



# CALENVIROSCREEN 2.0: A TOOL FOR EVALUATING COMMUNITIES IN CALIFORNIA

NACAA Spring Membership Meeting  
April 28, 2015



# CALENVIROSCREEN VERSION 2.0 OCT. 2014

## CALIFORNIA COMMUNITIES ENVIRONMENTAL HEALTH SCREENING TOOL, VERSION 2.0 (CALENVIROSCREEN 2.0)

GUIDANCE AND SCREENING TOOL



October 2014

Matthew Rodriguez, Secretary  
California Environmental Protection Agency

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Office of Environmental Health Hazard Assessment



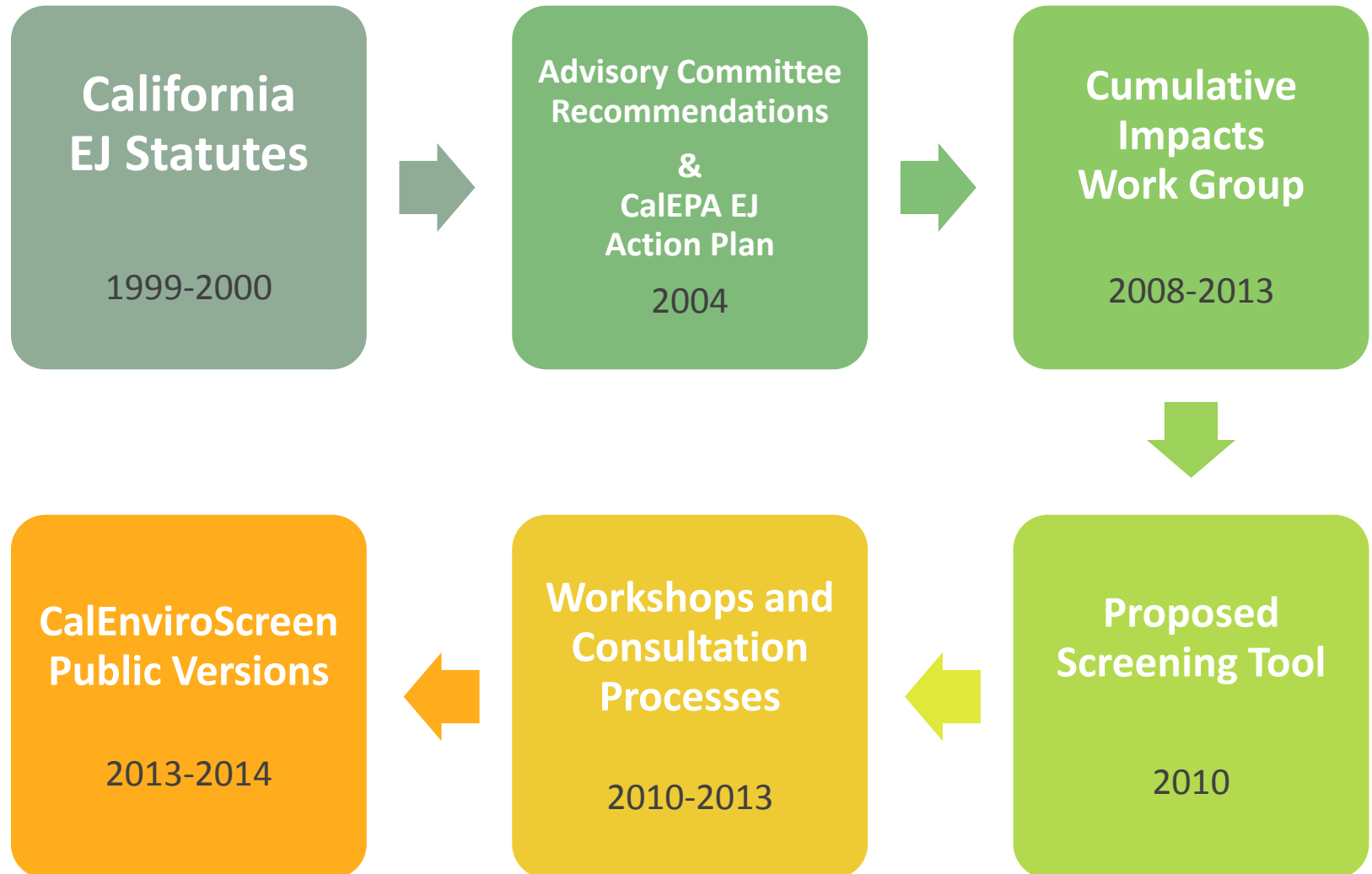
- Broad picture of the relative burdens in California communities from pollution
- Indicators of environmental conditions and population vulnerability (19)
- Census tract scale
- Guidance on uses of tool



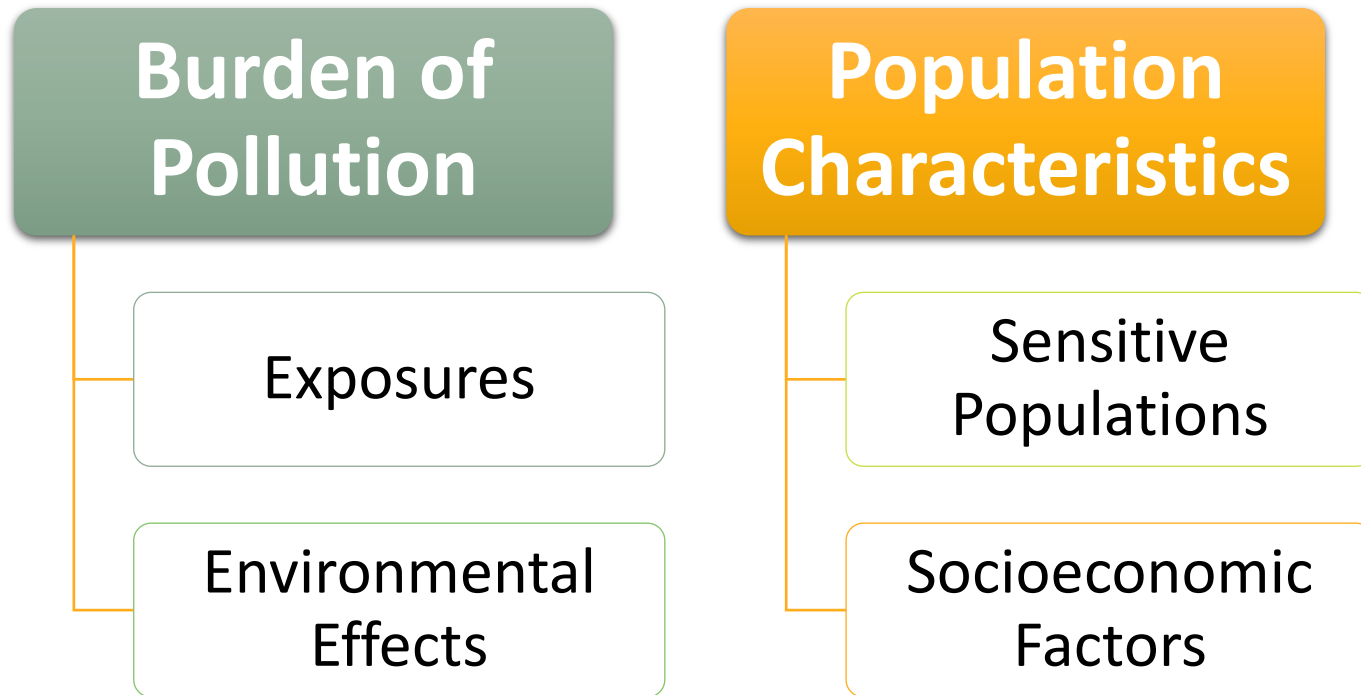
CALIFORNIA  
ENVIRONMENTAL  
PROTECTION  
AGENCY



# DEVELOPMENT OF CALENVIROSCREEN



# CAENVIROSCREEN MODEL



# CAL ENVIROSCREEN 2.0 INDICATORS

Exposures	Environmental Effects	Sensitive Populations	Socioeconomic Factors
<ul style="list-style-type: none"> <li><input type="checkbox"/> Ozone</li> <li><input type="checkbox"/> PM 2.5</li> <li><input type="checkbox"/> Diesel PM</li> <li><input type="checkbox"/> Pesticide use</li> <li><input type="checkbox"/> Toxic releases from facilities</li> <li><input type="checkbox"/> Traffic density</li> <li><input type="checkbox"/> Drinking water quality</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Cleanup sites</li> <li><input type="checkbox"/> Groundwater threats</li> <li><input type="checkbox"/> Impaired waters</li> <li><input type="checkbox"/> Solid waste sites and facilities</li> <li><input type="checkbox"/> Hazardous waste facilities and generators</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Children and elderly</li> <li><input type="checkbox"/> Asthma ER visits</li> <li><input type="checkbox"/> Low birth weight infants</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Educational attainment</li> <li><input type="checkbox"/> Linguistic isolation</li> <li><input type="checkbox"/> Poverty</li> <li><input type="checkbox"/> Unemployment</li> </ul>



## CALIFORNIA ENVIRONMENTAL HEALTH TRACKING PROGRAM

Improving Public Health With Better Information





# CRITERIA FOR INDICATOR SELECTION

- Contributes to understanding the component
  - Widespread environmental concerns
  - Population characteristics that may influence vulnerability to pollution
- Publicly available
- Location-based
- Good quality
  - e.g., covers the state, accurate, current



# DATA SOURCES

Database	Source
Air Monitoring Network	<i>Air Resources Board</i>
Diesel Emissions Estimates	<i>Air Resources Board</i>
Toxic Release Inventory	<i>U.S. Environmental Protection Agency</i>
Pesticide Use Reporting	<i>Department of Pesticide Regulation</i>
Traffic Volume Linkage Tool	<i>California Environmental Health Tracking Program</i>
Solid Waste Information System	<i>CalRecycle</i>
EnviroStor Cleanup Sites	<i>Department of Toxic Substances Control</i>
Permitted Hazardous Waste	<i>Department of Toxic Substances Control</i>
GeoTracker	<i>State Water Resources Control Board</i>
303(d) List: Impaired Waters	<i>State Water Resources Control Board</i>
Asthma ED Visits	<i>California Environmental Health Tracking Program</i>
American Community Survey and U.S. Census	<i>U.S. Census Bureau</i>

# SCORING METHOD

- Each census tract is scored for each indicator.
  - For example, 75% percentile is higher than 75% of other census tracts in California.
- CalEnviroScreen score is calculated by combining all indicator scores.
- Allows comparison of different areas.

# EXAMPLE: TRAFFIC DENSITY INDICATOR



## Data source:

- California Environmental Health Tracking Program's Traffic Volume Linkage Tool
- *Caltrans Highway Performance Monitoring System*

## Raw data:

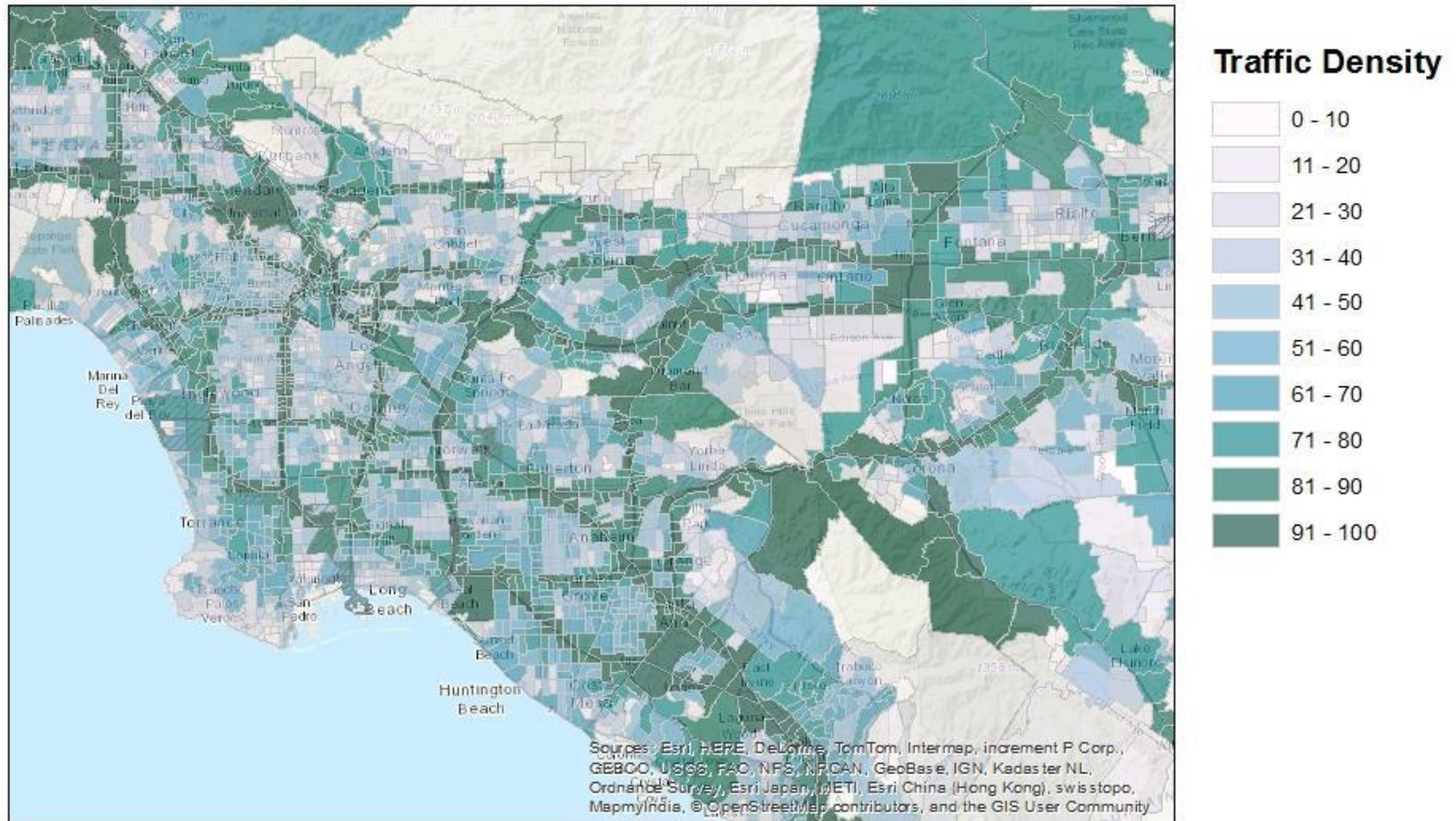
- Traffic volumes along pre-defined road segments

## Indicator:

- Traffic density within 150 meters of census tract boundary (vehicle-km/hr/km)

# TRAFFIC DENSITY RESULTS

## Greater Los Angeles Area



Basemap source: (c) ESRI and its data suppliers

0 5 10 20 Miles



# EXAMPLE: CLEANUP SITES INDICATOR



[www.epa.gov](http://www.epa.gov)

## Data source:

- EnviroStor Cleanup Sites Database
- *California Department of Toxic Substances Control & US EPA National Priorities List*

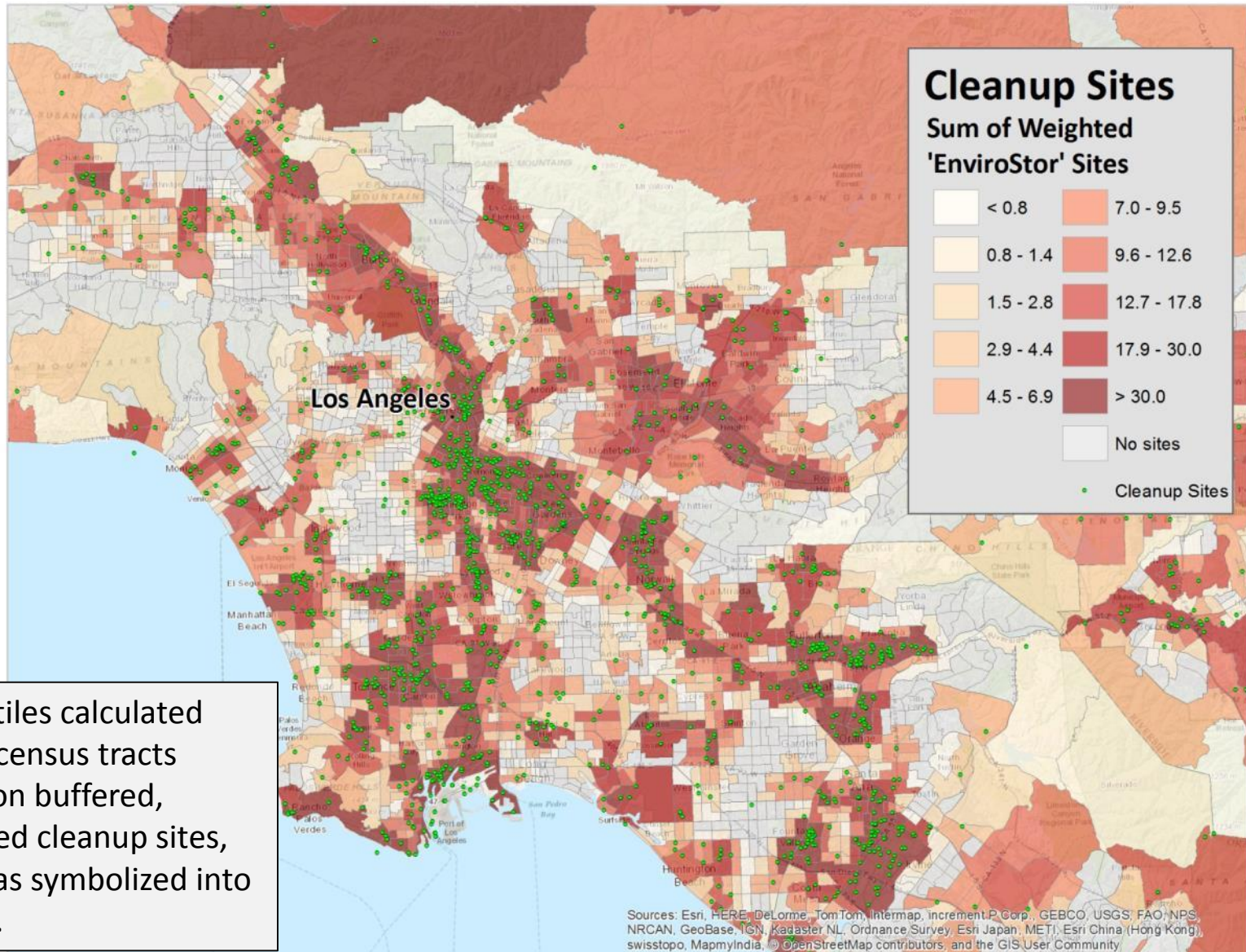
## Raw data:

- Facility locations and site boundaries

## Indicator:

- Weight sites by type and status
  - e.g., Federal Superfund, State Response, etc. categories.
- Adjust for proximity to people.
- Add together weighted cleanup sites within each census tract.

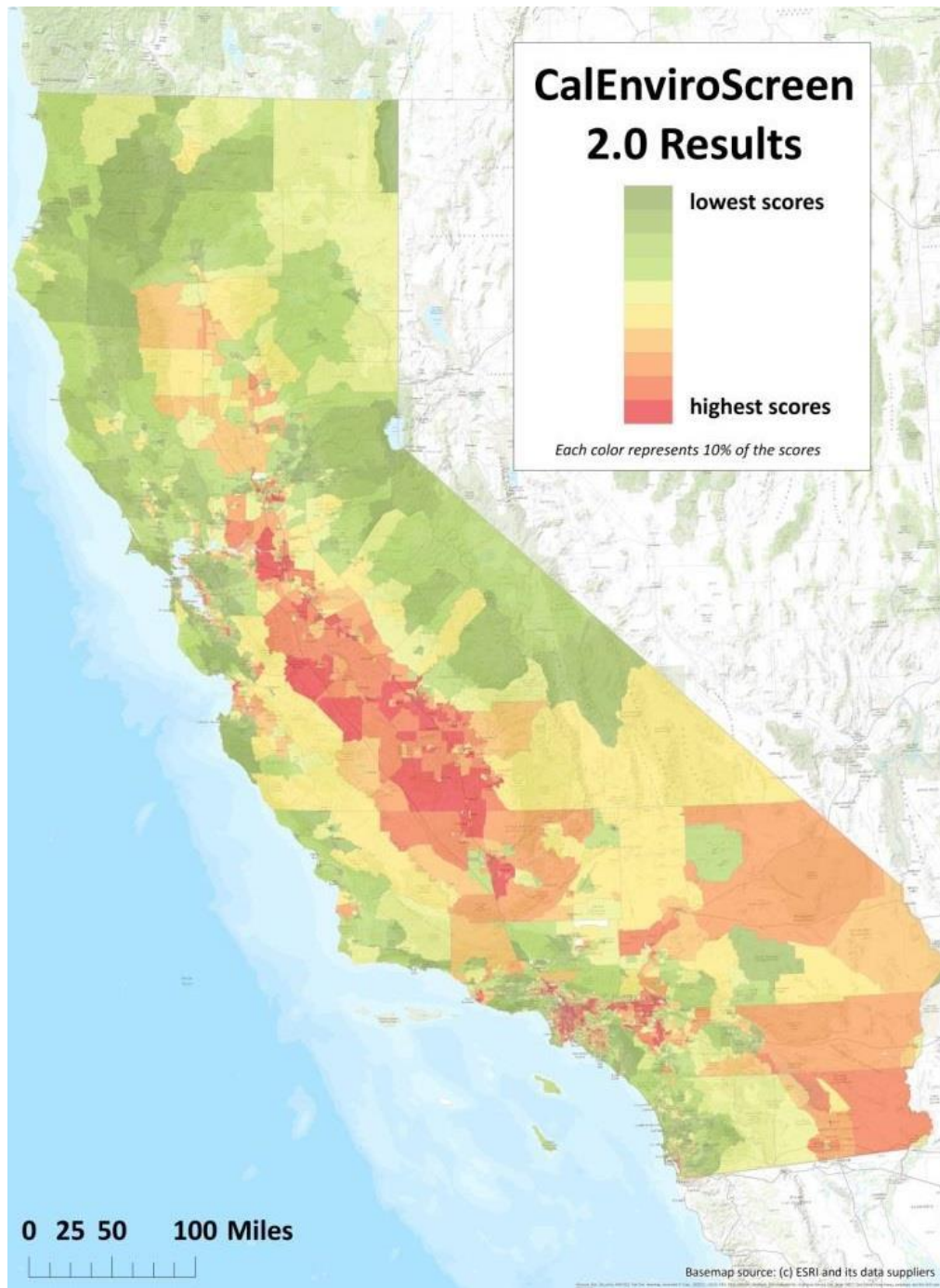
# CLEANUP SITES INDICATOR RESULTS



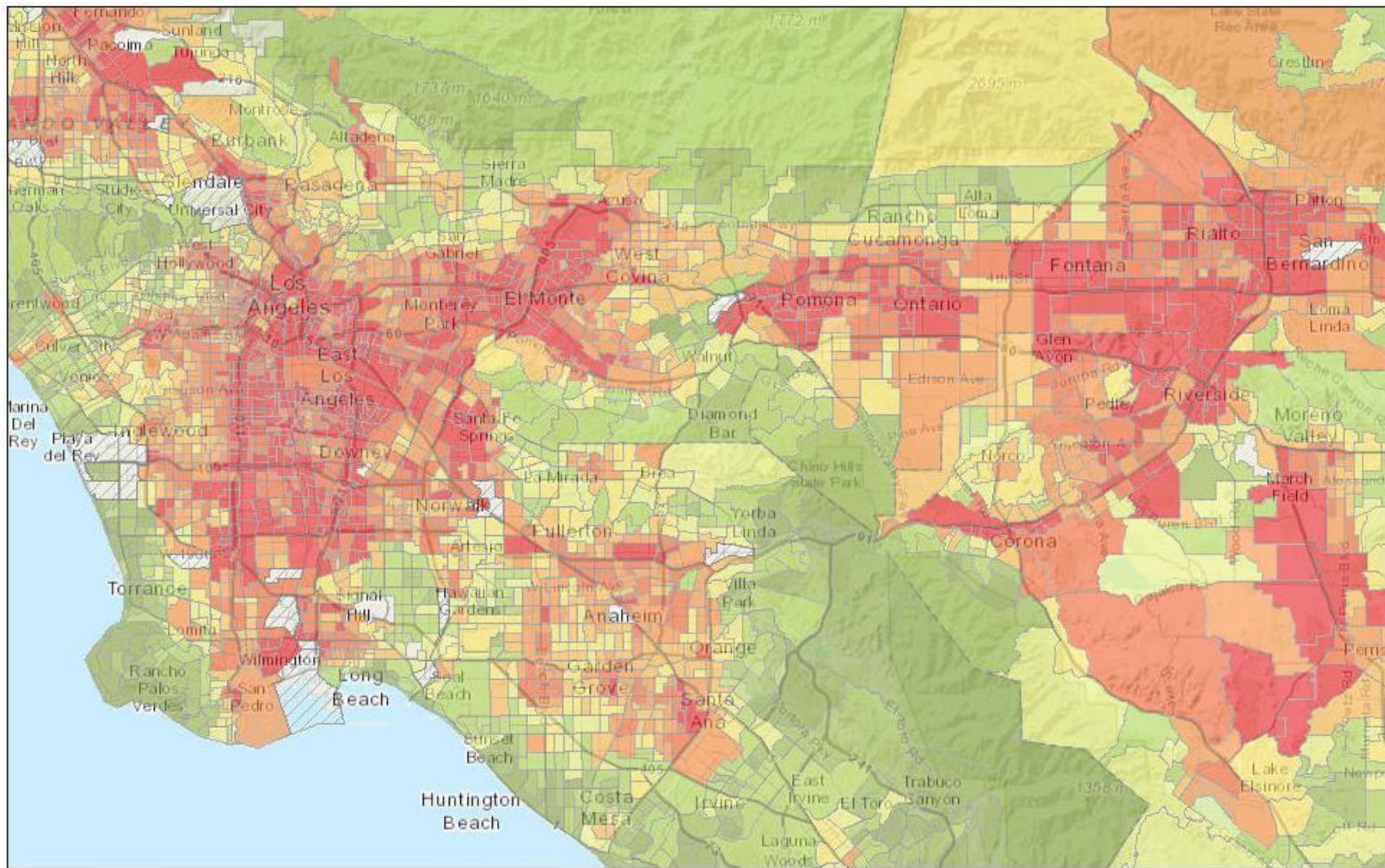
# CALENVIROSCREEN 2.0 RESULTS



# CALENVIROSCREEN VERSION 2.0 RESULTS STATEWIDE

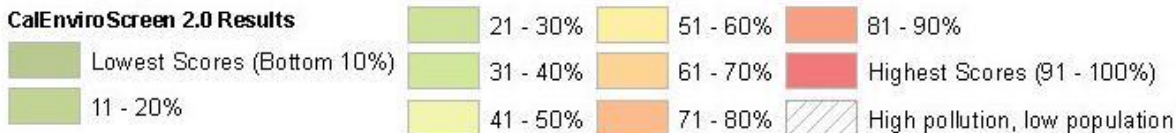


# CALENVIROSCREEN 2.0 RESULTS: GREATER LOS ANGELES AREA

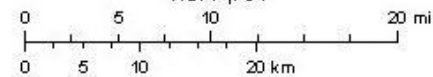


February 19, 2015

## CalEnviroScreen 2.0 Results



1:577,791

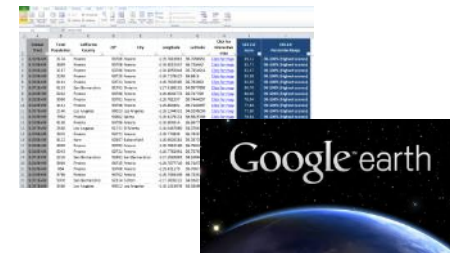


Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, Geobase, IGN, Kadaster NL,



# PUBLICLY AVAILABLE RESULTS

- CalEnviroScreen Report
  - Maps for individual indicators
  - Description of each indicator
- Mapping Tool
  - Online maps of results
- Other data
  - Excel spreadsheet of results by census tract
  - Google Earth file
  - ArcGIS geodatabase



[www.oehha.ca.gov/ej/ces2.html](http://www.oehha.ca.gov/ej/ces2.html)

# USING CALENVIROSCREEN SB 535 (DE LEÓN, 2012)

## Greenhouse Gas Reduction Fund Investment Plan

**>10%**

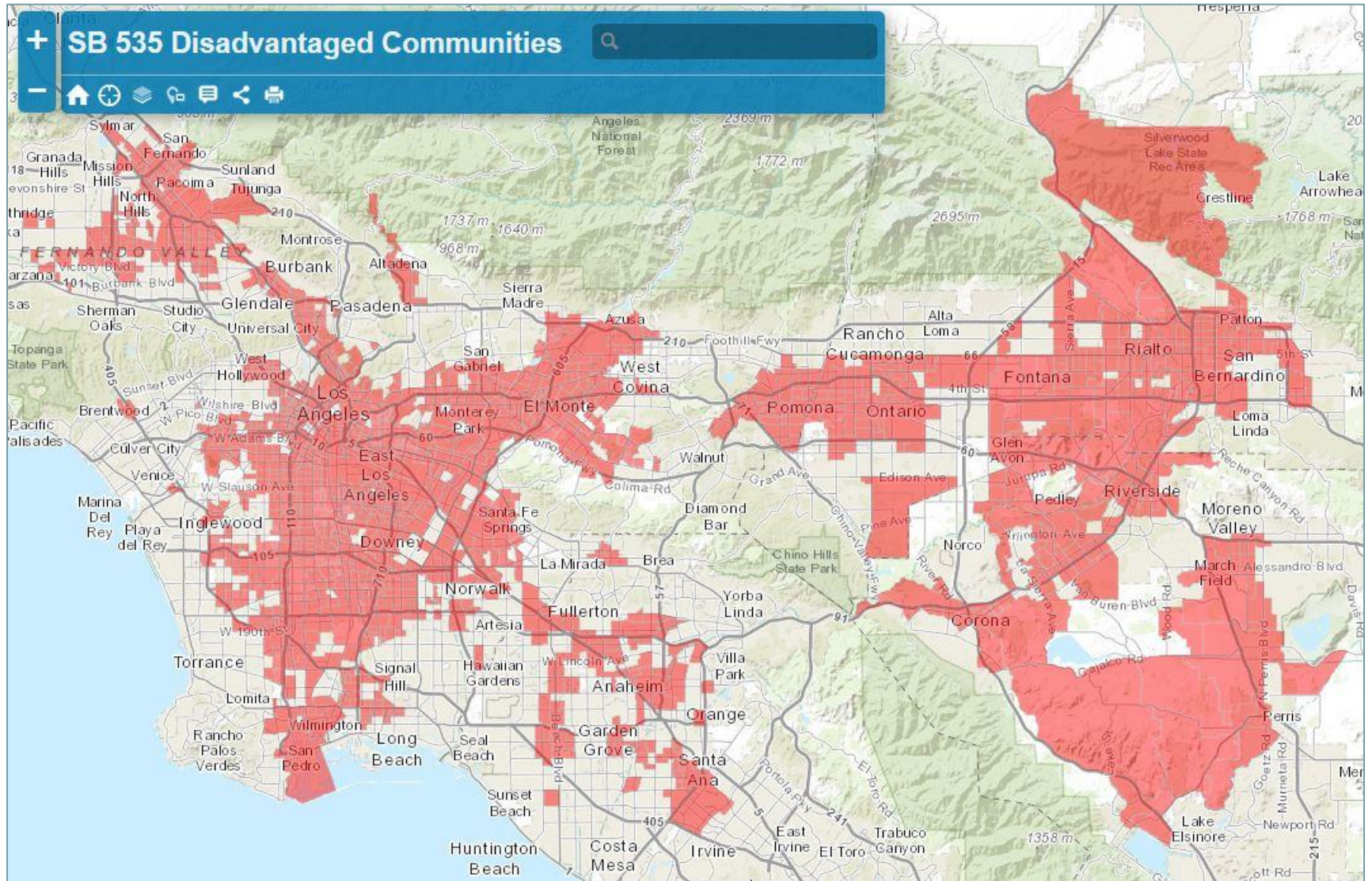
Projects *located in*  
disadvantaged  
communities

**>25%**

Projects that *benefit*  
disadvantaged  
communities

“CalEPA shall identify ‘disadvantaged communities’ for investment opportunities based on **geographic, socioeconomic, public health** and **environmental hazard** criteria.”

# SB 535 Disadvantaged Communities in Greater Los Angeles Area



# USING CALENVIROSCREEN

- Ongoing planning and decision-making within CalEPA
  - EJ Small Grant Program
  - EJ Compliance and Enforcement Working Group
  - Trainings and outreach



QUESTIONS & COMMENTS