public health alliance of southern california
A Partnership for Healthy Places

City of Long Beach
Department of Health
and Human Services

Los Angeles County
Department of Public Health

City of Pasadena
Public Health Department

County of Riverside
Department of Public Health

Santa Barbara County
Public Health Department

County of San Bernardino
Department of Public Health

County of San Diego
Health and Human Services Agency

Ventura County
Public Health

BARHII
Bay Area Regional Health
Inequities Initiative

Alameda County
Public Health Department

City of Berkeley
Public Health Department

Contra Costa
County Health Services

Marin County
Health and Human Services

Napa County
Public Health Department

City and County of San Francisco
Department of Public Heatlh

San Mateo County
Public Health, Policy and Planning

Santa Clara County
Public Health Department

Santa Cruz County
Public Health Department

Solano County
Public Health Department

Sonoma County
Department of Health Services

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

October 22, 2016

Dear Ms. Flowers:

The Public Health Alliance of Southern California and the Bay Area Regional Health Inequities Initiative (BARHII) represent nineteen health departments extending from Southern California to the Bay Area. Our departments are collectively responsible for the health of over 80% of California's population. Public Health Departments 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.

The comments provided in this letter fall under three main categories:
1. The need for CalEnviroScreen (CES) to place greater emphasis on social and economic factors
2. Detailed feedback on CES 3.0 Indicators and Data
3. A recommendation that OEHHA provide increased guidance for appropriate use of CES

Detail on each category of recommendation follows below:

1. **Place Greater Emphasis on Social and Economic Factors:** CalEnviroScreen (CES) is designed to screen for cumulative environmental pollution burden in vulnerable communities. It identifies and highlights a specific facet of community disadvantage rather than painting an overall picture of the factors that contribute to community wellbeing. In prior letters, attached, we have asked OEHHA to ensure CalEnviroScreen is designed to more appropriately meet the wide range of applications for which it is currently being used by including social and economic factors as independent contributors to disadvantage in addition to effect modifiers of pollution burden. Unfortunately, these health department recommendations have not been incorporated into this or the prior revisions of CES. Given that the proposed CES 3.0 draft does not identify 629 of the State's highest poverty census tracts (please refer to Appendix A), we respectfully request OEHHA to make the following revisions to CalEnviroScreen to support greater concordance with public health disadvantage:

- Significantly increase weighting of indicators of social and economic disadvantage relative to pollution burden.
- Expand the indicators included in CES to include valuable measures of community health, including of educational quality, violent crime, and chronic disease health outcomes. Where data is not available, develop a plan to address current limitations.
- Uncouple the multiplication of the pollution burden and population characteristic components of CES.
- Indicators of environmental pollution should use either a scaled value of exposure (z-score) or a threshold value of harmful exposure.

We gladly offer the support of our epidemiological staff to OEEHA in considering appropriate indicators and weighting, and also refer OEHHA to the methodology we have developed in the California Health Disadvantage Index.

2) Detailed Feedback on CES 3.0 Indicators and Revisions: In addition to this overarching critique above, we have developed a number of indicator-level methodological suggestions:

- **Air Quality, Ozone:** Indicators are stronger, and more easily understood if they have a clear link to the level of health risk presented. In the case of Ozone, the modification of the indicator as the average daily maximum ozone concentration does not include a 'threat' threshold—whereas in CES 2.0, the measure was the sum of the concentrations above the state's ozone standard. We would recommend reverting to the CES 2.0 version of this indicator when calculating the index, but retaining the 'average' ozone concentration data in an informational capacity on the CES website.

- **Air Quality, PM 2.5**: Many of our jurisdictions face high health impacts associated with traffic related air pollution (specifically from PM 2.5). PM 2.5 is closely correlated with proximity to traffic volumes and proximity to freeways, but the values in CES by census tract are not refined enough to change significantly based on proximity to heavily trafficked roadways. We are looking to OEHHA to invest in more granular air monitoring and modeling to support community decision-making around this important indicator.

- **Pesticide Use:** CalEnviroscreen 3.0's Pesticide Use data is skewed by its reliance on California's Pesticide Use Reporting (PUR) data which does not adequately report nonagricultural pesticide use. As proposed by a recent National Academy of Sciences review of PUR reporting, we suggest OEHHA work with the Department of Pesticide Regulation to expand "reporting requirements to cover all licensed pesticide appliers, including those who perform applications for nonagricultural purposes at homes, institutions, and industries" and encourage DPR to acquire more geospatial data about pesticide use for inclusion in CalEnviroScreen. [1]

- **Age—Children:** While we agree that the original construction of this indicator was unhelpful for all the reasons stated in the update document, we feel that the index should continue to include a measure for children. As stated in the update document, it is true that high percentages of youth/children are co-linear with other components of the CES index. However, there are many collinearities amongst the components of CES, and the increased sensitivity of children to environmental hazards is such that their removal from the index undercuts its foundational logic (risk = sensitivity x exposure). We would recommend retaining the percentage of youth under 18 as a component of CES.

- **Age—Elderly:** We agree that census tracts with high proportions of elderly may not be a helpful 'screen' for a tool designed to identify socioeconomically disadvantaged communities, however elderly living alone represent a highly vulnerable population in terms of climate risk. We do think it would be useful for OEHHA to consider retaining a measure of the percentage elderly living alone by census tract as an informational data set in the CES online map. Several of the Greenhouse Gas Reduction Fund initiatives, including Urban Greening, Low-income weatherization, and AHSC may benefit from understanding the proportion of elderly in the communities they are serving, especially given these populations increased sensitivity to heat-related illness that is increasing as a result of climate change. If elderly living alone is not retained within the tool itself, we recommend including it as in informational layer on the CES website.

[1] National Academy of Sciences. Review of California's Risk-Assessment Process for Pesticides. 2015. National Academies Press, Washington DC.

- **Asthma:** We thank OEHHA for continued research into whether lower Asthma Emergency Department visits in communities distant from Emergency Rooms reflects an unmet need. We encourage OEHHA to collaborate with the California Department of Public Health, the California Health Interview Survey, and our State Health Systems to identify an asthma indicator that is less subject to emergency medical care proximity. We suggest investing in the inclusion of asthma diagnosis as an ongoing question in the California Health Interview Survey.

  Given that the development of asthma prevalence data at the census tract level is a long-term investment, we recommend the following interim adjustments to this indicator:
  - For a data set with more comprehensive coverage, combine emergency department visits with hospitalization data.
  - Revise this indicator to include data just for childhood asthma (for population 17 and under). Childhood asthma may be more linked to the existing pollution than adult asthma, which may have acquired in a different location or under past circumstances. Furthermore, the burden of childhood asthma can be more relevant to disadvantage in a community due the effect of childhood asthma on school attendance, childhood obesity, and the likely impact of asthma on the life course of the child.

- **Cardiovascular Disease/ Heart Attack Rate:** Thank you for including this indicator.

- **Rent-adjusted Income:** We applaud the inclusion of a cost of living metric in CES. However, we suggest refining the indicator by aligning it with more commonly used measures such as combined rent and transportation burden. While high rental prices are a driver of cost of living in urban and coastal areas, transportation-related costs associated with poor transportation networks and high VMT are a burden in more rural and suburban areas. Especially as lower-income households increasingly cope with high housing costs by locating far from job centers, it is important to capture the combined impact of housing and transportation costs. We encourage OEHHA to look at developing this data at a census tract level both as a preferred metric for cost of living, and as an important informational dataset for Greenhouse Gas Reduction Fund Program applicants as they seek to understand the drivers of community need.

- **Climate Vulnerability:** While traditionally-defined environmental justice communities will undoubtedly experience increased risks from greenhouse gas-driven climate change, high-poverty, non-environmental justice communities on the urban fringe and in rural areas will also be under increased stress. Potential direct impacts of AB 32/SB 32 such as rising fuel prices/VMT charges will be compounded with increased cost pressures resulting from climate change itself (increased water costs, air conditioning costs, pressure from job losses in agriculture and tourism, increased wildfire displacement.) It is possible these communities represent a significant part of the future of environmental justice. We encourage CalEPA/OEHHA to work with Dr. Paul English at CDPH and others at the state that are studying the impacts on these communities, and to consider how future iterations of CES and GGRF allocations might help mitigate the precarious situation these communities may find themselves in.

3) Guidance on Appropriate Use: In our May 16, 2016 meeting with Director Rodriquez and Cal EPA staff, it was agreed that a disclaimer as to the appropriate and inappropriate uses for CalEnviroScreen, be included on the CES tool website, map, data file metadata, and report. We are grateful for this commitment and request an update on your progress toward this end.

CalEnviroScreen is increasingly being used by decision makers at the state, regional and local levels to identify disadvantaged communities and allocate resources. We view this overall trend of rigorously assessing disadvantage and proactively promoting equity as strongly positive, and commend EPA for your role. However, as agencies hasten to include equity in their program design, many are using CalEnviroScreen in instances where there is little nexus to pollution burden (most examples are in this

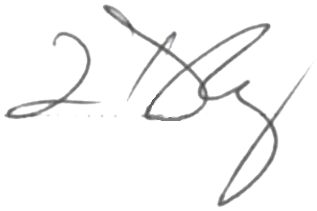
category) or where this nexus is in fact counterproductive—such as incentivizing affordable housing in areas of high pollution burden.

We encourage you to take additional actions to assist decision makers in using CalEnviroScreen and choosing the right metrics to assess community disadvantage for a variety of uses. Specifically, we suggest publishing two online tools:

A. A tutorial to assist jurisdictions in scaling CalEnviroScreen to local or regional uses. Particularly with the passage of SB 1000, local jurisdictions will certainly look to CalEnviroScreen to inform their Environmental Justice Elements, and would benefit from guidance on local use. This tutorial should assist jurisdictions in choosing appropriate cut points, adding in race/ethnicity data where applicable, and incorporating locally available data—for instance blood lead levels collected by Los Angeles County. This tutorial could be accompanied by additional "informational" layers that could be toggled on and off but not included in the total score. This would allow a more descriptive range of indicators (such as race, or additional indicators of climate resilience) without creating undue complexity or legal issues with the index itself. If this is beyond OEHHA's purview, then we suggest that you refer users to other tools that include these data (i.e., HealthyCity.org, CDPH Healthy Community Indicator Project, Community Commons and the California Health Disadvantage Index) and encourage these tools to include CalEnviroScreen as a layer in their online maps.
B. A guide matching program goals (pollution burden, accessibility, climate resilience, health, etc.) to appropriate tools for assessing disadvantage. Clarify where CalEnviroScreen is appropriate, and where users should consider alternatives such as the California Health Disadvantage Index and Title VI and Environmental Justice agency best practices.

Thank you for your consideration of these recommendations. We would be happy to further discuss our suggestions with you and assist in any way to help incorporate these modifications. We look forward to continuing to participate in the evolution of CalEPA's approach to defining disadvantaged communities.

Sincerely,



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Carolyn Flowers, OEHHA

Appendix A

Analysis of CES 3.0 Alignment with High Poverty Census Tracts

The top 25% most impoverished census tracts in the state were compared with the top 25% highest scoring CalEnviroScreen 3.0 census tracts (those that would be identified as 'disadvantaged' per the current GGRF guidelines.) The results are outlined below:

Population living in Census Tracts in poverty top 25%tile	Number of CES 3.0 vs Poverty Discordant Census Tracts	Population of CES 3.0 Poverty Discordant Census Tracts	Number of CES 2.0 vs Poverty Discordant Census Tracts	Population of CES 2.0 Poverty Discordant Census Tracts
9,107,680	629	2,970,856	680	3,188,612

Source: ACS 2008-2012, population aged <=64 living below 200% Federal Poverty Level

Though CES 3.0 identifies 51 more high poverty tracts than version 2.0, there are still 629 high poverty (<200% of Federal Poverty Level) tracts, encompassing 2.97 million people, that are not identified as disadvantaged per CES.