NO MORE SACRIFICE ZONES!

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Overall Goals of No Sacrifice Zone Campaign

The goals of this policy initiative are to:

- Provide comprehensive protective public health policy directly based on public health risks (rather than industry or chemical standards).
- Allow communities a pathway to acquire the public health protection they deserve.
- Increase transparency about how exposures in polluted communities are regulated.
- Provide concrete ways to access healthcare.
- Provide protection from negative external impacts of industry to all people, regardless of race, socio-economic status or geographic location.

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How Did Areas Become Sacrifice Zones?

- Redlining and white flight in the 1960s produced a pattern of intensive industry operations concentrated in urban areas of predominantly low-income and/or communities of color.

- Low property values in these areas have allowed the pattern of siting industry operations in these communities to continue.

- Resulted in the creation of Sacrifice zone communities that are disproportionately exposed to dangerous levels of pollutants.

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Defining a Sacrifice Zone and Finding Solutions

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In This Conversation, We Are Only Looking At Air Pollution.

There are many elements that can create a Sacrifice Zones. After hours of research we felt it would be too difficult to include everything - air, water, soil, housing, etc. - and decided to begin with a single issue - AIR.

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CHEJ members and our staff came up with a new idea for how to address Sacrifice Zones with toxic/hazardous air related problems.

We want to know what your thoughts are?

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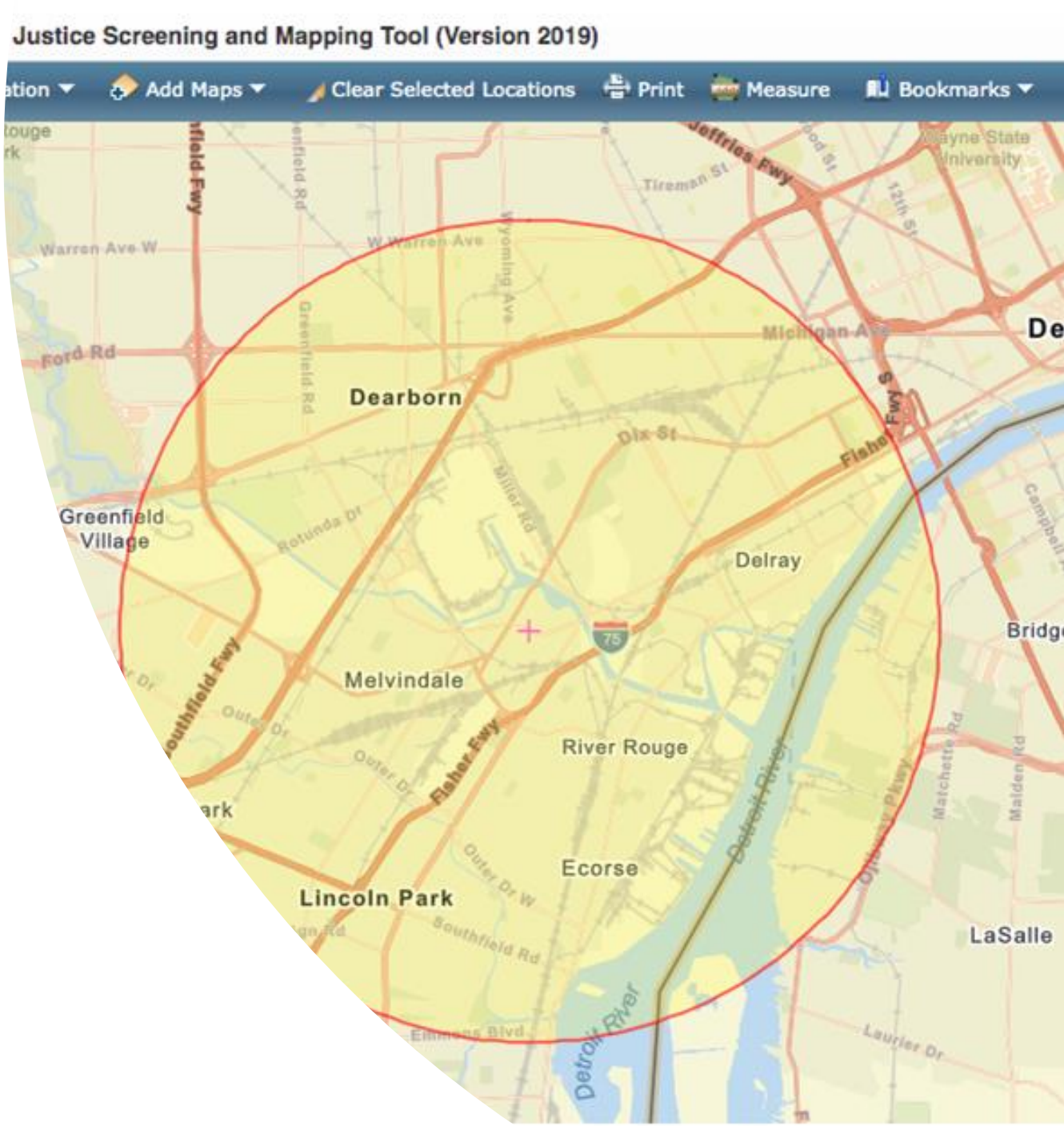
Defining Sacrifice Zones

In this policy initiative, CHEJ defines Sacrifice Zones as:

- A 4-mile radius zone where the National Air Toxics Assessment (NATA) Air Toxics Cancer Risk and/or Respiratory Hazard Index is at or above the 70th percentile for the state.



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Who gets to trigger a Sacrifice Zone Definition?

In this plan the community can trigger a Sacrifice Zone designation.

The community needs to identify the most polluting industry in the area and use that location as the center of the 4-mile radius.

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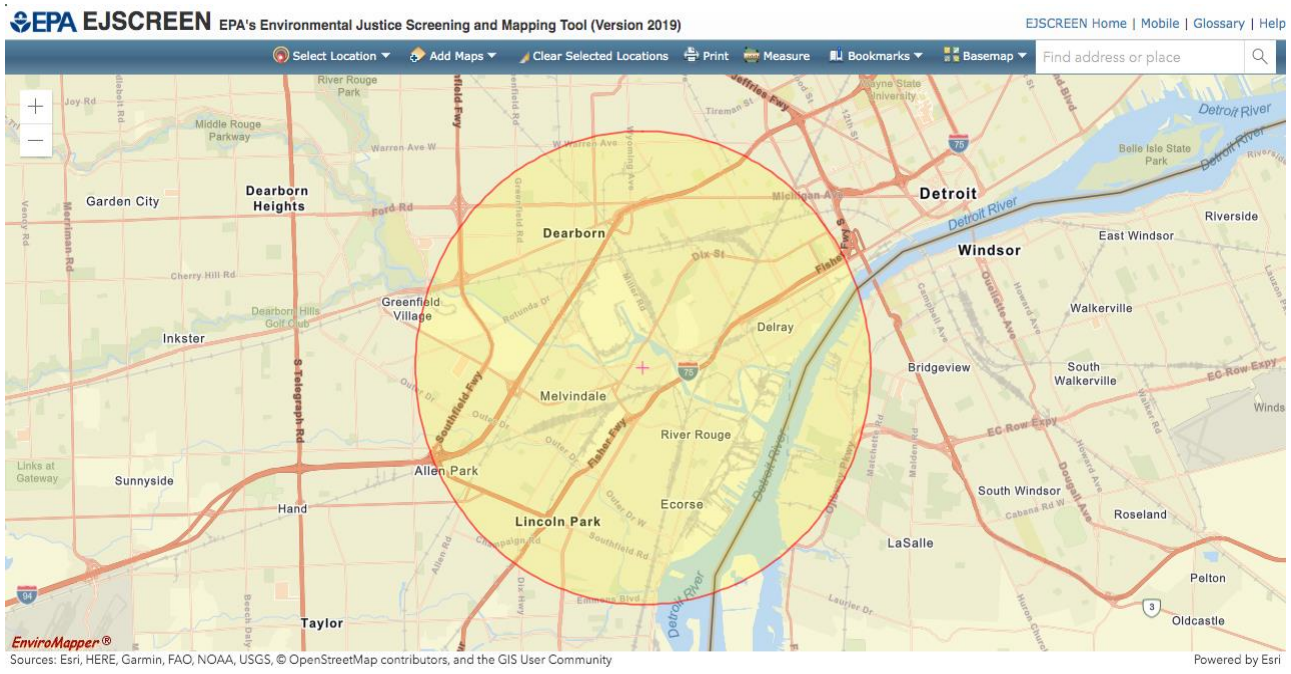
How the Policy Works: Community Sacrifice Zone Application

Communities chose a facility to serve as the center of their 4-mile zone and enter its address into the EJ Screen application form.

The application uses EPA's EJScreen, Environmental Justice Screening and Mapping Tool, to compare National Air Toxics Assessment (NATA) indicators within a 4-mile radius around this address to the **state average using percentiles.**



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Selected Variables	Value	State		EPA Region		USA	
		Avg.	%tile	Avg.	%tile	Avg.	%tile
Environmental Indicators							
Particulate Matter (PM 2.5 in µg/m³)	9.69	8.56	94	8.63	89	8.3	84
Ozone (ppb)	44.5	44	51	43.4	52	43	58
NATA* Diesel PM (µg/m³)	0.654	0.338	92	0.446	80-90th	0.479	70-80th
NATA* Air Toxics Cancer Risk (risk per MM)	31	24	96	26	80-90th	32	<50th
NATA* Respiratory Hazard Index	0.36	0.29	90	0.34	60-70th	0.44	<50th
Traffic Proximity and Volume (daily traffic count/distance to road)	1900	660	91	530	94	750	90
Lead Paint Indicator (% pre-1960s housing)	0.77	0.38	84	0.38	86	0.28	91
Superfund Proximity (site count/km distance)	0.076	0.15	58	0.13	60	0.13	57
RMP Proximity (facility count/km distance)	2.2	0.53	95	0.82	91	0.74	92
Hazardous Waste Proximity (facility count/km distance)	3.2	1	92	1.5	86	4	85
Wastewater Discharge Indicator (toxicity-weighted concentration/m distance)	0.05	0.23	90	0.82	83	14	87
Demographic Indicators							
Demographic Index	52%	29%	85	28%	84	36%	75
Minority Population	46%	25%	82	25%	81	39%	64
Low Income Population	57%	33%	84	31%	87	33%	85
Linguistically Isolated Population	9%	2%	94	2%	90	4%	81
Population with Less Than High School Education	28%	10%	95	10%	94	13%	88
Population under Age 5	8%	6%	80	6%	76	6%	74
Population over Age 64	11%	16%	29	15%	33	15%	39

*The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: https://www.epa.gov/national-air-toxics-assessment.

RMP: Risk management plan NM: Number per million

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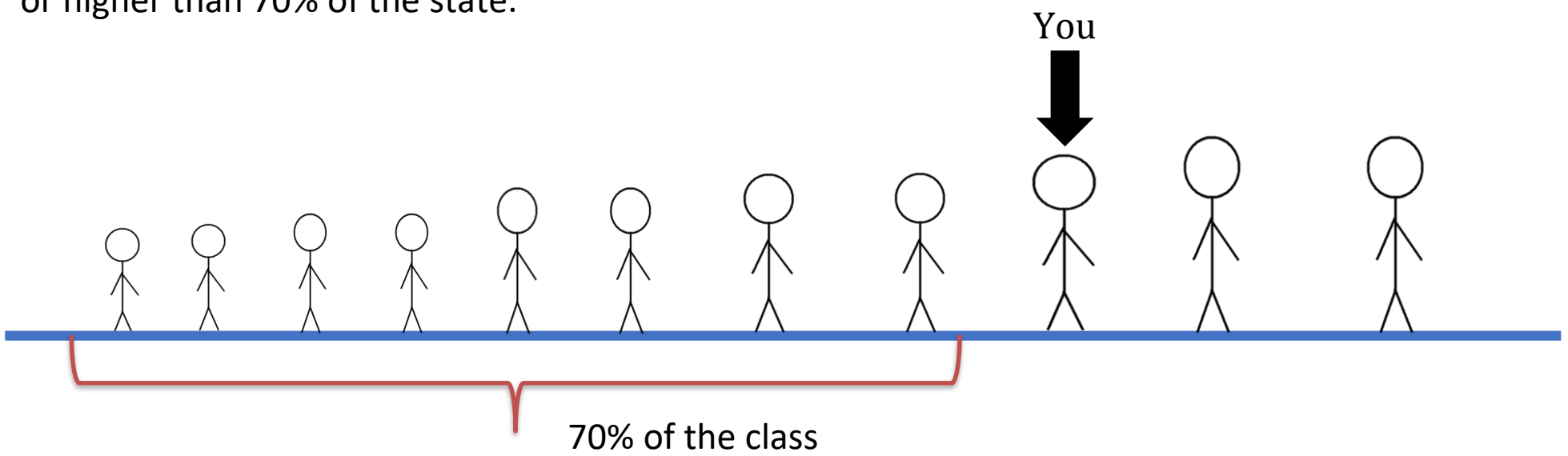
How Do Percentiles Work?

National Air Toxics Assessment (NATA) Air Toxics Cancer Risk or Respiratory Hazard Index in the 70th percentile means that the public health risk produced by air emissions in your community is the same or higher than 70% of the state.



You are the 3rd tallest person in a class of 10 students. 70% of the people in the class are shorter than you. This means you are at the 70th percentile for height in your class.

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There are two measurements you can look at to see if you are in the 70% of your state.

Environmental Indicators + Demographic Indicators = **EJ Indexes**

DEMOGRAPHIC INDICATORS							
Demographic Index	52%	40%	70	44%	63	36%	75
Minority Population	61%	41%	72	51%	60	39%	73
Low Income Population	44%	40%	61	37%	62	33%	71
Linguistically Isolated Population	1%	2%	69	6%	43	4%	52
Population with Less Than High School Education	19%	16%	66	16%	65	13%	76
Population under Age 5	6%	7%	50	7%	45	6%	55
Population over Age 64	19%	14%	78	13%	81	15%	74

The 2nd is the EJ Indexes.

- The EJ Indexes includes the environmental indicators and the demographic make up of people in the four-mile radius.
- The EJ Index has a formula that takes one environmental indicator and multiplies it by a specific location's population of low-income and minority people.
- A sacrifice zone can be established if either one or both of the environmental indicators and/or EJ Indexes is at or above the 70th percentile for the state.

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Why National Air Toxic Assessments (NATA) Indicators?

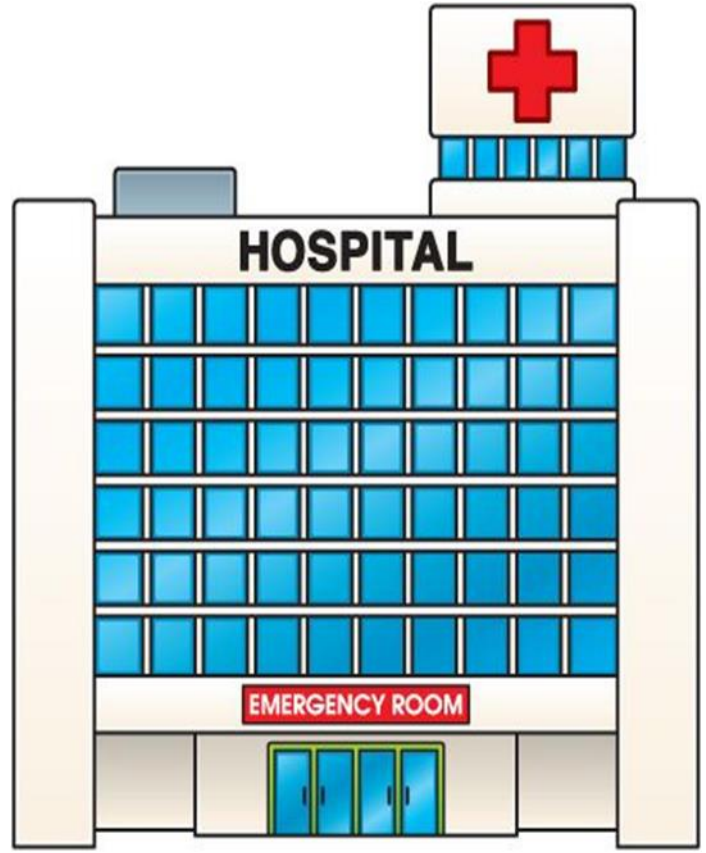
EPA produces the National Air Toxics Assessment every 3 years;

National Air Toxics Assessment takes inventory of the nation's emissions and estimates public health risk assuming life-long chronic exposure to the same levels.

By looking at National Air Toxics Assessment Air Toxics Cancer Risks and Respiratory Hazard Indexes we cover cancerous and non-cancerous effects of air pollution.

Basing the policy off National Air Toxics Assessment indicators ensures we are basing regulations on the HUMAN effects of air pollution.

In communities with Nat'l Air Toxic Assessment values in the 70th percentile, we are looking at communities in the worst 30% of public health risk via air contaminants.



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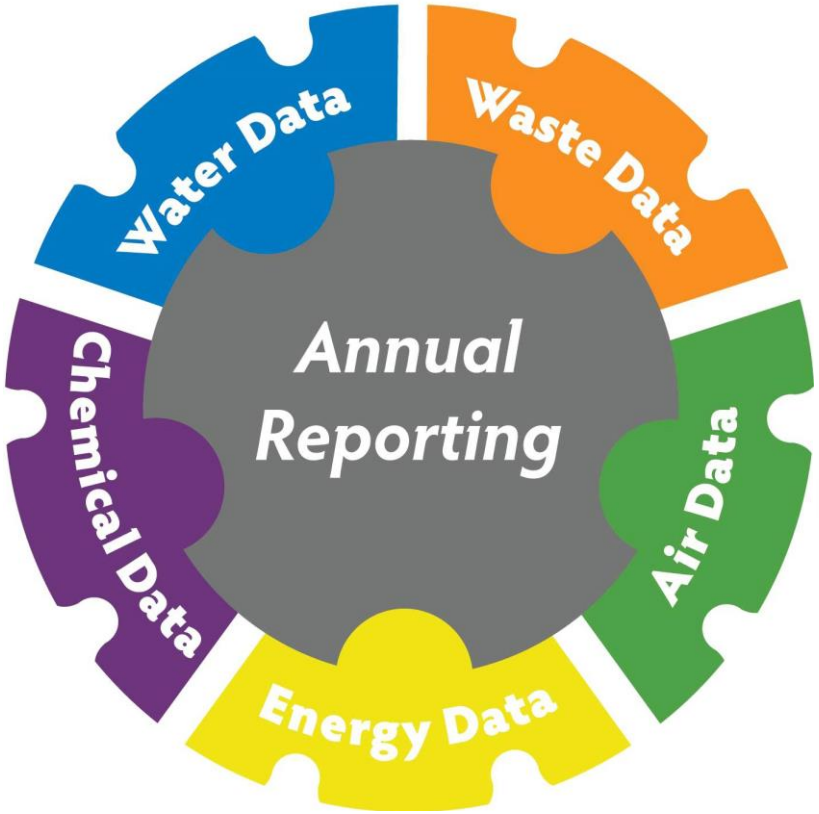
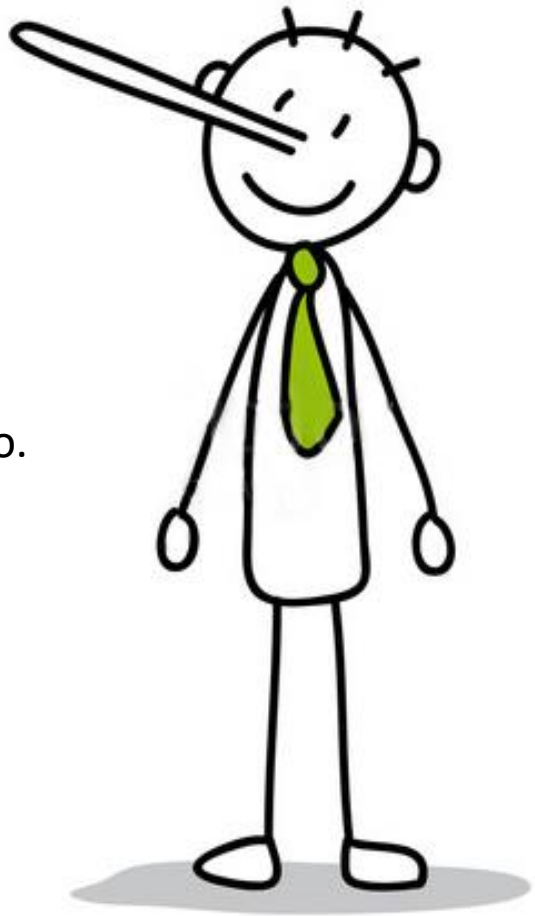
There are problems with these data bases.



- Industry self reports. Likely an underestimate of chemical releases.
- There are many other data bases that provide information on releases that are could be added like TRI.

Although there are other ways to look at the community burden of pollution we don't need to.

The data collected in the EJ Screen of the 140 Hazardous Air Pollutants & and health risks are enough to demand action.



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Q&A

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STEP 1

Community Sacrifice Zone Application

Communities chose a facility to serve as the center of their 4-mile zone and enter its address into the application form.

The application uses EPA's EJScreen, Environmental Justice Screening and Mapping Tool, to compare National Air Toxics Assessment (NATA) indicators within a 4-mile radius around this address to the state average using percentiles.

If the zone is found to be in the 70th percentile of the state for the two chosen NATA indicators it is officially recognized as a Sacrifice Zone. Local and state agencies are notified. The following steps 2-8 are legally required – if we pass such a policy.

The goal is to reduce air toxics cancer and noncancer risks by 30% within the sacrifice zone.

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STEP 2

Neighborhood Enforcement Group (NEG)

- After a sacrifice zone is recognized, a NEG will assemble.
- NEG must have membership of at least 50% of the community over 18 years of age who live there, to ensure a diversity of actors and interests are voiced.

Responsibilities include:

- Distributing notices to facilities, residences and medical offices.
- Ensuring the availability and location of the wellness van.
- Monitoring the total HAPs emissions for the zone, via EPA's Enforcement and Compliance History Online (ECHO) database.
- Monitoring any changes in the National Air Toxics Assessment (NATA) air toxics cancer risk and/or respiratory hazard index values for the four-mile radius zone. If values have decreased by 30%, official sacrifice zone designation is removed.

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STEP 3

Hazardous Air Pollutants (HAPs) Restrictions on Industry within Zone

Hazardous Air Pollutants (HAPs) are a list of 187 pollutants designated by the EPA to "*cause cancer or other serious health effects, such as reproductive, birth defects or adverse environmental effects*."

- Total Hazardous Air Pollutants (HAP) emissions within the four-mile zone are restricted to 25 mixed or 10 individual tons.
- Every industry within the zone will receive a notice that the zone has 90 days (one quarter) to come into compliance with the total restrictions or their operating permits will be docked by 10% each quarter of non-compliance.

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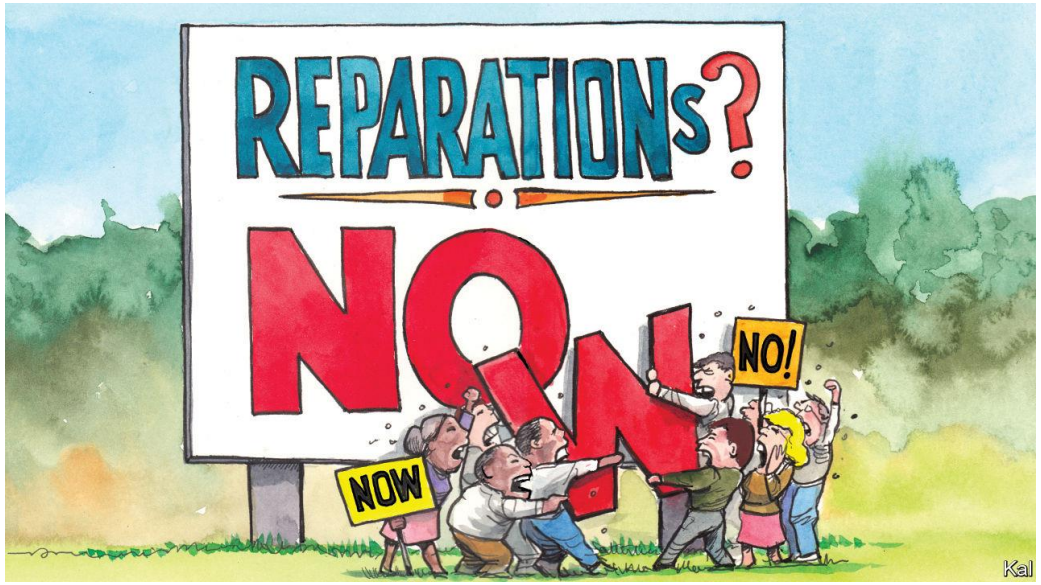
STEP 4

Community Reparations

Currently, facility enforcement payments are distributed among the federal, state or local government, and rarely go to the community impacted by the violation.



- We propose that funds from fines of facilities that were in violation of their air emission permits must be allocated towards covering the cost of the wellness van and the distribution of community and health professional notifications.

- Additional funds remaining will be used by the community as they see fit for additional community services (i.e. community park, health clinic, etc.), as determined democratically by the Neighborhood Enforcement Group (NEG).

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STEP 5

Public Notice

A notice will be sent out to any residences, schools or businesses within the zone describing…

- A map of the four-mile radius, denoting the name and address of each facility within the zone, with a link the Toxics Release Inventory (TRI) to look up emission records.
- That the 4-mile zone has been officially recognized as a Sacrifice Zone. The National Air Toxics Assessment (NATA) Air Toxics Cancer Risk and Respiratory Hazard Index is within the top ⅓ of the state.
- A letter to disclose this information with their health professional. Including information on the top 5 chemicals emitted by the facility chosen to be at the center of the zone and their associated health risks listed in EPA's Integrated Risk Systems database.
- A link to the Agency for Toxic Substance and Disease Registry's (ATSDR's) for health impact information.
- A link where they can retrieve a medical personnel information packet to bring to any professionals they see outside the county.

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STEP 5 continues . . .

Medical Personnel Notice

A notice will be sent out to any medical facilities within the zone's county boundaries which includes all the details listed in the public notice.

- Alerting doctors that patients residing within this zone are chronically exposed to air pollution that threatens their health.

- Includes a link to the Agency for Toxic Substance and Disease Registry (ATSDR's) database where medical professionals can find toxicological and health information on specific chemicals.

- A website will be created to allow health professionals to ask questions to toxicological experts about the health effects of chemicals present in the 4-mile zone. The medical personnel notice will include a link and description of this website.

- The local public health department will be tasked with reviewing disease registries for the area and analyzing whether there are any trends within the last 20 years. Every household in the community must be notified with all information found via this analysis.

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STEP 6

Industry Requirements

1. Facilities within the zone must conduct **monthly stack tests** until compliance with the total Hazardous Air Pollutants (HAPs) limit is reached.

2. Once compliance is reached, facilities must conduct stack tests **every 6 months** to prove continual compliance.

3. The results of these stack tests are sent to every residence, business, school and medical facility within the 4-mile radius zone, as well as to the local health department and U.S. EPA office.

4. Development is **frozen within this 4-mile zone** until the zone is no longer recognized as a sacrifice zone. No new air permits are issued, and no new facilities or facility expansions are approved.

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How Zones Are No Longer Designated as Sacrifice Zones

Once National Air Toxics Assessment (NATA) Air Toxic Cancer Risk and Respiratory Hazard Index values are reduced by 30% --compared to their original levels --when the sacrifice zone application was submitted, then the zone is no longer recognized as a sacrifice zone.

Neighborhood Enforcement Group is tasked with monitoring for this change.

Following this de-designation, strict restrictions on industry with respect to limited aggregate emissions, frequent stack tests and development restrictions, are lifted.

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In Summary

- Using the EJ Screen with the address of the biggest polluter in the center you can define a Sacrifice Zone.
- To qualify, your zone must be in the topmost polluted areas of the state.
- **Your area must be in the top 70% for cancer and non cancer public health risks in either the environmental indicators or EJ Indexes.**
- **Your community is responsible to apply for a Sacrifice Zone designation.**
- **A Neighborhood Enforcement group is established.**
- Public health notices/information is circulated/wellness van.
- Industrial permits, new expansions or new facilities are frozen – not allowed.
- Industries within the zone must work together to reduce toxics by 30%.
- Once Industries reduce 30% from original levels the area no longer qualifies as Sacrifice Zone.

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This policy idea is a way to reduce at least one source of pollution that is making people, children and the most vulnerable among us sick.

Our plan is to take this policy idea to communities across the country at meetings just like this one and ask frontline leaders what they think.

The policy will likely change as people suggest other elements be added.

Once we have completed the field conversations, we will invite leaders to a nationwide conversation to review and decide which elements suggested by people in the field should be added, taken out or expanded before taking a revised policy to a federal representative to introduce into legislation.

Finding someone to introduce the policy is not the end. . . it's the beginning of the real fight. After we find a representative to champion the legislation, we must work with that rep. to build the base of people power to get it passed. Such a policy will be strongly opposed by industry, so we'll need to be visible and powerful to win.

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