

CalEnviroScreen 3.0

A Tool For Advancing Environmental Justice

What is the CalEnviroScreen?

CalEnviroScreen 3.0 (or CES 3.0) is the most recent version of the California Communities Environmental Health Screening Tool. It is a place-based cumulative impact screening methodology created by the Office of Environmental Health Hazard Assessment (OEHHA) at the California Environmental Protection Agency (CalEPA). It has gone through several versions and extensive peer review. CalEPA is one of the first state agencies in the country to develop and adopt a strong cumulative impact tool for use in state policy.

What are cumulative impacts and why is this issue important?

The environmental justice movement has long pushed for state and national agencies to develop a more comprehensive way of looking at the range of burdens in communities, not just a single issue. Environmental regulations and decision-making look at pollution sources on a case-by-case basis, but this is not how communities experience pollution. [1]



Low-income communities and communities of color have faced years of poor land-use planning and exposure to toxic emissions. When combined with decades of disinvestment, chronic unemployment and poverty, the result is a disproportionate burden and a cumulative impact that extends beyond any one factor.

The “cumulative impact” framework used by CES 3.0 can “identify communities in California most burdened by pollution from multiple sources and most vulnerable to its effects, taking into account socioeconomic characteristics and underlying health status.”

Why do we need a tool like CalEnviroScreen?

We need to identify areas that are affected by pollution, social and economic injustice, and target these areas for statewide resources, investments, and pollution reduction efforts. CES 3.0 provides one clear, accessible, science-based, and state-approved way to identify and define communities that are disproportionately burdened by multiple sources of pollution.

CES 3.0 is now being used in several statewide policy venues, which highlights a major and important shift: more and more, state policies are creating explicit commitments to the state’s most vulnerable areas, using the term “disadvantaged communities.” For example, CES 3.0 is being used in bills like AB 1550, passed in 2016, to determine which areas in the state are eligible for a 25% set aside of California Climate Investments from the Greenhouse Gas Reduction Fund.

CES 3.0 is also being used in other policy applications, such as environmental enforcement at CalEPA. Increased attention to environmental justice communities is critical to overcome the long legacies of pollution and socioeconomic vulnerabilities that CES 3.0 highlights.

How does CalEnviroScreen work?

CES 3.0 uses 20 indicators to provide a statewide ranking of all 8,000 census tracts in California. Communities with high total CES 3.0 scores have high cumulative pollution burdens and highly vulnerable population characteristics that cause pollutants to become more deadly.

For use in state policy, CalEPA has identified the most overburdened census tracts - the 25 percent of tracts with the highest scores - as “disadvantaged communities.” This covers a broad range of geographic areas in the state. OEHHA is also committed to updating the tool on a regular basis to ensure the most recent data is included.

[1] Office of Environmental Health and Hazard Assessment, Approaches for Identifying Disadvantaged Communities 1 (Aug. 2014), available at <http://oehha.ca.gov/ej/pdf/ApproachesIdentifyDisadvantagedCommunitiesAug2014.pdf>

CalEnviroScreen 3.0 Indicators

Pollution Burden

Exposures

1. Ozone concentrations
2. PM2.5 concentrations
3. Diesel PM emissions
4. Pesticide use
5. Drinking water contaminants
6. Toxic releases from facilities
7. Traffic density

Environmental Effects

1. Cleanup Sites
2. Groundwater Threats
3. Hazardous Waste
4. Impaired Water Bodies
5. Solid Waste Sites and Facilities

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Population Characteristics

Sensitive Populations

1. Asthma ER Visits
2. Cardiovascular Disease (ER Visits for Heart Attacks)
3. Low Birth Weight Infants

Socioeconomic Factors

1. Educational Attainment
2. Housing Burdened Low-Income Households
3. Linguistic Isolation
4. Poverty
5. Unemployment

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CalEnviroScreen 3.0 Score

Local Uses of CalEnviroScreen

CES 3.0 focuses on environmental justice communities: communities that have both a high pollution burden and high socioeconomic vulnerabilities. Therefore, any policy application that has a clear nexus with environmental issues is a clear and strong fit for use of CES 3.0. These include, but are not limited to:

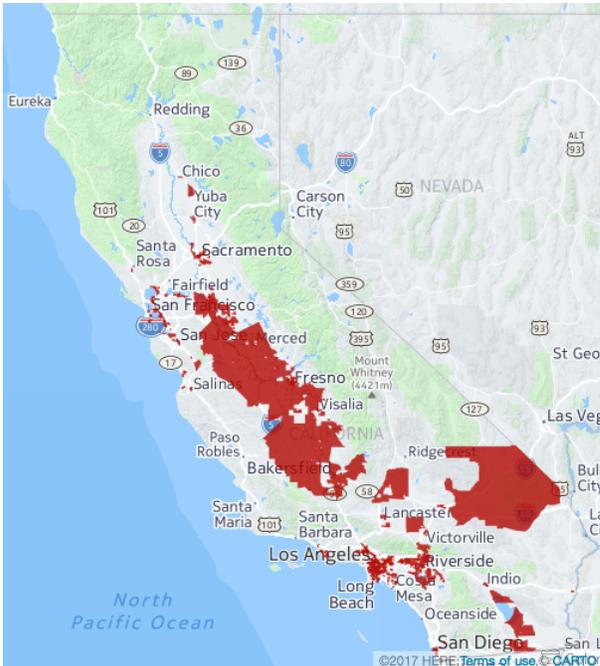
- Environmental enforcement
- Siting, permitting and zoning
- General Plans and other long-term plans

Environmental Health Coalition (EHC) advocated for the City of San Diego's Climate Action Plan to include a mandate that uses CalEnviroScreen to identify the most impacted communities for mitigation and investment.



The CAP defines "underserved communities" as those ranking in the top 30% of CalEnviroScreen scores (which may be regionally ranked) to prioritize for the city's Capital Improvement Program (CIP) investments.

Regions in Top 25% Census Tracts Highlighted by CalEnviroScreen 3.0



What's new in CalEnviroScreen 3.0?

The latest update to CalEnviroScreen demonstrates a determination to continue refining this critical tool and advancing environmental justice. Released in January 2017, CalEnviroScreen 3.0 incorporates recent data for nearly all indicators and improves the way certain indicators are calculated to better reflect environmental conditions or a population's vulnerability to environmental pollutants.

The new version of the tool also adds two new indicators, which measure high housing costs and cardiovascular health. The Housing Burdened Low Income Households indicator shows the fraction of each census tract's low-income households that pay over half of their income for housing. The cardiovascular health indicator shows the rate of visits to emergency departments for treatment of heart attacks.

For more background and CalEnviroScreen 3.0 maps, go to: <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30>

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