



Cumulative Impacts Assessment: Critical to Achieve Environmental Justice

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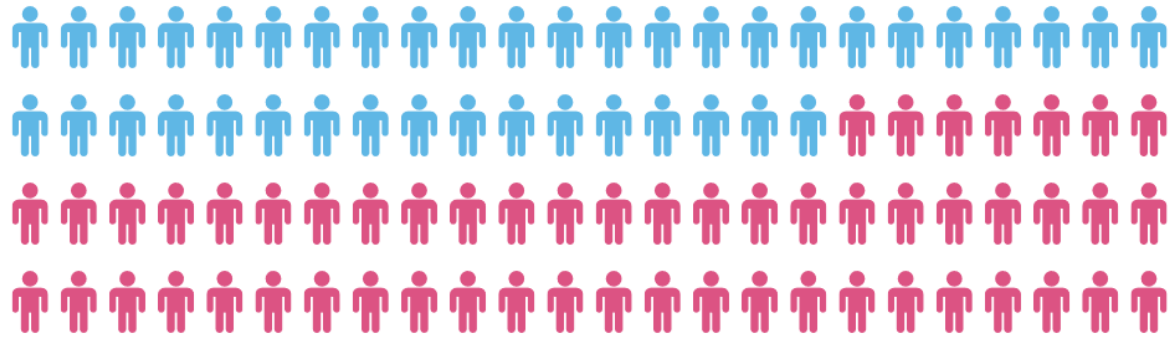


Michigan Demographics



Michigan Most Burdened Areas (Top 10%)

43%



● White ● Non-White

Michigan Least Burdened Areas (Lowest 10%)



● White ● Non-White

by EJSscreen Analysis

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Environmental Justice

Statutory definition of environmental justice

“Environmental justice means the **fair treatment of people** of all races, cultures, and incomes with respect to the **development, adoption, implementation and enforcement** of environmental laws, regulations, and policies.”

- Gov. Code §65040.12(e)
- Question remains – How to determine “fair”

Cumulative Impacts: Scientific Evidence

Pollution from multi-media – real life scenario

Public Health Effects – Skin, Asthma, LBW, Cancer, Learning disorders,

Exposure Disparities and Environmental Conditions – Place based

Sensitivity Based on Health Status

Sensitivity Based on Socioeconomic Status

Single media / chemical /individual risk based approach – cause

Methodology and data are readily available

Concurrence to initiate action from all stakeholders

CalEPA Advisory Committee on EJ – Members (17)

Two representatives from certified unified program agencies (CUPAs);

Two representatives from local or regional land use planning agencies;

Two representatives from air districts;

Two representatives from environmental organizations;

Four representatives from the business sector (two from small business, two from large business)

Two representatives from community organizations

Two from EJ organizations

One from Federally recognized tribe,

Cumulative Impacts

Cumulative impacts means exposures, public health **or** environmental effects from the combined emissions and discharges in a geographic area, including environmental pollution from all sources, whether single or multi-media, routinely or accidentally released. Impacts will take into account sensitive populations and socio-economic factors where applicable and to the extent data are available.

Critical: Moving from Risk to Impact Paradigm

What happened during and after defining Cumulative Impacts

6 months debate – Redlining, Evidence, words, consensus

Funding to develop a method - Manuel Pastor's group

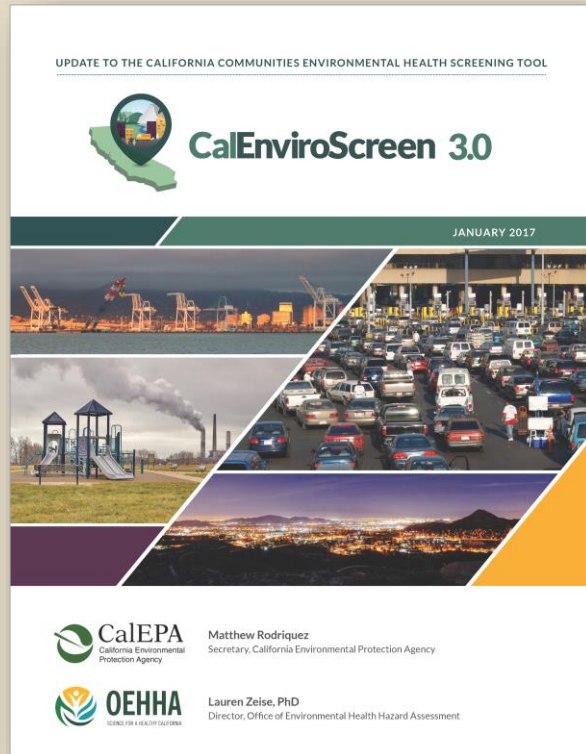
EJSM developed as a research tool

Cumulative Impacts & Precautionary Approach Working Group – CIPA

- 19 Members representing businesses, industry, tribes, environmental and community organizations, EJ advocates
- Academic partners
- Met regularly for two years and provided input to the development of CalEnviroScreen 1.0 by OEHHA in April 2013
- CalEnviroScreen 3.0 released in January 2017
- A publicly available tool to evaluate Cumulative Impacts

CalEnviroScreen 3.0

Released January 2017



- Mathematical Model
- Place based approach with Pollution Burden and Population Vulnerability.
- Relative Scale
- 20 indicators combined into a single ranked score.
- Census tract scale (~8,000).

Available at: <http://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30>



SB 535 – deLeon (2012)

Disadvantaged Communities

The California Environmental Protection Agency shall identify disadvantaged communities for investment opportunities related to this chapter. These **communities shall** be identified based on **geographic**, socioeconomic, public health, **and** environmental hazard criteria, and **may** include, but are not limited to, **either** of the following:

(a) Areas disproportionately affected by environmental pollution and other hazards that can lead to negative public health effects, exposure, **or** environmental degradation.

(b) Areas with concentrations of people that are of low income, high unemployment, low levels of homeownership, high rent burden, sensitive populations, or low levels of educational attainment.

Interpretation: (a) and (b). **Alternative: (a) or (b)**

CalEnviroScreen: Utility

Serves as the official and publicly available tool

Scale can be adjusted for local or regional scale

Disadvantaged Communities identified by the tool receive funds from the Greenhouse Gas Reduction Funds – derived from cap-and-trade

Strategic Growth Council – prioritizes areas for grant funding

CalEPA -- Targeted Enforcement

Sacramento Air District – reconfigured the tool for its boundary and prioritized areas for action and regional planning

City of San Francisco – green space and access

Options to consider

What is the final outcome – document and / or action – specify

Should it influence – resources, planning, permitting or combination??

Who writes the draft - top-down or bottom-up → duration

Who is involved → acceptance, follow-up action ownership

What is the role of a Committee / Task Force / Work group

- Advisory / Review / Approve or Reject / Modify or Recommend
- What is the decision making process of the above

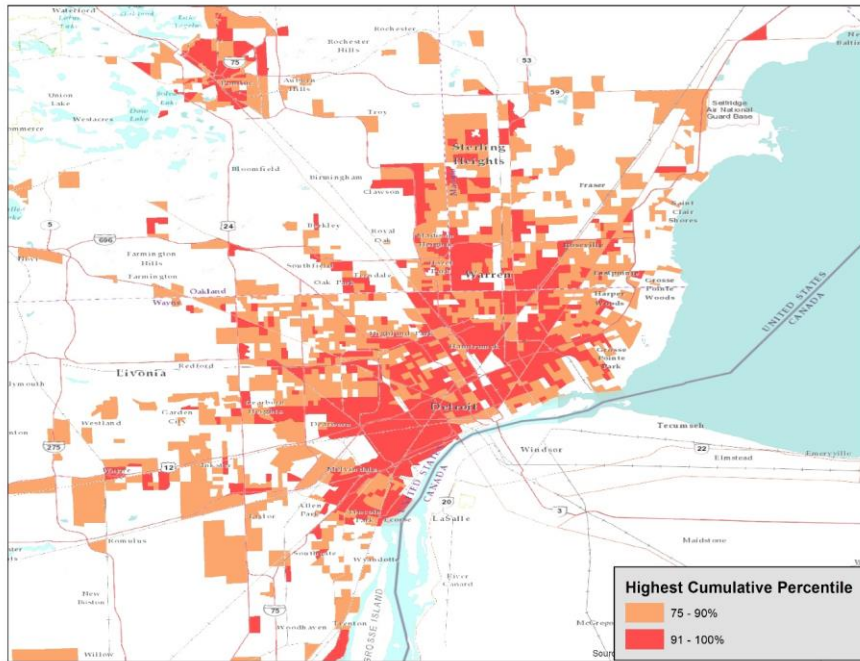
Model: Additive or multiplier, Weighting, combining by media

Releasing a draft, seeking comments, considering them earnestly, modifying as necessary are key to success – but takes 3-6 months

Indicators

<i>Pollution Burden</i>		<i>Population Characteristics</i>	
Exposures	Environmental Effects	Sensitive Populations	Socioeconomic Factors
<ul style="list-style-type: none"> • PM 2.5 Concentrations • Ozone Concentrations • Diesel PM NATA • Air Toxics Cancer Risk NATA • Resp. Health Index NATA • Lead Paint 	Proximity to <ul style="list-style-type: none"> • Traffic • RMP sites • TSDFs • NPL sites • Water discharge 	Not Readily Available	<ul style="list-style-type: none"> • Educational Attainment • Linguistic Isolation • Poverty (2x)

Top 10 & 25% Census Tracts in Detroit area



Top 10 & 25% Census Tracts in Flint area

