

# Supplemental Background Report for Public Policy Project Health Mitigation Action Framework

## North Minneapolis Lead Poisoning and Asthma Triggers Health Mitigation Strategy

### Introduction

The Environmental Justice Coordinating Council formed in 2017 to organize North Minneapolis residents to take direct action to **make environmental justice happen!** In 2018, the EJCC played a key role in developing the Northern Metals Advisory Council and facilitating its meetings to determine how to address the higher incidence of lead poisoning and asthma triggers in North Minneapolis than anywhere else in the metro area.

The settlement with Northern Metals put \$600,000 into the community (in partnership with the Minneapolis Health Department) to address lead poisoning and asthma. This sum, while obviously insufficient to address the enormity of the problem, provided a started place. In 2018, the EJCC also played a key role in creating the Green Zone Task Force, which will continue to exist over the longer term to coordinate community and city resources to gradually reduce the environmental justice overburden in North Minneapolis. The Public Policy Project, which created the EJCC, secured funds from the McKnight Foundation, to support the next steps to implement what is proposed in the health mitigation framework (see addendum, dated 5-14-2020).

The zones of heightened lead and asthma risk are presented in the document linked here (<http://www.minneapolismn.gov/www/groups/public/@health/documents/webcontent/wcms1p-141884.pdf>). All of North Minneapolis and much of South Minneapolis feature prominently on the map, and in the impacts on families.

## **Supplemental Background Report for Public Policy Project Health Mitigation Action Framework**

North Minneapolis fits the description of an environmental justice community given that; a) it is in proximity to a number of companies that are putting toxic chemicals into the air, soil and water; b) significant health disparities exist, for which the presence of these companies is partly responsible; and c) existing policies, practices and resource flows fail to match the enormity of the problem, and the present trajectory is not toward greater environmental justice. This last point is critical, since, if existing resources were being targeted toward addressing environmental justice concerns at sufficient scale, we would see a clear indication of a persistent pattern of harm reduction in a community. This is not the case in North Minneapolis.

Having said that, there is a history of persistent efforts to support and improve health and well being in the community. One great example is the work of the City of Minneapolis Health Department to get all dry cleaners in the city to cease use of Tetrachloroethylene or PERC in their processes. In response to air quality concerns, the Minnesota Pollution Control Agency established air monitoring stations in areas of concern. Two of these are in North Minneapolis – the Pacific Street station and the Lowry Ave. station. Regular monitoring of the Pacific Street station continues to show concerns for Total Suspended Particles (TSP), Metals, and Particulate Matter (PM<sub>10</sub>). Regular monitoring at the Lowry Avenue station shows TSP, metals, PM, carbonyls and volatile organic compounds.

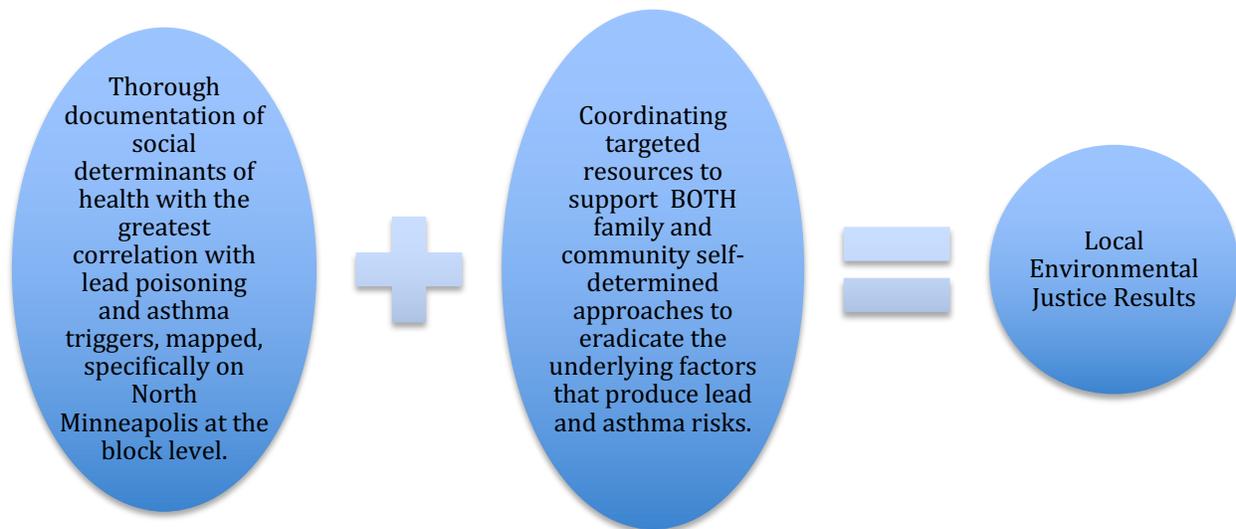
Lead poisoning and asthma triggers fit the description of ‘wicked problems’ because of the social and power distance between the causes of the problems and those impacted by the problems. While the city of Minneapolis, healthy advocacy, and health professionals have been working diligently on the problem, overall, it is fair to say the approach has been

## Supplemental Background Report for Public Policy Project Health Mitigation Action Framework

primarily a ‘downstream’ approach. This means that we address cases, one at a time, as they arise. This strategy has supported improved health outcomes. More families are able to keep their asthma under control. However, this approach does not eradicate the underlying causes of asthma triggers – or lead poisoning.

An upstream approach – a strategy to prevent future cases from arising - requires a major shift in resources and a robust environmental justice policy framework. Given the historical reality of a downstream approach, when an upstream approach is required, how do we proceed?

Below, we present a simplified theory of change, which will be refined as we begin to implement the health mitigation framework in 2020 and 2021.



# Supplemental Background Report for Public Policy Project Health Mitigation Action Framework

## Historical Data Review

### Lead Poisoning

Lead paint was banned in gas and paint in 1978. Measuring the total number of houses built by that time is thus a useful way to do an initial assessment of risk. It is estimated that 80% of all housing built before this time. In Hennepin County, 25% of homes were built before 1950 and 65% before 1980. There are areas where more of these homes exist in concentration, and they tend to be in areas of concentrated poverty. These are the very areas that existing resources available to address lead poisoning have the hardest time reaching (MDH, 2019). There has been a steady decline in children with elevated blood lead levels. In 2011, the standard was changed from 10 mcg/dL to 5 mcg/dL. This caused the number of children to go up in 2011, and again in 2012, and it has, again, steadily declined since then. (MDH, 2019).

The 2018 Blood Lead Surveillance Report indicates a robust testing regime. More than 100,000 people were tested in 2018 and 690 people were found to have elevated blood lead levels (0.8%). A higher incidence of such families is found in North Minneapolis.

The Minnesota Department of Health has determined that the difference of 3 miles could be the difference in as much as thirteen years of life (MDH Center for Health Equity powerpoint). People should not live 13 years less simply because a history of economic injustice the region forced them to make the choice of seeking where lower cost housing for racially marginalized populations was made available. Clear evidence exists through the Mapping Prejudice Project that North Minneapolis was a zone of concentrated housing racism. Racist housing policy and economic discrimination – two structural dynamics not created by the African American community – are largely responsible for our over-

## **Supplemental Background Report for Public Policy Project Health Mitigation Action Framework**

presence in an environmental justice community (one over-burdened with environmental health risks).

Since the 1990s, Ramsey and Hennepin Counties and Minneapolis have mapped where homes are more likely to have old windows with lead paint, and have replaced 7,200 windows so far. How does this # compare to the total # of housing units likely to have lead paint? We do not have exact numbers, and this is precisely what we would like to organize to get with an upgraded environmental justice organizing and coordinating strategy in 2020 and 2021.

Two points of evidence that the problem is actively declining are: a) from 2012 to 2017, the number of cases of children under age six with 5 micrograms per deciliter of lead decreased by 30%; and b) the total # of cases has declined from 500 in 2008 to 151 in 2015 and 90 in 2018 (Prather, 2019). One downstream strategy that is really making a difference is the incorporation of lead testing in well-child visits for one and two-year olds in Minnesota. Once we know a child or household has an elevated blood level we can get resources to support that specific family. The Centers for Disease Control emphasizes that there is no safe level of lead in blood in children, and any lead poisoning may have long-term consequences.

The Minneapolis Health Department created the Lead Safe Housing Registry, which records homes for rent that were determined at the time of assessment to be lead safe. The list includes significantly more homes in South Minneapolis than North, so expanding the # of lead safe homes in North Minneapolis is one among many important objectives.

## Supplemental Background Report for Public Policy Project Health Mitigation Action Framework

Year	# EBLL	# tested
2000	205	8,262
2001	176	8,972
2002	180	9,546
2003	155	10,542
2004	137	10,702
2005	118	11,266
2006	106	12,226
2007	77	12,508
2008	288	12,414
2009	251	13,105
2010	218	13,050
2011	234	12,816
2012	192	13,296
2013	120	13,184
2014	174	13,206
2015	150	13,402

It is important to note, when looking at the data above, that the number found with elevated blood lead levels is not indicative of the total number of cases. There are pockets of concentrated environmental harm, which health mitigation resources often fail to reach. Organizing to get in the zones of concentrated environmental harm was a focus of the work of the Northern Metals Advisory Council in 2018 and 2019. With the limited funding available to it, it is doing the best it can. We cannot take lead poisoning lightly, and need to consider it in the broader context of the economic, educational and health disparities in North Minneapolis. As the National Center for Healthy Housing reports “lead poisoning causes irreversible health effects, and there is no cure for lead poisoning. At very low levels of exposure in children, lead causes reduced IQ and attention span, hyperactivity, impaired growth, reading and learning disabilities, hearing loss, insomnia, and a range of other health, intellectual, and behavioral problems”.

To prevent the continued incidence of lead poisoning in children in North Minneapolis, it is necessary to take up a targeted approach based on a lead-safe housing assessment. We propose that EVERY unit of housing built before 1978 be certified as permanently lead safe. Those failing certification will be provided with information on

## **Supplemental Background Report for Public Policy Project Health Mitigation Action Framework**

resources to permanently get the lead out. Those homeowners with insufficient resources to make homes permanently lead safe must be barred from renting out housing units to households with children under six years of age. Homeowners with small children living in lead-unsafe homes must be given a relocation subsidy where possible to move immediately to lead safe housing, and only return to an existing unit of housing after it has been made permanently lead safe.

### **Asthma and Asthma Triggers**

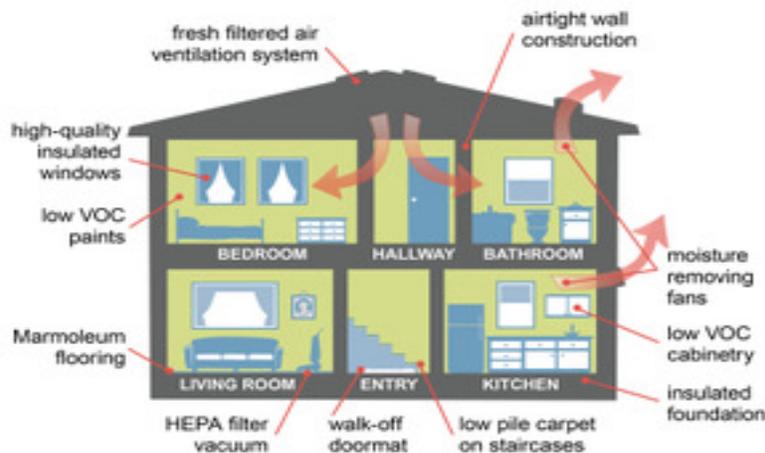
There is a clear relationship between uncontrolled asthma, low-income and ‘upstream factors’ such as lack of access to health care and poverty. Of the people in Minnesota Care Health Plans with a diagnosis of asthma, a significantly higher number are African American than any other race (except for the category of race unknown) (MDH, DHS, 2018, p. 29). Further, American Indian and African American middle/high school students are more likely than other students to have been diagnosed with asthma; and death rates are four times higher and three times higher from asthma for African Americans and Asian/Pacific Islanders, respectively; and, among those 65 and older, death rates for African Americans is six times higher (MDH 2017).

“There are striking differences across racial, ethnic, and socioeconomic lines among children suffering from chronic asthma. African American youth from birth to age 17 visit the emergency room a total of 4.1 times greater than among non-Hispanic whites. The death rate is 7.3 greater for this population, as well. Among Latinos in the same age group, the emergency room visit rate is 1.8 times greater than non-Hispanic whites, and the death rate is 1.2 times greater” (Akinbami et al. 2009).

## Supplemental Background Report for Public Policy Project Health Mitigation Action Framework

The best possible antidotes to asthma triggers are the most expensive. The Breathe Easy Homes Intervention implemented in several cities puts families impacted by asthma into homes that incorporate construction elements that significantly reduce the likelihood of home-based asthma triggers. The design interventions include moisture proofing the house with an improved exterior envelope; enhancements in interior design that minimize dust accumulation and off-gassing such as options for flooring and interior finishes; and a heat-exchange ventilation system with filtration for continuous fresh air.

Figure 1 breathe easy house design - Seattle<sup>1</sup>



In Seattle, the Housing Authority was able to work with partners to improve existing units of housing for \$5,00 to \$7,000 per unit. When we consider the impact on health and livelihood, and the fact that people living in higher-asthma-risk-homes did not create the conditions, which cause these homes to be dangerous places to live – it is worth the investment. Looking at data for Near North, which had 12,169 units (2007) and 9.3% considered in below average condition – 1783 units of housing. If we applied the higher

<sup>1</sup> <https://www.seattlehousing.org/breathe-easy-homes>

## **Supplemental Background Report for Public Policy Project Health Mitigation Action Framework**

cost as an average for making all these homes asthma-safe at \$7,000 per unit, the total would be \$12,481,000. The annual average cost for a person with asthma is estimated around \$3,300 – meaning such a program could pay for itself in 3 years if we targeted asthma-safe home interventions on families actually impacted by asthma emergency room visits.

Asthma costs the US economy \$80 billion per year (thoracic.org, 2018). When society individualizes the cost of health crises, it guarantees that costs will continue to rise. The issue of asthma triggers is an environmental justice issue – directly related to the inequitable impacts of where we place families close to highways, waste dumps and toxic industries.

It is difficult to pinpoint costs concretely for North Minneapolis. Asthma cost \$669 million in 2014 alone (MDH, <https://www.health.state.mn.us/diseases/asthma/data/quickfacts.html>). Put in that context it is hard to make the argument that this strategy is not worth the cost. So, who pays for it?

From an environmental justice vantage point, the argument for environmental justice reparations is a sensible strategy. From a policy landscape reluctant to acknowledge and take responsibility for structural racism, of course, any use of the language of reparations is automatically dismissed.

So, let's nuance the argument. The Minnesota Department of Health has proposed a health equity in all policies framework, and has found it difficult to get this implemented as hoped. We think addressing the issues of asthma-safe homes is a great test case for the City of Minneapolis and the State of Minnesota. The 55411 zip code has the highest asthma hospitalization rate in the metro area (Benson, 2014). Given that the Upper Harbor

## **Supplemental Background Report for Public Policy Project Health Mitigation Action Framework**

Terminal development is happening in North Minneapolis, a targeted strategy to provide incentives for families impacted by asthma while living in North Minneapolis.

Lets look at some progress. There were 3,533 hospitalizations for asthma in 2012. (<https://www.leg.state.mn.us/docs/2014/other/140567.pdf>). In 2017, there were 18,200 hospital room visits and 1900 hospitalizations (<https://www.health.state.mn.us/diseases/asthma/data/quickfacts.html>). The great investment in identifying and supporting at-risk populations with higher asthma control capacities is making a difference. There are pockets of concentrated environmental harm in the Twin Cities region (in environmental justice communities) where the existing strategies are tested beyond their current capacity.

To address the social determinants of health – which – includes living in environmental justice communities – those overburdened with a higher percentage and presence of environmental risk factors – we have to make an explicit commitment to eradicate structural racism and environmental injustice. Public Policy staff were recently reminded that when Northern Metals – recently booted out of the community by environmental justice organizing – was placed in the community the majority of people living in proximity to it were Polish immigrants, not African Americans. We all lose with environmental injustice, it just has a more severe impact on African American and American Indian communities here in Minnesota.

## **Supplemental Background Report for Public Policy Project Health Mitigation Action Framework**

### **Air Inequality**

North Minneapolis is impacted by air circulation patterns in the region that trap toxic air for extended periods of time over the community. The higher incidence of asthma and other respiratory disease, are likely partially explained by the over-presence of toxic chemicals in the air, soil and water within this region of the metropolitan area. The MPCA's 2017 Air we breathe report (p. 60) recognized the significance of air pollution in North Minneapolis by adding a second air monitoring station on Pacific Street in 2015. The data indicate the following:

- Violations of daily and annual Total Suspended Particle standards;
- Exceedances of daily PM10 standard;
- Elevated lead concentrations; and
- Elevated heavy metal concentrations including chromium, cobalt and nickel

### **Public Policy Shifts**

Locally, given the good work of the Environmental Justice Coordinating Council , the Northern Metals Advisory Council and the North Minneapolis Green Zone Task Force, there is a growing body of support and active policy campaigns that are promising.

Policy options to consider complementing what is in place and is actively being considered include:

- San Francisco passed Health Code 38 in 2014, and this requires ALL new construction in areas with poor air quality to install enhanced ventilation to protect public health. With this policy, Air Pollution Exposure Zones are identified and resources are targeted for remediation.

## **Supplemental Background Report for Public Policy Project Health Mitigation Action Framework**

- The State of California, in 2016, authorized Senate Bill 1000, Chapter 587, amending Section 65302 of the Government Code relating to land use. This “Planning for Healthy Communities Act” requires all general plans include an environmental justice element (Baptista, 2019, pp. 30-31). The definition of an EJ Community is “a low income area that is disproportionately affected by environmental pollution and other hazards that can lead to negative health effects, exposure or environmental degradation.”
- Chicago, in 2014, passed Article II of Air Pollution Control Rules and Regulations, which put in place specific operating and maintenance practices to minimize emissions of airborne particulate matter from companies (in their case, specifically from Bulk Materials Facilities).
- Local Law 60 in New York City requires study of environmental justice areas, and the development of recommendations on how to address environmental concerns affecting these communities.
- Fulton County, GA hired an environmental health planner who collaborates with the Department of Health and Wellness and other branches of government to propose way to improve public health and leverage existing policies around transportation, land use, solid waste disposal, water contamination, etc.
- San Francisco, CA created an environmental justice program in 2000, which implements a Community Health Plan. This mobilizes resources to support food security with technical assistance and green space creation. It has generated \$12 million in funds to impacted communities.

## **Supplemental Background Report for Public Policy Project Health Mitigation Action Framework**

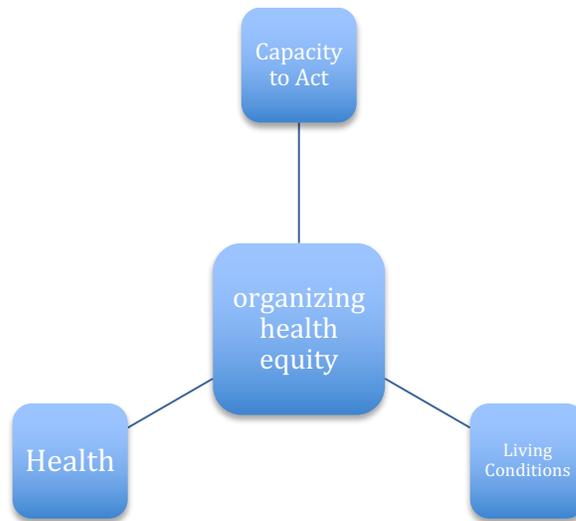
- Cincinnati, OH Environmental Justice Ordinance – 2009 – added Chapter 1041, Environmental Justice to Title X, Environment Code for city. It requires any industry that wants to operate in Cincinnati with a proposed project to have an environmental justice permit to operate. This includes an Air Toxics Risk Assessment. However, this was repealed in 2010 due to lack of funding and staffing capacity.
- New Jersey passed a Model Ordinance in 2012, which guides cities to adopt or amend local laws to protect environmental and public health, and requires an Environmental Community Impact Statement as part of development applications, and an environmental and health conditions inventory.

### **Changing the Conditions that Affect Health Requires the Capacity to Act**

The Minnesota Department of Health's Center for Health Equity (Ellinger, 2017) suggests we need to build public understanding and public will to organize around the intersection of health, living conditions and the capacity to act. In North Minneapolis, residents need to build capacity to act in their own interest around health equity and environmental justice. There can be no waiting for the government or private sector to 'save our lives'.

Absent a collective impact anchor for health equity and environmental justice, it is unlikely that the pockets of lead poisoning and asthma triggers within the community will be resolved in the interests of impacted families.

## Supplemental Background Report for Public Policy Project Health Mitigation Action Framework



We suggest that the capacity to act is the key to transforming pathways to environmental justice and health equity. Elements of our approach suggested here and indicated in our health mitigation framework provide a basis from which to move forward.

A sufficiently robust campaign will include the following elements:

- a) A clear commitment from core partners for this framework to invest talent and resources now and over the time it takes to fully eradicate the burdens of lead poisoning and asthma triggers in North Minneapolis.
- b) Shifts in public policy that fully authorize that Minnesota will become known for leading the nation in what it looks like to do health equity in all policies, comprehensively.
- c) North Minneapolis residents, organized through the Environmental Justice Coordinating Council and the Green Zone Task Force will provide the initial legs and foundation to organize the work, with the expectation that our efforts will result in the orchestration of the necessary partnerships and flows of resources to **make environmental justice happen!**

## Supplemental Background Report for Public Policy Project Health Mitigation Action Framework

Among the necessary conditions for health, the World Health Organization identifies numerous factors that are less prevalent in environmental justice communities. A robust strategy would design an approach based on targeted universalism.

Necessary Conditions	Current Status	Health Equity Organizing
<b>Peace</b>	North Minneapolis has a higher incidence of violence and social disharmony, generated not by degenerative cultural norms within the community, but by the persistence of structural racism.	<p>Health Equity organizing is a coordinated approach. The Minnesota Department of Health needs community-based partners to drive the message home to the Legislature just how critical it is to address the environmental justice overburden of our communities. When we do a full cost accounting of the lost revenue and lost lives and quality livelihoods as a result of health inequality, we can only hope that people will galvanize for collective action. Rather than wait, the community must now organize to take it upon itself to make it impossible for the health inequity impacting North Minneapolis to be ignored any longer.</p> <p>We wonder, what leverage does the Community Action Partnership of Hennepin County have to partner with the Green Zone Task Force, the Environmental Justice Coordinating Council, the City of Minneapolis, the Minnesota Department of Health and others, to help organize and sustain such an effort?</p> <p>A committed several year multi-pronged approach, led by the community itself is the key.</p>
<b>Shelter</b>	North Minneapolis has a higher % of substandard housing and is typically ignored when the City, the county and the state target resources for housing.	
<b>Education</b>	North Minneapolis has among the lowest educational attainment rates. Numerous efforts are making progress such as Harvest Preparatory Academy, North High School and the Northside Achievement Zone.	
<b>Food</b>	North Minneapolis has some of the most innovative food justice champions in the Midwest. Nonetheless, the community remains impacted by an over-representation of unhealthy food and limited access to fresh healthy food.	
<b>Income</b>	There is a higher level of unemployment and poverty in North Minneapolis. At the same time, there are response strategies orchestrated by committed agents within the community that are making a dent in the problem.	
<b>Stable eco-system</b>	Households face higher chaos, greater uncertainty and diverse forms of destabilization that make thriving far more difficult to attain and sustain.	
<b>Sustainable resources</b>	The community, throughout its history has NEVER been offered or been able to develop its own sustainable flow of resources to ensure well being for every family.	
<b>IT connectivity</b>	A study in 2016 indicated that up to 35% of North Minneapolis households are impacted by the digital divide. <sup>2</sup>	
<b>Mobility</b>	A higher percentage of North Minneapolis residents lack a personally owned automobile and are doubly impacted by a transit system designed to serve the middle class and not the economically oppressed.	
<b>Health Care</b>	North Minneapolis residents face higher health disparities, as indicated in this report and countless others.	
<b>Social Responsibility</b>	The City, the County, the State, the Federal government, the private sector, civil society – all sectors are failing to take sufficient responsibility for the necessary effective action to eradicate environmental injustice.	
<b>Social Justice and Equity</b>	The Public Policy Project recommends that a environmental justice partnership strategy that bridges community-based approaches with sustainable resources and partners among civil society, the private and public sectors must be implemented between now and 2025 to fully eradicate the problems of lead poisoning and asthma triggers within the community.	

<sup>2</sup> <https://www.startribune.com/internet-access-in-minneapolis-is-still-divided-between-haves-have-nots/369682871/>

## Supplemental Background Report for Public Policy Project Health Mitigation Action Framework

### Conclusions

This report, could go on and on for hundred of pages. There is an abundance of documentation to back up what we are indicating in this report. The issue is not evidence, but courage, action, conviction. It is time for more than awareness of the problem. It is time to act.

The Public Policy Project, through Pillsbury United Communities, has secured resources from the McKnight Foundation to do our part to keep the fire burning on this issue and to do some organizing to get things moving in alignment with what is suggested here. We need a lot of partners and a lot of additional resources to **make environmental justice happen!** We are hoping that we will find those partners and resources as we continue our organizing this year and beyond.

# Supplemental Background Report for Public Policy Project Health Mitigation Action Framework

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