



Environmental Justice in California

What is EJ and How Might it Impact You?

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Agenda

1. Introduction to Presenter & Trinity Consultants
2. EJ Background
3. State-wide EJ Initiatives
4. Local EJ Initiatives
5. How is Your Facility Affected
6. Actionable Recommendations
7. Questions/Discussion



Evolution Of Trinity

▶ 1974

- One person, one office
- Air quality specialty

▶ 2021

- Over 1000 employees
- Office across North America and in Europe, China, and Australia
- Serve more than 5000 clients annually
- EHS consulting and engineering services with a focus on air
- ISO 9001-based quality management system, certified in Dallas, TX

Trinity Consultants International Presence

North America



Europe

England, UK / Dublin, IE



Asia

China / Singapore



Australia

Queensland / New South Wales



Trinity's Services

Specialty Services, Technology, & Training

- ▶ EHS information technology solutions
- ▶ Environmental modeling software – Breeze®
- ▶ EHS performance and risk management
 - EMS/ISO support
 - EHS compliance and management systems auditing
 - CDP verification and assurance
- ▶ Client advocacy
- ▶ Litigation support
- ▶ Aquatic sciences – Minnow Environmental
- ▶ Occupational health science and toxicology – SafeBridge Consultants® / TRS
- ▶ Process engineering for pharmaceuticals – ADVENT Engineering
- ▶ EHS and engineering staffing services
- ▶ Professional EHS training

Trinity's Services

EHS Regulatory Consulting

- ▶ Air Pollution
- ▶ Wastewater
- ▶ Stormwater
- ▶ Hazardous Waste / Materials
- ▶ Air Dispersion Modeling
- ▶ Expert Witness / Litigation
- ▶ Compliance Support
- ▶ Control Technology Reviews
- ▶ EHS Auditing
- ▶ Onsite EHS Management
- ▶ Source Testing Support
- ▶ PSM/PHA/RMP
- ▶ Fleet Planning and Compliance
- ▶ Chemical compliance services
- ▶ Ambient Monitoring
- ▶ Climate Change Services
 - AB-32 Services
 - AB-32 Verification Body
 - Offset Project VB
 - LCFS
- ▶ Emissions Trading Support
- ▶ EMS / ISO 14000
- ▶ Sustainability
- ▶ Due Diligence Support
- ▶ CUPA Plans and Permits
- ▶ CEQA Analyses
 - IS/ND/MND/EIR
- ▶ EMIS
- ▶ CEMS/PEMS Services

Environmental Justice Background

What is EJ?

- ▶ "**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."
- ▶ "**Fair treatment** means that no group of people, including a racial, ethnic, or socioeconomic group, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies."
- ▶ "**Meaningful involvement** means that the public has an opportunity to participate in decisions about activities that may affect their environment and/or health; the public's contribution can influence the regulatory agency's decision; community concerns will be considered in the decision-making process; and decision makers will seek out and facilitate the involvement of those potentially affected."

How Did We Get Here?

- ▶ EJ problems were often not built intentionally through a conscious scheme to place emission sources in neighborhoods with less power to fight back
 - Not In My Backyard (NIMBY) political power of middle and high classes prevented industrial siting in other areas, even in a drive-to-work world
 - Some sites were built before housing, others concurrent with housing, and only some in the modern area where NIMBY-ism led them to the path of least resistance
 - Historical environmental progress has raised the floor everywhere, but application of source-oriented uniform standards led to uneven results

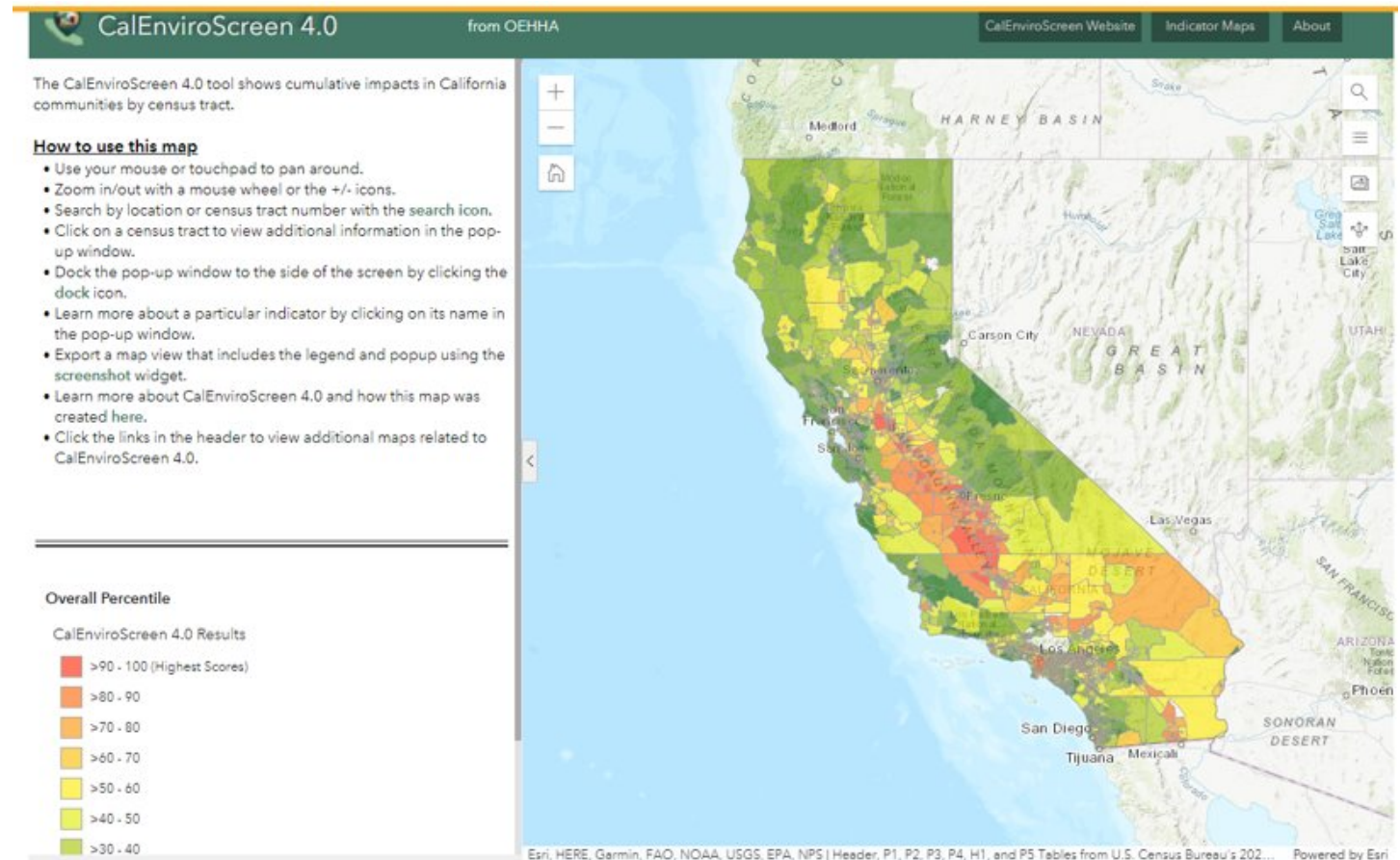
Clean Air Act Blindspot

- ▶ 1970s environmental laws focused on regional scale issues (clean up the whole city) but often did so from perspective of an average, therefore missing the concentration of sources and pollutants in a few neighborhoods
- ▶ Uniform air standards for sources of a given type didn't address how those sources were often clustered together, not evenly distributed



CalEnviroScreen 4.0 Overview

- ▶ CalEnviroScreen 4.0 finalized October 13, 2021
- ▶ Represents Cumulative Impacts in a location-based model
- ▶ 21 Environmental Indicators Assessed



CalEnviroScreen 4.0 Indicators

Pollution Burden

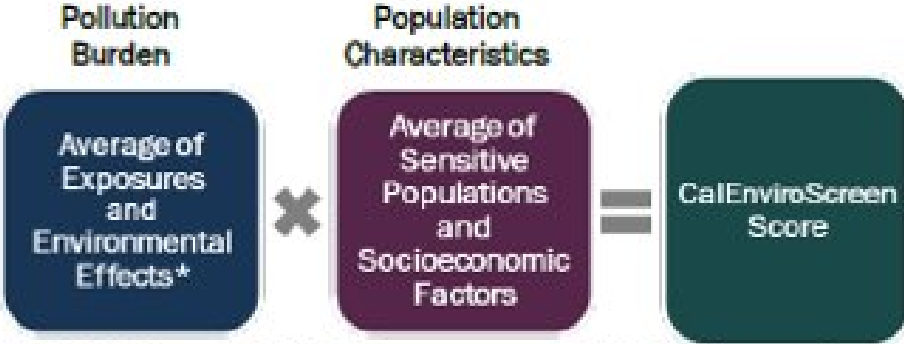
- ### Exposures
- Ozone Concentrations
 - PM2.5 concentrations
 - Diesel PM Emissions
 - Drinking Water Contaminants
 - Children's Lead Risk from Housing
 - Pesticide Use
 - Toxic Releases from Facilities
 - Traffic Impacts

- ### Environmental Effects
- Cleanup Sites
 - Groundwater Threats
 - Hazardous Waste
 - Impaired Water Bodies
 - Solid Waste Sites and Facilities

Population Characteristics

- ### Sensitive Populations
- Asthma Emergency Department Visits
 - Cardiovascular Disease (Emergency Department visits for Heart Attacks)
 - Low Birth-Weight Infants

- ### Socioeconomic Factors
- Educational Attainment
 - Housing-Burdened Low-Income Households
 - Linguistic Isolation
 - Poverty
 - Unemployment



* The Environmental Effects score was weighted half as much as the Exposures score.

CalEnviroScreen – Data Sources

▶ Air Emissions Data

- Stationary source air permits and emission inventory reports
- Traffic impacts with 2017 traffic volume estimates
- Non-road sources including construction, railyards, ports, etc.
- Diesel Particulate Matter a critical driver of toxics risk, even from emergency generators

▶ Toxic Releases from Facilities: EPA Toxic Release Inventory (TRI) modeled releases



CalEnviroScreen – Data Sources

- ▶ Hazardous Waste Generators and Facilities: Sum of weighted permitted hazardous waste facilities, hazardous waste generators, and chrome plating facilities within each census tract, EnviroStar Hazardous Waste Facilities Database and Hazardous Waste Tracking System, DTSC
- ▶ Solid Waste Sites and Facilities: Sum of weighted solid waste sites and facilities, Solid Waste Information System (SWIS) and Closed, Illegal, and Abandoned (CIA) Disposal Sites Program, CalRecycle
- ▶ Pesticide Use: Total lbs of 83 active pesticide ingredients used in production-agriculture per square mile, averaged over 2016-2018

State-Wide EJ Initiatives

AB 617

- ▶ Community Air Protection Program (CAPP)
 - Community-centered program focused on developing and implementing new strategies to monitor air pollution and reduce health impacts.
 - 15 communities designated between 2018 - 2020. Additional community selection expected early 2022. *No exit mechanism exists.*
 - ◆ Community Emission Reduction Plans
 - ◆ Community Air Monitoring Plans
 - Reduction strategies target contributing industries or sources within the community
 - District emissions inventory is used in the identification of pollutants/industries to target for reduction



AB 617 Risk Reduction Measures

- ▶ Districts are expected to prioritize these areas for air permit inspections and enforcement efforts- increased frequency, level of detail
- ▶ Local program implementation driven by local concerned community, with District funding and technical support
- ▶ Each local program varies by community concerns and goals
 - Some start with years of studies and data collection
 - Some skip directly to forcing emission reductions through stationary source rulemaking, traffic control measures
- ▶ Hot new area of air emission control in California- indirect control of mobile source emissions to control emissions from sources that are not subject to state/local rules
 - Warehouses, railyards, ports rules already being developed- some blanket, some AB 617 areas only
 - Landfills and transfer stations could be added to warehouse-type rules easily

SB 1000

- ▶ Senate Bill 1000 (SB 1000), enacted in 2016 requires local governments to identify disadvantaged communities within their jurisdiction and address environmental justice in their General Plan.
 - "Disadvantaged Communities" identified as census tracts areas scoring within the top 25% of communities in CalEnviroScreen
 - Comes into effect when a local government adopts or updates two or more elements of their General Plan
- ▶ Provides a pathway to incorporating EJ requirements into California Environmental Quality Act (CEQA)
 - Potential roadblock for new facilities/modifications in Disadvantaged Communities.

Fenceline Monitoring

- ▶ AB 1647 required toxics monitoring surrounding refineries and affected neighborhoods
 - Post data to public web site in near-real time
- ▶ New technologies are in place and operational
 - Proof of concept feeding into new CA and Federal statutes and rulemakings
- ▶ Expensive, depending on scope/needs, but expect to see more in the future.
 - Each LA refinery spent >\$20MM capex alone
- ▶ Primary smoking gun problem so far has been clearly demonstrated as coming from an unknown non-refinery odor source– money well spent?

Democratize the Science

- ▶ Trend is toward drowning the public in exposure data
- ▶ Concerned public typically does not have time, resources, or technical skills to consume and analyze - and does not fully trust air district
- ▶ Educating the public is helpful, but imperfect. Fear and feelings often overpower hard science.
- ▶ Fully effective movement to empower EJ communities may require sponsoring a budget for them to hire their own experts

Local EJ Initiatives

BAAQMD New Source Review

- ▶ Amendments proposed to BAAQMD Regulation 2, Rules 2-1 and 2-5.
 - Rule 2-1: General Requirements Proposed Changes:
 - ◆ Defines "Overburdened Communities" within the regulation
 - ◆ Requires public notice if a Project located within an "Overburdened Community" triggers the preparation of a Health Risk Assessment
 - Rule 2-5: New Source Review of Toxic Air Contaminants
 - ◆ Tightens the cancer risk threshold from 10 in one million to 6 in one million for Overburdened Communities
 - ◆ Increased hours of operation assumed for emergency engines when conducting Health Risk Assessments
 - May result in more emergency engines triggering Best Available Control Technology for Toxics (TBACT) requiring the installation of diesel particulate filters.

- ▶ Other Districts likely to follow

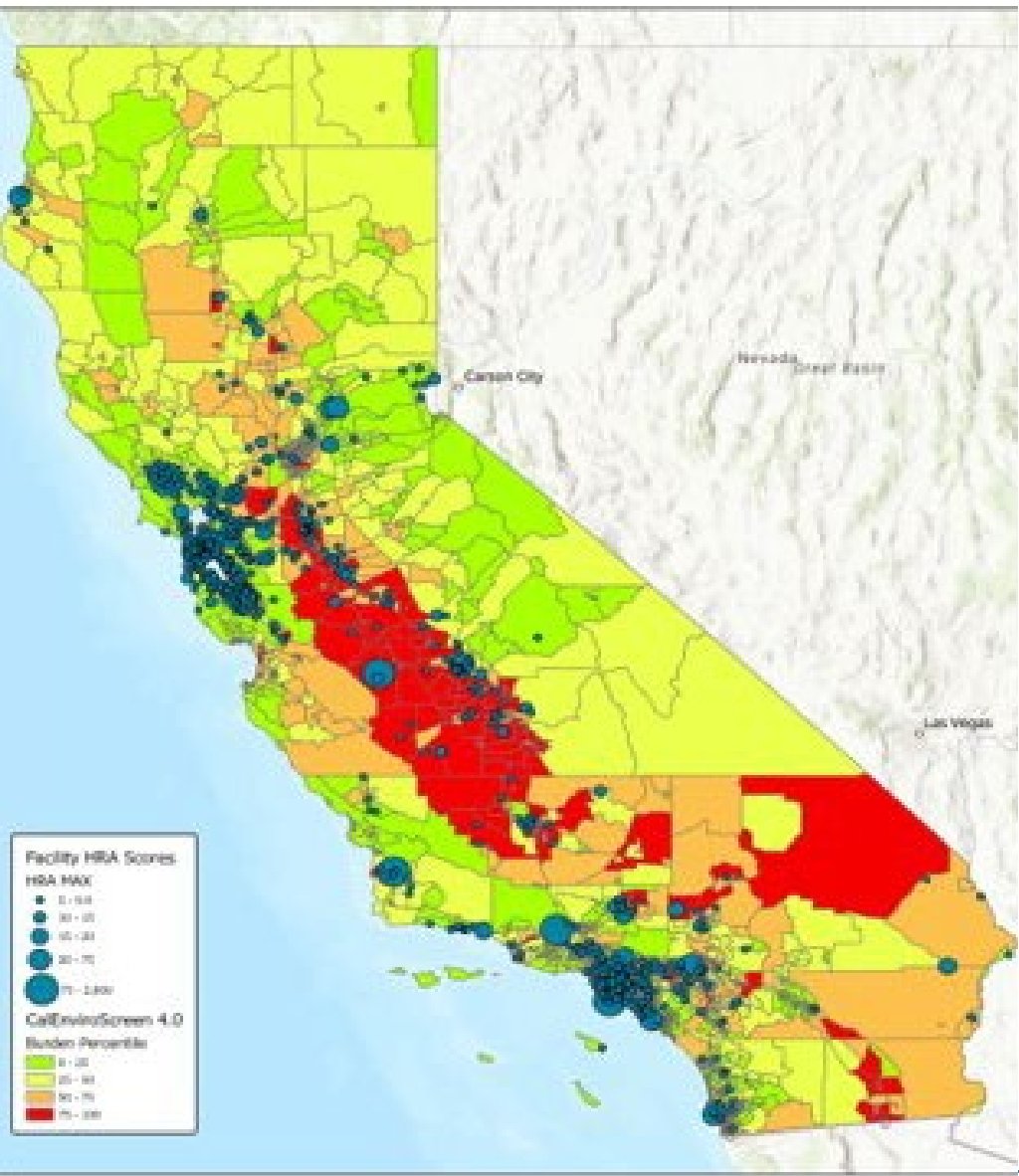
Actions in Other Jurisdictions

- ▶ San Diego APCD tightened air toxics limits (by 10x in some cases)
- ▶ South Coast AQMD working to hold warehouses, ports, railyards responsible for emissions produced by vehicles that visit them
 - Warehouse rule already starting to take effect
 - San Diego considering the same for their AB 617 areas
- ▶ CARB and other Districts considering how to aggregate toxics data to better evaluate cumulative risk for HRAs

Understanding Your Risk



Facilities with Elevated Air Toxics Risk in EJ Communities



Where is Your Facility

- ▶ Map identifies potential high-risk facilities
 - HRA score greater than 5
 - Within 70th percentile census tract
 - Note Risk areas and stationary sources not always correlated

Actionable EJ Recommendations

Proactive vs. Reactive

- ▶ If in an area of EJ concern, are you prepared for potential that CARB or District tells the neighbors that your operation is boosting their cancer risk?
 - Difficult-to-rebut allegation without your own data, experts
 - Class action activity is high and rising on nuisance- will cancer/toxic risk be next?
 - Consider optic for company name
 - Perceived depth of company pockets affects outcomes
- ▶ What is your current level of risk given permitted emissions, the new OEHHA toxicity data, and possible contributions of neighbors?
- ▶ Do not accept unfavorable risk evaluation results from your District without an independent opinion. Garbage in, garbage out, and their staff can often be inexperienced and have limited exposure to real-world conditions
- ▶ Mitigation measures are not always expensive – sometimes as small as updating a permit, raising an exhaust point

Recommendations

- ▶ Familiarize yourself with local demographics and EJ exposure
- ▶ Perform EJ risk / exposure assessment
 - Understand surrounding demographics, neighboring sources, environmental indicators & EJ indices
 - Strive to understand your community's primary concerns
 - Assess permitting and compliance exposure
- ▶ Compare your records with environmental representations indicated in EJ tools (TRI, ECHO, EIs, CEIDARS, CalEnviroScreen...)
 - Control your information releases! Data is used in unanticipated ways
 - Improve or correct excessively conservative or inaccurate release estimates
- ▶ Conduct multimedia compliance audits and enhance compliance programs to minimize enforcement risk from increased agency inspections of high EJ score facilities—appearances ARE reality (“violator”)

Recommendations

- ▶ Conduct an internal Health Risk Assessment to evaluate Facility's impact on neighboring communities
 - Do not accept District-prepared assessment without an independent opinion
 - Assess proactive mitigation measures, updating a permit, raising a stack
 - Don't make it worse with new sources. Diesel engines are Public Enemy #1.
- ▶ Prepare a Life Cycle Assessment to illustrate cradle to grave environmental impacts
- ▶ Prepare a Facility Narrative including Facility's emissions history highlighting emission reductions and control technology improvement
 - Include discussions on internal audit, HRA, EI, LCA etc.
 - In some cases, have a PR plan
- ▶ Engage with surrounding community to fill the information vacuum

Questions?

