



# South Coast Air Quality Management District

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## **Review of the Second Public Review Draft of the California Communities Environmental Health Screening Tool (CalEnviroScreen)**

The South Coast Air Quality Management District (SCAQMD) staff appreciates that the Office of Environmental Health Hazard Assessment (OEHHA) staff carefully considered and incorporated suggestions from our October 31, 2012 comment letter on the first draft of CalEnviroScreen. We believe that OEHHA's revisions based on public comments have improved the second revision of CalEnviroScreen. The report layout and text is easy to read and well put together. Our comments attached below are intended to provide further improvements to this tool. To promote the correct application of the tool, we encourage OEHHA to provide clarification in the guidance and to ensure that the most scientifically valid data are incorporated into the final version. Further, we request that the underlying data and calculations that were used to create this tool will be made available so that agencies have the ability to modify the tool to suit their local needs.

We look forward to continuing to work with your agency in the current and future development of CalEnviroScreen. Should you have any questions, don't hesitate to contact me at (909) 396-3244.

Sincerely,

A handwritten signature in black ink that reads "Ian V. MacMillan".

Ian MacMillan  
Program Supervisor – CEQA IGR

Attachment

SN:IM:CM:RG

### **Discussion of Limitations of CalEnviroScreen**

Limitations on the use of the CalEnviroScreen model (e.g. model should not be used for CEQA purposes, etc.) should be prominently noted in one place in the report itself, not only in the cover memo and briefly mentioned in the introduction and chapter 1. This caveat is very important once the model is released publicly. The caveat should also be attached to any CalEnviroScreen maps published or any internet release of the tool.

### **Use of Tool for Local Agencies**

In order to be more useful to local governments such as ours, CalEnviroScreen should be adaptable at the local level. Making the tool adaptable will help local districts configure the results to local conditions. For example, the district should have the option to:

- Exclude indicators unrelated to air quality (e.g., pesticide use, cleanup sites, groundwater threats, impaired water bodies).
- Substitute more refined local data for data currently used by the tool (e.g., swapping local MATES diesel PM concentrations for NATA diesel data)

In order to do this, it would be helpful if OEHHA released a spreadsheet showing the scoring for each indicator within each zip code. This will inform the user of which indicators are the drivers for the overall composite score. In addition, Cal/EPA and OEHHA should include the entire calculation methodology, including the range (high and low) of values for each indicator, scoring bins, etc. The current version does not include the detailed scoring calculation for every indicator.

### **Weighting of Indicators**

Finding the appropriate weighting of factors is difficult, and data probably doesn't currently exist to do better than what is provided. However this is a major limitation of the study methodology and should be called out more explicitly in the Uncertainty section. In addition, OEHHA should consider the following points before finalizing the first version of this tool.

- The weights given in the "Population Characteristics" score should be evaluated again by the appropriate committee and discussed with the CIPA working group.
- Three indicators are all associated with diesel particulate matter (DPM), including PM2.5, Diesel Particulate Matter and Traffic Density. We understand the correlation is not as direct for the PM2.5 and Traffic Density indicators; however, diesel sources do contribute to both of these indicators. Since the Environmental Effects indicators (cleanup sites, groundwater threats, impaired water bodies and solid/hazardous waste sites) are weighted half as much as the other six Pollution Burden indicators, the total weighting from potential DPM-related sources counts toward 37.5% (3 out of 8) of the total Pollution Burden score. Further discussion should be provided discussing the appropriateness of weighting diesel sources in this manner.
- Two of the indicators under Population Characteristics (low birth-weight and asthma) are also tied to various Pollution Burden indicators. Since the Pollution Burden score is multiplied by the Population Characteristics score, it appears that these indicators may be double-counted in the tool.

### **Granularity of data**

For some locations, zip code granularity could be considered the dominant factor determining EJ impacts, rather than environmental concerns or population characteristics. We note that someone living in the relatively unpolluted and affluent foothills in Duarte is in the top 10% map while someone living in Mira Loma Village (the subject of a key state Attorney General lawsuit dealing with EJ concerns) is not. The issue of granularity also appears to impact the CalEnviroScore in the following two ways.

- Some of the zip code designations appear to be potentially misleading in maps for the SCAQMD. For example, it is not clear how significant portions of the unpopulated San Gabriel Mountains can be in an EJ area. One potential edit would be to show population density (at the census tract level) in the base map beneath the top 10% zip code map. Also, rather than only showing top 10% of zip codes, OEHHA might consider also showing the areas representing the top 10% of total population.
- Although traffic density is an explicit indicator, it may not be accurately capturing the environmental risks due to the use of zip codes. Close proximity to major roadways (e.g., 100's of feet) is the primary driver of pollutant exposure, and zip codes encompass much wider regions (e.g., miles) than those affected by roadway proximity.

### **Air Quality Data**

Several seemingly feasible improvements could be made to the tool to provide a more clear indication of air pollution impacts. We recommend that OEHHA consider making these changes prior to finalizing the first version of the tool.

- Monitoring data is from 2007-2009. Data is now available through 2011 in SCAQMD. We recommend using the more recent data as lower concentrations from 2009-2011 might change some of the maps. We only recommend changing to newer data if it is available statewide.
- The ozone indicator uses the federal standard as a threshold. We recommend using the state standard instead as this is a state effort.
- It is not clear why a threshold is used for ozone, but not for PM2.5. The final report should consider using the state threshold for PM2.5 too.
- There should be some discussion about the validity of using kriging to extrapolate air quality data in areas with significant topography, such as in SCAQMD. OEHHA might want to compare results with regional modeling results from various local districts.
- The state Air Resources Board (ARB) HRA's for some locations are relatively old and may not reflect today's emissions. For example, the ports of LA and Long Beach have reduced DPM by ~70% since 2005.
- The final report should explain if there is any double counting by using both ARB HRA's and the National Air Toxics Assessment (NATA).

- The description of how DPM is allocated to each zip code is not clear. The final report should detail how diesel is reported to NATA and also clarify how it is then allocated to each zip code with CalEnviroScreen.

### **Calculation Methodology**

The Environmental Effects are described as having 50% less of an effect as Environmental Exposures. The example calculation on page 88 multiplies by 0.5 correctly, but then when averaging, divides by 0.5 again, thus returning Environmental Effects nearly back to full strength when calculating Pollution Burden. The averaging equation should be  $581.42/10$ , not  $581.42/(6+(0.5*4))$ .

### **Pesticide Use**

The Pesticide Map is confusing as the categories use a non-linear scale. This makes it look like there is moderate to high use of pesticides in urban SCAQMD, when it is really very low. If these lower values have a disproportionate impact, then this explanation should be provided in the text of the report.

### **Toxic Releases**

If this category is meant to cover accidental releases too, as described in the text, then OEHHA should consider also looking at the state Accidental Release Program (CalARP) data too.

### **Traffic Density**

The traffic data is almost ten years old. OEHHA might consider coordinating with local MPO's to get more up-to-date data.

### **Clean up sites**

It is not clear why sites with "No Further Action" are rated so high. If these sites are cleaned up, then they should not be an issue moving forward. This leads to the question that should be explicitly addressed in the final report regarding whether the tool is designed for assessing past risks, present risks, or future risks.