SCAP
SOUTHERN CALIFORNIA ALLIANCE OF PUBLICLY OWNED TREATMENT WORKS

February 1, 2013

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

Re: Comments on the 2nd Draft California Communities Environmental Health Screening Tool (CalEnviroScreen)

Dear Dr. Faust:

The Southern California Alliance of Publicly Owned Treatment Works (SCAP) is an organization made up of 104 members, 80 of which are public wastewater agencies located in seven counties. Collectively our Publicly Owned Treatment Works (POTW) members provide over 1 billion gallons per day of wastewater treatment to more than 18 million people in Southern California. SCAP appreciates this opportunity to comment on the 2nd public review draft (draft) for CalEnviroScreen.

In addition to providing essential public wastewater treatment services, our member agencies have also supported the communities we serve regardless of their socio-economic status. Many have addressed issues reflected in the draft CalEnviroScreen model years before the model's development without any prodding by regulation.

Accordingly, while SCAP does not object to the use of the CalEnviroScreen model to guide distribution of grant monies or monies generated from the sale of cap and trade allowances as required by SB 535, we have considerable reservations with the fundamental nature of the model.

We are extremely concerned that the model's approach is inappropriate for other suggested purposes. As described herein, the model's lack of a science-based public health nexus between multiple environmental sources and a receptor's socio-economic status invalidates this model for CEQA use and any regulatory risk-based endeavor. Without a validated scientific approach, CalEnviroScreen may result in unintended uses and abuses, which could fuel misguided regulation and litigation.

Finally, we feel that an OEHHA campaign to address misconceptions concerning actual risk is long overdue and such an effort will result in greater support for real and effective proposals to address environmental injustices than misleading and inaccurate models.

P.O. Box 231565
Encinitas, CA 92024-1565
Fax: 760-479-4881 Tel: 760-479-4880 Website: www.scap1.org Email: info@scap1.org

POTENTIAL USES FOR THIS MODEL SHOULD BE LIMITED

OEHHA has a responsibility to all its stakeholders to develop a tool reflective of actual impacts of disproportionate environmental burdens on distressed communities.

Yet, lacking a solid scientific foundation, CalEnviroScreen will not provide this measured analysis. OEHHA admits on page 1 of the draft that the model, "*is not intended to be a substitute for a focused risk assessment for a given community or site, and it cannot precisely predict or quantify specific health risks or effects associated with cumulative exposures identified for a given community or individual*." This inability to assign risk to a specific source or impacts to a specific receptor severely limits this model's ability to do much more than inform SB 535 allocation efforts. For example, we doubt the model can serve as a tool for enhanced enforcement if it cannot identify the specific cause or extent of harm or who is harmed in the first place.

Although the CalEnviroScreen effort does not propose any new programs or regulatory requirements, it is a tool meant for decision makers to help California meet its environmental justice goals. Lacking a clear understanding of risks and impacts, these decision makers will not have the guidance they need. Until risks and impacts can be unambiguously linked, OEHHA should go further and note explicitly that CalEnviroScreen cannot be used to support any new programs or regulations.

OEHHA believes that CalEnviroScreen may find uses for planning purposes. Under CEQA, any new project must prepare an EIR if the lead agency is presented with a fair argument of the project's significant effects. Unless projects could show that they will not significantly worsen nearby CalEnviroScreen scores in their EIRs, they could be vulnerable to CEQA's fair argument provisions and EIR challenges. Additionally, lead agencies may have to justify further their choices for site alternatives if some alternatives are in differently shaded zip codes. It should be obvious that some beneficial projects will be routed away from darker shaded zip codes despite the reasons behind the shading. To avoid unintended consequences, OEHHA should clarify that the model results do not constitute substantial evidence for CEQA purposes.

Despite the lack of a scientific underpinning, we agree that, with some improvements to appropriately weight the Environmental Effects indicators, the model could justify the further study of cumulative impacts in highly impacted areas. These studies could then guide the distribution of grant monies or funds generated from the sale of cap and trade allowances as required by SB 535. SCAP does not object to the use of this model for those purposes.

THE MODEL LACKS A SOUND BASIS IN SCIENCE

OEHHA has often stated their commitment to developing a model with a scientific foundation. In fact, they aim to "…demonstrate the application of a practical and ***scientifically*** justified methodology…" Also, they state that this draft follows their 2010 report, *Cumulative Impacts, Building a* ***Scientific*** *Foundation* [emphasis added].

Yet, it is too easy to find examples where this model falls short of its promise of a scientific foundation. OEHHA misstates the research it cites to promote its claims, uses irrelevant sources and neglects contradictory evidence and conclusions.

The Public Review Draft Misstates Its References

A scientific approach demands that prior work be referenced and summarized correctly, yet OEHHA's effort has many examples where this did not occur. Additionally, several references have little relevance to the model. For example, a close inspection of the references cited on page 8 to support multiplying environmental impacts by socio-economic status (SES) reveals:

1. Brody T.M., et al.: This paper about oil spills doesn't address how low SES communities are influenced by pollution burdens. Although this paper cites a priority-scoring formula where "Risk = Threat x Vulnerability," OEHHA chose to reference the formula while ignoring the author's admonition that multiplication is only valid "*when the components of the right side are* ***uncorrelated****."* It should be obvious that several of the CalEnviroScreen inputs are highly correlated ($PM_{2.5}$ and Diesel PM for example).

2. Horstmann D., et al.: OEHHA references this paper that does not support the correlation between SES and health impacts. Moreover, the paper's test subjects were artificially exposed to excessively high pollutant levels that have no bearing on actual exposures,[1] so any conclusions drawn from this work are misleading.

3. OEHHA, (2009): The OEHHA 2009 technical support document's (TSD) focus is on the enhanced effect of early exposure to carcinogens on infants and children. It does not address how SES further influences health outcomes.

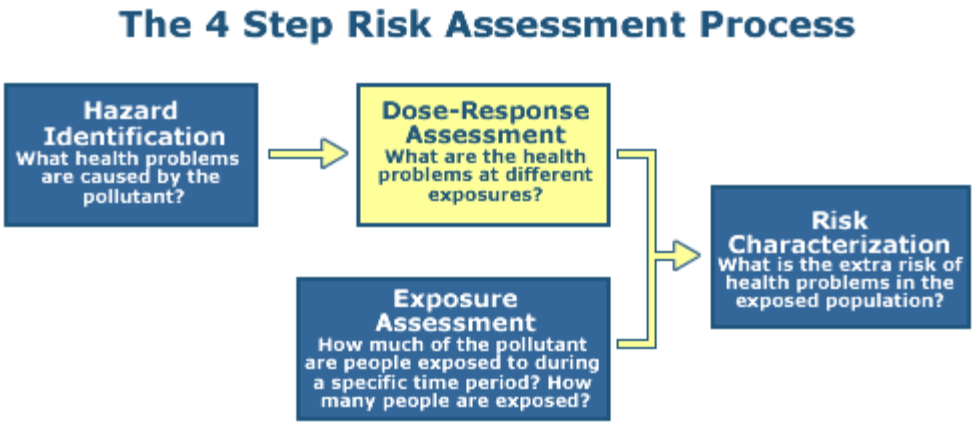
4. Samet J.M., et al.: OEHHA claims this paper reports that "low SES is associated with about a 3-fold increased risk of morbidity or mortality…" **This paper makes no such statement.** Moreover, OEHHA ignores what the authors do not, the considerable hurdles that plague these studies. Restated here, these include:

    a. Socioeconomic status indicators are only surrogates for health status and potential vulnerability to air pollution,
    b. Some correlates of socioeconomic status may be confounding the relation between air pollution and health. Disentangling complex causal pathways may not be possible, and,
    c. Estimates of the extent of effect modification are **notoriously imprecise** [emphasis added].

5. US EPA (2012): This reference does not support the hypothesis that SES influences health impacts. Referring to the figure from that EPA reference (below), it's hard to see where the CalEnviroScreen elements fit in. For example, OEHHA should explain which box proximity to an impaired water body fits in EPA's figure below.

[1] The lowest non-zero exposure for this study was 250 ppb. The highest value anywhere in the South Coast Air Basin from 2009-2011 was one result at 51 ppb. Furthermore, the study showed no impact below 280 ppb.

From: US EPA (2012). Dose-Response Assessment[2]



The Public Review Draft Overstates Exposure to Water Quality Indicators

The CalEnviroScreen Model uses the number of pollutants listed as "impaired" water bodies as an indicator of the extent of environmental degradation within an area. The rationale explains that various communities relying on resources provided by nearby surface waters have populations of lower socioeconomic status than the general population. An example is provided that states that certain fishing communities along California's northern coast have lower educational attainment and median income than California as a whole. However, there does not appear to be any relationship between those socio-economic conditions and water quality, since the indicator map illustrates that the north coast region has very good water quality with few impairments. Furthermore, a fundamental flaw in the rationale for use of the Section 303(d) list of impaired water bodies as an indicator is that in many instances there is no pathway of exposure from the water body to the population that lives in the surrounding area. Exposure to contaminants of concern would likely be via drinking water, fish consumption or dermal exposure during body contact recreation (e.g. swimming or surfing). Many water bodies with impairments are not actually used for drinking water or fishing (or the fish caught are not eaten). Moreover, for most Californians, both drinking water and fish come from a variety of locations, some of which are very distant. Fish frequently consumed come from all over the world, and drinking water may come from hundreds of miles away. Therefore, the correlation between the number of pollutants listed as impaired with exposure is often quite weak, and use of proximity to waterbodies that are on the 303(d) list is very misleading. At a minimum, if impairments are to be used in the model, only those listings related to fish consumption or swimming should be used, and an indicator related to drinking water should be developed based on information about compliance of public water supplies with drinking water standards under the Safe Drinking Water Act.

It is difficult to believe that the traditional risk assessment approach mirrors how SES influences health outcomes; these are different phenomena. Such leaps of faith are not science. In order to utilize the CalEnviroScreen model for anything more than a mechanism to distribute grant money, OEHHA needs to provide a validated scientific approach with research that supports the assumptions contained in the model.

[2] See: http://www.epa.gov/risk/dose-response.htm

Real World Data Should Inform the Model's Development

In developing any tool that describes community exposure and resultant health effects, OEHHA should consider real world studies that examine environmental exposures. For example, as described in Cancers in the Urban Environment[3], urban cancers were the subject of an exhaustive study by Dr. Thomas Mack from the USC Keck School of Medicine. That 645 page study surveyed by census tract the incidence of roughly 80 types of cancers in Los Angeles County for a 26-year period. This study uncovered very few cancer clusters despite this basin's historic struggle with urban air pollution. None of the cancers were attributable to any specific stationary source. In his very last sentence, Dr. Mack concludes, "*As of this writing, no evidence of a malignancy caused by strictly environmental carcinogen has yet been confirmed*."

Curiously, although one of OEHHA's references claims to justify an increase in preterm births from exposure to traffic related air pollution[4], that study ignores the improving air quality in that same air basin. This latter result is the conclusion of the MATES III study which noted that "*In general, concentrations of most toxics substantially decreased compared to levels measured during MATES II*."[5] Additionally, other air monitoring work in this basin documents significant reduction of criteria pollutants[6], including those related to congested traffic. Yet these results were not addressed by the OEHHA.

More recently, the US EPA released its third report on children's health and the environment.[7] The overwhelming body of evidence from that report indicates that any increase in health impacts is **not** correlated with increasing exposure to environmental contaminants because those exposures are, in fact, **decreasing**. For example, despite OEHHA's reference that correlates preterm births with traffic related air pollution, EPA finds instead, "*There is no conclusive information on the role of environmental contaminants in ADHD or **preterm births**,* [emphasis added] *and additional research is ongoing*." Additionally, EPA notes, "*The report contains good news for children and families including significant improvements in the quality of the air we breathe*…" In order to construct a representative and scientifically valid model, OEHHA needs to consider all applicable research.

THE MODEL PERPETUATES COMMON MISCONCEPTIONS

There can be no question that misconceptions and biases are informing the development of the model. For example, public perception holds that exposures are increasing when in fact, as we have shown above, there is evidence of decreasing exposure levels. Additionally, as communicated during the public comment period, some EJ advocates believe that any industry concerns about addressing environmental injustices ring hollow because these same industries have contributed little to the communities they serve.

---

[3] Mack, Thomas, MD, (2004), Cancers in the Urban Environment, Keck School of Medicine, UCLA.
[4] Ponce, et al., (2005) Preterm birth: the interaction of traffic related air pollution with economic hardship in Los Angeles neighborhoods. Am J Epidemiol 162(2): 140-8.
[5] SCAQMD (2004) Mobile Air Toxics Emissions Study (MATES) III, p. 28. See: http://www.aqmd.gov/prdas/matesIII/Final/Document/b-MATESIIIChapter1and2Final92008.pdf
[6] SCAQMD (2012) Final Air Quality Management Plan. See p. ES-2, Is Air Quality Improving? "Yes. Over the years, the air quality in the Basin has improved significantly, thanks to the comprehensive control strategies implemented to reduce pollution from mobile and stationary sources." http://www.aqmd.gov/aqmp/2012aqmp/Final/Chapters.pdf
[7] US EPA, *America's Children and the Environment, Third Edition.* January 25, 2013. See: http://www.epa.gov/ace/

To address this latter point, our member agencies have a long history of outreach and genuine support of the communities they serve. The majority of SCAP member agencies are governed by boards consisting of elected officials who have a fiduciary responsibility to the citizens who elected them. Our member agencies must answer to these elected officials.

An example of these responsive efforts in practice is the Citizen's Advisory Committee (CAC)[8] started in 1978 by the Los Angeles County Sanitation Districts (LACSD), one of the SCAP member agencies. Based on input from its CAC, the LACSD has agreed to:

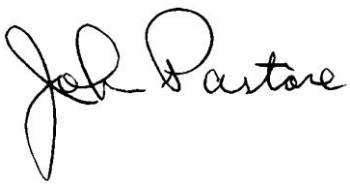
- Hold quarterly meetings to review significant projects and field community concerns;
- Establish buffer zones around the main facility and invite beneficial uses that bring much needed jobs to an economically distressed area with favorable lease terms, displacing prior heavy industry with mostly retail;
- Promote environmental awareness by creating a 17-acre interactive wetlands area; and,
- Address community concerns about odors by installing $71.5 million of voluntary odor control equipment over the years, establishing a 24-hour hotline to report odors and staffing a dedicated team to investigate off-site odor reports.

Other SCAP agencies have duplicated this model of communication, transparency and responsiveness with similar successes such as the City of Los Angeles' Bureau of Sanitation outreach for its innovative Urban Runoff Management and Terminal Island Renewable Energy projects. These outreach efforts exceed any requirement by CEQA or any other regulation or statute. *The success of these efforts demonstrates what can be achieved from a "bottom-up" approach that draws from the community's experience instead of questionable databases and models*.

The CalEnviroScreen approach gives the illusion that all the answers are in its maps. These maps, we believe, are scientifically indefensible and will continue to misinform and confuse. The model will not correct misconceptions about how environmental exposures and SES influence health outcomes. Simple reliance on maps will not reveal all the issues that community stakeholders actually care about nor provide any creative solutions. OEHHA should do more to acknowledge that the CalEnviroScreen maps are just a *first step* in the process.

We appreciate your consideration of our comments on CalEnviroScreen, and look forward to future revisions of this work should there be any. If you have any questions regarding these comments, please do not hesitate to contact me at (760) 479-4880.

Sincerely,



John Pastore, Executive Director
Southern California Alliance of Publicly Owned Treatment Works
P.O. Box 231565
Encinitas, CA 92024-1565

[8] See: http://www.lacsd.org/wastewater/wwfacilities/jwpcp/citizens_advisory_committee.asp

cc: Arsenio Mataka, CalEPA, Arsenio.Mataka@calepa.ca.gov
George Alexeeff, Director, OEHHA, George.Alexeeff@oehha.ca.gov
Shankar Prasad, OEHHA, Shankar.Prasad@oehha.ca.gov