Legal Services Of NJ Melville
“De” Miller Justice Series Event:

Environmental Justice in New Jersey

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Virtual Event

Environmental Justice Policy: Cumulative Impacts and Mandatory Emissions Reductions

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Figure 1: Relationship Between Cumulative Impact and Percent Minority

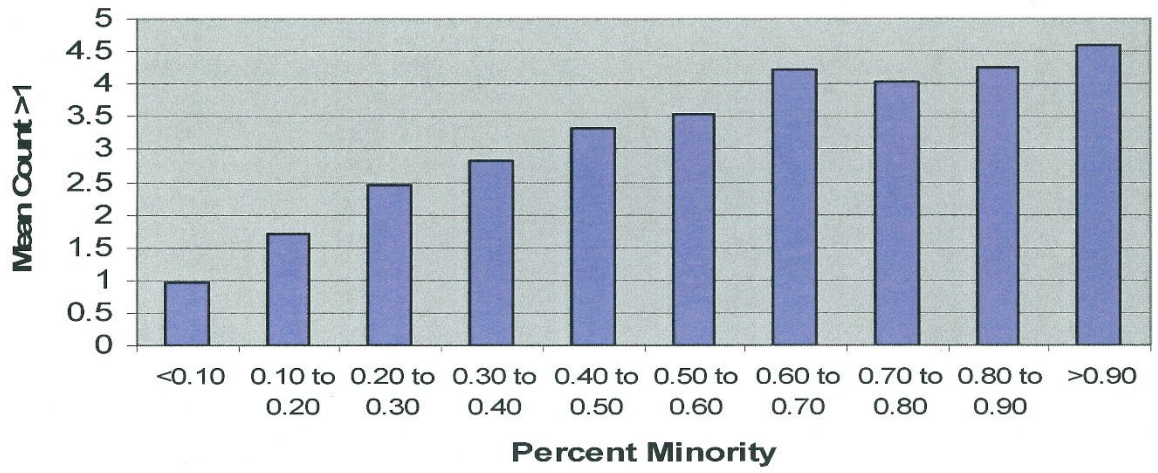
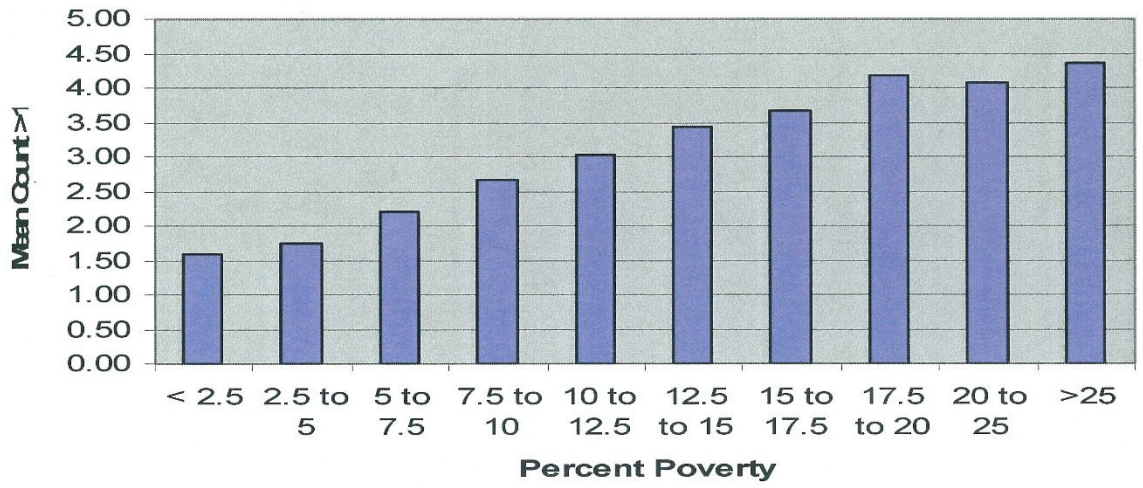


Figure 2: Relationship Between Cumulative Impact and Poverty



- Grouped all block groups based on percent minority and poverty
- Calculated average cumulative impact score for combined groups
- Cumulative impact scores increase steadily with increasing percent minority and poverty

A Preliminary Screening Method to Estimate Cumulative Environmental Impact

Presentation by the New Jersey Department of Environmental Protection to the Environmental Justice Advisory Council

December 2, 2009

Indicators:

- NATA diesel (1999)
- NATA cancer risk
- NJDEP benzene estimates
- Traffic (all)
- Traffic (trucks)
- Density of major regulated sites
- Density of known contaminated sites
- Density of dry cleaners
- Density of junkyards

More Recent Studies

More recent studies with similar findings on a national level regarding air pollution exposure:

Di et al. 2021.

Tessum et al. 2021.

Tessum et al. 2019.

Cumulative Impacts:

The risks and impacts caused by multiple pollutants, usually emitted by multiple sources of pollution in a community, and their interaction with each other and with social vulnerabilities that exist in a community.

Problem:

- **We attempt to regulate pollutant by pollutant through individual standards;**
- **But there can be detrimental health effects even if no individual standard is violated.**

NJ EJ Alliance Cumulative Impacts Policy:

- EJ and cumulative impacts municipal ordinance;
- Statewide Policy: Integrating cumulative impacts into NJDEP and EPA permitting.

NJ Statewide Cumulative Impacts Policy Timeline

2001-2002	DEP proposed rule;
2007-2008	NJ EJ Alliance (NJEJA) Camden meeting;
2008-2009	NJEJA cum. impacts com. formed;
	(NJEJA, ICC, CWA, EELC and others);
Spring 2009	EJ Advisory Council hearing and report;
	(NJEJA cum. impacts com. advising);
2010	NJEJA cum. impacts com. #2 formed;
2011	NJEJA policies released;
2012	First NJ statewide cum. impacts bill;
2017	EJ Act of 2017 (Sen. Booker);
2019	EJ for All Act (Reps. Grijalva and McEachin);
2018-2020	New NJ statewide cumulative impacts bill;
	(Sen. Singleton)

NJ Statewide Cumulative Impacts Law
Key Features

1) Definition of Over-Burdened (EJ) Communities:

- **40% Of Color;**
- **35% Low-income;**
- **40% limited English proficiency.**

Geographic unit is block group

2) If facility seeking permit would cause higher cumulative environmental and public health stressors:

- **New permit: denied;**
- **Expansion: conditions;**
- **Renewal: conditions.**

EJ Analyses

- **Would granting permit "cause or contribute to adverse cumulative environmental and public health stressors in the overburdened community that are higher than those borne by other communities within the state, county or other geographic unit"…**

- **These analyses are to be contained in an EJ impact statement prepared by the applicant.**

Environmental and Public Health Stressors

- **Sources of environmental pollution including but not limited to concentrated areas of air pollution, mobile sources of air pollution, contaminated sites, transfer stations or other solid waste facilities, recycling facilities, scrap yards…**
- **Point sources of water pollution including but not limited to water pollution from facilities or CSOs…**
- **…conditions that may cause potential public health impacts including but not limited to asthma, elevated blood levels, cardiovascular disease and developmental problems in the overburdened community.**

Environmental and Public Health Stressors

1) Ozone – Days above national ambient air quality standard;
2) PM2.5 - Days above national ambient air quality standard;
3) Diesel cancer risk – From NATA data;
4) Non diesel cancer risk – From NATA data;
5) NATA non-cancer risk – From NATA data;
6) Permitted air sites – Number of sites per square mile;
7) Traffic, major highways – Density for all vehicles;
8) Truck traffic – Density of near road single & combined trucks;
9) Railways – Near railroad rail miles;
10) Warehouses, goods movement/storage – Sites per square mile;
11) Surface water quality – Integrated report designated uses non-attainment;
12) CSO – Number of sites per square mile;

Environmental and Public Health Stressors

13) All NJDPES sites – Number of sites per square mile;

14) Solid waste facilities – Number of transfer stations, solid waste & recycling facilities and incinerators per square miles weighted by permitted tons per day of material;

15) Scrap yards – Number of sites per square mile;

16) Contaminated sites – Density of known contaminated sites;

17) Soil contamination - % acres of block group with deed notice restrictions;

18) Groundwater restricted areas - % acres of block group with classification exceptions or currently known extent notice restrictions;

19) Total regulated facilities under EJ law – Density of facilities (for example, major air sources, solid waste facilities, sludge incinerators);

Environmental and Public Health Stressors

20) Drinking water quality – Number of maximum concentration level, treatment technique & action level exceedance violations;

21) Extraordinarily hazardous facilities – Density of facilities;

22) Age of housing - % of pre-1950 housing;

23) Lack of recreational open spaces - % of population living more than a 10 minute walk from public recreational open space;

24) Lack of tree canopy – Spatially weighted mean tree canopy cover;

25) Impervious cover - % impervious cover in block group;

26) Flooding - % of land in 500 year flood zone;

27) Unemployment - % of unemployed adult population;

28) Education - % of older population with less than a high school diploma.

Important Aspects of the Law

- **May vs. shall;**
- **Inclusion of placing conditions on renewals and expansions;**
- **Compelling public interest exception;**
- **Attempting to ensure the law is inclusive as opposed to exclusive (i.e. having the law cover as many communities as possible).**

Compelling Public Interest and Holding Government Accountable

"…except that where the department determines that a new or expanded facility will serve a compelling public interest in the community where it is to be located, the department may grant a permit that imposes conditions on the construction and operation of the facility to protect public health."

Industry is trying to include economic considerations in the exception which would undermine the law.

NJ EJ community and allies persuaded over 150 people to come to a public meeting with most speaking against inclusion of economic considerations.

Facilities

- Major sources of air pollution;
- Resource recovery facility or incinerator;
- Sludge processing facility, combustor or incinerator;
- Sewage treatment plant with capacity > 50 million gal/day;
- Transfer station or other solid waste facility, or recycling facility intending to receive at least 100 tons recyclable material per day;
- Scrap metal facility;
- Landfill including but not limited to those receiving ash, construction or demolition debris, or solid waste;
- Medical waste incinerator except that … is not attendant to a hospital or university & intended to process self-generated regulated medical waste.

Regulations

Regulations are being developed that :

- **Determine the universe of stressors;**
- **Determine how to compare stressors between communities;**
- **Determine the geographic units of comparison.**

Regulations

Where we think they're going:

- **Rank each stressor on a state level;**
- **Determine avg. # of stressors above 50th percentile for non-overburdened block groups in the state;**
- **Determine avg. # of stressors above 50th percentile for each county;**
- **Determine # of stressors above 50th percentile for block group in which facility will be sited;**
- **Compare # of stressors above 50th percentile in facility's block to avg. # above in state or county, whichever is lower.**

Cumulative Policies for Cumulative Impacts

NJEJA Statewide Cumulative Impacts Policy

- Identify EJ and/or overburdened communities and protect them from new sources of pollution by not allowing new permits that increase pollution;
- Reduce existing pollution by not allowing permit renewals unless pollution would be decreased;
- Provide “quality of life incentives” for: green space, nutritious affordable food, non-polluting businesses, etc.

Climate Change Mitigation Policy

Reduce emissions of GHG's; especially carbon Dioxide.

The Premise

Climate change mitigation policy should produce emissions reductions for EJ communities.

More Detailed Premise

- Guaranteed emissions reductions in and near EJ communities; preferably with GHG co-pollutant reductions intentionally maximized, but reductions either way;
- Co-pollutant of concern: fine particulate matter;
- Power plants that affect EJ communities must reduce emissions.

More On Co-Pollutants

- Fine particulate matter ($PM_{2.5}$): linked to premature death (200,000 estimated in 2005), cardiovascular disease, pulmonary disease, lung cancer;
- Nitrogen oxides (NO_x) and sulfur dioxide (SO_2): some effects of their own but also precursors to PM (both) and ozone (No_x);
- Hazardous air pollutants (HAPs): cancer; neurological disorders; and respiratory, reproductive and developmental disorders.

Goal and Opportunity

Drive down concentrations of fine particulate matter and other GHG co-pollutants as low as possible;

Fine particulate matter has no lower threshold for health benefits;

Makes climate change policy immediately relevant to EJ communities.

The Need

Investigations have found that EJ communities are disproportionately exposed to unwanted land uses and environmental hazards, including air pollution.

Tessum et al. 2021;
Tessum et al. 2019;
Bullard et al. 2007;
Mohai and Saha 2007

Ash et al. 2009;
Pastor et al. 2005;
Pastor et. 2004;
Houston et al. 2004;
Jarrett et al. 2001;
Wernette and Nieves 1992.

The Problem

- **Carbon-trading is the country's dominant climate change mitigation policy (*see* RGGI & AB32);**
- **Carbon-trading dos not mandate reductions at any specific facility or location;**
- **Leaves EJ and equity to chance and doesn't guarantee reductions in communities with the most pollution.**

The Problem

Under carbon-trading three things can happen to emissions in EJ communities:

- **Emissions can increase;**
- **Emissions can stay the same;**
- **Emissions can be reduced.**

Note: See new study by Cushing et al.

Arguments

- Climate change mitigation policy should yield reductions above and beyond those produced by other sections of the Clean Air Act;

- Due to high levels of cumulative impacts we need to use multiple mechanisms to reduce pollution in EJ communities (cumulative policies for cumulative impacts);

- Other sections of the Clean Air Act do not protect our communities enough.

EJ and Equity

- EJ and equity should be part of climate change mitigation policy;

- EJ and Equity should not be left to chance or addressed later;

- The market should not make our EJ and equity decisions, they should be planned and intentional.

New Jersey

- NJ re-enters the Regional Greenhouse Gas Initiative (RGGI) over the objections of the EJ community;
- EJ community requests that its mandatory emissions reductions proposal be integrated into NJ's RGGI rule;
- New NJ government doesn't respond to the request;
- NJ might release rules that set emissions standards for power plants in addition to RGGI requirements.

Community Level Input

- Considering ”ground-truthing” the policy on a community level in a community that is host to a power plant.

- And forming a statewide mandatory emissions reductions workgroup.

Color Scheme

How important are equity and justice to you?

Challenge: make obtaining emissions reductions for EJ communities as important as obtaining GHG reductions.

END

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Sheats, N., Achieving Emissions Reductions For Environmental Justice Communities Through Climate Change Mitigation Policy, 41(2) *William and Mary Environmental Law and Policy Review* 377 (winter 2017).