



## California Council for Environmental and Economic Balance

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October 21, 2016

Dr. John Faust  
Office of Environmental Health Hazard Assessment  
Submitted via [CalEnviroScreen@oehha.ca.gov](mailto:CalEnviroScreen@oehha.ca.gov)

Re: CalEnviroScreen Draft Version 3.0

Dear Dr. Faust,

On behalf of the California Council for Environmental and Economic Balance, we submit these comments on the draft CalEnviroScreen (CES) version 3.0 screening tool and report. CCEEB is a coalition of business, labor, and public leaders that advances strategies for a sound economy and a healthy environment. We have four main comments and suggestions on the draft tool and report:

- Discussion of the limitations and uncertainties should be expanded to help public understanding of the tool and support appropriate use of the results.
- Additional background analysis is needed to fully understand the changes in version 3.0 and how these affect CES scores. In particular, we would like to see the sensitivity and correlation analyses for version 3.0 as well as a list of census tracts that were either removed from or added to the top 25 percent. Both documents would add to public understanding of the model.
- CES relative ranking, by design, is not appropriate for use as baseline data.
- Please expand discussion of the new acute myocardial infarction indicator, including the reason for adding it given the apparent lack of correlation to air pollution indicators.

What follows are more detailed and specific comments for each of these topics.

### Expand Discussion of Limitation and Uncertainties in the Report

Past CES reports from OEHHA and guidance from Cal/EPA included helpful discussion of the limitations in use of scoring results. CCEEB suggests that some of this be refreshed in the draft report for version 3.0 so that this information is readily available to those interested in applying CES results. In particular, we ask that OEHHA include the discussion of CEQA from the version 2 report, which is now being superseded by the current draft. We provide specific examples of this language below:

“Additionally, the CalEnviroScreen scoring results are not directly applicable to the cumulative impacts analysis required under the California Environmental Quality Act (CEQA). The statutory definition of ‘cumulative impacts’ contained in CEQA is substantially different than the working definition of “cumulative impacts” used to guide the development of CalEnviroScreen. Therefore, the information provided by this tool cannot substitute for analyzing a specific project’s cumulative impacts as required in a CEQA environmental review. “Moreover, CalEnviroScreen assesses environmental factors and effects on a regional or community-wide basis and cannot be used in lieu of performing an analysis of the potentially significant impacts of any specific project. Accordingly, a lead agency must determine independently whether a proposed project’s impacts may be significant under CEQA based on the evidence before it, using its own discretion and judgment. The tool’s results are not a substitute for this required analysis. Also, this tool considers some social, health and economic factors that may not be relevant when doing an analysis under CEQA. Finally, as mentioned above, the tool’s output should not be used as a focused risk assessment of a given community or site. It cannot predict or quantify specific health risks or effects associated with cumulative exposures identified for a given community or individual.”

*- CalEnviroScreen 2.0: Guidance and Screening Tool, August 2014, pages iii-iv.*

“The tool is not intended to be a substitute for focused risk assessment for a given community or site and cannot precisely predict or quantify specific health risks or effects associated with cumulative exposures identified for a given community or individual. The tool also does not directly correlate the potential impacts of exposure from different types of pollutants, such as particulate exposures from vehicle emissions and exposures from pesticides or hazardous materials. Additionally, it should be noted that the statutory definition of ‘cumulative impacts’ contained in the California Environmental Quality Act (CECA), is substantially different than the definition of ‘cumulative impacts’ adopted by Cal/EPA and used to guide the development of this tool. Therefore, the data and ranking generated by this tool cannot be used as a substitute for an analysis of the cumulative impact of any specific project for which an environmental review is required by CEQA. The screening tool is not intended to create a legal obligation to conduct additional detailed cumulative impacts analyses for individual rulemakings.”

*-Memo from Assistant Cal/EPA Secretary Arsenio Mataka and OEHHA Director George Alexeef, July 30, 2012*

#### Need Sensitivity and Correlation Analysis

In June of 2013, OEHHA released a sensitivity and correlation analysis report for CES version 1.0. This was extremely valuable as it helped explain how different indicators and components in the tool related to each other and influenced final scores and

rankings. We understand from staff that this analysis has been updated for version 3.0 and ask OEHHA to make it public as was done with the previous analysis.

Additionally, several stakeholders at the Oakland workshop (September 20) had asked to see a list of census tracts that had either moved into or fallen out of the top 25 percent. CCEEB joins these requests, as we believe this information would help illustrate how the proposed changes work within the tool and may help “ground truth” the version 3.0 and identify areas of strengths and weaknesses in the revised draft model. It is also useful for those considering policies based on CES results and those who wish to understand how best to interpret results under version 3.0.

#### CES Relative Rankings Are Not Appropriate as Baseline for EJ Assessments

CES results are useful for identifying communities that warrant further investigation, but we do not see how CES scores can be used for baseline EJ assessments. Because CES rankings are relative, not absolute, and because the results do not indicate changes in conditions in a census tract over time, it is unclear to CCEEB how the results could be used to establish a baseline. For example, a census tract’s ranking will change over time based on changed circumstances in other areas, even if nothing changed in the focal census tract. Conversely, a census tract could benefit from significant reductions in air quality or other environmental exposures, but see little or no change in its relative ranking due to other factors.

This limitation in the screening tool was explicitly considered in the original design of CalEnviroScreen, most notably during discussions of the academic review panel in 2012, and it should not be lost in the version 3.0 draft report. As such, we recommend deleting the bullet on page 1 that refers to baseline assessments, or at a minimum revising the sentence to clarify that underlying data in individual indicators may be useful for considering community conditions, but that CES results, relative rankings, and scaled or percentile scores for indicators are not appropriate for establishing baseline conditions, and that CES is not a measure of health risk due to proximity to hazards.

#### Suitability of AMI Emergency Room Visits Indicator

OEHHA considered heart disease mortality in the first version of CalEnviroScreen, but ultimately chose not to include this indicator because of a lack of correlation<sup>1</sup> to the air quality indicators<sup>2</sup> to which it was being associated. We’d appreciate a discussion of how the AMI ER visits better fits OEHHA’s criteria for selecting indicators, particularly as a “good representation of each component.” We also ask to what degree does the new indicator correlate with the air quality indicators. Our issue isn’t with the rationale for including the AMI indicator, nor do we question whether people with cardiovascular

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<sup>1</sup> Meehan August L, Faust JB, Cushing L, Zeise L, Alexeeff, GV (2012). Methodological Considerations in Screening for Cumulative Environmental Health Impacts: Lessons Learned from a Pilot Study in California. *Int J Environ Res Public Health* 9(9): 3069-3084. The study found that Pearson’s correlation coefficients between heart disease mortality and air indicators ranged from -0.24 to 0.01, showing either no correlation or a weak inverse correlation.

<sup>2</sup> PM2.5, ozone, toxic air releases, and traffic. Diesel PM had not yet been developed at the time of analysis.

disease are more susceptible to heart attacks when exposed to air pollution. Instead, we would be concerned if the AMI indicator were not well correlated with the air quality indicators, as this would suggest that other and more primary health drivers are overwhelming the data, and that the indicator is not well representing the effect of air pollution on heart attacks. In general, extraneous and incompatible indicators create noise in the model and should be avoided. Our question here also illustrates the value in having the sensitivity and correlation analysis publicly available.

Minor Suggestions to Improve Clarity and Understanding (markups shown in blue):

- Page 2: “This draft update to CalEnviroScreen continues to [p]rovide a broad picture of the burdens and vulnerabilities that communities confront from environmental pollutants **and other health stressors.**”
- Page 12: “*Socioeconomic factors are community characteristics that result in increased vulnerability to pollutants **and other health stressors.***”
- Page 15: “That said, this model comprised of a suite of indicators is considered useful in identifying places burdened by multiple sources of pollution with populations that may be especially vulnerable. Places that score highly for many of the indicators are likely to be identified as impacted. **It should be noted, however, that a community facing only one or a few impacts – even if the magnitude of those impacts are significant – might not score relatively high when compared to communities that are burdened by many types of impacts.**”
- Page 25: note that the state’s 8-hour ozone standard is 0.070 ppm.
- Page 30: note that the state’s PM2.5 standard is 12 µg/m<sup>3</sup>.
- Page 34: when describing the health effect of diesel particulate exposure, the report should include discussion of how risks decrease sharply with distance from freeways, roadways, and other sources. For example, ARB recommends a health-protective buffer of 500-feet for sensitive receptors, consistent with state law for siting new schools.
- Page 38: “The indicator results do not provide a basis for determining when differences between scores are significant in relation to human health.” This holds true across all indicators and should be repeated in the introduction.

CCEEB appreciates the opportunity to comment on CES version 3.0 and thanks you for considering our input. We would be pleased to discuss our comments further and to answer any questions. Please feel free to contact me at [janetw@cceb.org](mailto:janetw@cceb.org) or (415) 512-7890 ext. 111.

Sincerely,



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cc: Dr. Gina Soloman, Cal/EPA Deputy Secretary for Science and Health  
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