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Environmental Justice and Air Permitting

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Welcome

Key Takeaways

→ What is Environmental Justice?

Recent Administration Actions

The EJSCREEN Tool

Environmental Justice and Air Permitting



Equality, Equity and Justice [1]

Equality

- Assume everyone benefits from same supports

Equity

- Everyone gets the support they need, but reasons for inequity are not addressed

Justice

- Affirmative steps taken, cause of inequity addressed, systemic barrier removed

[1] EPA, Learn about Identifying Communities with Environmental Justice (EJ) Concerns, June 24, 2021.
URL: <https://www.youtube.com/watch?v=rQ5qgbBvfxw>

What is Environmental Justice (EJ)? [2]

- Fair treatment
 - No disproportionate share of negative environmental consequences
- Meaningful involvement
 - Opportunity to participate in decisions
 - Public can influence regulatory agency's decisions
 - Community concerns considered in decision making
 - Decision makers seek and facilitate the involvement of affected group
- All people regardless of race, color, national origin, or income
 - Define what your community is and whether it is EJ or not is the right of the community [1]
- With respect to the development, implementation and enforcement of environmental laws, regulations and policies

[1] EPA, Learn about Identifying Communities with Environmental Justice (EJ) Concerns, June 24, 2021. URL: <https://www.youtube.com/watch?v=rQ5qqbBvfxw>

[2] EPA, Learn about Environmental Justice. URL: <https://www.epa.gov/environmentaljustice/learn-about-environmental-justice>



Recent Administrative Actions

Executive Order 13990

- Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis
- Signed 1/20/2021, Published 1/25/2021
 - *Section 1 – ... Where the Federal Government ..., it must advance environmental justice... [3]*

EPA Directive

- Administrator Regan Directs Agency to Take Steps to Better Serve Historically Marginalized Communities – 4/7/2021
 - *... Regan directed all EPA offices to clearly integrate environmental justice considerations into their plans and actions. [4]*
 - *... Strengthen enforcement ..., ... incorporate environmental justice considerations into their work, ... improve early and more frequent engagement ..., ... consider and prioritize ... benefits to underserved communities... [4]*

[3] Federal Register, Vol. 86, No. 14, January 25, 2021, Presidential Documents, Page 7037

[4] EPA, EPA Administrator Announces Agency Actions to Advance Environmental Justice, April 7, 2021. URL: <https://www.epa.gov/newsreleases/epa-administrator-announces-agency-actions-advance-environmental-justice>

EJSCREEN – Free Evaluation Tool by EPA

11 environmental indicators^[5]

6 demographic indicators^[5]

11 EJ indexes^[5]

- EJSCREEN shows ***percentiles*** instead of raw value of these indicators and indexes^[6]
- For example, the national percentile tells **what percent of the US population has an equal or lower value, meaning less** potential for exposure or risk^[6]
- Higher percentiles indicates more vulnerable situation

[5] EPA, What is EJSCREEN? URL: <https://www.epa.gov/ejscreen/what-ejscreen>

[6] EPA, How to Interpret a Standard Report in EJSCREEN. URL: <https://www.epa.gov/ejscreen/how-interpret-standard-report-ejscreen>

11 EJ Indexes & 11 Environmental Indicators^[7]

The screenshot shows the EPA website's 'Overview of Environmental Indicators in EJSCREEN' page. The page features a navigation menu with 'Environmental Topics', 'Laws & Regulations', 'Report a Violation', and 'About EPA'. A search bar is located at the top right. The main content area is titled 'Overview of Environmental Indicators in EJSCREEN' and includes a 'Summary Table of Environmental Indicators and Data Sources'.

Key Medium	Indicator	Details	Source	Data Year
Air	National-Scale Air Toxics Assessment (NATA) air toxics cancer risk	Lifetime cancer risk from inhalation of air toxics	EPA NATA	2014
Air	NATA respiratory hazard index	Air toxics respiratory hazard index (ratio of exposure concentration to health-based reference concentration)	EPA NATA	2014
Air	NATA diesel PM	Diesel particulate matter level in air, $\mu\text{g}/\text{m}^3$	EPA NATA	2014
Air	Particulate matter	$\text{PM}_{2.5}$ levels in air, $\mu\text{g}/\text{m}^3$ annual avg.	EPA, Office of Air and Radiation (OAR) fusion of model and monitor data	2017

- PM-2.5
- Ozone
- Air Toxics Diesel PM
- Air Toxics Cancer Risk
- Air Toxics Respiratory Hazard
- Traffic Proximity
- Lead Paint
- Superfund Proximity
- RMP Proximity
- Hazardous Waste Proximity
- Wastewater Discharge Proximity

[7] EPA, Overview of Environmental Indicators in EJSCREEN. URL: <https://www.epa.gov/ejscreen/overview-environmental-indicators-ejscreen>

6 Demographic Indicators and Demographic Index [8]

Overview of Demographic Indicators in EJSCREEN

EJSCREEN uses demographic factors as very general indicators of a community's potential susceptibility to the types of environmental factors included in this screening tool, as explained further in the [EJSCREEN Technical Documentation](#). EJSCREEN has been designed in the context of EPA's EJ policies, including [EPA's Final Guidance on Considering Environmental Justice During the Development of an Action \(U.S. EPA, 2010\)](#). That guidance document explained EPA's focus on demographics as an indicator of potential susceptibility to environmental pollution.

There are six demographic indicators:

- 1. Percent Low-Income:**
 - The percent of a [block group](#)'s population in households where the household income is less than or equal to twice the federal "poverty level."
- 2. Percent People of Color:**
 - The percent of individuals in a block group who list their racial status as a race other than white alone and/or list their ethnicity as Hispanic or Latino. That is, all people other than non-Hispanic white-alone individuals. The word "alone" in this case indicates that the person is of a single race, not multiracial.
- 3. Less than high school education:**
 - Percent of people age 25 or older in a block group whose education is short of a high school diploma.
- 4. Linguistic isolation:**
 - Percent of people in a block group living in linguistically isolated households. A household in which all members age 14 years and over speak a non-English language and also speak English less than "very well" (have difficulty with English) is linguistically isolated.
- 5. Individuals under age 5:**
 - Percent of people in a block group under the age of 5.
- 6. Individuals over age 64:**
 - Percent of people in a block group over the age of 64.

EJSCREEN includes an index that is based on the above demographic indicators:

- A Demographic Index** is based on the average of two demographic indicators; Percent Low-Income and Percent Minority.

- People of Low Income
- People of Color Population
- Linguistically Isolated
- Less than High School Education
- Under Age 5
- Over Age 64

- Demographic Index
 - takes first two indicators into account^[9]
- Supplemental Demographic Index
 - takes all indicators into account^[9]

[8] EPA, Overview of Demographic Indicators in EJSCREEN. URL: <https://www.epa.gov/ejscreen/overview-demographic-indicators-ejscreen>

[9] EPA, EJSCREEN Technical Documentation, May 2015, Page

EJ Indexes Calculation^[10]

EJ Index =

(Environmental Indicator)

x (Demographic Index for Block Group – Demographic Index for US)

x (Population Count for Block Group)



Explore Reports

3 miles Ring Centered at 30.425585, -91.133652, LOUISIANA, EPA Region 6 (Population: 84,559)

Environmental Indicators Demographic Indicators **EJ Indexes**

[Unselect All]

- PM 2.5
- Ozone
- NATA Diesel PM
- NATA Cancer Risk
- NATA Respiratory HI
- Traffic Proximity
- Lead Paint Indicator
- Superfund Proximity
- RMP Proximity
- Hazardous Waste Proximity
- Wastewater Discharge Indicator

State Percentile Regional Percentile USA Percentile

EJ Indexes for the Selected Area Compared to All People's Block Groups in the State/Region/US

Category	State Percentile	Regional Percentile	USA Percentile
PM 2.5	59	50	66
Ozone	58	48	64
NATA Diesel PM	65	58	69
NATA Cancer Risk	61	56	70
NATA Respiratory HI	62	58	71
Traffic Proximity	76	66	72
Lead Paint Indicator	65	65	70
Superfund Proximity	67	60	69
RMP Proximity	78	71	81
Hazardous Waste Proximity	75	76	75
Wastewater Discharge Indicator	68	63	78

Get Data Table

Tabular View

3 miles Ring Centered at 30.425585, -91.133652, LOUISIANA, EPA Region 6 (Population: 84,559)

#	Category	Selected Variables	Value	State Avg.	%ile in State	EPA Region Avg.	%ile in EPA Region	USA Avg.	%ile in USA
1	EJ Index	EJ Index for Particulate Matter (PM 2.5)			59		50		66
2	EJ Index	EJ Index for Ozone			58		48		64
3	EJ Index	EJ Index for NATA Diesel PM			65		58		69
4	EJ Index	EJ Index for NATA Air Toxics Cancer Risk			61		56		70
5	EJ Index	EJ Index for NATA Respiratory Hazard Index			62		58		71
6	EJ Index	EJ Index for Traffic Proximity and Volume			76		66		72
7	EJ Index	EJ Index for Lead Paint Indicator			65		65		70
8	EJ Index	EJ Index for Superfund Proximity			67		60		69
9	EJ Index	EJ Index for RMP Proximity			78		71		81
10	EJ Index	EJ Index for Hazardous Waste Proximity			75		76		75
11	EJ Index	EJ Index for Wastewater Discharge Indicator			68		63		78
12	Environmental	Particulate Matter (PM 2.5 in ug/m3)	9.81	8.91	92	8.95	87	8.55	87
13	Environmental	Ozone (ppb)	36	36.2	47	41.8	14	42.9	13
14	Environmental	NATA Diesel PM (ug/m3)	0.749	0.455	86	0.401	90-95th	0.478	80-90th
15	Environmental	NATA Air Toxics Cancer Risk (risk per MM)	68	51	89	36	95-100th	32	95-100th
16	Environmental	NATA Respiratory Hazard Index	0.86	0.61	95	0.45	95-100th	0.44	95-100th
17	Environmental	Traffic Proximity and Volume (daily traffic count/distance to	840	330	91	400	88	750	78

Environmental and Demographic Indicators





EJ and Air Permitting – Evolving Relationship

- Historically, EPA has promoted public involvement by overburdened communities in permitting process, especially for major permitting activities such as Title V and prevention of significant deterioration (PSD)
- In March 2021, a draft legislation, CLEAN Future Act (H.R. Bill 1512), was introduced to the U.S. House of Representative. Some of the proposed provisions are strongly tied to EJ for air permitting
- State agencies have moved towards integrating EJ into rules and regulations governing the air permitting process

Other Factors

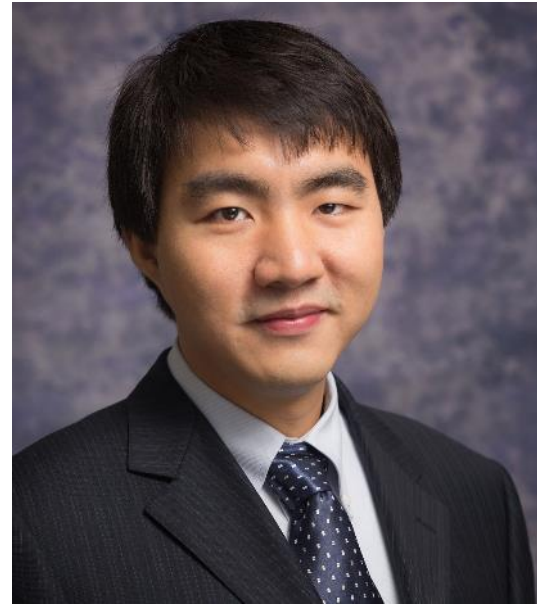


- Environmental groups are keenly aware of the recent EJ related development
- Realtime big data such as PurpleAir is readily available
- Stakeholders attention

What Does This Mean to Me?

- Be proactive and learn your neighborhood**
 - Use EJSCREEN to assess communities near your facilities**
 - Plan ahead of any big projects**
 - Seek help from consultants to perform EJ review**

**Any questions?
Contact me**



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*** Thank You**