

Toxic Waste Dumps and Intersectionality: Understanding Community Impact



Kaitlyn Vasilko, College of Humanities, Education, and Social Sciences; Honors College; **Department of Behavioral Sciences**, Purdue University Northwest
Dr. Kim Scipes, College of Humanities, Education, and Social Sciences; **Department of Behavioral Sciences**, Purdue University Northwest

INTRODUCTION: SERVICE-LEARNING AGAINST TOXIC WASTE DUMPS AND SACRIFICE COMMUNITIES

- Toxic waste dumps and superfund sites contain waste that is hazardous and require procedures to ensure the public safety and are mandated by established environmental regulations.
- After locating eleven toxic waste dumps and another nine solid waste dumps in Lake County, Indiana this service-learning study found that the toxic waste dumps were disproportionately located in north Lake County communities of color and poor whites, while solid waste dumps were more equally distributed across the county.
- Moreover, through reviewing the literature, meeting with community activist Thomas Frank, and working with community partner Gary GARD, it has been found these toxic waste dumps pose major negative effects on the health of individuals living in what are known as sacrifice communities.
- To address the inequality when it comes to environmental justice, we must all do our part to participate in acts of resistance, force EPA comprehensive testing, conserve our resources, recycle more, and spread educational awareness. We also need to find new ways to turn the toxic chemicals we produce through industrial activity into something non-toxic.

METHODOLOGY

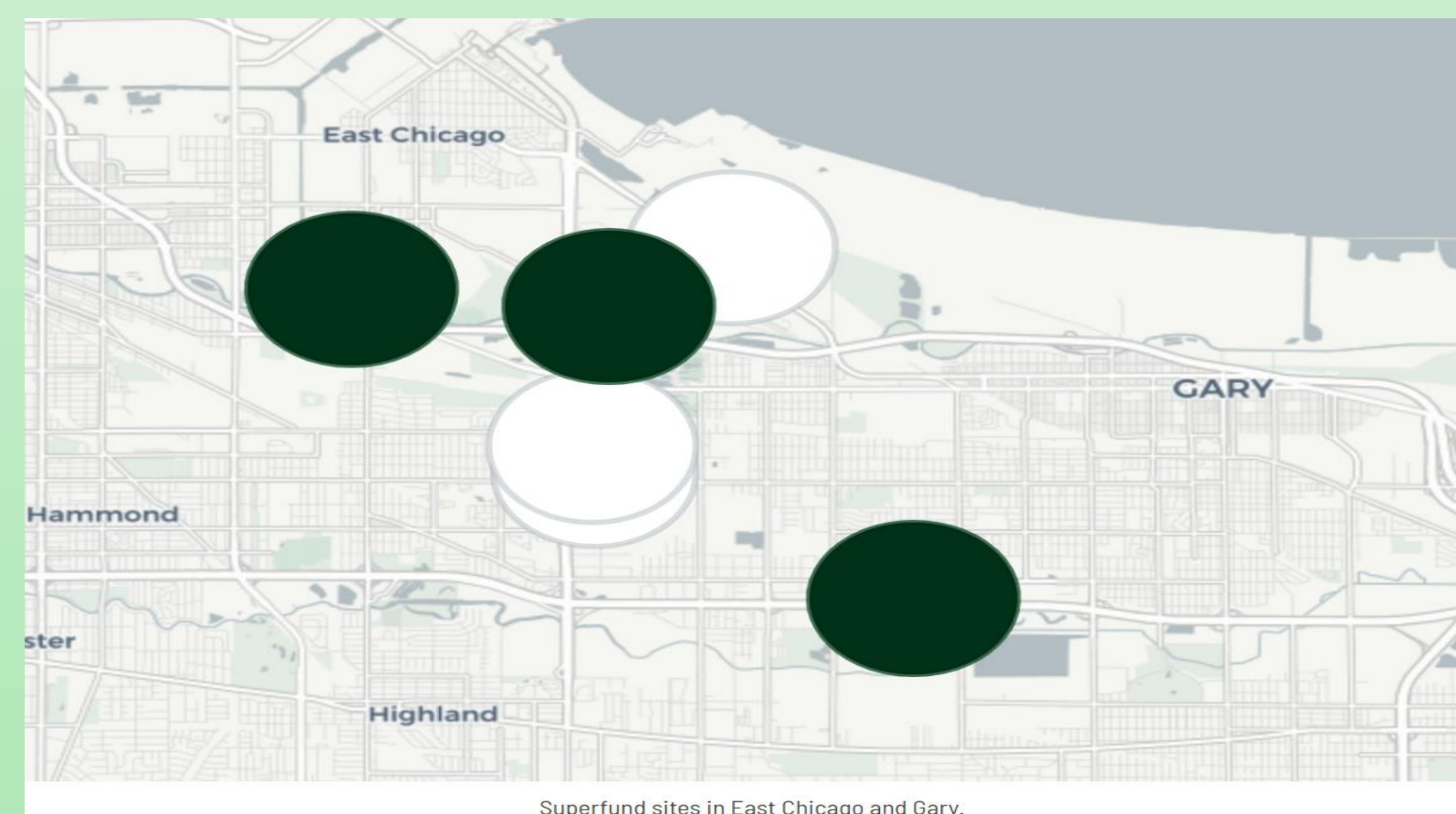
- Assembled literature review over what the difference between toxic and solid waste dumps, chemicals contained in toxic waste dumps, what health effects are caused by these chemicals, and environmental justice.
- Reviewed census data for racial and income demographics of three cities north of I-80 including Gary, Hammond, and East Chicago, and three cities south of I-80 including Crown Point, Valparaiso, and St. John.
- Reviewed the EPA's listings of toxic waste dumps
- Interviewed Thomas Frank; IRB-2024-340
- Learned about initiatives of community partner, The Gary Advocates for Responsible Development (GARD)
- Designed and printed infographics for environmental education and the Engagement Program and a Sustainable Development Conference to educate the community about environmental issues and protect people.

IMPACTS

Helping GARD prepare for their Sustainable Development Conference by assisting in the planning, developing marketing materials, furthering my research, informing communities about these issues, advancing sustainable development opportunities, and helping make Gary a more environmentally sustainable place as a whole. If accepted, funds from the Service-Learning grant will be used to print and design education infographics for environmental education. Funds will also be used to purchase handouts for health awareness. I will also continue to work with Thomas Frank to help bring environmental justice to East Chicago and other sacrifice communities though working with him on events and other activist initiatives to protect the health of sacrifice communities from the negative impacts of toxic sites.

Community Partners

- **Thomas Frank**
 - Shared information about toxic sites that has gone un-reported by the EPA and IDEM. Leads toxic tours in East Chicago of toxic sites of the region including superfund sites, oil spills, refineries, sewage overflows, etc. These tours have been attended by administrators from universities, politicians, and representatives from the EPA.
 - Teaches visual arts at the Hammond Academy for the Performing Arts, where he is amazed and challenged by the talent of his students and works with them to take control of the things that are important to them, empowering them to see the world differently.
 - Organized Break Free Midwest in 2016 with Andy Pearson and Minnesota 350 to confront BP, formed the Community Strategy Group with Rev. Rivera and Shiela Garland (of National Nurses United), fought for environmental justice in East Chicago against the USS lead super fund site. Their efforts made the governor declare a state of emergency and provide clean drinking water to 10,000 residents and relocate residents into safer homes. In turn the EPA spent over 120,000 million over what they planned to spend to clean up the super fund site.
- **Gary GARD**
 - Provides the community with accurate reporting on important environmental issues, ensures environmental sustainability by monitoring development projects, and collaborates with other organizations to advance sustainable development opportunities.
 - Found permits were not approved by the required government agencies to help halt construction on the Maya Energy site in Gary that would've been processing waste into Gary right across from a K-12 school.



Source: Nearly half of Indiana Superfund sites threatened by climate change effects. IJER Indiana Environmental Reporter

OBJECTIVES

- Identify gaps in understanding of:
 - The difference between toxic and solid waste dumps
 - Chemicals found in toxic waste dumps
 - The health effects caused by chemicals in toxic waste dumps
 - Environmental justice
- Work with Local Environmental Activist Thomas Frank and Gary GARD to uncover unreported information about toxic waste dumps.
- Write a Service-Learning Grant for the Gary GARD
- Collaborate with Gary GARD and Thomas Frank on an environmental education and engagement program and for a September 2024 Sustainable Development Conference.



Waste water	Underground leaking storage petroleum tanks	Hazardous waste sites	Waste disposal and storage sites
90% of all the river	150	423	11

Table 2: Area of Concern, East Chicago, IN

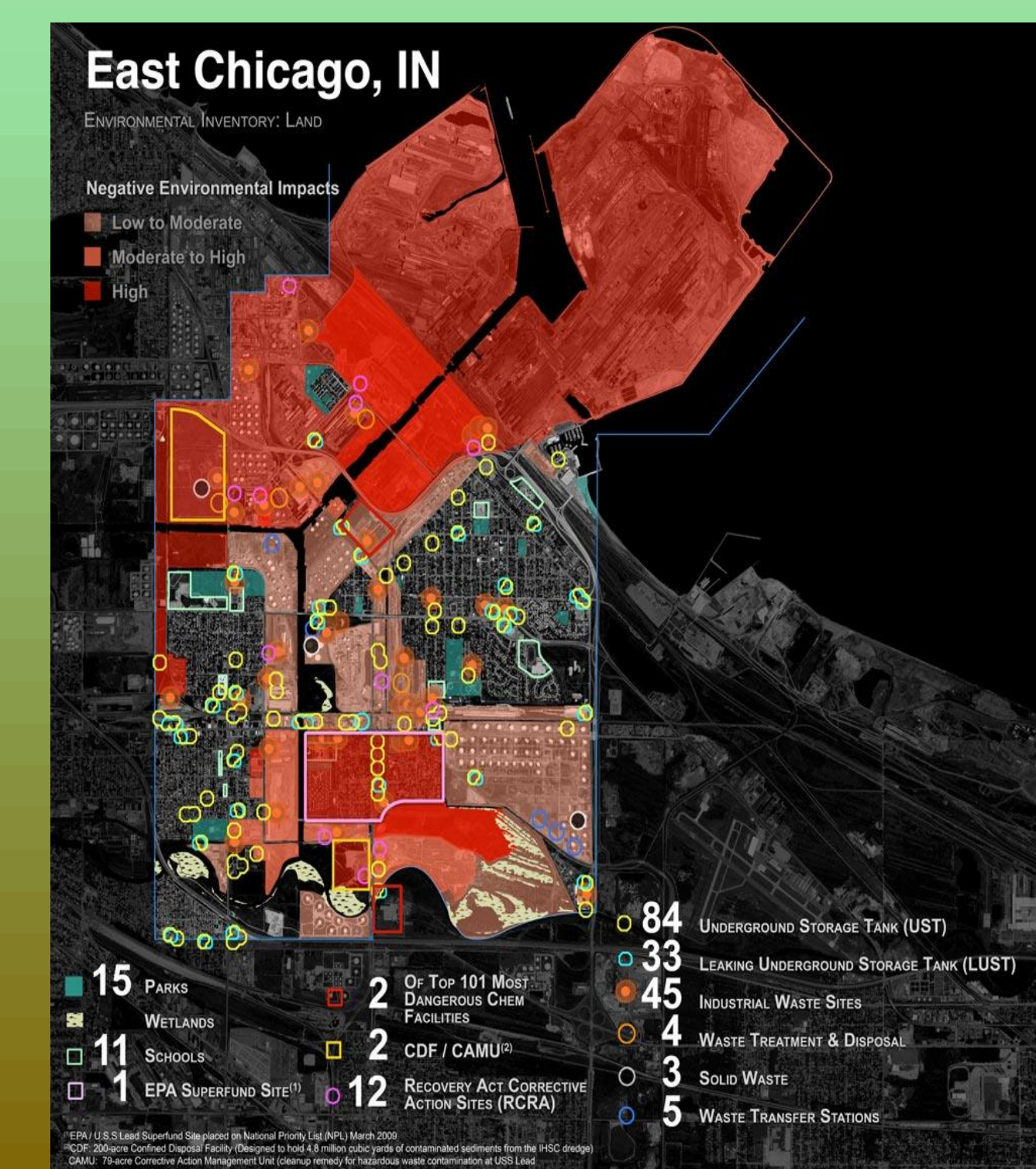
Underground storage tanks	Leaking underground storage tanks	Waste treatment and disposal sites	Solid waste sites	Industrial sites	Transfer stations	CDFs or CAMUs	EPA superfund site	Among Top 101 most dangerous chemical facilities
84	33	4	3	45	5	2	1	2

Table 1: Toxic sites, East Chicago, IN

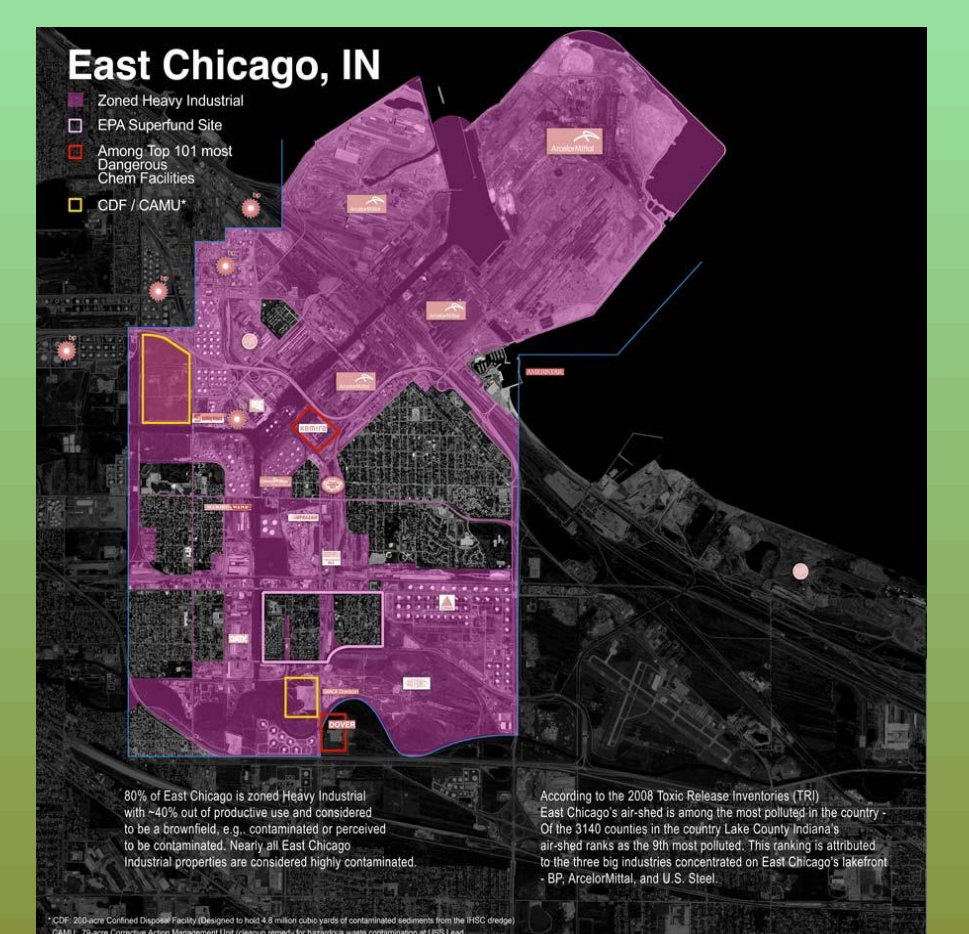
REFLECTION & CONCLUSION

- Communities of color and low-income are not given environmental justice and this has many negative effects on the health of these individuals (Frank, 2023). Additionally, the EPA and other environmental agencies that are said to protect our environment are not living up to their name. The EPA does not test for what they do not want to find; instead, they test areas that they know are not contaminated or not as contaminated as others in order to produce the results they want. Though only one of the toxic dumps in East Chicago is classified as so by the EPA, there are over 423 toxic dumps (not including the 150 underground leaking storage petroleum tanks, and 5 superfund sites).
- To reduce the negative effects of toxic dumps, we all need to work together to produce less waste, which can be done conserving resources and recycling more, and we also need to find a way to turn toxic chemicals that are produced by industrial activity into something that is not toxic. For example, slag, a by-product of metal smelting that can contain arsenic, cadmium, and beryllium and is commonly found in toxic dumps, is often used in making mortar or cement, but this does not make this chemical non-toxic, therefore it does not seem to be a good idea to put it in something that we walk on every day (OSHA). Yet, if we can alter these toxic chemicals and turn them into non-toxic substances, we could reuse them and reduce the amount that is either in a toxic dump or mixed with something else.
- Lastly, we must increase educational awareness of toxic waste dumps and environmental racism, all of which makes the work of Thomas Frank, Gary GARD, and service-learning partnerships crucial for our world.

References



Map of toxic sites in East Chicago 2008. Provided by Thomas Frank



Map of East Chicago

ACKNOWLEDGEMENTS

Dr. Kim Scipes, Thomas Frank, the Gary GARD