



1107 Ninth Street, Suite 210
Sacramento, CA 95814
(916) 441-5700 (916) 441-5708 FAX
www.capcoa.org

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Kenneth Koyama
kenk@capcoa.org

Dr. John Faust
Chief, Community Assessment & Research Section
Office of Environmental Health Hazard Assessment
1515 Clay Street, Suite 1600
Oakland CA 94612

RE: Comments on the Second Public Review draft of the California
Communities Environmental Health Screening Tool (CalEnviroScreen)
& Draft Guidance on its use

Dear Dr. Faust,

Enclosed please find comments from the California Air Pollution Control Officers Association (CAPCOA) on the Second Public Review draft of the California Communities Environmental Health Screening Tool (CalEnviroScreen), and the Draft Guidance on the use of the Tool. CAPCOA represents the Air Pollution Control Officers of all thirty-five local air districts in California. Collectively, our members and their staff embody considerable depth of expertise in assessing, addressing, and communicating about public health impacts from exposure to air pollution. We appreciate the opportunity to offer comments and recommendations to support your development of this important tool.

In developing a statewide screening tool to assess cumulative community impacts across environmental media, the Office of Environmental Health Hazard Assessment (OEHHA) has taken an important step in identifying and addressing disproportionately impacted communities. The inclusion of indicators of vulnerability provides new and valuable information that can support decision makers as they strive to ensure that California meets its environmental justice goals and obligations.

Several of CAPCOA's members served on the California Environmental Protection Agency's (Cal/EPA's) Environmental Justice Advisory Committee (or CEJAC) and were instrumental in the creation of the "Recommendations of the California Environmental Protection Agency (Cal/EPA) Advisory Committee on Environmental Justice to the Cal/EPA Interagency Working Group on Environmental Justice" (or Recommendations Report) approved on September 30, 2003, and published on October 7, 2003. The

recommendations were carefully and thoughtfully developed through the collaborative work of a broad and diverse group of stakeholders in Cal/EPA's programs. They are worded to fully capture the range and the nuances of the group's thinking, and as such, provide critical direction for their successful implementation.

In the Recommendations Report, the CEJAC urged Cal/EPA to "Conduct a public process to establish a common definition of 'cumulative impacts'"¹ which the Agency did. The CEJAC also recommended that the Agency "develop, through a public process, peer reviewed tools to assess cumulative impacts, and equitable, scientifically based criteria for using these tools..."² CAPCOA supports the efforts of OEHHA and the Agency to implement this recommendation by creating the draft Tool. We believe that the guidance accompanying the Tool is key to providing the "scientifically based criteria for using" the Tool that the Recommendations Report calls for. Robust and specific guidance is absolutely necessary to make sure the Tool is used properly and enhances, rather than impedes, progress in reducing exposures and achieving environmental justice goals.

CAPCOA offers the following overarching comments on the draft Tool and guidance. Additional, more specific comments are attached.

1. **Limitations on Use:** CAPCOA agrees with OEHHA's draft guidance that the Tool should not be used to provide cumulative risk analyses and determinations pursuant to the California Environmental Quality Act. In fact, we believe this statement should be made more prominently, both in the guidance document and on the front screen of the Tool itself. The limitation should be expanded to also exclude the use of the Tool in permitting decisions. We also believe that first generation tools, such as OEHHA's Screening Tool, could be helpful in directing investment, especially pollution mitigation grant funds. However, given the subjectivity of weighting factors within and across various media, and lack of data in some instances, great care must be exercised in using OEHHA's Tool for this purpose.
2. **Bright Line Impact Zones:** While CAPCOA understands and strongly agrees with the importance of reducing the pollution burden in disproportionately impacted areas, we believe that "bright line impact zones" (that is, instituting a moratorium on permits for new or modified industrial activities within a geographic area) may result in unintended outcomes; a more refined analysis is needed to determine appropriate exposure reduction strategies than is possible with this screening level Tool. We therefore recommend that OEHHA include a statement that the Tool should not be used to define "bright line impact zones" or to "redline" communities.
3. **Data Accuracy:** The draft tool relies on some information sources that are outdated. For example, the air monitoring data were from the period of 2007 to 2009. However, data through 2011 have already been quality assured and are publicly available; and the 2005 data from the National Air Toxics Assessment (NATA) have been updated to 2008. Other data sources, such as older risk assessments that pre-date risk reduction measures, may create substantial inaccuracies in the screening results from the Tool. We recommend that OEHHA take steps to ensure that the most current, quality-assured data be used in the Tool, and that there be a clear mechanism to update the data on a reasonable, periodic schedule.

¹ Final Recommendations Report of the Cal/EPA Advisory Committee on Environmental Justice, 2003, page 25.

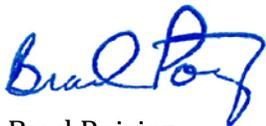
² *ibid*

4. **Weighting of Factors:** CAPCOA recognizes that there are insufficient data available to provide a more robust evaluation of the relative contributions of the various factors to overall cumulative exposure. The lack of that robust evaluation, however, is a significant limitation of the study methodology and creates substantial uncertainty in the results of the Tool. We recommend continued efforts to improve the weighting; in the mean time, this limitation should be called out more explicitly in the discussion of uncertainties.
5. **Potential Over- or Double- Counting:** There are several places where the methods or the combination of data sets may result in over- or double-counting. We recommend further review of over- or double-counting for factors to ensure that effects are not over-counted or counted more than once in the methodology. We would be happy to explore this with you in more detail.
6. **Internal Testing and Review:** CAPCOA strongly urges Cal/EPA to test the Tool within its own boards, departments, and offices, and to share the results of that testing with other agencies (such as the air districts) prior to releasing the Tool for public use. This will allow OEHHA to identify and address any unintended or erroneous results, and will allow Cal/EPA and other public agency partners outside of Cal/EPA to be better prepared to respond to questions and concerns that may arise once the Tool is released.

CAPCOA recognizes that the development of this screening Tool is a difficult undertaking. We appreciate your consideration of our comments, and the comments of our members on this draft of the tool, and earlier in your process. We especially appreciate your efforts to address the Tool's limitations in your guidance document. CAPCOA would like to meet with you before the release of the Tool for public use to address these issues in more detail, and to make sure we are all prepared when the release occurs. As you move forward in this important effort, our members stand ready to work with you. A number of them are offering comments of their own, in addition to the comments we offer here; we ask that you give careful consideration to the issues they raise and the recommendations they offer.

If you have any questions about these comments, or about the additional comments in the attachment, please contact Ken Koyama, our Executive Director at (916) 441-5700.

Best Regards,



Brad Poiriez
President

CC: James Goldstene, California Air Resources Board

Attachment: CAPCOA comments on CalEnviroScreen

Attachment

CAPCOA COMMENTS ON CALENVIROSCREEN

Presentation of Report

- The report layout and text is very easy to read and well put together.
- Limitations on the use of the CalEnviroScreen model (i.e. model should not be used for CEQA purposes, etc.) should be prominently noted in one place in the report itself, not just in the cover memo, 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

- We thank OEHHA for clarifying that the Tool should **not** be used in the CEQA process. We remain concerned that it will be used in CEQA and we therefore support the recommended modifications proposed by several participants of the CSAC meeting (1/23/2013), namely, that OEHHA specifically state that the Tool and its relevant information is not suitable for use in CEQA.
- We strongly recommend that OEHHA extend the same language regarding CEQA to the air permitting process; specifically stating that the Tool and its relevant information is **not** suitable for use in the air permitting process.
- In order to be more useful to local air districts for allocating funding and other resources, CalEnviroScreen should be adaptable by the local district. Making the tool adaptable will help the local district develop a list of the most impacted zip codes/census tracts within the district. For example, the district should have the option to:
 - Rank only those zip codes (or census tracts) within the district.
 - 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 CARE or MATES diesel PM concentrations for NATA diesel data)In order to do this, we need Cal/EPA and OEHHA to release 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. As an alternative, Cal/EPA and OEHHA could 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.
- We would like to reiterate our strong recommendation that Cal/EPA test the Tool within its own departments, and refine where necessary, before releasing it publicly.

Components and Weighting of Indicators

- Finding 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 study methodology and should be called out more explicitly in the Uncertainty section.

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- Why were the Environmental Effects indicators weighted at half the value of the Exposure indicators in the CalEnviroScreen Score equation in the second draft? Please provide the rationale for this change.
- The weights given in the “Population Characteristics” score should be evaluated again by the appropriate committee and discussed with the CIPA working group.
- In terms of air pollutant exposures, we believe that adequate scientific evidence does exist to conclude that current exposures to fine particulate matter present much greater health risks than do current exposures to ozone. That being said, we note that the use of additional indicators in CalEnviroScreen for diesel PM concentrations and traffic density addresses this issue in an indirect manner.
- Care should be taken to ensure that ‘double counting’ between similar indicators is minimized to the greatest extent possible.
- 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 should be evaluated for double-counting in the tool.
- All of the Pollution Burden and Population Characteristics indicators used in CalEnviroScreen are given equal weight in determining a final score, except for the four Environmental Effects indicators, which are weighted at one half the others. The reason for this is not discussed, but presumably it is related to a lack of a scientific basis to do otherwise. We believe that this topic should be addressed in more detail in the final methodology document, perhaps in the section on uncertainties.
- We disagree with the indicator used for the Impaired Water Bodies section of this study. Using the summed number of pollutants across all water bodies designated as impaired does not seem like the best way to characterize the cumulative impacts from polluted water bodies. This method does not take into account the differences in potential health hazards of the different pollutants and by how much the water quality standards are exceeded. This could lead to a water body with several relatively benign pollutants just over the water quality standards being weighted significantly worse than a body of water with one or two dangerous pollutants well above the water quality standards.
- The definition of child in the Age Indicator changed from less than 5 years of age to less than 10 years of age from the original draft to the second draft. Please explain the reason for this change, and provide the rationale for the new definition of children.
- The definition of the Linguistic Isolation Indicator is written as “percentage of household in which no one age 14 and over speaks English ‘very well’ or speaks English only.” This definition is confusing, and makes it sound like households which only speak English were included in this indicator, which is not the case. Please consider re-wording this definition.

Granularity of data

- We believe the tool can be improved by supplementing the vulnerability rankings with one or more additional indicators that can be used to quantify the magnitude of the burden on those communities. Towards that end, the aggregate population risk may serve as a key indicator.
- Zip code designations look odd and potentially misleading in maps. 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

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beneath the top 10% zip code map. Also, rather than only showing top 10% of zip codes, how about also showing 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.
- For some locations, zip code granularity could be considered the dominant factor determining EJ impacts, rather than environmental concerns or population characteristics. For example, in the South Coast air basin, 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.
- We believe the use of 2010 Census Zip Code Tabulation Areas (ZCTAs) as the geographic unit of analysis may not be ideal for this project. One issue is the large areas of the state that are not covered by ZCTAs, which produces results that appear incomplete to the end user (for example, roughly 1/3 of Santa Barbara County has no results due to no ZCTAs for those areas). While most of the areas not covered by ZCTAs may be sparsely populated, there will certainly be some amount of people excluded from this study due to this choice in geographic unit. In addition, there may be significant confusion to the end user due to the differences between the ZCTAs and the Postal Service Zip Codes most people are familiar with. Choosing a geographic unit that is similar to but not the same as a familiar geographic system opens the doors for public confusion and misinterpretation of the results of this study. The footnote 3 on page 6 of the document states future versions of the tool will use a census tract scale. Why not use the census tract scale for the initial version of the tool as well?

Air Quality Data

- Monitoring data is from 2007-2009. Quality assured data are now publicly available through 2011. 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.
- Why is a threshold used for ozone, but not for PM_{2.5}? The final report should consider using the state threshold for PM_{2.5} too.
- There should be some discussion about the validity of using kriging to extrapolate air quality data in areas with significant topography. OEHHA may want to compare results with regional modeling results from various local districts.
- The Health Risk Assessments relied on for some locations are relatively old and may not reflect today's emissions. For example, the ports of LA and Long Beach have reduced diesel PM by ~70% since 2005, and those reductions are not captured in the data used for the Tool.
- There may be double counting of air quality impacts by using both the Health Risk Assessments done by the Air Resources Board and the data from NATA. It is not clear whether the two data sources were used to characterize the same area, and this should be addressed.
- The description of how diesel PM is allocated to each zip code is not clear. The report should detail how diesel is reported to NATA and also clarify how it is then allocated to each zip code with this study.

Calculation Methodology

- The Environmental Effects are described as 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. Averaging equation should be $581.42/10$, not $581.42/(6+(0.5*4))$.

Pesticide Use

- The map is confusing because the categories use a non-linear scale. This makes it look like there is moderate to high use of pesticides in urban parts of the South Coast Air Basin, when it is really very low.

Toxic Releases

- The methodology for the exposure indicator “Toxic Releases from Facilities” could be improved.
 - Emissions into the air from facilities would seem to be a much more important factor in exposures and health risks than emissions into waterways, and yet both are weighted equally.
 - TRI data includes both emissions into the air and storage of certain chemicals. While the tool clearly indicates that they are using “toxic releases”, the tool should clarify for the reader that the storage components have been removed from the dataset. Unfortunately, the misuse of storage data as emissions data has been a fairly common problem with various uses of the TRI, and so this clarification is important.
 - TRI emissions data are only available for certain types of facilities and are self-reported and not subject to agency review. Air district emissions inventory data (reported to ARB) would be a better indicator.
 - Air concentration data from the 2005 NATA would also seem to be a more robust indicator than TRI emissions data. The 2008 NATA is now available, and would be better yet.
 - The CalEnviroScreen methodology ranks areas based on the total quantity of TRI hazard-weighted emissions occurring within census zip codes. The approach seems to differ from what is used for the other five exposure indicators, which focus on the concentration of density of the indicator within an area. For example, in the methodology for the Pesticide Use indicator, total pounds of selected pesticide active ingredients used in a census zip code are appropriately divided by the zip code’s area. This should also be done for the “Toxic Releases from Facilities” indicator.
- If this category is meant to cover accidental releases too, as described in the text, then it should consider also including California Accidental Release Program (CalARP) data too.

Traffic Density

- The traffic data used are almost ten years old. OEHHA might consider coordinating with the Metropolitan Planning Organizations to update this data.

Clean up sites

- We disagree with the decision to include cleanup sites designated as “certified”, “completed”, and “no further action” in the Cleanup Sites Indicator of this study. By definition, cleanup sites designated with any of these statuses have been remediated properly and do not pose a risk to public health or the environment. Based on the

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weighting system outlined in the second draft document, these clean sites could potentially be weighted near to or even in some circumstances greater than other cleanup sites requiring remediation or actively undergoing remediation.

- Including both the Cleanup Sites category and the Groundwater Threats category in the Environmental Effects Indicator could lead to double counting the same clean-up sites. During our quick review, we found several clean-up sites included in both the EnviroStor database and the GeoTracker database for one small area in the City of Santa Barbara.
- The weighting system applied to the Groundwater Threats indicator seems to disproportionately weight certain types of sites over others. An active “Cleanup Program Site” is weighted 15 while an active “Leaking Underground Storage Tank (LUST) Cleanup Program” is weighted only 5. In our experience, many of the sites designated as “Cleanup Program Site” have contamination less than or equal to “LUST Cleanup Program” sites. We feel it is nearly impossible to weight sites based on the site types contained within the GeoTracker database, and suggest weighting these sites only based on their statuses. In addition, it is not clear if sites designated “clean closed” were excluded from the analysis, but we recommend they be excluded if they were included in the second draft study.