

**Appendix 1:
CEJST & CalEnviroScreen Variables**

Climate and Economic Justice Screening Tool (CEJST) Version 2.0 Variables		
Category	Category Variables & Threshold for Prioritization	Socioeconomic burden
Climate change	1. Expected agriculture loss rate \geq 90th percentile OR 2. Expected building loss rate \geq 90th percentile OR 3. Expected population loss rate \geq 90th percentile OR 4. Projected flood risk \geq 90th percentile OR 5. Projected wildfire risk \geq 90th percentile	Low income*
Energy	1. Energy cost \geq 90th percentile OR 2. PM2.5 in the air \geq 90th percentile	Low income*
Health	1. Asthma \geq 90th percentile OR 2. Diabetes \geq 90th percentile OR 3. Heart disease \geq 90th percentile OR 4. Low life expectancy \geq 90th percentile	Low income*
Housing	1. Historic underinvestment = Yes OR 2. Housing cost \geq 90th percentile OR 3. Lack of green space \geq 90th percentile OR 4. Lack of indoor plumbing \geq 90th percentile OR 5. Lead paint \geq 90th percentile	Low income*
Legacy pollution	1. Abandoned mine land present = Yes OR 2. Formerly Used Defense Site (FUDS) present = Yes OR 3. Proximity to hazardous waste facilities \geq 90th percentile OR 4. Proximity to Superfund or National Priorities List (NPL) sites \geq 90th percentile OR 5. Proximity to Risk Management Plan (RMP) sites \geq 90th percentile	Low income*
Transportation	1. Diesel particulate matter \geq 90th percentile OR 2. Transportation barriers \geq 90th percentile OR 3. Traffic proximity and volume \geq 90th percentile	Low income*
Water and wastewater	1. Underground storage tanks and releases \geq 90th percentile OR 2. Wastewater discharge \geq 90th percentile	Low income*
Workforce development	1. Linguistic isolation \geq 90th percentile OR 2. Low median income \geq 90th percentile OR 3. Poverty \geq 90th percentile OR 4. Unemployment \geq 90th percentile	Less than high school education > 10%

** Low income: 65th percentile or above for percentage of people in households whose income is less than or equal to twice the federal poverty level. Census tract is prioritized if it meets threshold for at least one Category Variable and threshold for socioeconomic burden.*

CalEnviroScreen Version 4.0 Variables		
Category	Sub-Category	Variable
Pollution Burden	Exposures	Ozone concentrations in air PM2.5 concentrations in air Diesel particulate matter emissions Drinking water contaminants Children's lead risk from housing Use of certain high-hazard, high-volatility pesticides Toxic releases from facilities
	Environmental Effects	Toxic cleanup sites Groundwater threats from leaking underground storage sites and cleanups Hazardous waste facilities and generators Impaired water bodies Solid waste sites and facilities
Population Characteristics	Sensitive Population Indicators	Asthma emergency department visits Cardiovascular disease (emergency department visits for heart attacks) Low birth-weight infants
	Socioeconomic Factor Indicators	Educational attainment Housing-burdened low-income households Linguistic isolation Poverty Unemployment

APPENDIX 2:

Procedure to Determine CalEnviroScreen Variable Contribution to Overall Census Tract Score

To determine the percent contribution of each indicator, we systematically break down each step of CalEnviroScreen's methodology, tracing how individual indicators contribute to the final score.

Step 1: Calculate Subcategory Scores

CalEnviroScreen Methodology: Each census tract receives a **percentile rank** for the 21 indicators, grouped into four subcategories: Exposures, Environmental Effects, Sensitive Populations and Socioeconomic Factors. The average **percentile rank** is calculated for each subcategory separately.

How We Calculate Indicator Contribution: Within each subcategory, we determine how much each indicator contributes by calculating its **percentage of the total subcategory score**. This ensures that the total of all indicators within a subcategory sums to 100%.

Step 2. Compute Pollution Burden and Population Characteristics Scores

CalEnviroScreen Methodology: The **Pollution Burden Score** is computed by averaging the mean Exposures score and the mean Environmental Effects score. However, Environmental Effects is **weighted at half the value of Exposures** before averaging. The **Population Characteristics Score** is computed by averaging the mean Sensitive Populations score and the mean Socioeconomic Factors score, with both subcategories weighted equally.

How We Calculate Indicator Contribution: Each indicator's contribution to its broader category (**Pollution Burden or Population Characteristics**) is determined based on its **relative share of its subcategory score**.

- **Pollution Burden Indicators:**
 - Indicators in **Exposures** retain their full contribution.
 - Indicators in **Environmental Effects (EE)** are **weighted by 0.5** before being combined with Exposures.
- **Population Characteristics Indicators:**
 - Indicators in **Sensitive Populations** and **Socioeconomic Factors** contribute equally to Population Characteristics.

Step 3. Scale the Category Scores

CalEnviroScreen Methodology: The Pollution Burden and Population Characteristics scores are then **scaled** using statewide maximum values: **Pollution Burden** is divided by **81.9** and then **multiplied by 10**. **Population Characteristics** is divided by **96.4** and then **multiplied by 10**.

How We Calculate Indicator Contribution: Each indicator's contribution to its scaled category score is adjusted using the same scaling factors. This ensures that when Pollution Burden and Population Characteristics are combined, the proportion of each indicator's influence remains consistent with its weight in the original category.

Step 4. Calculate the Final CalEnviroScreen Score

CalEnviroScreen Methodology: The final *CalEnviroScreen* score is computed by **multiplying the scaled Pollution Burden Score by the scaled Population Characteristics Score**.

How We Calculate Indicator Contribution: Each indicator's **final contribution** to the total CalEnviroScreen score is computed based on its **category-level contribution** and the **interaction between Pollution Burden and Population Characteristics**. Specifically:

- **Pollution Burden indicators** are weighted by the scaled **Population Characteristics Score**.
- **Population Characteristics indicators** are weighted by the scaled **Pollution Burden Score**.