



A Tides Center Project



+ Medical Advocates for Healthy Air



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RE: CalEnviroScreen 3.0 Comments from San Joaquin Valley and East Coachella Valley Organizations and Residents

We, the undersigned organizations, direct this letter to the Office of Environmental Health Hazard Assessment (OEHHA) and the California Environmental Protection Agency (CalEPA), and urge these entities to take into account the recommendations detailed below in the development of the CalEnviroScreen 3.0. CalEnviroScreen 3.0 is an incredibly valuable tool for identifying the most disadvantaged communities in the state and is crucial to ensuring that state funds are allocated to address the immense obstacles that these communities face.

The undersigned organizations work alongside lower income communities in the Central Valley and the Coachella Valley to ensure that development and investment are done sustainably and equitably, in order to further the wellbeing and opportunities of all of the region's residents regardless of race, nationality, socioeconomic status, or place. The following recommendations for the CalEnviroScreen 3.0 update are derived from our work in the Central Valley and Coachella Valley, as well as our conversations with OEHHA and residents over the last few months. These recommendations are designed to voice the concerns of these residents, and to ensure that their vulnerability to environmental harms is shown as accurately as possible in the newest version of the tool.

The undersigned organizations thank OEHHA and CalEPA for the commendable effort that they have gone to reach out to disadvantaged communities and to non-profit organizations working with these communities. We commend OEHHA and CalEPA's commitment to creating a comprehensive tool to identify, assess and build strategies to address cumulative vulnerabilities based on environmental and demographic factors, and we particularly thank Arsenio Mataka and Vanessa Galaviz from CalEPA and for their constant willingness to meet and converse about the updates to CalEnviroScreen. We have limited our comments voiced below to an analysis of the proposed indicators, and hope OEHHA will look to the California Environmental Justice Alliance's letter in regard to how we believe CalEnviroScreen should be used. We strongly urge OEHHA to incorporate these recommendations and concerns so that this newest version of CalEnviroScreen may accurately depict the vulnerabilities of disadvantaged communities in the state.

We look forward to receiving responses to our inquiries below, and we also hope to have the opportunity to review the underlying data upon which CES has based its scores. We hope that CalEPA will continue to be open to further dialogue as more information becomes available and as the new version of this valuable tool evolves.

A. Overarching questions regarding data availability, accuracy and integrity

Before diving into specific concerns and recommendations on each indicator or category of indicator, it is important to address one overarching concern that we have. Results in some cases could be obscured by the large size of some census tracts, in terms of both geography and population. These census tracts in some cases incorporate very vulnerable populations, but their vulnerability is obscured by less vulnerable populations within the census tract. One way to remedy this could be separating out census block groups and census designated places (many of which are unincorporated communities) from the larger census tracts that surround them, so that their particular vulnerability can be accurately represented. OEHHA should also provide a mechanism for continued dialogue through which communities and community based organizations can report such information to OEHHA so that data and methodology can be improved.

We also feel that, where possible, all indicators should be weighted based on their actual impact on populations, instead of their impact on the geographical area within census tracts. For example, some indicators like drinking water are weighted based on which populations are affected by which level of contamination. However, indicators such as pesticide usage and traffic

density are not measured based on population impact, but rather are averaged out over the whole census tract. If all of the population within a census tract lives immediately next to a hazardous waste facility but the census tract extends much farther from the facility, the actual impact on this population is much higher than is shown by the census tract average. We believe that all indicators should be changed to show their actual impact on populations within a census tract by following the example of the population-weighted indicators.

We also have additional concerns about data integrity and accuracy for specific indicators, such as air quality monitoring, gaps in health data from lack of access to medical facilities in rural areas, and drinking water quality testing for individuals not in water systems. These concerns are voiced below in the sections that discuss these indicators.

B. Age indicator should be reinstated to demonstrate greater vulnerability of census tracts with higher concentrations of children ages zero through five years old.

This version of CalEnviroScreen removed the age indicators, which took into account children and the elderly as particularly vulnerable populations. We understand that the data for young and elderly groups seemed to be cancelling itself out, and that OEHHA feels that communities should not be prioritized just because they happen to have more elderly or young people. We also understand that OEHHA believes that the indicator for elderly populations was skewing data by capturing senior living facilities located in more affluent areas, which is counterproductive to showing population vulnerability as intended.

However, children are particularly sensitive to environmental harm because they are in critical development stages, and populations with relatively more children tend to be communities of color and more disadvantaged communities. We do not believe that an adequate reason has been given for not including an indicator for populations containing many children. Central Valley residents in particular express their concern for their children, who suffer from skin rashes, blue baby syndrome from nitrate-contaminated water, asthma, and other health complications due to contamination in the region.

We urge OEHHA to consider reincorporating the age indicator for children, to show these vulnerabilities. Since we know OEHHA can separate out data for impoverished children, we believe they should use impoverished children as an indicator. Also, other indicators could be used to show this vulnerability could be relative frequency of illness or hospitalization of children, and measures of physical fitness done before kindergarten.

C. Toxic Releases from Facilities indicator data should be expanded.

We notice that the Toxic Releases from Facilities indicator only includes air contamination from these facilities, instead of also including data on land and water contamination, and also does not include data from smaller facilities. We would appreciate a response from OEHHA as to why these restrictions were made on the indicator and what can be done to expand the breadth and depth of this indicator.

D. Hazardous Waste indicator should be expanded to include facilities more than from 1,000 meters from populated census blocks.

We noticed that only large generators were included in the data for hazardous waste generators and facilities, and no facilities were included that were more than 1,000m from populated census blocks. We recommend that OEHHA include small hazardous waste generators and facilities in the indicator as well, if data exists, and that OEHHA extend this radius past 1,000m. Alternatively we would like for OEHHA to explain its reasoning for this 1,000m cutoff.

E. Drinking water indicator

We commend OEHHA for its commitment to developing accurate data that reflects the reality of the drinking water crisis in California, in particular its perseverance in finding accurate data for boundaries of drinking water systems. We also commend OEHHA for evaluating three additional contaminants to the drinking water indicator; Radium (combined), Trichloroethylene, and 1,2,3-Trichloropropane. In particular, we appreciate the inclusion of 1,2,3-TCP despite the current lack of a Maximum Contaminant Level at the state or federal levels. 1,2,3-TCP, a known human carcinogen, pollutes groundwater throughout California, but it disproportionately impacts our small, rural communities in the Central Valley. We understand the State Water Resources Control Board is currently developing a Maximum Contaminant Level and has helped facilitate the recent collection of additional data on 1,2,3-TCP contamination statewide. Despite these improvements, residents and our organizations have identified several concerns with the drinking water indicator.

i) Contaminants should be measured according to harm to human health, and data should be included on raw contaminant levels.

First, while the indicator identifies and adds together the relative levels of harmful contaminants in drinking water (relative as compared among census tracts), it does not give greater weight to contaminants or contaminant levels based on their impact to human health. We know that some effort has already been made to look into weighting more harmful concentrations and more harmful contaminants according to their relative harm to human health, and we believe that this needs to be done and incorporated into the drinking water indicator.

Furthermore, the tool does not include information regarding raw contaminant levels that would allow us to better understand the actual levels and impacts of indicators. Simply by way of example, it seems that a community (A) may be at the 95th percentile of cadmium, yet still testing below the public health goal, while another community (B) may be testing at the 80th percentile for arsenic yet exceeding the public health goal. Despite the increased health risk of the exposure to arsenic, community B's exposure would effectively have less weight in overall scoring than community A's exposure. This results in a misleading indicator that does not accurately show safety of drinking water across census tracts.

ii) Drinking water scarcity should be included in the indicator, and rationale for including selected contaminants should be explained.

We also recommend that water reliability as measured by groundwater scarcity for drinking water and access (or lack of access) to emergency water connections be incorporated as an indicator. For some Central Valley communities, the combination of groundwater mismanagement and drought has caused water supply to be a more pressing concern than water

quality. In Tulare County alone, more than 1600 private wells have gone dry since 2014, causing critical situations for disadvantaged communities, who are the least equipped to deal with this type of emergency.

Additionally, while we agree that nitrate, perchlorate, and arsenic are some of the most serious and common contaminants impacting small, disadvantaged communities, it is unclear why these three contaminants are highlighted in the “Rationale” section of the CalEnviroScreen report but the remaining ten indicators are not, especially if these contaminants are not weighted in terms of toxicity. We suggest OEHHA include mention of the other contaminants in the “Rationale” section, or provide explanation as to why nitrate, perchlorate, and arsenic are specifically highlighted.

iii) Water System Boundaries data should be shared so that households and regions may be accurately included.

We commend OEHHA’s attempts to locate households within a water system’s self-defined boundaries that are not actually served by the water systems. However, we are unable to decipher the extent to which the updated tool better defines service boundaries and thus are unable to decipher which communities are incorrectly attributed to a water system. We are more than willing to help identify these communities, and we urge OEHHA to send us the data on water system boundaries so that we may help with this process as soon as possible.

In particular, we have noticed severe water crises that are not highlighted in the data and the tool. For example, the Lake of the Woods aquifer is severely impacted and is running out of water; the region has one water system with no water and 3 systems with high nitrates. In addition, the InyoKern area aquifer is severely impacted and has a highly vulnerable population, yet the region is not highlighted in the tool. This means that existing data must be corrected, or OEHHA should provide a mechanism for continued dialogue through which communities and community based organizations can report such information to OEHHA so that data and methodology can be improved.

On a related note, we do not believe that state smalls and private wells will report MCL violations or Total Coliform detections. If this is in fact the case, the drinking water indicator will reflect artificially low counts for communities reliant on state smalls and private wells even though they are likely to be impacted by Total Coliform and exceedances in water quality standards.

F. Impaired Water Bodies indicator should reconsider its calculus of pollutants, and should take insufficient surface flow into account

For the impaired water bodies indicator, we understand and commend OEHHA’s goal to measure the impact of polluted or impaired water bodies on communities’ health, livelihood and recreational activities. However, we believe that the indicator’s methodology does not speak as directly as it should to community impact.

Each census tract was scored based on the sum of the number of individual pollutants found within and/or bordering it. For example, if two stream sections within a census tract were both

listed for the same pollutant, the pollutant was only counted once. This should be revised to more directly reflect the impact that waterway pollution has on the community itself, and not the census tract in general. Since in this case the communities living around and in between these waterways will be impacted twice as often by coming into contact with twice as much polluted surface, the pollution should be added together instead of being averaged across the census tract.

Also, if the goal of this indicator is to measure the impact of impaired water bodies on communities' activities, this indicator should also measure impaired surface flow (*quantity* in addition to quality) because this affects the availability of the water resource.

G. OEHHA must ensure accuracy of air quality testing for air quality indicators.

We are pleased that CalEnviroScreen 3.0 has changed the ozone indicator so that all air quality indicators (ozone, PM 2.5, and diesel) are measured in all census tracts regardless of whether or not they are below the state's standard for these air pollutants. (inclusion of below-standard levels of ozone) We also commend the inclusion of new air monitoring sites and ozone and PM 2.5 concentrations for census tracts more than 50 km away from monitoring sites using satellite data.

We urge OEHHA to remain cognizant of the need to increase the accuracy and adequacy of air monitoring. In one of our conversations with OEHHA staff, it was mentioned that they might include a layer that shows where the air monitoring sites are. We highly encourage this layer to be created, so that gaps in monitoring can be identified and civil society, academia and OEHHA can work together to find solutions to closing those data gaps.

We are also concerned about the decision to change Diesel Particulate Matter measures to only calculate estimates for those census blocks within census tracts where people are living. Since diesel contamination is airborne and easily moves between census blocks, it seems reasonable that areas even where no human populations live should be added into this calculation. These areas still present a threat to the surrounding human populations.

OEHHA should also consider including measures of PM 10 in order to catch the smoke particles and fugitive dust and other respirable particles in the 2.5-10 μ g that are not captured within PM 2.5 but are known to carry chemical and other pollutants harmful to human health. This data could be collected using satellite data where necessary.

H. Health indicators should be reconsidered to more accurately reflect reality in rural communities

We commend the addition of cardiovascular health as a health indicator in CalEnviroScreen 3.0, and improvements in the scope of the asthma and low birth weight indicators. However, for rural communities this data will be distorted by the fact that these communities lack access to the medical facilities where this data is measured. OEHHA should consider including lack of access to health care facilities as an indicator based on MUA and HPSA score data, including the ratio of health providers to resident in census tracts, or weighting health indicators based on access to the kinds of healthcare facilities used to measure the data. We also suggest that OEHHA consider

mortality or performance on required state fitness tests in 6th grade and freshman year as more consistent measures of health vulnerability across urban and rural populations.

For the low birth weight indicator, we are concerned that the data could be skewed if OEHHA is using PO Boxes to measure where low birth weight is happening, since rural residents often have a PO Box located far from where they actually live. Additionally, data collected based on residents' zip code could dilute results for more vulnerable communities within large zip code areas.

I. Rent burden must take other essential costs into account.

Rent burden alone does not show the reality of the cost of living for many residents. In order for this cost to be more fully conveyed, the indicator should also include the cost of transportation, household utilities, and water and wastewater bills. Residents living in mobile homes, for example, often pay more in electricity bills than they do in rent, so considering this cost is essential to capturing a more complete picture of the financial realities that many residents face. In the East Coachella Valley, Central Valley, and beyond, many residents have a deeper economic burden for transportation because they live far from grocery stores, hospitals, and schools. Utilities can also be more costly in these areas. We propose that OEHHA reference the methodology and data used in United Way's "Struggling to Get By: The Real Cost Measure in California 2015" study, which also takes into account costs such as food, transportation, and utilities, which all constitute essential costs of living.

J. Additional population vulnerability indicators should be considered.

In order to fully show the reality of socioeconomic vulnerability in disadvantaged communities in California, we encourage OEHHA to include lack of access to transportation for low-income communities, park acreage per 1000 persons, number and proximity of grocery stores to populations within census tracts, ratio of white collar to blue collar jobs, and distance from schools and higher education campuses to highlight vulnerabilities in communities' built and transportation infrastructure. Also, voter turnout in census tracts should be included to show civil and political vulnerability, since this vulnerability inhibits communities' ability to take action to address emergencies and their vulnerability to environmental harm.

K. Questions for further discussion

The following are questions that we have about various factors in the calculation of indicators, which we feel may be impacting the appearance of disadvantaged communities on the CalEnviroScreen 3.0 map. We would appreciate OEHHA's response to these questions and would like to continue discussion of these items if necessary.

1. Air Quality:

- a. Why is the methodology so different for measuring these indicators? Can data and methodology be more uniform for all of the air quality indicators?
- b. Is the way that air quality data is averaged out for whole census tract diluting drastic contamination of certain population groups within census tracts?

2. **Toxic Releases from Facilities:** We notice that this indicator only includes air contamination from these facilities, instead of also including data on land and water contamination, and also does not include data from smaller facilities. Why were these restrictions made on the indicator, and what can be done to expand the breadth and depth of this indicator?
3. **Hazardous waste generators and facilities:** We noticed that only large generators were included in the data for this indicator, and no facilities were included that were more than 1,000 meters from populated census blocks. How and why was this 1,000-meter cutoff set?
4. **Contaminated sites:** We see sites without a valid latitude and longitude or unrecognizable address were excluded from the analysis. How does OEHHA think this impacted results?
5. **Groundwater:** Why are LUST and military leakage sites not included if they are further than 250 feet from populated census blocks? How and why was this cutoff determined?
6. **Formula for calculating demographic characteristics:** Can we please get more clarity on the equation laid out to demonstrate reliability of data for demographic characteristics (education, linguistic, unemployment, income, rent adjusted income)? We are concerned that despite this calculation the underlying ACS data is still unreliable.
7. Is industrial pollution like oilfield air and waste being taken into account?
8. What census period is being used to measure population: 2010 or the current 2015 five-year average?

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We look forward to working with CalEPA and OEHHA to ensure CalEnviroScreen 3.0 accurately reflects the severe vulnerabilities in the Central Valley and East Coachella Valley regions of California, so that adequate funds can be devoted to mitigating and preventing harms to these communities and addressing their particular vulnerabilities. We would be eager to provide more feedback based on the experiences of the residents and communities with whom we work. Please contact Amanda Monaco at amonaco@leadershipcounsel.org with any further questions.

Sincerely,

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