



October 16, 2012

John Faust
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Oakland, CA 94612
Via E-mail: john.faust@oehha.ca.gov.

Re: Draft California Communities Environmental Health Screening Tool: Cal-EnviroScreen

Dear Dr. Faust:

We appreciate this opportunity to submit comments on behalf of the Natural Resources Defense Council (NRDC), a non-profit organization with over 1.3 million members and activists, 250,000 of whom are Californians. NRDC members in California live in communities where they, and their families, face exposures to pollution and environmental health threats. We hear serious concerns from our members about the increased risks faced by communities in California from the cumulative impact of multiple pollution sources and exposures. The unequal distribution of environmental contamination and the resulting concentration of these impacts in overburdened communities jeopardize the health of California communities. The California Environmental Protection Agency (CalEPA) must identify those communities disproportionately threatened by environmental contaminants and take strong action to reduce those threats.

We appreciate the efforts of the scientists from the Office of Environmental Health Hazard Assessment (OEHHA) for their work to put forward a draft screening tool and receive input from stakeholders and experts. The draft Cal-EnviroScreen is an important first step. However, the draft falls short of what CalEPA needs to identify California's most burdened communities because it omits critical data sources and fails to utilize the most meaningful analytical tools. Many of these resources have been identified by stakeholders and experts in comments made at workshops around the state. OEHHA must now listen to the experts – the communities who bear the burden of environmental contamination and the preeminent academic researchers in the field who, together, have laid out a path to improve the health and environment of all Californians.

To accomplish an effective cumulative impacts tool Cal-EnviroScreen should:

Include a Regional Ranking System

The sole use of a state-wide ranking system in the draft Cal-EnviroScreen, limits the capacity of the tool to fully identify the spectrum of environmental threats faced by California communities. Because, some of the pollution exposures differ substantially by region, regional comparisons enable a more consistent and meaningful mechanism to identify those communities being disproportionately impacted. Relying solely on a state-wide ranking system loses valuable information that is needed by regionally focused agencies, such as Air Districts and Water Boards, to reduce the threats that jeopardize the communities in their jurisdiction.

Use Census Tracts as the Unit of Comparison

Expert advisors who have worked with communities to map environmental contaminants weighed in strongly at the Technical Workshop that zip codes do not provide sufficient resolution to identify overburdened communities. For instance, Dr. Paul English from the California Department of Public Health, Dr. Rachel Morello-Frosch from UC Berkeley, and Dr Jonathan London from UC Davis shared that their research has found census tracts to be a significantly more robust unit of comparison for looking at community-level exposures.

Account for Pesticide Exposures

It is critical that the Cal-EnviroScreen include an indicator of pesticide exposures. Pesticides are known to cause a range of health threats including acute poisonings, damage to the developing nervous system of children, and cancer. Living in proximity to areas where these pesticides are used increases the risk of exposure from accidental releases and drift from fields. Biomonitoring studies have documented higher levels of organophosphate exposure in communities near fields than the general population.ⁱ Air monitoring near fields has found an increased likelihood of pesticide contamination compared to areas where pesticides are not applied; and there are numerous examples of acute poisoning events at schools and in communities living adjacent to fields where pesticides are applied.^{ii iii} Given the limitations of existing data resources, pesticide use is an appropriate indicator for use in Cal-EnviroScreen.

Better Reflect Threats from Toxic Air Contaminants

Cal-EnviroScreen does not include all the available data resources which describe sources and health threats from air toxics. OEHHA should take a close look at the data provided in the National Emissions Inventory, National Air Toxic Assessment (NATA) databases and the emissions inventories from the California Air Resources Board. Taken together, these data resources can better describe toxic air contaminants, particularly from smaller sources, like chrome platers, which have been shown to result in significant health threats to neighboring communities.^{iv}

Better Incorporate Health Impacts

Both the heart disease and cancer health impact layers should be revised to reflect incidence rates in addition to mortality. All efforts must also be made to use available data sources and analytical methods to utilize this data at geographic units below the county level. In addition, to better reflect the purpose of this tool, OEHHA should explore restricting cancer incidence data to reflect those cancers with known or suspected links to environmental exposures.

Include the Following Additional Exposure and Vulnerability Layers:

Drinking Water Contamination

Communities across California lack access to safe drinking water. Contaminants such as nitrate, arsenic, pesticides, perchlorate, and hexavalent chromium all threaten the health of communities due to exposures via drinking water. Cal-EnviroScreen should include drinking water quality as an exposure layer.

Diesel Pollution

Numerous analyses have shown that the burden of diesel pollution exposures is disproportionately borne by low-income residents and communities of color. The

California Air Resources Board and individual Air Districts have data resources which describe this exposure that should be incorporated into Cal-EnviroScreen. In addition, the failure to include sources of concentrated diesel emissions such as ports, railyards, and airports is a significant flaw in the draft EnviroScreen tool.

Linguistic Isolation

The research of Rachel Morello-Frosch, Manuel Pastor, and James Sadd has found linguistic isolation to be a robust indicator of community disempowerment that corresponds to increased likelihood of pollution exposures.^v This data is also readily available from US Census data and should be added as a potent indicator of social vulnerability.

Use a Clear and Justifiable Scoring Mechanism

The proposed scoring method in the draft Cal-EnviroScreen is difficult to understand and includes implicit weighting that is not justified in the supporting material. As was discussed at the technical workshop, the averaging of scores from individual indicators within the components - each with a different number of indicators – creates a differential weighting system. This weighting was not discussed in the supporting material and this lack of transparency makes it difficult for stakeholders to assess the proposed tool. OEHHA should reevaluate the scoring mechanism and determine whether a simpler method, that does not include averaging or multiplying, would provide the needed information in a simpler format. In the event, it is determined that the current scoring system is more robust, the final version of the supporting material should provide a comprehensive description of the evaluation and justification for the scoring procedures.

Provide a Meaningful Comparison to Other Screening Tools

In recent years, researchers, community groups, and the federal Environmental Protection Agency have pursued the development of tools to describe the multiple environmental threats faced by communities. With the addition of OEHHA's EnviroScreen tool, there are valid questions about the degree to which these different tools provide a consistent picture of the most overburdened communities. In order to have a meaningful and useful tool, it is essential for OEHHA to undertake a side-by-side comparison of the EnviroScreen tool with the EJSM and other tools and provide a detailed description and justification for places where the tools differ.

Ensure Stakeholder Input and Representation by Impacted Communities

The collaborative process between community groups and academic researchers employed in the development of the EJSM has shown the enormous potential when community knowledge is paired with cutting edge technical know-how and analysis. OEHHA and CalEPA must work to ensure that impacted communities are represented in the finalizing, implementation, and follow-up to the EnviroScreen tool.

California has lead the nation with policies to reduce pollution but those advances have not been felt uniformly throughout the state and low income and communities of color bear the brunt of environmental contamination. California has the opportunity to reverse this trend and make meaningful progress in creating healthier and safer communities. We strongly encourage OEHHA to carefully consider the comments received on the draft Cal-EnviroScreen and make the changes needed to have a robust and effective screening tool.

Thank you for your consideration of our comments and recommendations. We appreciate the hard work of staff to develop the Cal-EnviroScreen and look forward to working together to ensure a safe environment for all Californians.

Sincerely,
Miriam Rotkin-Ellman, Staff Scientist
Diane Bailey, Senior Scientist
Adrian Martinez, Attorney

ⁱ McKone TE, Castorina R, Harnly ME, Kuwabara Y, Eskenazi B, Bradman Asa. 2007. Merging Models and Biomonitoring Data to Characterize Sources and Pathways of Human Exposure Organophosphorus Pesticides in the Salinas Valley of California. *Environ. Sci. Technol.* 41, 3233-3240.

ⁱⁱ PANNA. 2007. Secondhand Pesticides. Airborne Pesticide Drift in California.
<http://www.panna.org/issues/publication/secondhand-pesticides>

ⁱⁱⁱ California Environmental Protection Agency. Department of Pesticide Regulation. Pesticide Illness Surveillance Program. <http://www.cdpr.ca.gov/docs/whs/pisp.htm>

^{iv} California Environmental Protection Agency. 2007. Overview of the Airborne Toxic Control Measure for Chromium Plating control of emissions from plating and anodizing facilities.
<http://www.arb.ca.gov/toxics/chrome/chromefs.pdf>

^v Pastor M, Morello-Frosch R, Sadd J. 2010. Air Pollution and Environmental Justice: Integrating Indicators of Cumulative Impact and Socio-Economic Vulnerability into Regulatory Decision-Making. Report for California Air Resources Board Contract # 04-308.