



Advancing Environmental Justice: Lessons from Four Decades of Practice

University of California at Davis
November 30, 2017

Charles Lee



Historical Roots of Environmental Justice

“Environmental justice is the convergence of two great social movements during the latter half of the twentieth century, i.e., civil rights and environmentalism.”

Kurt Schmoke

Warren County, NC (1982)




E 121
PCB PROTESTS
Toxic waste illegally dumped along N.C. roads was moved to landfill 2 mi. E., 1982. Protests sparked environmental justice movement in U.S.



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Michael F. Easley
Governor



State of North Carolina
Office of the Governor

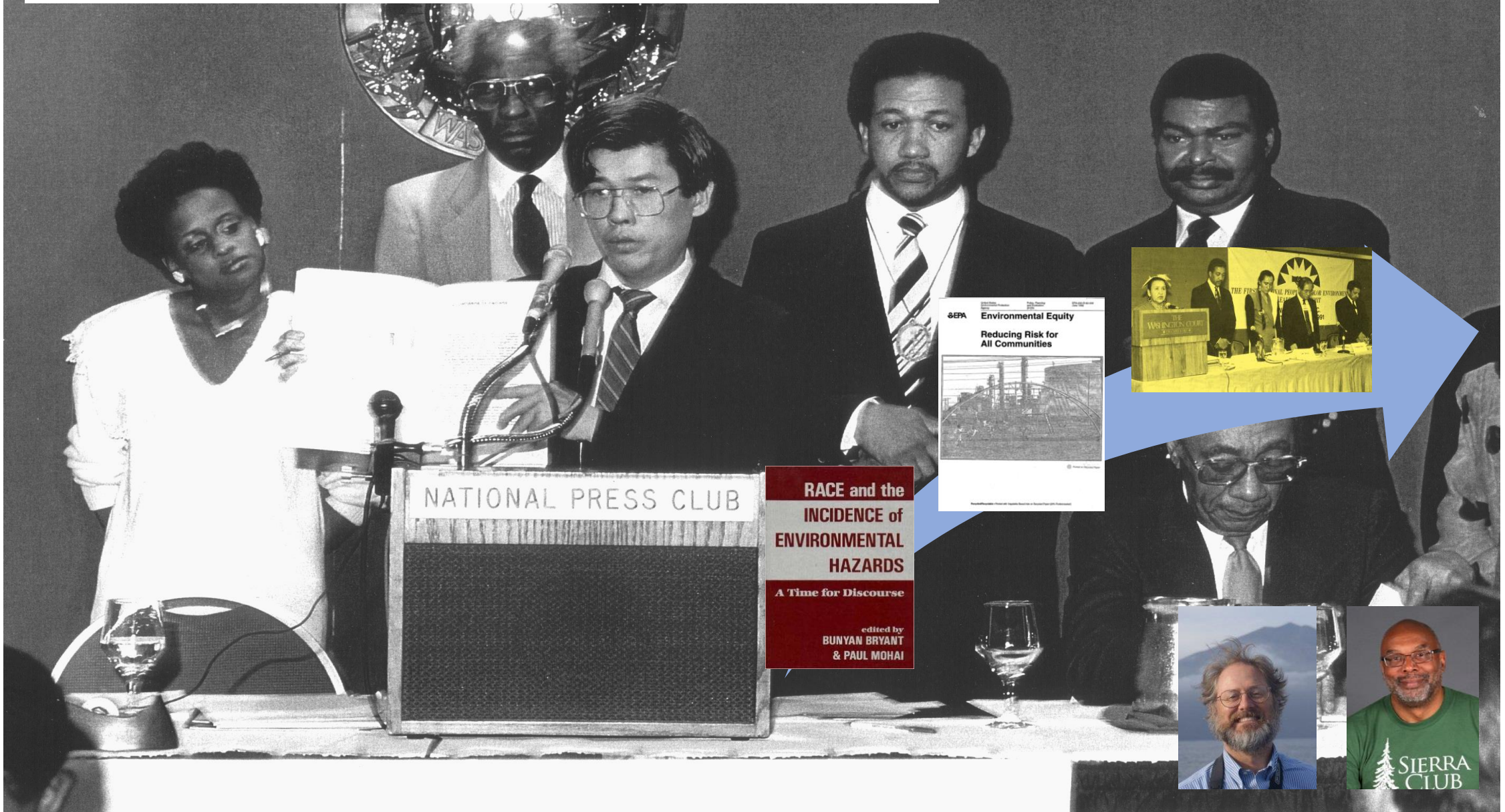
For Release: **IMMEDIATE** Contact: Ernie Seneca
Date: August 21, 2003 Phone: 919/733-5612

PCB DETOXIFICATION AT WARREN COUNTY LANDFILL NEARS COMPLETION

RALEIGH – The landfill created in Warren County to house 60,000 tons of roadside soil contaminated by polychlorinated biphenyls (PCBs) dumped illegally in the late 1970s is nearly detoxified. Crews anticipate completing work by the end of September and being off site before year's end.

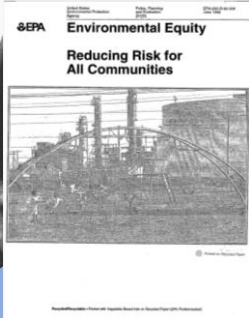
“The landfill’s detoxification is a watershed event for the many people who came together and worked diligently to identify and carry through a solution,” said Gov. Mike Easley, who has helped steer more than \$6.1 million to the project since taking office.

Toxic Wastes and Race (1987)



NATIONAL PRESS CLUB

**RACE and the
INCIDENCE of
ENVIRONMENTAL
HAZARDS**
A Time for Discourse
edited by
BUNYAN BRYANT
& PAUL MOHAI



Executive Order 12898 (1994)



Definitions of environmental justice

Fair treatment and meaningful involvement of all people, regardless of race, color, national origin or income, in the development, implementation and enforcement of environmental laws, regulations and policies
US EPA

Refers to those cultural norms and values, rules, regulations, behaviors, policies, and decisions to support sustainable communities where people can interact with confidence that the environment is safe, nurturing, and productive
Professor Bunyan Bryant

**Procedural
Justice**

**Distributive
Justice**

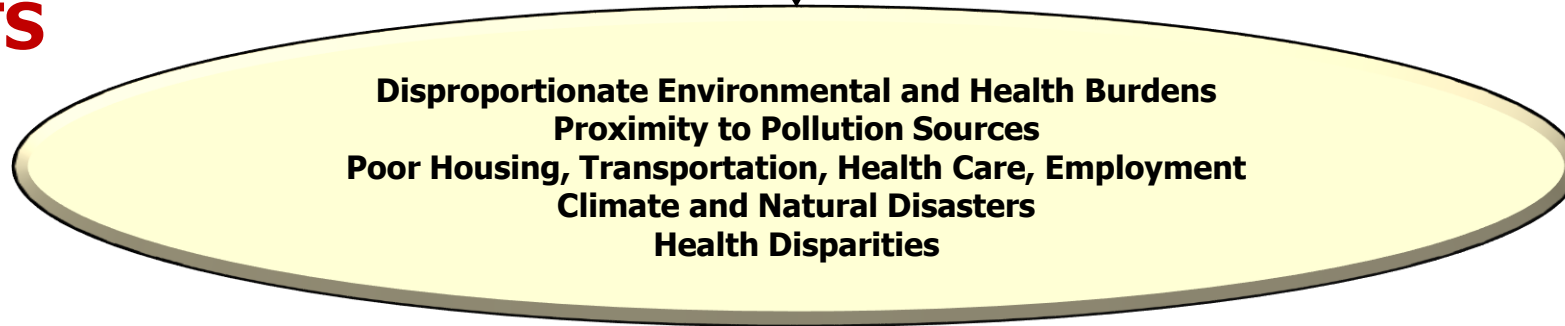
**Corrective
Justice**

**Social
Justice**

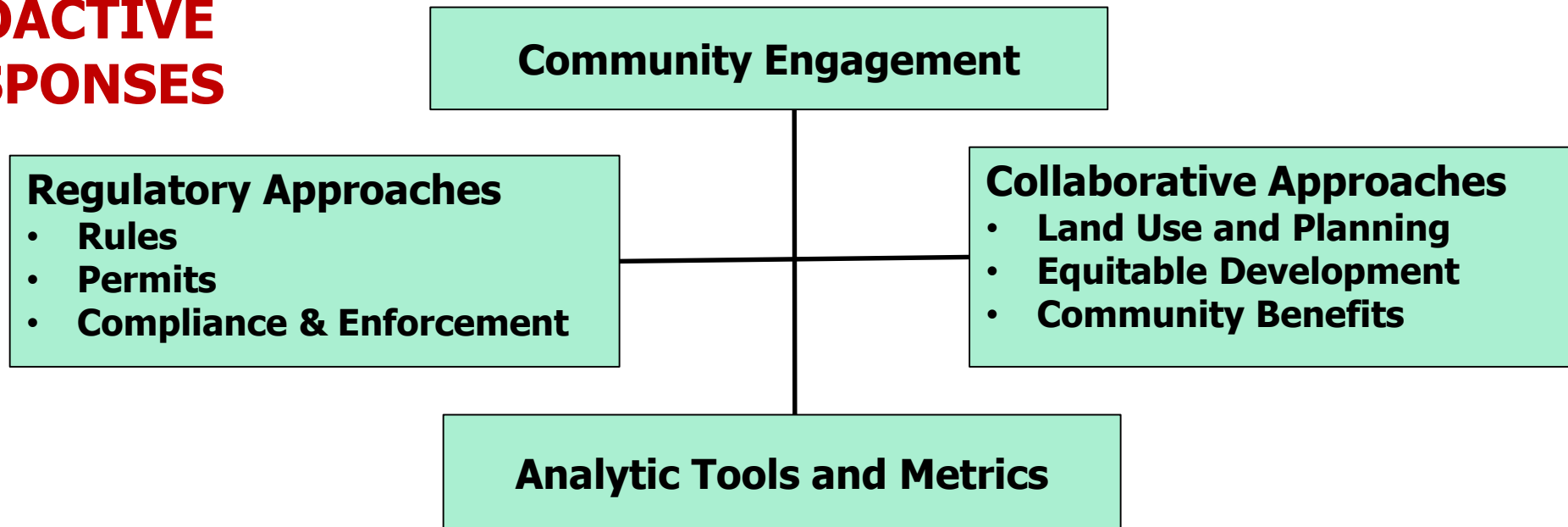
**Recognition
Justice**



IMPACTS



PROACTIVE RESPONSES



Built Environment: Proximity to Pollution Sources

Hundreds of empirical studies have confirmed that minority, low-income and tribal/indigenous populations are disproportionately located near pollution sources of all types



Natural Environment: Climate and Natural Disasters

Climate and natural disasters disproportionately affect poor, minority and tribal/indigenous communities.



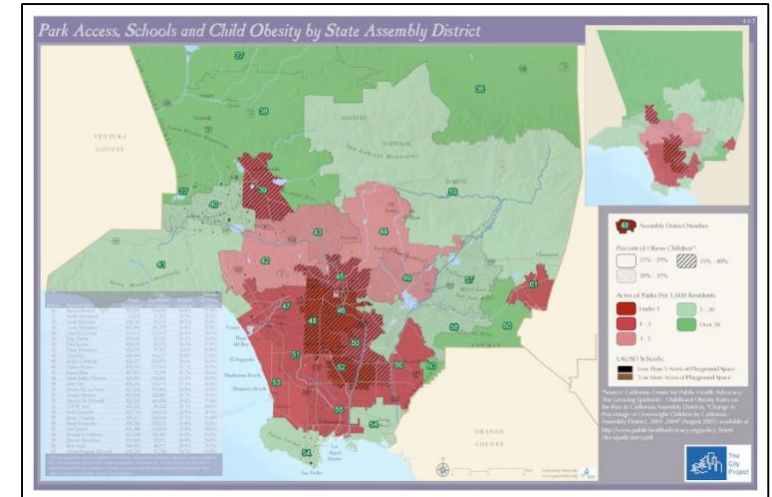
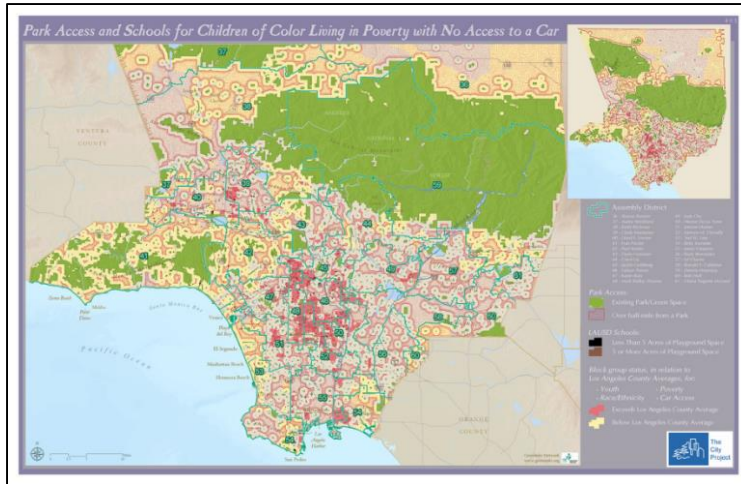
Hurricane Katrina, 2005

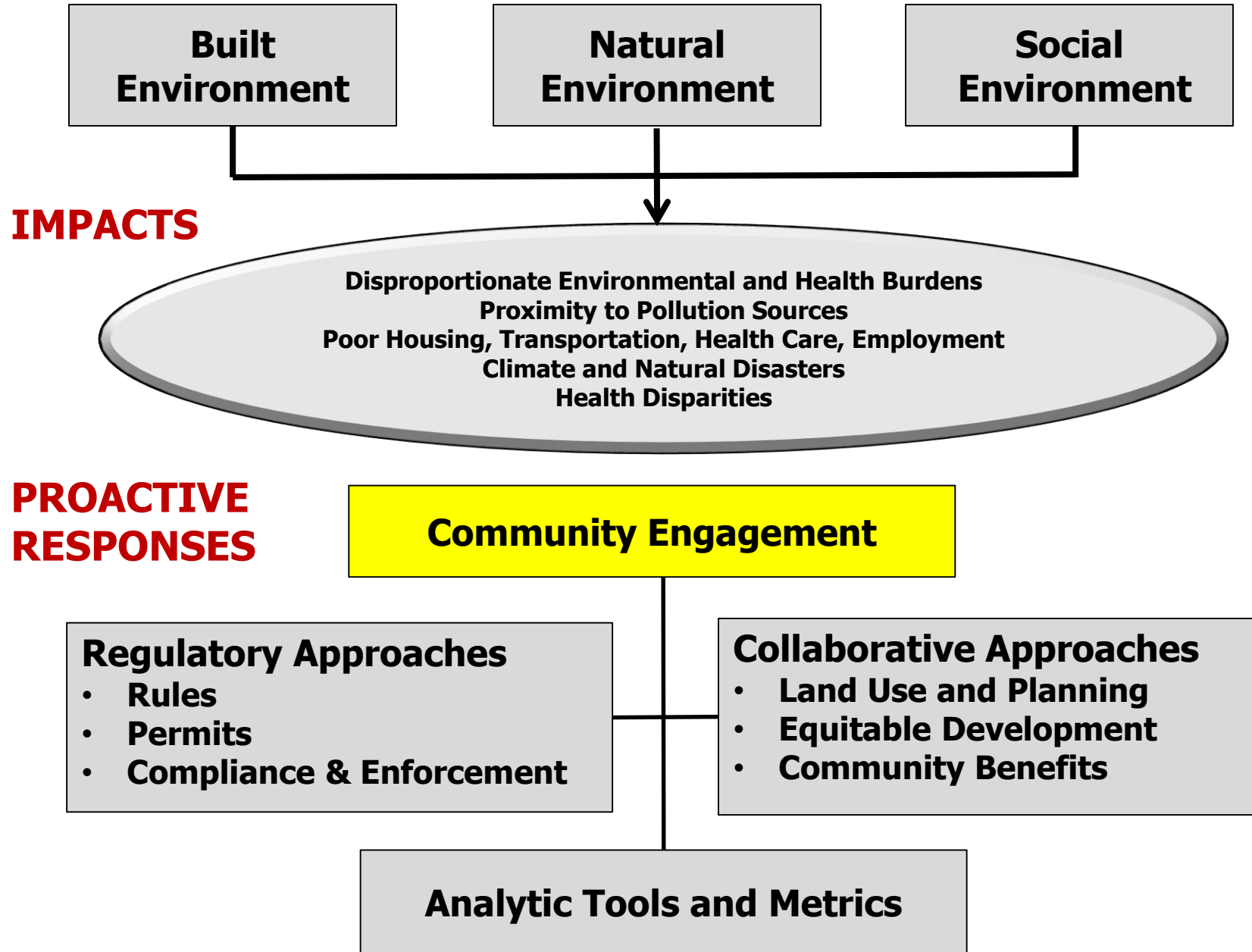


Chicago Heat Wave, 1995

Social Environment: Access to Green Space and Recreation

Overwhelming evidence show a strong association between obesity and socio-economic status in the US.



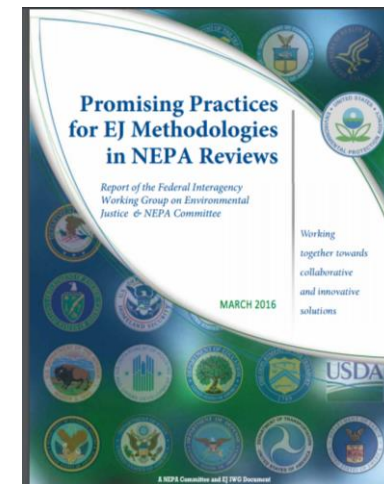


Community Involvement through the National Environmental Policy Act

- NEPA: Assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings
- Meaningful community involvement results in better decisions and makes the planning process more efficient and effective

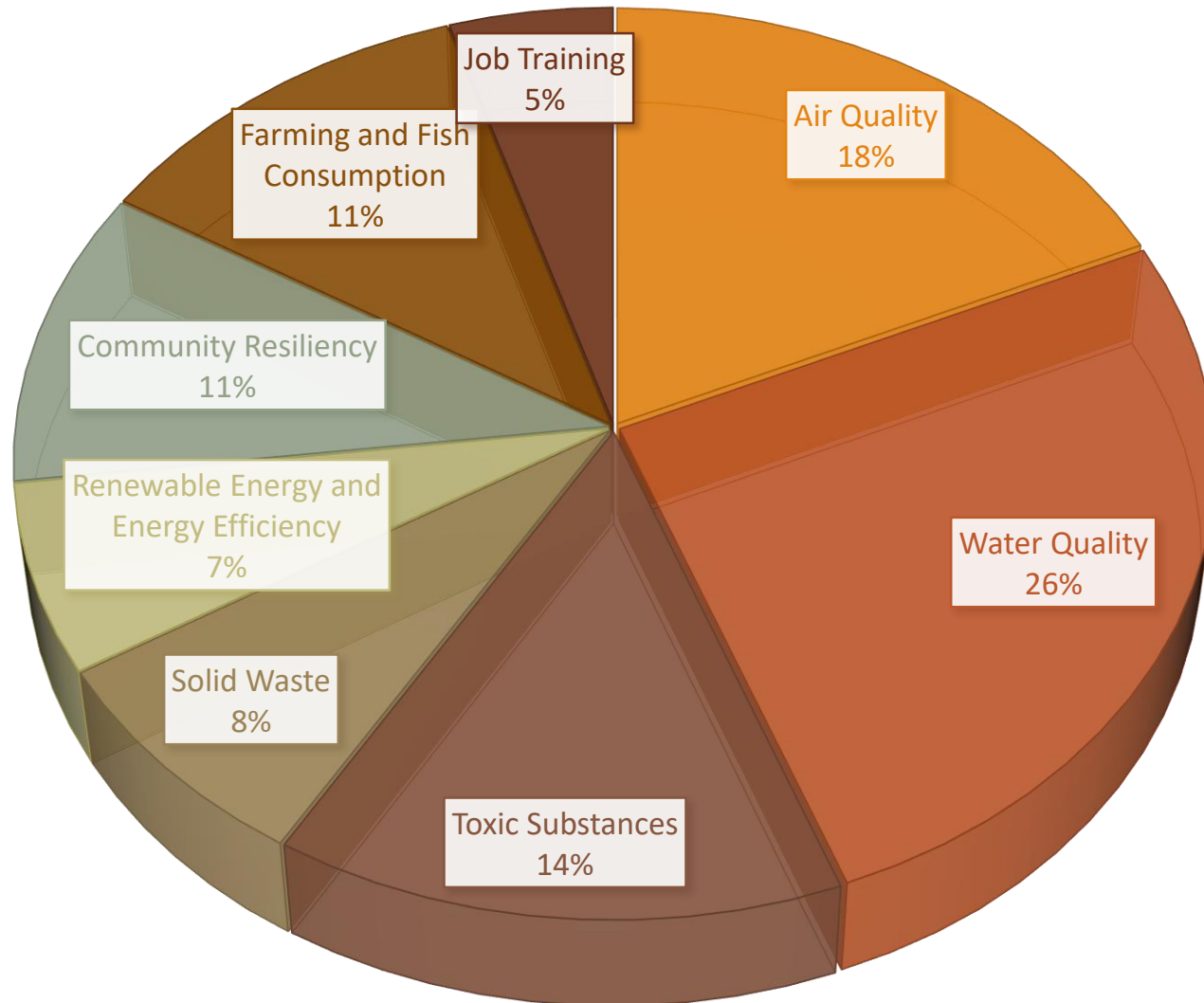


<https://youtu.be/HJy-mkoEnMM>



EPA Environmental Justice Grants Since 1994

FOCUS OF GRANT PROJECTS 2013 - 2016



A few EJ Grant Facts:

- More than \$24 million EJ Small grants awarded
- Over 1400 community-based projects
- Collaborative Problem-Solving Program (Began in 2003)
- More than \$4 million CPS grants awarded
- Over 40 community-based projects funded

National Environmental Justice Advisory Council (NEJAC)

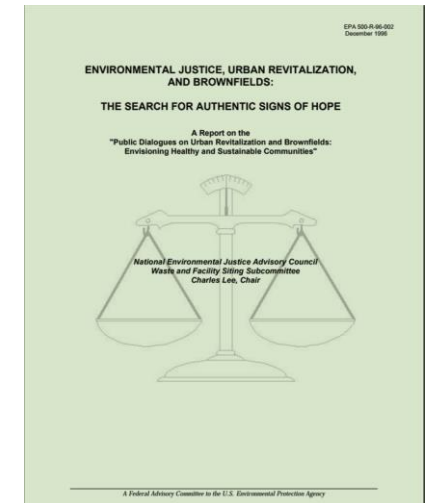
Purpose: To provide advice and recommendations to EPA Administrator

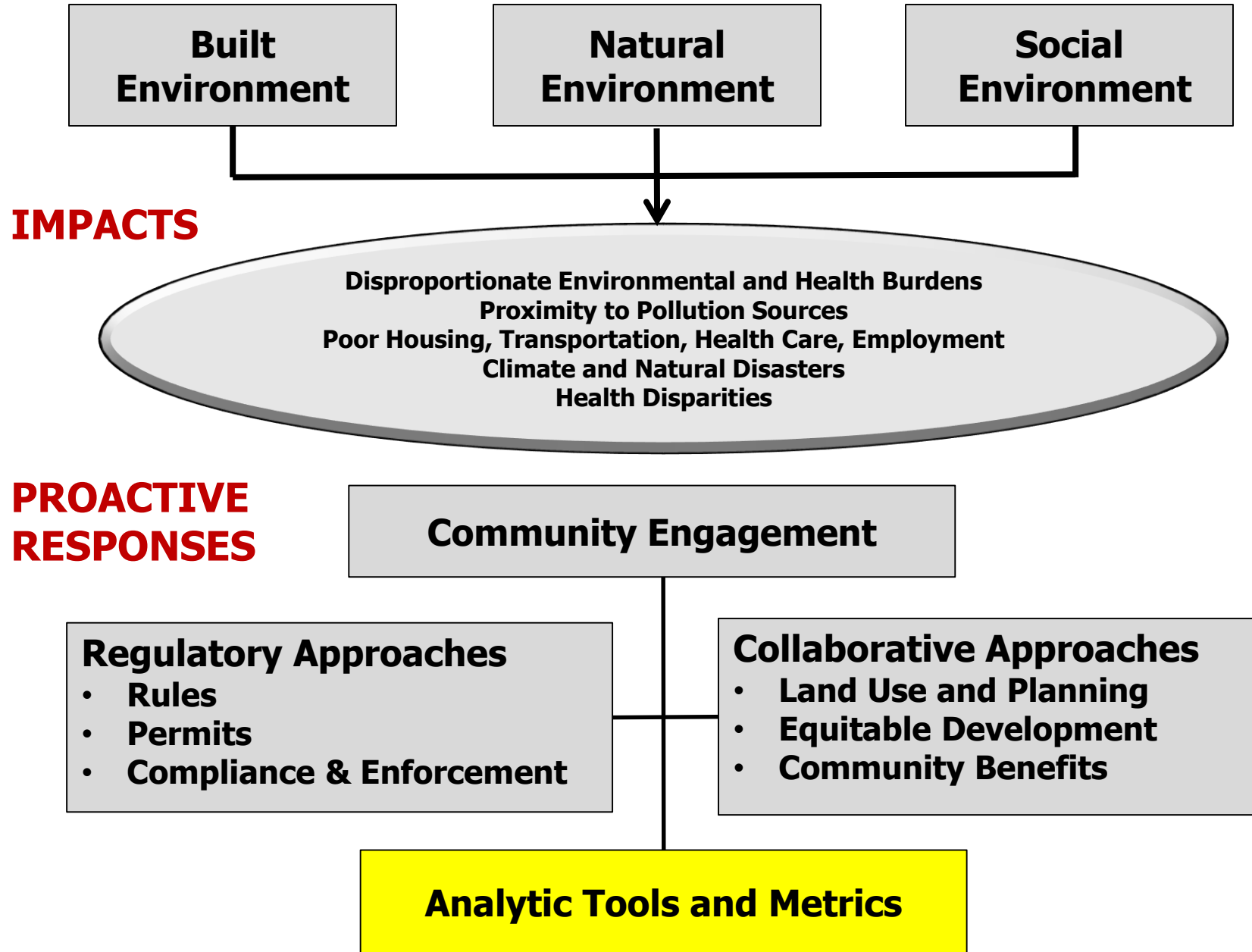
Structure: 29 members from **Community, NGO, Business and Industry, Academia, Tribes, State and Local Government**

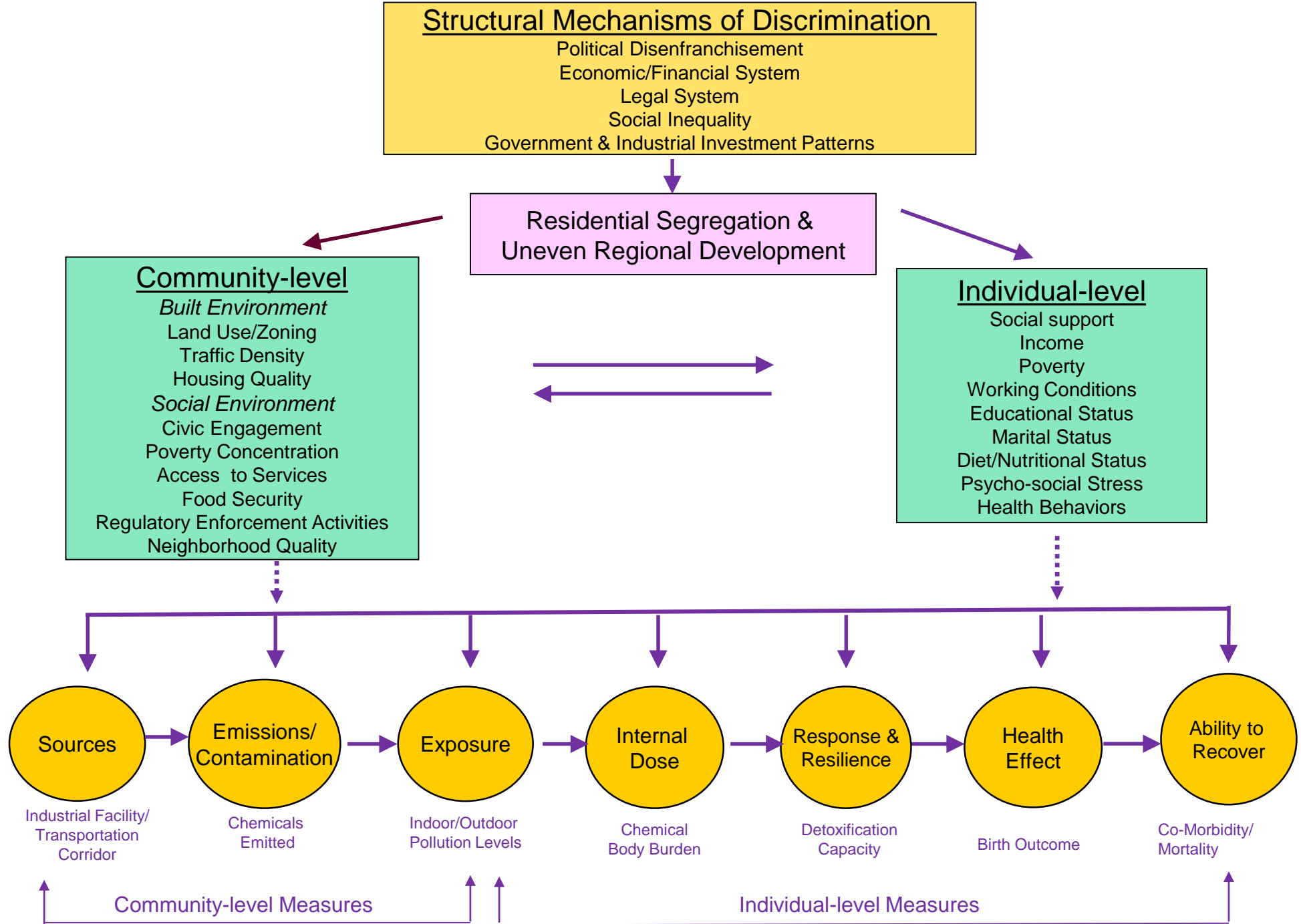


Significant Impacts of NEJAC:

- Brownfields, Equitable Development and Revitalization
- Guide to Meaningful Public Participation
- Expanding Community Capacity for Problem-Solving
- Strengthening the Resiliency of Industrial Waterfront Communities
- Improving Relationships with Tribal Governments and Indigenous Peoples

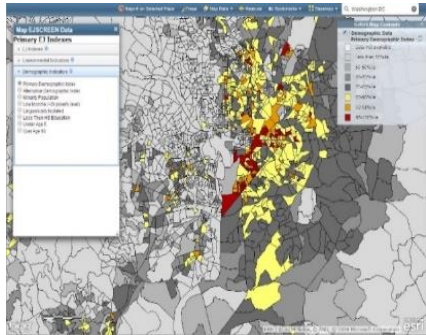




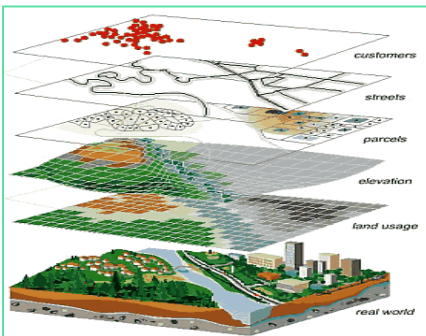
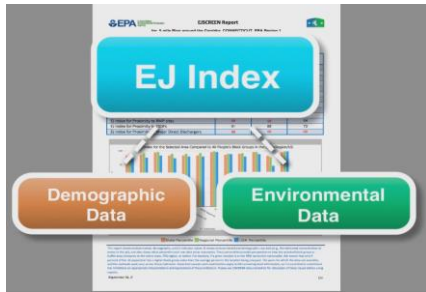


EJ SCREENING AND MAPPING

EJSCREEN - USEPA



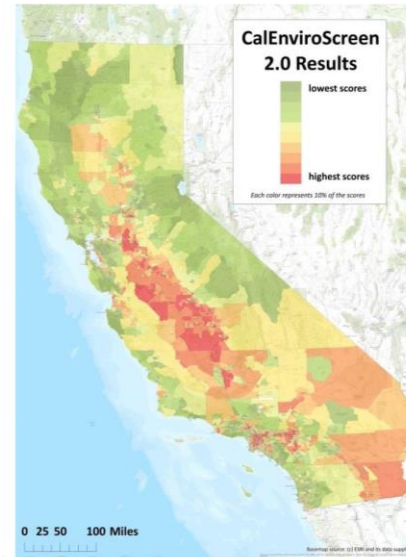
- USEPA's nationally consistent EJ screening and mapping tool
- Web-based, interactive, accessible to all
- Purpose: To identify areas meriting further review, outreach or analysis
- Provides EJ indexes combining environmental and demographic data for 11 environmental factors
- Data sets can be imported into other platforms



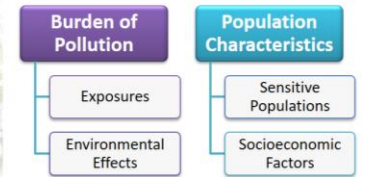
EJSCREEN Training Videos

<https://www.epa.gov/ejscreen/ejscreen-videos>

State Tools - California



CALENVIROSCREEN CALEPA/OEHHA



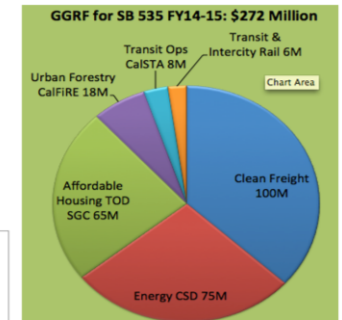
CalEnviroScreen is a cumulative impacts screening tool

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."



Other efforts involve PA, MD, MI

Exide Battery Recycler, Los Angeles, CA

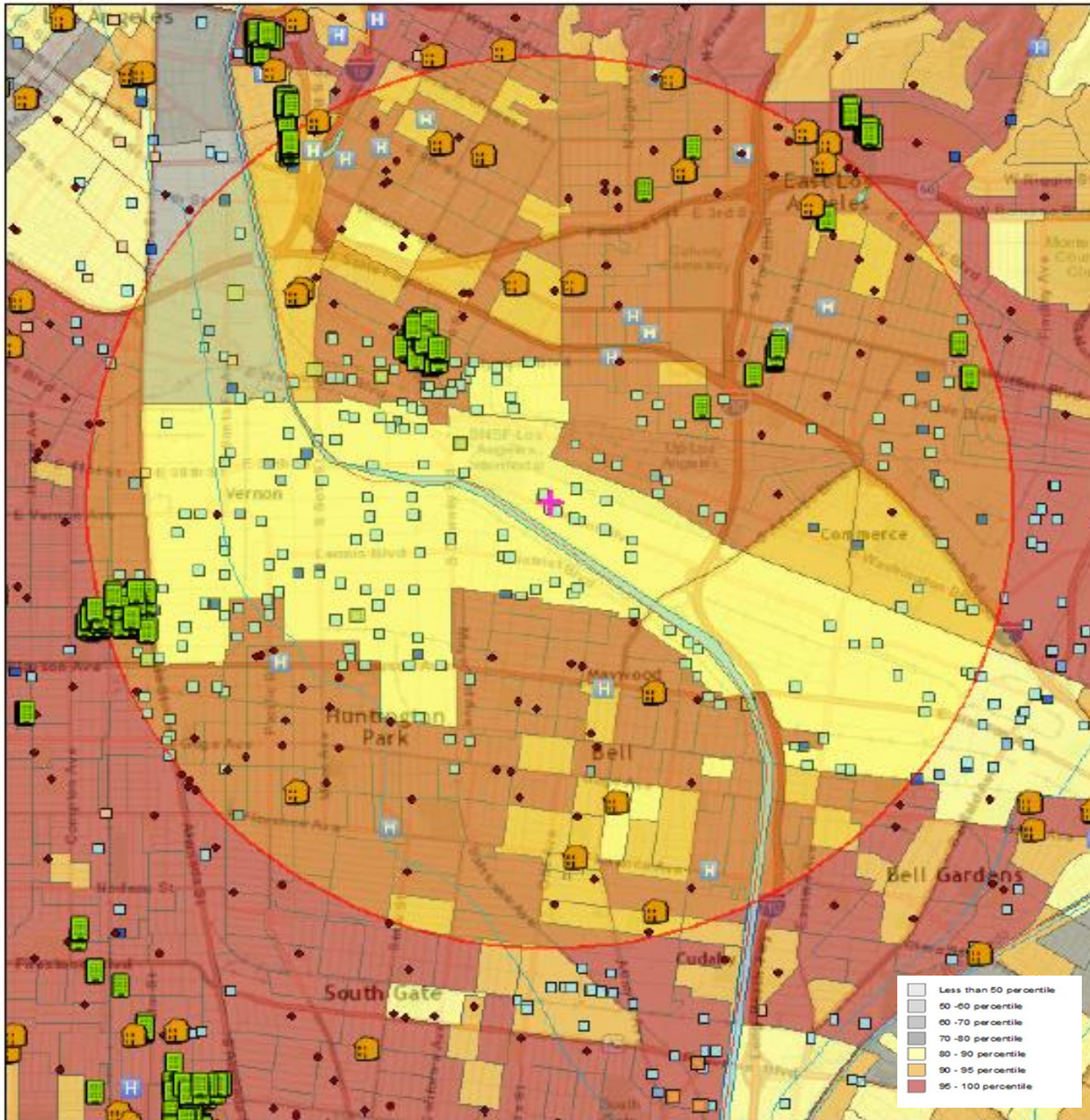
Never overlook the Community's Story

<http://www.goldmanprize.org/recipient/mark-lopez/>

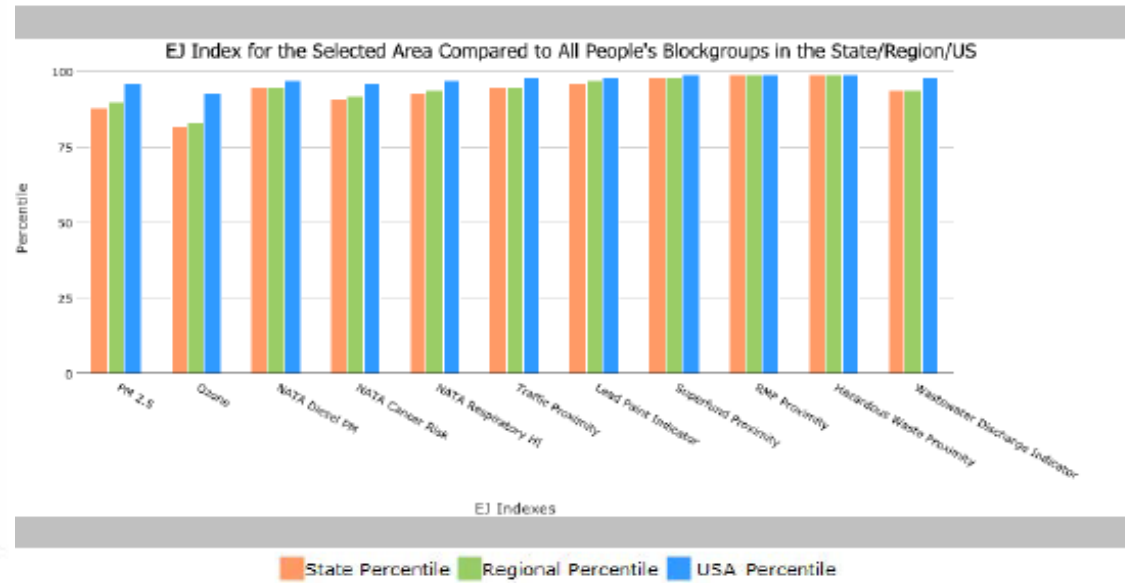
<http://www.latimes.com/local/lanow/la-me-exide-cleanup-story-so-far-20151121-story.html>



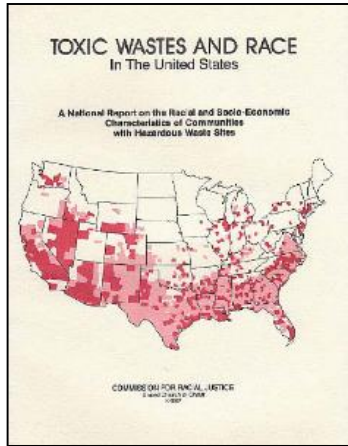
3 Mile Ring centered on 2700 S. Indiana St,
Vernon, CA
Approx. Pop: 315,827
Area: 28.27 sq. miles



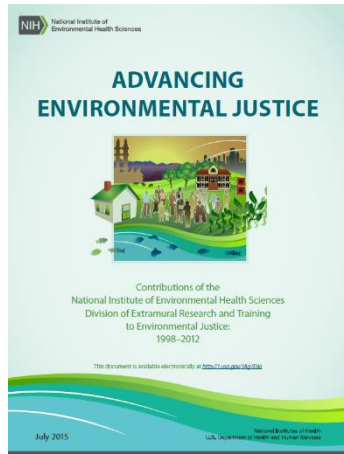
Selected Variables	State Percentile	EPA Region Percentile	USA Percentile
EJ Indexes			
EJ Index for PM2.5	88	90	96
EJ Index for Ozone	82	83	93
EJ Index for NATA* Diesel PM	95	95	97
EJ Index for NATA* Air Toxics Cancer Risk	91	92	96
EJ Index for NATA* Respiratory Hazard Index	93	94	97
EJ Index for Traffic Proximity and Volume	95	95	98
EJ Index for Lead Paint Indicator	96	97	98
EJ Index for Superfund Proximity	98	98	99
EJ Index for RMP Proximity	99	99	99
EJ Index for Hazardous Waste Proximity	99	99	99
EJ Index for Wastewater Discharge Indicator	94	94	98



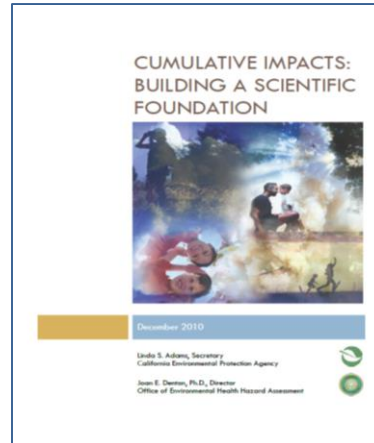
Research and Analytical Tools



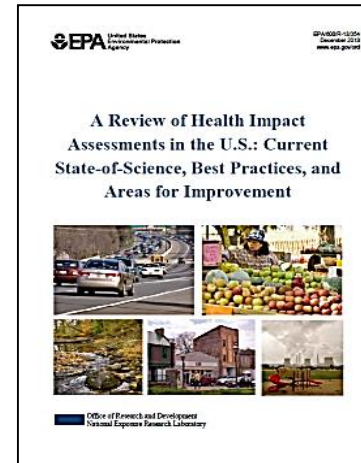
Distributional Analysis



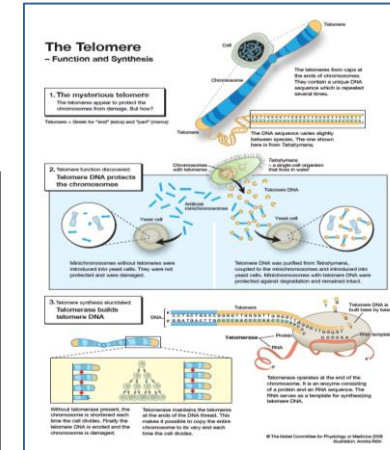
**Community-Based Participatory Research
Citizen Science
Monitoring**



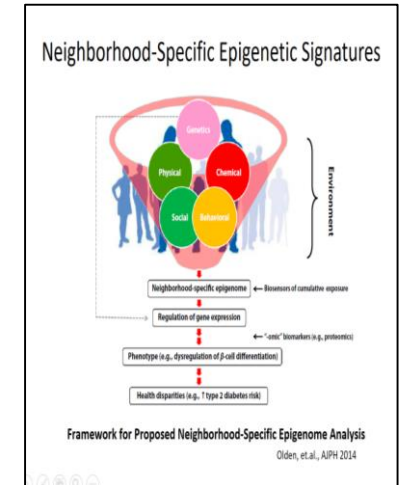
**Mapping
Screening
Cumulative Impacts
Analysis**



**Health Impact Assessment
(Social Impacts)**



Biomarkers



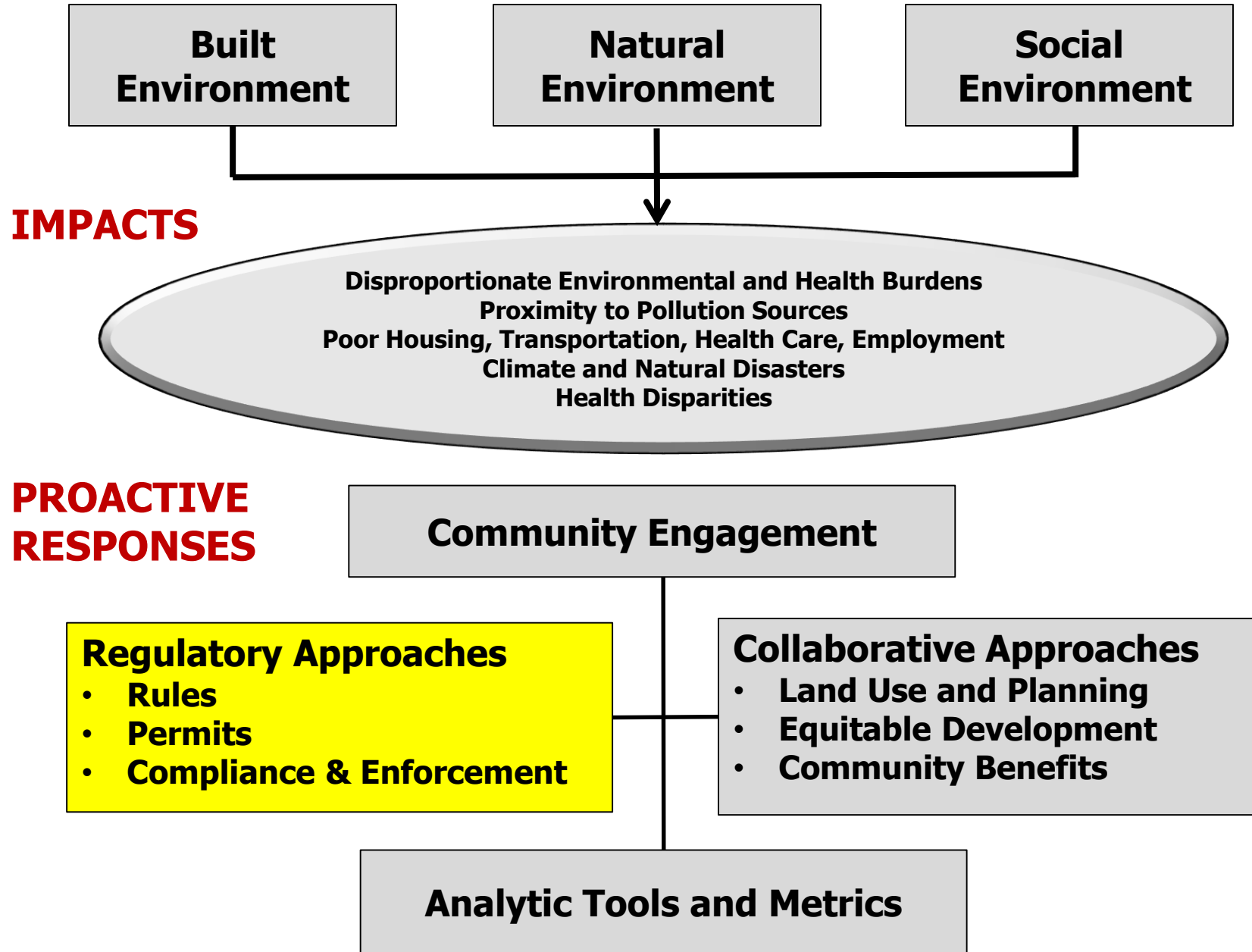
Epigenomics

Integrated Approaches

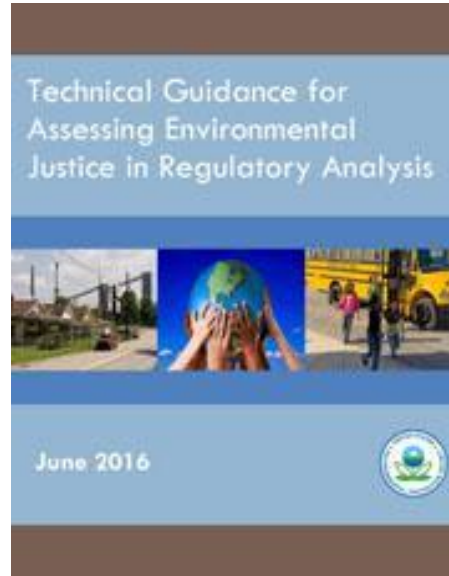
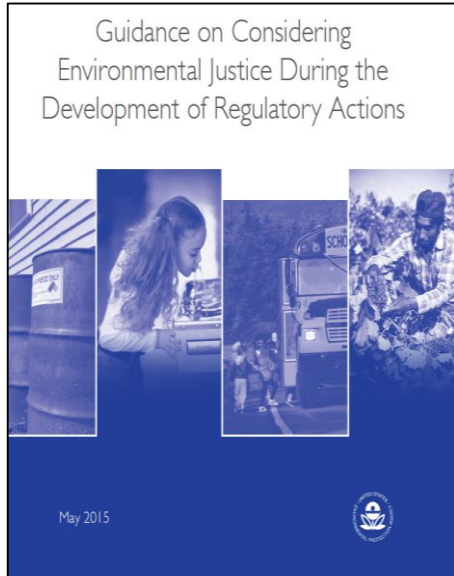
National EJ Challenges and Measures of Success

Challenge	Measure of Success
Blood Lead Level Disparities	Reduce the percent difference in the geometric mean blood lead levels between low income and non low income children.
Small Water Systems	Reduce the number and % of small community water systems and non-transient non-community water systems with repeat health violations of key contaminants.
Tribal Drinking Water Systems	% of population in Indian country served by community water systems with drinking water that meets all applicable health-based drinking water standards.
Fine Particulate Air Pollution	% of low income people living in counties with monitors measuring concentrations of PM _{2.5} that meet the 2012 annual and 2006 24-hour PM _{2.5} NAAQS.
Hazardous Waste Sites	Achieve Human Exposure Under Control to contamination at hazardous waste sites with overburdened communities.



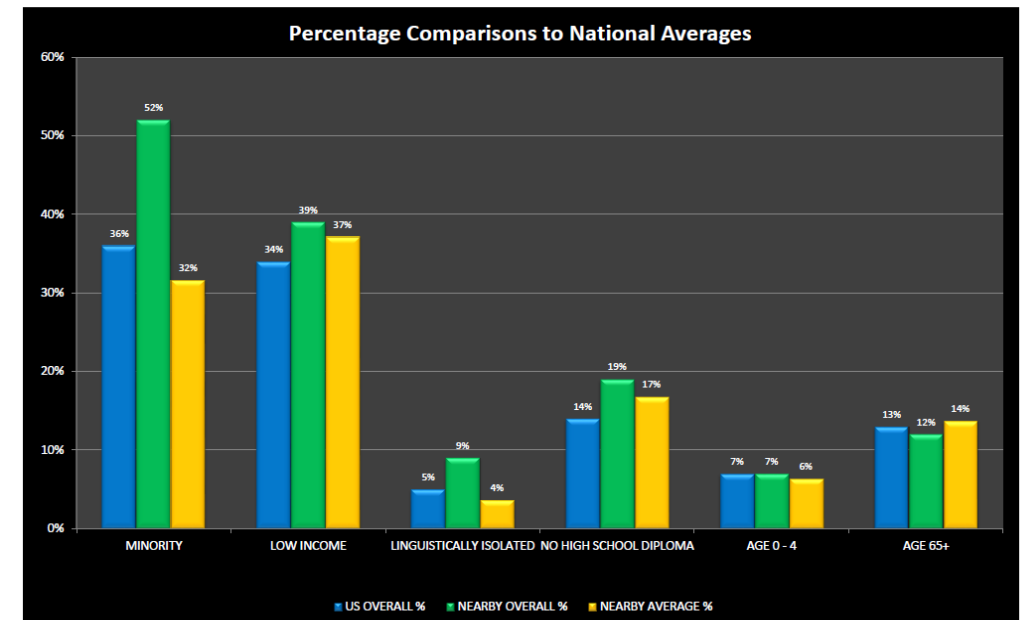
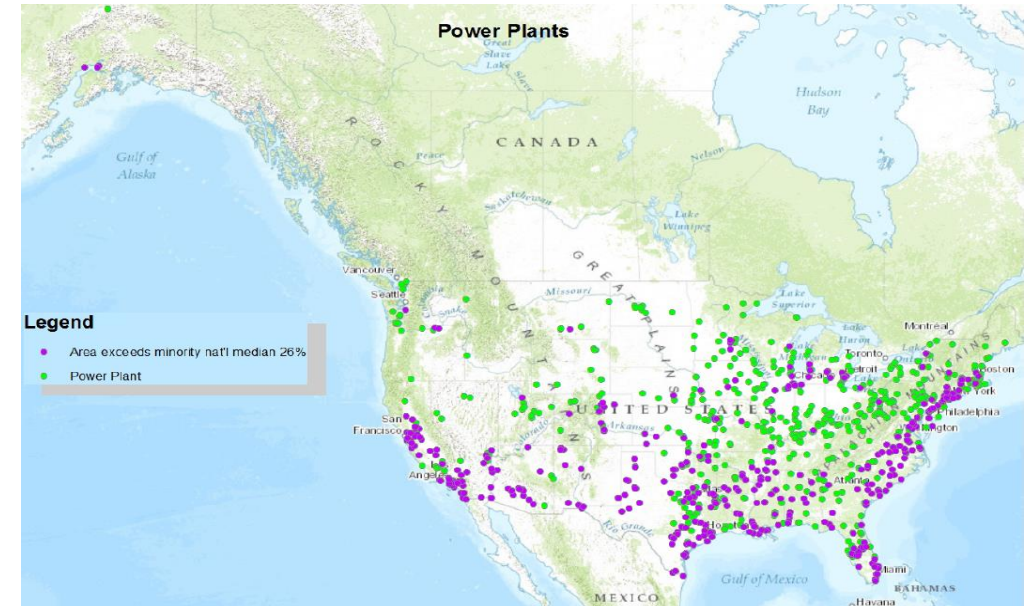


Environmental Rules



- Guidance on Considering Environmental Justice During the Development of a Regulatory Action (2015)
- Technical Guidance for Assessing Environmental Justice in Regulatory Analysis (2016)

EJSCREEN Analysis for Clean Power Plan

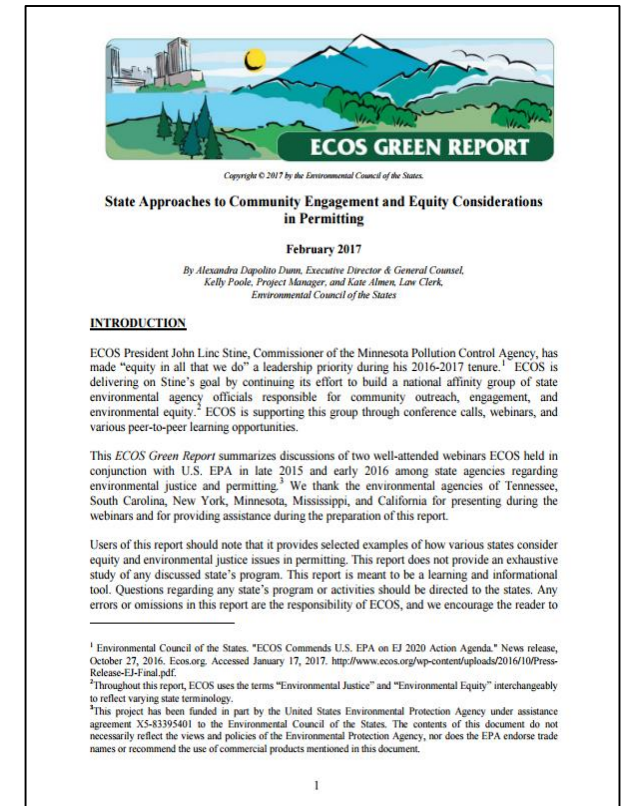


Nearby Overall % (from table 1) is calculated by summing population counts, population-weighting, to derive a demographic % whereby urban study areas may have more influence on the results than rural areas. Nearby Average % (from table 2) is calculated by averaging the study area percentages (when the total population >= 100) as an alternative to the population-weighting method.

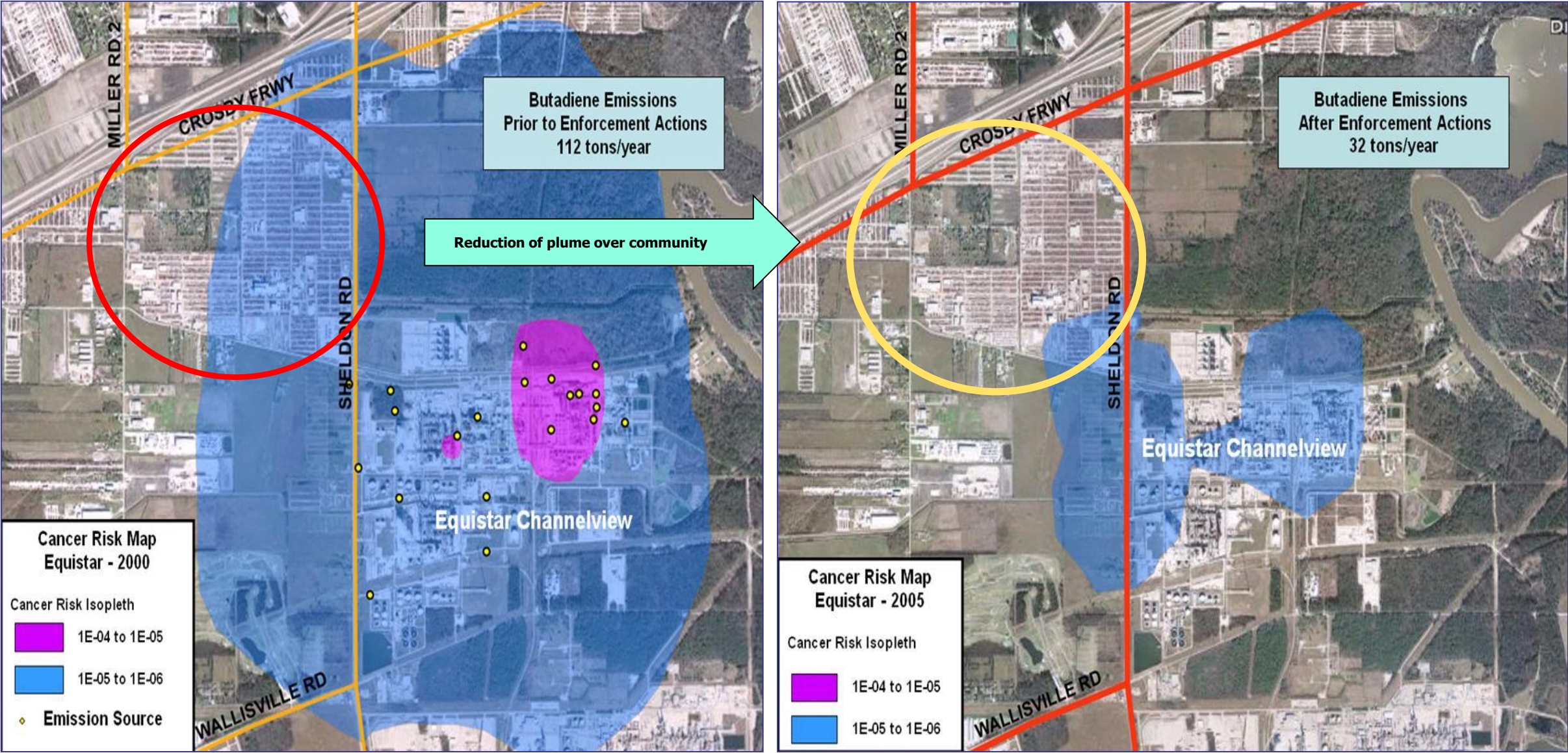
Environmental Permitting

ECOS Green Report on Community Engagement and Equity Considerations in Permitting (2017):

- “Establishing communications pathways may help avoid delays, identify new solutions with input from stakeholders, contribute to improved community relations, and ensure communities are heard in the permitting process.”
- Potential promising practices include: Public Participation Toolkit (TDEC), Public Participation Team (SCDHEC), Project Awareness Checklist (MDEQ), and S.B. 673 requirements for consideration of factors in permitting (CalEPA), including cumulative impacts.



Environmental Compliance and Enforcement



Equistar Channelview: Butadiene Reduction from Targeted Sources

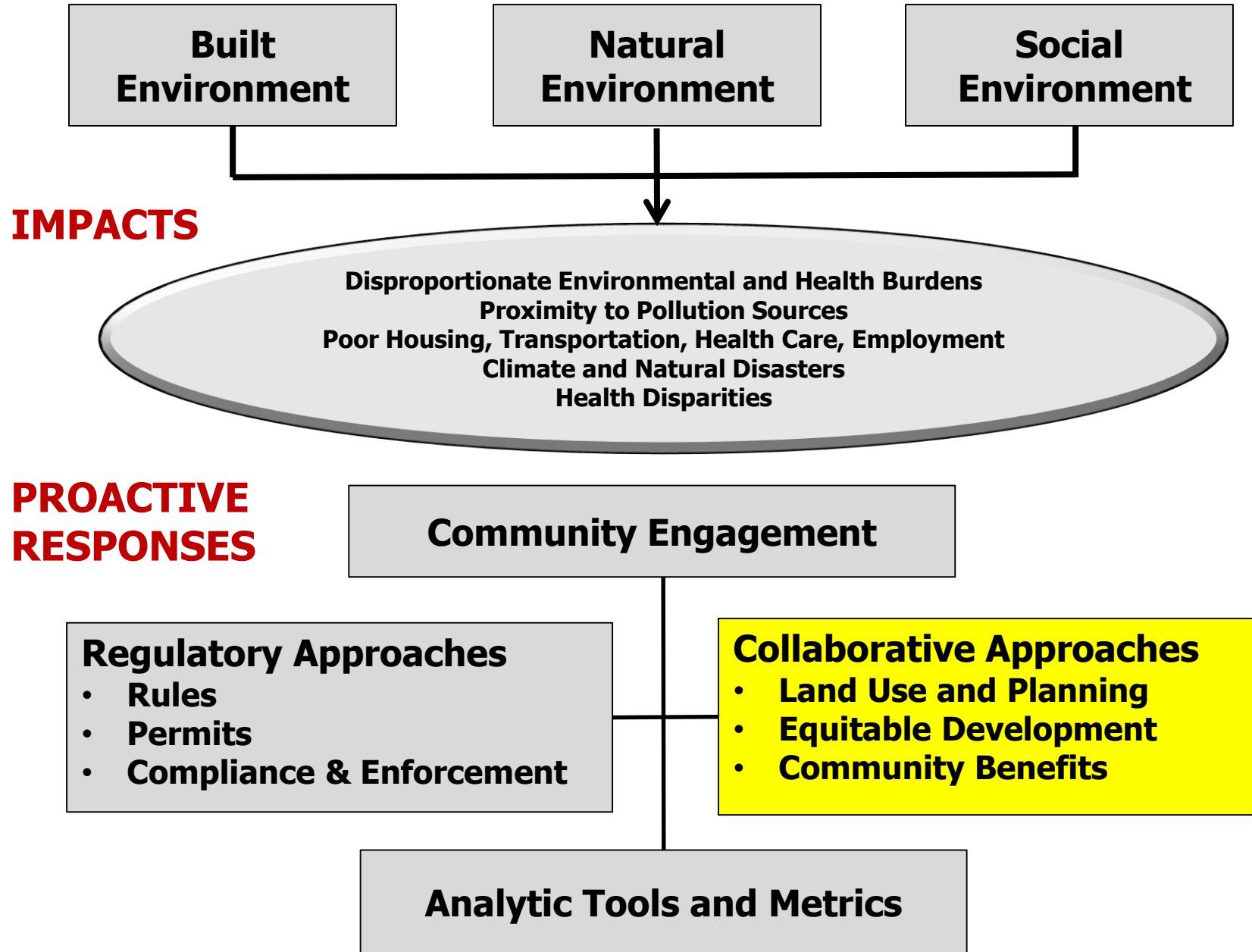
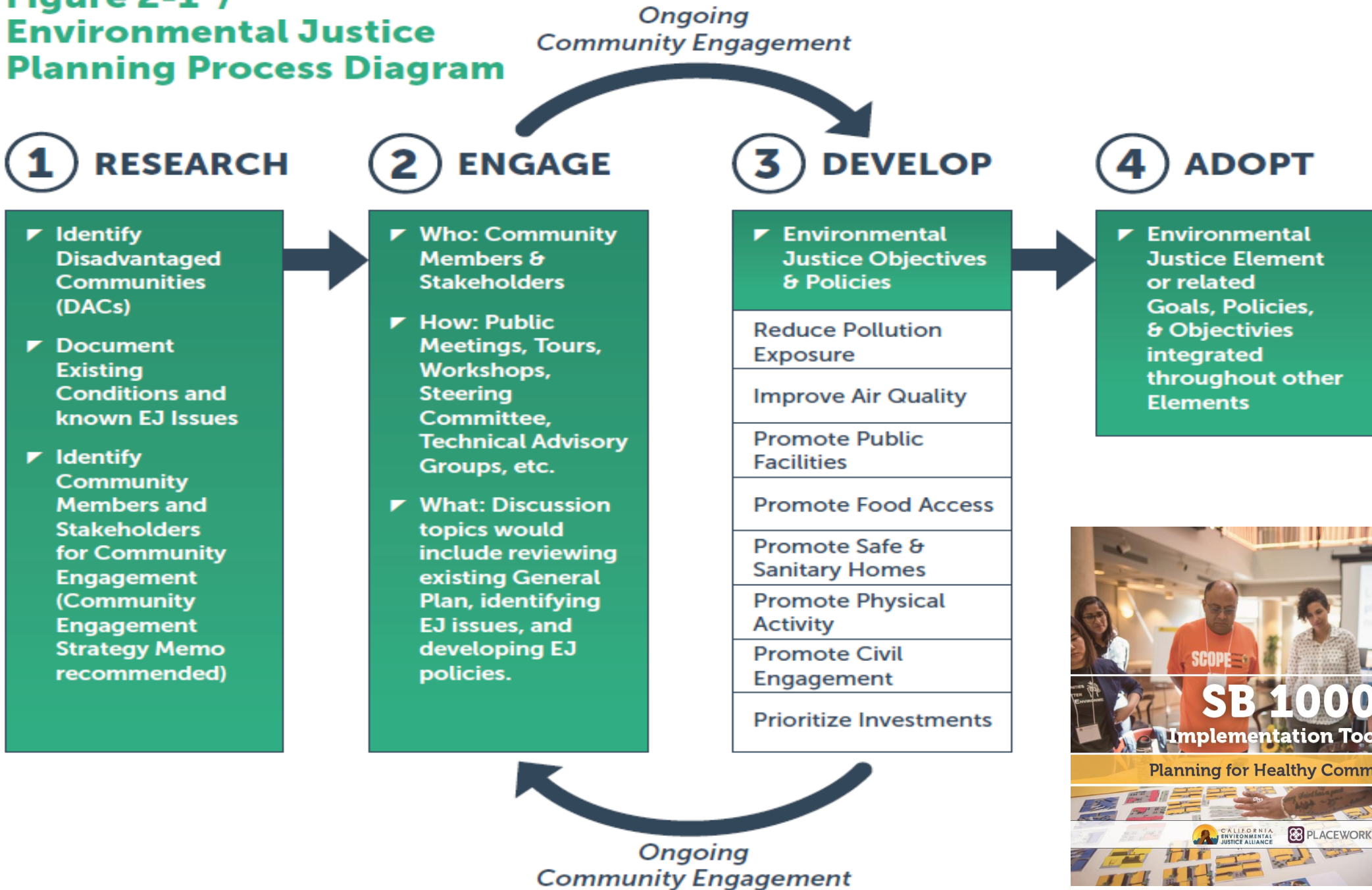


Figure 2-1 / Environmental Justice Planning Process Diagram



Communities are Seeing Results...

Spartanburg, South Carolina

Population: 37,647

Transformative effort advanced from addressing contaminated properties to wholesale community revitalization; Leveraged \$20,000 EJ Grant to over \$275 million in support

Partners: ReGenesis, EPA, SCDHEC, Spartanburg, Federal agencies, Solvay and other businesses

- 6 federally funded community health centers
- Job training and employment programs
- New transportation thoroughfare
- 500 public housing units
- New state of the art community center
- New retail opportunities
- Planned reuse includes Solar Facility, STEM School and Urban Golf Course



Other Examples Abound...

Fruitvale Transit Village (Oakland, CA)

- Converted BART parking lot into mixed use community
- Partners included Unity Council, BART, City of Oakland, DOT
- Organized community planning council
- Leveraged \$100 million in public and private sector funding



Bayview, Virginia

- Leveraged \$20K EJ Grant to over \$7 million
- New public drinking water and sewer systems
- New homes and rental units for low-income families (as many as 75 homes to be built)
- Driveways, street lights and sidewalks installed
- Bayview citizens to address community needs and to work to make a sustainable community



Arcs of History in Environmental Justice: Forty Years Later

“The arc of the moral universe is long, but it bends toward justice.”
(Martin Luther King, Jr.)



I learned in the shadow of an empty steel plant more than two decades ago, while you can't necessarily **bend history** to your will, you can do your part to see that... it **“bends toward justice.”** (President Barack Obama)





CONCLUSION

“One conclusion I would draw is that the issue of environmental justice, which did not have a name when the UCC began to address it, is now here to stay...

EJ issues in the 21st century will be local, regional, national and international. If we are to rise to these challenges, we must nurture new generations of EJ leaders—knowledgeable about how to work in both communities and institutions, armed with stellar technical and legal skills, and most important, guided by audacious vision and commitment.”

Charles Lee, on 30th anniversary of Toxic Wastes and Race

http://www.ucc.org/pollinator_an_interview_with_charles_lee