May 14, 2021

Sofia Mitchell
Office of Environmental Health Hazard Assessment
P. O. Box 4010
Sacramento, California 95812-4010

RE: CalEnviroScreen 4.0 Comments from San Joaquin Valley and Eastern Coachella Valley Organizations and Residents

Dear Sofia Mitchell and CalEnviroScreen team:

The undersigned organizations respectfully submit these comments in response to the draft CalEnviroScreen 4.0. CalEnviroScreen (CES) is a valuable tool for identifying communities experiencing the most severe pollution burden and environmental health detriments in California. Leadership Counsel for Justice & Accountability works alongside low-income, disadvantaged, and vibrant communities of color across the San Joaquin and Eastern Coachella valleys to ensure that community residents have a voice in development and investment decisions--decisions which directly impact their environmental health and the severity of pollution burdened sought to be measured by CES. The following recommendations for the CalEnviroScreen 4.0 update are derived from this work with community leaders across inland California, and aimed to ensure that communities' vulnerabilities to environmental harms are depicted accurately by CES. We hope OEHHA will look to the California Environmental Justice Alliance's letter for additional feedback on the draft CES 4.0. We strongly urge OEHHA to incorporate these recommendations and concerns so that this newest version of CalEnviroScreen accurately depicts the vulnerabilities of disadvantaged communities in the state.

We would be remiss not to briefly discuss a mainstream belief embedded into environmental justice work at the state level, and the rationale from which CalEnviroScreen has

also been produced. CES is an important tool available now in that it increases awareness of the disparity of pollution and socioeconomic burden in California. Beyond CalEnviroScreen's important use now, we urge the state to think beyond relative frameworks of addressing disproportionate harm, and to take exceeding care not to reinforce a deficit perspective of communities experiencing the devastating levels of pollution in our state, who also offer grounded expertise, knowledge, and resilience that we should choose to systematically learn from as well.

We thank OEHHA and CalEPA for reaching out to disadvantaged communities and non-profit organizations working with local communities. We commend your commitment to creating a comprehensive tool to address cumulative vulnerabilities based on environmental and demographic factors, and we particularly thank Andrew Slocombe, Laura August, Walker Wielandand, and their colleagues for their willingness to consult with us on the updates to CalEnviroScreen.

We look forward to conversing further about our inquiries below, and to the opportunity to review the underlying data upon which CES has based its scores. We hope that OEHHA and CalEPA will continue to be open to further dialogue as more information becomes available and as the tool's information and use evolves.

I. Draft 4.0 Materials and Accessibility of Data

The power of CalEnviroScreen rests with its core purpose of making environmental health data widely accessible to the public. Because of the power that data has in environmental justice advocacy, we firstly recommend that the public have a means of accessing or requesting the datasets that comprise the calculations going into each indicator. This will be crucial to pinpoint the shifts between 3.0 and 4.0, and to incorporate real calculations of environmental pollution and health burdens in our advocacy to achieve justice for the overburdened communities identified in CalEnviroScreen.We hope that this is one purpose that the forthcoming Data Dashboard will serve, and we additionally recommend that the Data Dashboard serve as a comprehensive base by which the public can view together all the data of the 4.0 update--including all percentile data, age data, unique data from the individual indicator maps, and data from the Race & Ethnicity analysis and map.

II. Data Limitations and Inaccuracies With Respect to Rural Communities

We remain concerned about the accuracy of representation of vulnerable rural communities as a result of data gaps and potential imprecision of certain data sets as indicators of conditions in rural areas. First, in rural areas, the use of large census tracts may obscure the particular vulnerabilities of small rural communities. In our comments on OEHHA's draft

CalEnviroScreen 3.0, we proposed that OEHHA consider 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. We offer that suggestion again for your consideration.

Second, the geographic isolation of rural communities and differences between rural and urban practices make certain data sources used in CalEnviroScreen 4.0 questionable reflectors of conditions in rural communities. For example, lack of air quality monitoring in some rural regions inaccurately assesses air pollution. And, as noted in the draft CES 4.0 Report, isolated rural communities often have less access to health care facilities and therefore the indicators for asthma may skew artificially low for these areas. With respect to the indicator for cardiovascular disease, the Report supports the use of ER visits for heart attacks on the basis that these events almost always result in an Emergency Department visit. However, we question the accuracy of this assumption for rural areas where timely transportation to ERs may simply be unavailable and mortality from heart attacks may be higher as a result. Finally, the tool's reliance on home addresses may undercount the low birthweight metric since many people in rural areas rely on post office boxes.

We ask that OEHHA include in the final report an assessment of the extent to which these and other potential data gaps and inaccuracies with respect to rural areas individually and cumulatively impact the draft CES 4.0's scoring of rural communities and determine whether improvements may be made to address them. We also suggest that OEHHA identify and prioritize data needs which would improve the tool's accuracy with respect to rural communities, so that agencies, the public, and legislators can consider options and resources required for creating new sources of data.

III.   Indicator Recommendations

PM 2.5, Ozone, and Diesel PM Indicators

We are pleased to see the inclusion of satellite data for the PM 2.5 indicator, and urge OEHHA to explore satellite monitors of ozone as well, so that this same methodology can be applied to the Ozone indicator. We also strongly recommend that a PM 10 indicator be added to CES 4.0 as well, considering PM 10 has unique health impacts and sources. PM 10 pollution is also concentrated in certain regions of the state like the San Joaquin Valley which experiences disproportionate dust pollution during harvest seasons.

We appreciate the calculation of total diesel particulate matter emitted for each census tract in the Diesel PM indicator layer. Just as the other air quality indicator maps show pinpointed sources pollution, we recommend that the Diesel PM layer show locations of sources

from the four sectors included: area, point, on road mobile, and ocean going vessels. We recommend that this layer also show locations of indirect sources that attract heavy duty trucks, including distribution centers, warehouses, and logistics facilities. Finally, we recommend that the Diesel PM layer display on overlay of truck routes in the state, including frequently used routes between the designated truck routes and local indirect sources attracting a considerable amount of diesel truck traffic.

On the air quality indicators generally, we would like to confirm and ask that data from non-CARB and community air monitoring networks be incorporated into CalEnviroScreen's calculations. Numerous organizations have received CARB community air grants to set up local air monitoring networks, including in the San Joaquin Valley, and we would like to ensure that the data created from these local community organization-operated monitoring networks are incorporated into CalEnviroScreen. We additionally ask that the Ozone and PM 2.5 layers visually display which census tracts did not have an air monitor within 50 kilometers of them, and therefore relied on data from a neighboring census tract data. This should be visually displayed for other indicator maps where neighboring census tract data is used in the methodology too, as it will help inform agencies and advocates about where more monitoring and data collection are needed in the state.

We noticed that the following communities' percentiles dropped considerably from 3.0 to 4.0, and would like to request information on what is driving this change at their census tract levels.

- Ozone: Northshore, Oasis, Thermal, Mecca, Shafter, Wasco, Cantua Creek, Lanare, Fairmead, South Fresno, Matheny
- PM2.5: Oasis, Thermal, Arvin, Cantua Creek, Lanare, Fairmead,
- Diesel PM percentiles: South Fresno

Pesticide Use Indicator

Many communities across the state, including those in heavy agricultural regions of the San Joaquin & Eastern Coachella valleys, are disproportionately burdened by exposure to synthetic pesticides, which can severely harm community and worker public health, deteriorate air and water quality, and threaten biodiversity. It is critical that OEHHA continues to include updated pesticide data in CES. Overall, we strongly support the inclusion of additional pesticides in CES 4.0, including fumigants, which are likely to be involved in health-harming pesticide drift incidents. However, we have concerns about the exclusion of two pesticides, glyphosate and paraquat, in particular. Glyphosate is widely used (over 11 million pounds in 2018) and is identified as a carcinogen under Proposition 65[1]. Paraquat is also widely used (over 1 million pounds in 2018), is so acutely toxic that paraquat products state "Danger - one sip can

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[1] https://oehha.ca.gov/proposition-65/chemicals/glyphosate

kill."[2] Paraquat exposure has been linked to increased risk of Parkinson's disease[3], and concerns remain about its persistence in soil and potential to transport in dust[4]. While not high volatility chemicals, these pesticides pose significant hazards to California communities. For these reasons, we suggest that OEHHA add these two additional chemicals to the pesticide indicator in CES 4.0.

Finally, we support OEHHA's efforts to find accurate data about school pesticide use for inclusion in future iterations of the CES tool, as pesticide exposure at school and other sensitive sites is an unacceptable reality that we must address and for which this type of data can help inform solutions.

Drinking Water, Groundwater, and Impaired Waters Indicators

Similar to pesticides, many communities in the heavy agricultural regions of the San Joaquin & Eastern Coachella valleys are disproportionately burdened by contaminated water and/or lack of access to water in general. While it is a great step forward that OEHHA has included a lot of new data from a variety of sources, some questions still remain. First, upon review of the Drinking Water Contaminants section, it was unclear how/why the subset of contaminants used for metric calculations were selected. It is our suggestion that if possible, all primary drinking water contaminants for which the state has data, be included in this metric. Additionally, for groundwater levels, data should information from all monitoring wells used by GSAs. It is currently unclear if that data is already included.

In regards to groundwater threats, we commend OEHHA for the inclusion of dairies and feedlots in the groundwater threats analysis. One thing to note however is that groundwater threats are not limited to pesticide exposure or land contamination. Threats to groundwater can also come from the lowering of groundwater levels, as in the case of nitrates. To address this, OEHHA should include California Statewide Groundwater Elevation Monitoring (CASGEM) data as well.

Last, as per our previous suggestions, the drinking water indicator and impaired water bodies indicator should reconsider its calculus of pollutants to include insufficient surface flow into account. This is becoming an increasingly important concern as surface water flows continue to be impacted by increased supply use and the strain of drought on surface flows. It also appears that data from the National Water-Quality Assessment data for Total Maximum Daily Loads produced by the USGS is missing and should be included in the impared water bodies indicator.

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[2] https://www.cdpr.ca.gov/docs/dept/prec/2020/011720_minutes.pdf
[3] https://www.jstor.org/stable/41474280?seq=1#metadata_info_tab_contents
[4] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6689968/

Noise Pollution Indicator

We strongly support the recommendation raised at the April 19th Imperial and Coachella Valleys workshop in which a community member suggested that a new noise pollution indicator be created. Communities we work with in the Eastern Coachella Valley, like Thermal, have brought up the harms of noise pollution before--from airplanes, diesel trucks, and racetrack noise pollution--and requested that there be a systematic way to show how disproportionate the noise pollution in their areas is.

Sensitive Population Indicators

We are concerned the data for the health indicators--asthma, cardiovascular disease, and low birth weight--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 Medically Underserved Area (MUA) and Health Professional Shortage Area (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.

Additionally, because environmental pollution directly impacts a person's lifespan, the mortality rate for certain respiratory, cardiovascular, and cancerous diseases should be considered in the calculation of the health indicators, or represented in a new mortality indicator, using the state's mortality data that is already collected.

We noticed that the asthma percentiles dropped considerably from 3.0 to 4.0 for the communities of Northshore, Oasis, Thermal and Mecca in the Eastern Coachella Valley, and would like to request the data going into this indicator to better understand what is driving this change at their census tract levels.

Housing Burden Indicator

Housing prices in certain areas of California have been rising rapidly over the past few years. We note that the Housing Burden indicator use of 2012-2016 CHAS data fails to capture more recent significant changes in rent burden in areas impacted by rising rents. Indeed, certain census tracts which encompass disadvantaged neighborhoods and communities in the San Joaquin Valley and East Coachella Valleys appear to rank artificially low for Housing Burden, given rapid rent increases over the past few years and during the COVID-19 pandemic in those areas and information communicated to us by residents about untenable rent burdens they are facing. These neighborhoods and communities include, for example, portions of South Merced, including Census Tracts 6047001502, 6047001503, 6047001601 which rank respectively 50th,

55th, and 61st percentile for Housing Burden. The moderate housing burden rankings for South Merced are at odds with data and reports finding sharp housing price increases in Merced as compared to other areas of the state and country over the past few years.[5] We encourage OEHHA to assess the availability of more recent data which may more accurately reflect current housing burdens across the state.

Regarding the inputs to the indicator itself, we note that the Report states that utilities are considered as a component of Housing Burden but does not specify which utilities this includes. We agree that the inclusion of utilities is an essential component of households' housing burden, including both wet (water and wastewater) and dry utilities (electricity, natural gas, internet, and telephone services). We request that OEHHA confirm which utilities are included in this indicator and whether it reflects the cost of water and wastewater service for households reliant on domestic wells and/or septic systems, as many households in urban fringe and rural areas are. These costs may include but are not limited to the cost of bottled water where well water fails to meet safe drinking water standards, costs associated with drilling deeper wells necessitated as a result of groundwater depletion, and costs of periodic septic tank pumping and replacement.

Additionally, we were pleased to see the recent release of CalEPA's Pollution and Prejudice report, and urge OEHHA to add functionality to the Housing Burden layer in CES 4.0 to show how communities have faced discrimination and redlining in their planning, beginning in the 1930s and on.

Other Socioeconomic Factor Indicators

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, 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.

IV. Outstanding Questions for Continued Discussion

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[5]*See* Shawn Jansen, Merced-area real estate prices continue to surge amid the COVID-19 pandemic, September 18, 2020, Merced Sun-Star, discussing "sky-rocketting housing costs" in Merced and influx of Bay Area buyers with remote work options due to the COVID-19 pandemic, available at https://www.mercedsunstar.com/news/local/article245672335.html#:~:text=For%20example%2C%20the%20median%20price,price%20in%20Merced%20was%20%24279%2C000.&text=%E2%80%9CPrices%20have%20skyrocketed%20in%20Merced,Association%20of%20Realtors%20board%20president; Merced Housing Profile, Redfin, showing housing prices up 13.4% between 2020 and 2021, available at https://www.redfin.com/city/11970/CA/Merced/housing-market

A) Assessing change over time

We believe it would be valuable for OEHHA to provide information demonstrating comparative changes in pollution burden across census tracts over time. This information could help the public and decision-makers to assess progress being made to address disproportionate burdens impacting disadvantaged communities and potential areas of concern. Updated rankings released with each new version of CalEnviroScreen do not provide a clear picture of comparative changes in pollution burden across census tracts because of changes in the tool. We recommend that OEHHA make data and analysis available with this information.

B) Questions and concerns for continued discussion relating to specific indicators

Toxic Releases from Facilities

The Draft Report states that the U.S. EPA maintains a TRI on-site releases to air, water, and land and underground injection of any classified chemical, yet the Toxic Releases indicator only incorporates air emissions data. We would appreciate information from OEHHA about its decision not to include data relating to water, land, and underground injection data also available through TRI.

Clean Up Sites Indicator

We have a few questions relating to the Report's discussion of the Clean Up Sites Indicator. First, the Report states that "higher weights were applied to sites that are undergoing active remediation and oversight by DTSC, relative to those with little or no state involvement." The Report does not confirm however that DTSC's inactivity with respect to a site means that a site is necessarily less likely to pose a risk to the surrounding community. We would appreciate further explanation by OEHHA regarding the information it based its decision on to apply higher weights to Clean Up sites undergoing active remediation and oversight.

Second, the Draft Report states that clean up sites further than 1,000 meter from populated census blocks were excluded from the analysis. While excluding sites that are remote from human populations seems reasonable, we would appreciate any information OEHHA can provide about its reason for selecting a 1,000 meters cut-off.

Hazardous Waste Sites Indicator

We also have a few questions and concerns relating to the Hazardous Waste Sites Indicator. The Report states that among hazardous waste sites, only large generators were included. We are concerned that this decision might lead to an under-representation of

communities impacted by multiple small waste generators. We request that OEHHA provide us with information about the availability of data regarding the location of small waste generators and the extent to which communities impacted by those generators may be underrepresented in its scoring.

We also note that much of the Central Valley and Inland Empire appear to have relatively few hazardous waste generators and facilities. We wonder whether these apparently low levels may be attributable to the relatively large size of census tracts in much of the region and whether those large census tracts may be obscuring local concentrations of hazardous waste generators. We request that OEHHA provide a response to this question.

Considering Other Housing Conditions As Potential Indicators

We appreciate the incorporation of the Children's Lead Risk from Housing indicator. We want to note that, in addition to lead-based paint, unsafe and unhealthy housing conditions, especially in rental housing, have significant health impacts on low-income renters and residents of disadvantaged communities in California. Some of these conditions which are prevalent in disadvantaged communities in the San Joaquin and East Coachella Valleys include mold, vermin, pests, structural deterioration, inadequate or lacking heating or cooling systems, and inadequate and aging water or wastewater infrastructure. We encourage OEHHA to consider the merit of including additional indicators reflecting the contribution of housing conditions to pollution-burden and resident vulnerability in subsequent versions of CalEnviroScreen, as well as the availability of data that accurately reflects those conditions in communities across California and data sources which might be needed.

V.   Additional Information and Analysis Relating to Race and Land Use Planning

We appreciate OEHHA's analysis of the relationship between race and ethnicity and the draft CalEnviroScreen 4.0 scores and its invitation to the public to inform OEHHA of aspects of this relationship with respect to which further analysis is desired. We would appreciate replication of OEHHA's initial race/ethnicity analysis by individual indicator.

Other information and analysis we believe would provide helpful context to the public and policymakers is the relationship between land use policy, CalEnviroScreen scores, and race. OEHHA's "Pollution and Prejudice: Redlining and Injustice in California," reveals the relationship between redlining practices and the siting of polluting land uses in California. Additional information which would be useful for OEHHA to develop as a mapping overlay to the CES maps is zoning and land use designations with indications of the types of uses allowed as well as links to relevant land use planning documents (e.g., SB 1000 (Leyva) environmental justice general plan amendments; AB 170 (Reyes) air quality analysis and policy amendments

for San Joaquin Valley jurisdictions; specific plans) and compliance status with key laws impacting environmental justice (e.g., SB 1000, AB 170).

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We look forward to working with CalEPA and OEHHA to ensure CalEnviroScreen 4.0 accurately reflects the severe vulnerabilities in the San Joaquin Valley and Eastern Coachella Valley regions of California, so that adequate funds can be devoted to mitigating and preventing harms to these communities and addressing their disproportionate pollution burden. We would be eager to provide more feedback based on the experiences of the residents and communities with whom we work. Please contact Shayda Azamian at sazamian@leadershipcounsel.org with any further questions.

Sincerely,

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