

Secretary Yana Garcia

August 14, 2026

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
1001 I STREET
P.O. BOX 2815
SACRAMENTO, CA 95812

Re: 2026 DAC Designation

Dear Secretary Yana Garcia,

We represent The Upstream Evidence Project, a collective of scientists and policy experts who conduct research and advocacy on behalf of frontline communities. As we have published peer-reviewed research and conducted advocacy specifically regarding CalEnviroScreen and CalEPA's DAC Designations, we appreciate the opportunity to provide public comment on CalEPA's 2026 Disadvantaged Communities (DAC) Designation. Our comments are as follows.

Composite indicators are for exploration, not decision-making

The CalEnviroScreen Score is a *composite indicator*, meaning it is a single score derived from aggregating many different individual components. Using composite indicators as the sole basis for decision-making has long been considered ill-advised by the scientific community, largely due to issues of uninterpretability and subjectivity.¹⁻⁵

One might intuitively view the CalEnviroScreen Score to have a straightforward interpretation: a higher score appears to suggest a higher level of environmental burden. However, there is no inherent meaning to the score—it does not measure any real-life quantity, and there is no way to validate it. In 1993, a seminal critique of environmental composite indicators observed: "Such indexes have no meaning...they have no diagnostic power; effects on one component are eclipsed by responses of other components...Their use in decision making requires an act of faith rather than informed judgment."

As we have found in our own research,⁶ the CalEnviroScreen Score is highly volatile—minor, plausible changes to the algorithm can cause drastic changes to DAC designations. The reasons for this are twofold: (1) constructing a composite indicator like the CalEnviroScreen Score is intrinsically subjective, involving decisions between a large number of judgment calls, such as which variables to include, or how numbers should be aggregated together; and (2) noisiness in the underlying data means that rankings (and therefore DAC designations) can be driven by noise rather than true environmental harm.⁷

The use of composite scores has been justified under the term of *cumulative impacts*—the idea that the total effects of various environmental and social stressors affect wellbeing cumulatively. Cumulative impacts provide an important framework for environmental health, but accurately measuring them remains a challenging problem, and composite indicators are not a scientifically valid method for doing so.^{1,3,4,6}

It is for these reasons that composite indicators like the CalEnviroScreen Score should not be used as the sole basis for consequential decisions such as DAC designation.

Consider more targeted DAC designation

The scientific literature has advanced towards recommending decision-making on the basis of individual indicators while only using composite indicators for descriptive reasons. Colleagues analyzing composite indicators in other application areas, such as country-level development, are increasingly "monitoring the components separately" rather than relying on composite scores for decision-making.⁸⁻¹⁰

We therefore support CalEPA's decision to include tracts with the top 5% of CalEnviroScreen pollution burden scores, as this is a step towards identifying how communities with high scores in certain areas should not be discounted as DACs simply because of low scores in other areas. We recommend CalEPA to take this line of thinking even further, and to consider: should tracts

with the worst levels of water contamination not be considered DACs if they happen to have clean air? Should a community living on an active toxic waste site be discounted as a DAC on the basis that its scores in housing burden were too average?

SB 535 requires CalEPA to identify DACs, but does not specifically require the use of a composite score. In fact, DAC designation on the basis of individual indicators could facilitate better targeting of funding: funding for clean water should go to communities with contaminated water; funding for waste remediation should go to communities near toxic waste sites.

A reasonable analogue would be the previous federal administration's Climate & Economic Justice Screening Tool,¹¹ which identified disadvantaged communities on a single environmental indicator basis, such as granting different categories of disadvantaged status if they were above the threshold in certain indicators. For example, under the water and wastewater category, communities were identified as disadvantaged if they were in tracts that were "at or above the 90th percentile for underground storage tanks and releases OR wastewater discharge AND are at or above the 65th percentile for low income." Doing something similar for California's DAC designations would provide a flexible path that respects the unique experiences of environmental harm faced by different communities while still leveraging the excellent data coverage from CalEnviroScreen.

Conclusion

We support CalEPA's efforts to improve the DAC designation process, and laud the transparency and public engagement in doing so. We appreciate the direction CalEPA is taking in expanding the definition of DAC by including high pollution burden scores, and hope the agency will consider more targeted DAC designations.

Please feel free to contact us at bhuynh@upstreamevidence.org should you have any questions. Thank you for your consideration.

Sincerely,

Benjamin Q. Huynh, PhD

Executive Director, The Upstream Evidence Project

Assistant Professor of Environmental Health & Engineering, Johns Hopkins University

Cassandra C. Chou, ScM

Fellow, The Upstream Evidence Project

Allison Koenecke, PhD

Senior Fellow, The Upstream Evidence Project

Assistant Professor of Information Science, Cornell Tech

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