6 and none of the measures exceed the 25% cut point. This data is based, predominantly, on one CARB station and is not representative of air quality in heavily trafficked parts of the city. We know PM2.5 in San Francisco is closely correlated with proximity to traffic volumes and proximity to freeways, but census values do not change based on proximity to heavily trafficked roadways. Rigorous modeling based on both traffic related and static sources of air pollution have been conducted by SFDPH and BAAQMD. These models show that significant areas in San Francisco have levels of air pollution that are hazardous to health, with PM2.5 concentrations ranging from 8 to over 18ug/m3.
- We suggest more research to the Cardiovascular Disease (CVD) indicator. The indicator as proposed is age-adjusted and as such, it is an example of disproportionate burden, but not risk. If the purpose of the Sensitive Population indicators are to describe communities most at risk for CVD/MI hospitalization, the CVD indicator might be better represented not being age-adjusted. The formation of a public health expert working group could further analyze this issue.
- We suggest further research to have Environmental Exposure indicators weighted based on the relative magnitudes of scientific association between exposure to pollutants and their related health effects. For example, exposure to pollutants like Diesel PM impact health more severely than pollutants like Ozone, but both are weighted equally by the model.

Public Health Departments are collectively responsible for the health of over 80% of California's population. They work to prevent the conditions that cause poor health by identifying and providing targeted support for communities facing cumulative disadvantages and their corresponding health costs. We appreciate the continued opportunity to contribute this experience to the State's process for identifying disadvantaged communities and look forward to participating in the continued improvement process for this important tool.

Sincerely,



Barbara A. Garcia, MPA  
Director of Health, San Francisco Department of Public Health (SFDPH)

CC: Honorable Mayor Edwin M. Lee, Mayor, City and County of San Francisco