
California Rural Legal Assistance Foundation

October 16, 2012

John B. Faust, PhD
Office of Environmental Health Hazard Assessment
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RE: Comments on Cal-Enviro-Screen

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Dear Dr. Faust:

These comments are submitted by California Rural Legal Assistance Foundation and California Rural Legal Assistance, Inc. California Rural Legal Assistance Foundation is a statewide organization which provides community outreach and education, public policy advocacy, litigation support, and technical and legal assistance for California's rural poor. We target our work in the areas of agricultural workers' health, civil rights, education, labor & employment, immigration & citizenship, pesticides & worker safety, rural housing and sustainable communities. California Rural Legal Assistance, Inc. is a statewide organization, representing low income individuals, families, and communities throughout rural California. Specifically, our Community Equity Initiative seeks to address and eliminate infrastructure and service disparities and deficiencies in disadvantaged, low income communities and, accordingly, address and eliminate barriers to necessary funding and financing for basic infrastructure and services.

We appreciate all the hard work which OEHHA has put in to developing this Cumulative Impacts Screening Tool. As you have heard directly from members of impacted communities during recent workshops, there is an urgent need for fair and complete evaluation of cumulative impacts and vulnerabilities in California communities. Any tool or tools developed need to be used to get assistance to the most heavily impacted communities to reduce existing impacts and prevent additional ones.

We recommend the following modifications to the tool, followed by publication of revised maps on the OEHHA website for public review. Revised maps should be posted on the OEHHA website with email notification that they are available for public review so people can "ground truth" the tool to judge how well it captures vulnerabilities and impacts in their neighborhoods and communities. The maps should include all regions of the state at the level of detail provided in the individual area maps already circulated. We are particularly interested in additional maps that allow detailed review of indicators for the entire Central Valley and Coachella Valley, broken down into several maps.

We recommend that OEHHA verify the accuracy of maps used for Imperial County. The maps released by OEHHA on September 28, 2012 indicate that all of Imperial County is within census ZIP codes, including large tracts of land that are uninhabited (e.g., the naval artillery range in the Chocolate Mountains). This appears to be inaccurate and leads us to believe that the Imperial County maps should be reexamined to ensure the reliability of the information contained therein.

The academic panel expressed general support for simplifying the model to two categories of environmental stressors and vulnerabilities and for moving public

health effects from the environmental stressor category to vulnerabilities category. This approach should be explored with the added adjustment recommended by Dr. Solomon of increasing the multiplier for the vulnerabilities category so each indicator retains equal weighting.

Census tract would be a better unit of analysis than zip code and the model should be scalable

Use of zip code will not provide an adequate level of resolution in many rural communities because zip codes spread over too large a geographic area. Use of census tract will provide for more accurate assessment of both impacts and vulnerabilities. Valid methods for adjusting data collected at the zip code level to the census tract level have been used in the environmental justice screening tools developed by Dr. London, Dr. Morrello-Frosch and their colleagues. For maximum usefulness for communities and local governments, the tool should have a scalable ranking system, so that it can be applied at statewide, regional, citywide, or smaller scales, depending on how it will be used.

Pesticide use is an essential environmental indicator in rural areas

It is vital to include pesticide use in this analysis for complete and accurate assessment of environmental exposures rural areas. Detectable levels of pesticides have been monitored more than a mile from fields where they are applied and accidents happen all too frequently, resulting in exposures causing acute illness symptoms.

The draft list of pesticides does not adequately account for exposure to highly toxic but low volatility pesticides which adhere to soil particles resulting in exposure through dust. At minimum the pesticides associated with elevated rates of Parkinson's disease in peer reviewed studies (paraquat, maneb and ziram) should be added to the analysis. When drinking water quality is added to the tool, those currently used pesticides which are known to contaminate drinking water should at minimum be added to the list.

Add Linguistic Isolation to Vulnerability Indicators

Linguistic isolation has been included in other EJ Cumulative Impact Models and should be added as a vulnerability indicator because linguistically isolated populations are less likely to receive and understand advisories and warnings about air and water contamination and have more difficulty accessing health care and communicating with health care providers. For example, at the August 7th CIPA meeting it was reported that the multi-lingual warning system around the Chevron plant the night before had failed so that non-English speakers didn't receive the warning to close windows and shelter in place after the explosion.

In the future, add work-related exposures as an indicator

The data in the draft Cal-EnviroScreen focus on residential exposures to environmental health hazards. However, a number of occupations can give rise to job-related exposures, some of which might follow a worker home in the form of pesticides or other chemicals on hands or clothing. We recommend that in the future OEHHA utilizes US Census, American Communities Survey (ACS) data to develop an indicator on job categories that are likely to give rise to occupational exposures, such as agriculture, heavy industry, or hazardous waste disposal.

Add a housing quality indicator

It is broadly recognized that substandard housing is implicated in many health conditions, including asthma and exposure to vector-borne infectious diseases. We urge OEHHA to include an indicator reflecting the impact of housing quality on residents' health. Given that many thousands of rural Californians live in owner-occupied mobile homes, which age faster than conventional housing structures and are often served by inadequate infrastructure over which the mobile home owner has no control, we urge OEHHA not to rely on homeownership rates or age of housing stock as a complete proxy for housing quality.

Develop a drinking water quality indicator that recognizes the needs of rural Californians relying on private wells

We join the Community Water Center (CWC) in urging OEHHA not only to incorporate an indicator related to drinking water quality, but also to ensure that this indicator does not overlook rural areas by relying solely on data reported to the California Department of Public Health (DPH). Private wells in

California – including almost all wells serving small mobile home parks that house much of the state’s agricultural workforce – are not required to monitor their drinking water quality or to report to DPH. We therefore recommend that OEHHA not rely solely on DPH data in developing its drinking water indicator. Instead, the drinking water indicator should incorporate data from sources that track the quality of drinking water from private wells, using appropriate statistical methodology to extrapolate from existing data as necessary.

Additional factors to consider in developing a drinking water quality indicator

Proximity to dairies and other Confined Animal Feeding Facilities (CAFOs) should also be incorporated in the drinking water quality indicator.

Physical conditions of infrastructure systems should be considered to identify vulnerabilities beyond the quality of water. Low income communities throughout California are being provided water through deteriorating water delivery systems. While it is difficult to ascertain the status of state of physical infrastructure, Municipal Services Reviews of public drinking water systems in the state conducted by Local Agency Formation Commissions in each county may provide such information. Vulnerability of communities and mobile home parks relying on one well for drinking water service should also be incorporated into the indicator. Relying on one well leaves many extremely vulnerable to not having access to drinking water should the well experience malfunction. Septic system leakage and/or failure can pose a significant health risk, particularly threatening the safety of private wells and public drinking water systems. Data on reported septic system leakage, overflow, and/of failure should be available from most California counties. We recommend that an indicator on septic system leakage, overflow, or failure be included, though with a caveat that septic systems are generally not subject to regular inspection and any data obtained from county officials is likely to produce an undercount of actual septic system problems.

Add National Air Toxics Assessment (NATA) Model Data

Some or all components of the NATA Model data including diesel and possibly chromium and lead exposure modeling should be added to the environmental indicators along with estimated cancer and neurological disease risk to improve assessment of exposure to toxic air contaminants and to help fill the data gap in rural areas that are more than 50 km from air monitoring stations.

Include contents of leaking underground storage tanks (LUSTs) as one factor in the LUST indicator

The existing LUST-related indicator states that sites were weighted based on “site type and status.” However, the contents of the LUSTs appears not to be a factor in this analysis. We recommend that OEHHA address the question of whether it would be appropriate to incorporate the contents of the LUSTs as one factor in determining the LUST score for each geographic unit.

Retain the existing Solid Waste Sites and Facilities/Hazardous Waste Facilities indicator

In the Memorandum issued concurrently with the release of the draft Cal-EnviroScreen, OEHHA and Cal/EPA stated that they did “not want to equate proper disposal and storage of hazardous materials with toxic releases to air and water” and therefore solicited “input to make this distinction clearer.” We are concerned that a weakening of the draft Solid Waste Sites and Facilities/Hazardous Waste Facilities indicator would fail to consider the fact that even proper disposal or storage of these materials can increase the risk of exposure to nearby communities, in case of natural disaster or other events that might cause existing safety systems to fail. We therefore recommend that OEHHA retain the existing indicator rather than excluding any of these sites from consideration in Cal-EnviroScreen.

Add access to health care as a Socio-economic Factor indicator

Lack of health care coverage is a major impediment to addressing health impacts caused by environmental exposures. We recommend that OEHHA add an indicator reflecting the percentage of uninsured and underinsured residents in each geographic unit. Given that Medi-Cal in some rural areas must travel 50 miles or more in order to access a hospital that accepts Medi-Cal, we recommend that distance to a Medi-Cal hospital be considered as one component of the category of “underinsured.”

Consider Extreme Poverty as a Socio-economic Factor

We urge OEHHA to use both the percent of population with income below twice the poverty rate and below the poverty rate in measuring socio-economic levels and eliminate the median household income indicator from the socioeconomic component score. We have found, particularly in rural areas, that median household income (MHI) figures are not representative of what is actually occurring and are concerned that using MHI may not accurately reflect what is occurring. For example, ACS data states that the MHI for the community of Tooleville in Tulare County to be \$43,977 with a margin of error of +/-101,562. This MHI figure for Tooleville is particularly concerning because Self Help Enterprises conducted an Income Survey in 2005 that found Tooleville's MHI to be \$15,500. Additionally, some low income communities are included in census tract and/or block groups together with wealthier neighborhoods that cause the aggregate MHI to be significantly higher than what it actually is. While there is a general undercount in poverty levels as well, we suggest to use this measure (below poverty level and 2 times below the poverty level) as an indicator to ensure that the focus is on the areas with greater needs.

Proximity exposure estimates need to be consistent

Exposure indicators in proximity but over zip code (or census tract) boundaries need to be more consistent and for some indicators include bigger buffer zones. For example there is no buffer for underground storage tanks in the proposed model. Furthermore, cross-border impacts (potential exposures from sites that are outside the State of California due to state, national, or tribal boundaries) should be tracked by incorporating data on pesticide use, toxic releases, leaking underground storage tanks, etc. in jurisdictions that border or are surrounded by the State of California.

Include more sources of environmental pollution

Diesel rail lines, ports, airports, rail yards, shipyards, and refineries are major sources of pollution which should be added to the screening tool along with localized sources such as chrome plating and auto body shops.

Add a measure of diesel particulate matter

It is important to include a measure of diesel particulate matter exposure for two reasons: (1) Diesel PM is the air pollutant of greatest concern in communities with heavy port, rail, and truck traffic, and has been identified by ARB as the cause of about 70% of cancer risk from ambient air in California; and (2) Diesel PM may have a hot spot distribution effect. According to the US EPA's *Health Assessment Document for Diesel Engine Exhaust*, "Nationwide, data in 1998 indicated that DE as measured by DPM made up about 6% of the total ambient PM2.5 inventory (i.e., particles with aerodynamic diameter of 2.5 micrometers or less) and about 23% of the inventory, if natural and miscellaneous sources of PM2.5 are excluded.

Public health indicators should utilize disease incidence rates rather than mortality rates and life expectancy should be added as a health indicator

Incidence rates, rather than mortality rates should be used for cancer and heart disease rate indicators because these diseases increase vulnerability even when they are not fatal. We also urge you to consider adding life expectancy as a health indicator.

Enhance transparency by including more information regarding methodology

We applaud the efforts thus far to engage and educate the public about Cal-Enviro-Screen. However, we feel that greater transparency could be achieved by incorporating more information about the methodology used in preparing the tool. Specifically:

- 1) Explain the reasoning behind the selection and scoring and any weighting used in Cal-Enviro-Screen (e.g., the reasoning behind the relative weights of the various components discussed on p. 4; weighting of cleanup sites mentioned on p. 34 are not well detailed in the draft.).
- 2) At the August CIPA meeting, Anne Katten of CRLAF expressed concern that excluding air monitoring data for monitors which reported less than 75% of expected observations might create a bias, for example if rural monitors tend to be older and break down more frequently, or if monitors in the most polluted areas become clogged. OEHHA committed to checking whether

excluding data from these monitors created any bias. Results of that analysis should be disclosed along with any additional information available on reasons monitors reported less than 75% of expected observations.

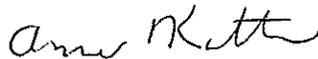
3) State specifically the schedule on which data and maps will be updated.

Early Uses of Cal-EnviroScreen

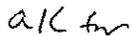
We recommend that Cal/EPA and its constituent Boards, Departments and Offices utilize Cal-EnviroScreen in making decisions about allocation of resources for monitoring the various indicators addressed in Cal-EnvironScreen, particularly the exposure and environmental effect indicators (for example, communities with high cumulative impact scores should be prioritized for receiving additional air quality monitors in order to gain a more detailed understanding of those communities' exposures to poor air quality).

Finally, it is critical that this tool is finalized soon and put into use to prevent and reduce cumulative impacts in both rural and urban communities facing high levels of vulnerabilities and exposure to toxics.

Sincerely,



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