

Poisonous Homes

The Fight for
Environmental
Justice in Federally
Assisted Housing

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Shriver
Center on
Poverty
Law



Foreword

Imagine you woke up one day and found out that you have been living and raising your children on poisoned land. You had not known it and did not have the opportunity to make a choice to protect your family's health. What if that housing was subsidized by the federal government, and the government knew all along you were living on top of a toxic waste site but never disclosed it to you.

Tragically, this is the reality for too many families across the country. Seventy percent of the most hazardous, polluted sites in the United States are located within one mile of federally assisted housing. In some cases, there is no separation at all; people are living at these sites. Children are playing on grass contaminated with toxic waste and breathing indoor dust laden with lead and other contaminants.

At this moment, 77,000 people live in the mere sliver of the toxic waste sites in the U.S. designated as Superfund sites — the nation's top most contaminated places. Close to 60% of the total federally assisted housing supply is available to families with children. We are poisoning future generations, and at an age when their bodies are smaller and more susceptible to the health impacts of contaminated housing than adults.

Environmental racism has played a central role in this devastation. Laws and policies have put Black and Brown communities in direct proximity to environmental toxins. The United States' allocation of federal housing assistance has been no different; because housing built for Black and Brown households has often been built in direct proximity to contaminated land, these families have been disproportionately exposed to these health and environmental threats. Not only has this been going on for decades, but — as our six case studies show — the federal government is still moving people into locations that are potentially hazardous. Our report documents the dangerous crisis to date, and records cases where government agencies have knowingly moved or kept vulnerable families in potentially deadly homes without the residents' knowledge. Our report exposes the gaps in the existing laws and identifies ways to solve the problem.

We are releasing *Poisonous Homes* in the midst of the COVID-19 pandemic and economic downturn, which has had an especially devastating impact on people of color. Black and Brown people are getting sick and dying at significantly higher rates. The exposure to toxins in the home increases the risk of health problems that make these residents more likely to die from COVID-19. With the economic downturn, more people are expected to need housing assistance. They should not have to risk their health to get it.

The federal housing and environmental laws and policies described in this report have placed hundreds of thousands of families in federally assisted housing in harm's way. There is a tremendous need and benefit for housing assistance, but housing must be provided in a way that protects public health. Only a comprehensive solution, driven directly by the impacted communities, can achieve the justice that is deserved.

Cover photo: Joseph Russell, 2, rides his tricycle outside of his home in August 2016 at the West Calumet Housing Project in East Chicago, Indiana. Credit: Jonathan Miano — The Times of Northwest Indiana.

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Acknowledgments and Dedication

We are indebted to the many advocates, researchers, public health, housing, and environmental law experts, lawyers, community residents and leaders, and others who spent many hours reviewing the report and its recommendations. Your vital guidance and input made this report possible and we look forward to continued partnership. We are also grateful to the law students, legal interns, and Americorps VISTAs who contributed their time to research in support of this report.

We dedicate this report to the residents of East Chicago, Indiana. You faced and continue to confront a wholly unnatural disaster, leading with a vision for a more equitable community.

The Joyce Foundation

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Executive Summary

Across the country, tens of thousands of families living in federally assisted housing are living on dangerously contaminated land where they face an urgent and ongoing environmental and health crisis. Indeed, 70% of hazardous waste sites officially listed on the National Priorities List (NPL) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund) are located within one mile of federally assisted housing.

Residents of federally assisted housing are entitled to safe, healthy homes.

The federal government has invested billions of dollars in the construction and preservation of affordable housing but has done little to protect affordable housing residents from toxic and hazardous environments — both inside and surrounding their homes. The

cumulative impacts of multiple sources of lead and other contaminants are devastating. As a result, exposed residents are suffering substantial, irreversible, and life-altering health conditions, ranging from neurological and biological damage to cancer.

This report examines the historical context surrounding the siting and redevelopment of federally assisted housing and the existing legal framework governing housing and environmental issues encountered by residents of contaminated sites. Through case studies, it provides examples across the country of federally assisted housing developments located within Superfund sites, as well as important stories of community activism in the face of that reality. Finally, it sets forth a series of recommendations focused on reducing toxic exposures and arming residents with the power to dictate what happens to their families and communities.



Children play on “The Hill” during a farewell barbecue in April 2017 at the West Calumet Housing Complex in East Chicago. Credit: Jonathan Miano — The Times of Northwest Indiana

This report focuses on federally assisted housing that is sited at or near contaminated sites that are formally designated for cleanup under CERCLA. It is important to recognize that, both from a housing and environmental perspective, this report presents only a small subset of low-income housing units in environmentally contaminated places. Additionally, this report does not address the myriad other environmental and public health considerations that should be considered for federally assisted housing, and, indeed, all housing. The focus on Superfund sites is partially dictated by data availability — CERCLA sites are far more documented than contaminated sites that are cleaned up under other federal or state laws. Those sites may be just as contaminated as CERCLA sites and may present equal concerns for low-income communities and residents of federally assisted housing.

Residents of federally assisted housing are entitled to safe, healthy homes. To achieve this, residents need support from community organizers, legal services advocates, as well as health and environmental justice organizations capable of working across disciplines to ensure that residents can effectively participate in decision making about their communities.

Historical Context

The federal government plays a major role in providing affordable housing. Currently, there are over 5 million units of federally assisted housing available across the country; these homes are supported through programs like Public Housing, Housing Choice Vouchers, the project-based Section 8 Program, the Low-Income Housing Tax Credit program, and the Rural 515 program.

The siting of federally assisted housing on or near environmental contamination was not accidental or isolated. From the programs' inception, racism played a driving force in determining where federally assisted housing was built. In many cases, in concert with lawfully sanctioned segregation, federally assisted housing was intentionally placed near contaminated areas, and industry was often sited near existing federally assisted housing, without consideration of the public health implications for residents.

Moreover, since their construction, many public housing units have either been demolished or have gone through substantial rehabilitation or redevelopment under various programs, including HOPE VI, Choice Neighborhoods Initiative, or conversion to another form of site-based affordable housing under the Rental Assistance Demonstration, without consideration of existing environmental contamination on the sites.

Existing Legal Framework

A patchwork of housing and environmental laws govern federal agencies' response to environmental contaminants on or near federally assisted housing and expose low-income communities of color to disproportionate environmental harm. These include the United States Housing Act, Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the National Environmental Policy Act (NEPA), and Title VI of the Civil Rights Act.

In spite of the complex web of federal laws and regulations ostensibly in place to prevent families from experiencing unhealthy levels of environmental contamination, the federal agencies responsible for federally assisted housing and the Environmental Protection Agency (EPA) often exhibit a startling lack of coordination and communication that puts families at risk. These shortcomings include:

1. failure to notify families of environmental contamination;
2. failure to provide families real choice as to where they live;
3. failure to include environmental health issues in housing inspections;
4. approvals of new construction and substantial rehabilitation while ignoring known environmental contamination; and
5. failure to monitor existing housing that is not undergoing significant reinvestment of federal housing funds.

Importantly, the majority of people who are eligible for federally assisted housing are also eligible for healthcare, nutritional support programs, and other services offered by the federal government and administered by state and local governments that could improve outcomes for families exposed to environmental toxins.

A Case Study of Contaminated Low-Income Housing: East Chicago, Indiana

For over 40 years, families residing at the West Calumet Public Housing Complex in East Chicago, Indiana, did not know that the soil they were living on was highly contaminated with lead and arsenic. By the 1990s, 40% of the children tested at West Calumet had elevated blood lead levels.

In 2016, after decades of neglect by polluting corporations, the state, and federal authorities, the City of East Chicago told residents for the first time of the contamination and ordered them to relocate. At the request of a collective of current and former residents and a community organization, the Shriver Center on Poverty Law filed a housing discrimination complaint with HUD and advocated for a comprehensive relocation process. After three months of negotiation, the parties entered into a voluntary compliance agreement that provided residents with comprehensive relocation services, expanded the timeline for residents to move, provided residents a rent abatement, and guaranteed lead hazard risk assessments in replacement housing for families whose children had been diagnosed with elevated blood lead levels.

At the same time, community organizations in the surrounding community came together to address the environmental contamination impacting all residents of the surrounding community. On behalf of Calumet Lives Matter, We the People of East Chicago, and some individuals, the Abrams Environmental Law Clinic at the University of Chicago Law School, Northwestern's Environmental Advocacy Clinic, and Goldberg Kohn filed a motion to intervene in the EPA's Superfund lawsuit against the polluters. During the 18 months that the motion to intervene was pending, EPA took some action to address the deficiencies highlighted by the residents, including (1) sampling and remediation of more than 500

additional residential properties that had been omitted from the consent decree, and (2) sampling of drinking water, indoor dust, and water that seeps into basements. The community groups also advocated for stronger remediation and protections through comments on subsequent EPA activities at the Superfund site, including the amended remediation plan for the West Calumet Complex land. East Chicago residents also worked with advocates to demand that Indiana Family and Social Services Administration (FSSA) meet its obligation to ensure testing, follow-up services, and investigation into the source of lead exposure for Medicaid-eligible children in East Chicago

Although the struggle for justice continues in East Chicago, it serves as a potent example of community members stepping up to challenge failures by local, state, and federal governments to protect them and inform them of environmental toxins. East Chicago also highlights the benefits of collaboration across disciplines in mitigating the harmful consequences of contaminated sites and ensuring that community members have their voices heard. A broad coalition of advocates utilizing a variety of engagement strategies — coalition building, grassroots organizing, direct service — is essential to support residents through this crisis as they build their own power.

Recommendations

Residents living in federally assisted housing must not continue to suffer the injustice of ongoing toxic exposure simply because of where they live and the laws and policies that unconscionably limit their access to information, housing choices, and health care. The following recommendations represent only a subset of the full recommendations presented in the report.

GUIDING PRINCIPLES

First, the directly impacted community should be centered within all stages of decision making, as it is ultimately their health, future, and community that is at risk. Absent meaningful engagement, and the ability of directly impacted communities to drive decision-making, environmental justice cannot be realized. This requires that community members receive prompt, clear notice about contamination that affects human health or safety. Decisions about cleanup and remediation of environmentally contaminated sites should be driven by the community. Directly impacted communities must be engaged and drive the decision-making to determine what is best and safest for their community.

Second, primary prevention — preventing environmental contamination and associated health consequences — is the central goal. Primary prevention means that efforts are taken to prevent physical harm and disease, rather than treating poor health conditions after they materialize. It is the most just, reliable, and cost-effective measure to protect children and individuals from exposure to hazards. To this end, gaps in environmental, public health, and housing policy that put low-income people and communities of color at risk must be identified and addressed. A confluence of historic policies and practices have encouraged the construction of federally assisted housing in areas of environmental contamination — and have also encouraged polluting industry to be built near existing low-income housing. Opportunities to reform these policies, many of which are outlined below, should be pursued.

Third, there must be a real financial commitment to addressing these issues. Many of the failures across health, housing, and environmental programs stem from an insufficient commitment of financial resources. Polluters should bear the cost of full implementation of a remediation that is protective of human health and the environment and reflects the impacted community's priorities. Environmental, health, and housing agencies should also receive federal appropriations at levels consistent with what is needed to investigate contamination and to protect impacted communities, as determined in large part by those communities.

Finally, in order to achieve environmental justice, a federal cross-disciplinary approach focused on primary prevention and addressing the needs of impacted communities is critical. Currently, federal agencies operate in silos and fail to listen to impacted communities, communicate with one another, or prioritize the principles of environmental justice in their actions. Thus, effective interagency practices should be developed and implemented.

CRITICAL INTERAGENCY AND MULTI-AGENCY COMMITMENTS TO ENVIRONMENTAL JUSTICE

Federal agencies should promulgate regulations to improve and expand on interagency accountability to impacted communities nationwide. Interagency regulations could outline the expectations and responsibilities of all agencies involved in the cleanup process and facilitate the flow of vital information to impacted communities.

There should be regular, early resident engagement, especially in any discussions or visioning processes for redevelopment of Superfund sites, that should pay particular attention to avoiding gentrification that displaces environmental justice communities. Special consideration should be paid to preserving and creating low-income housing and employment opportunities in the community.

Cross-agency collaboration is critical to ensuring communities are able to achieve environmental justice. Government agencies should enter into site-specific memoranda of agreement governing notice, community engagement, and cleanup. Agencies should likewise promulgate regulations to improve and expand on interagency accountability to environmentally impacted communities nationwide. At the same time, housing, health, and environmental laws and policies, and the public agencies that implement and enforce those laws and policies, must collectively and cooperatively respond to this crisis.

IDENTIFYING RISK, NOTICE, AND SECURING ROBUST PUBLIC PARTICIPATION

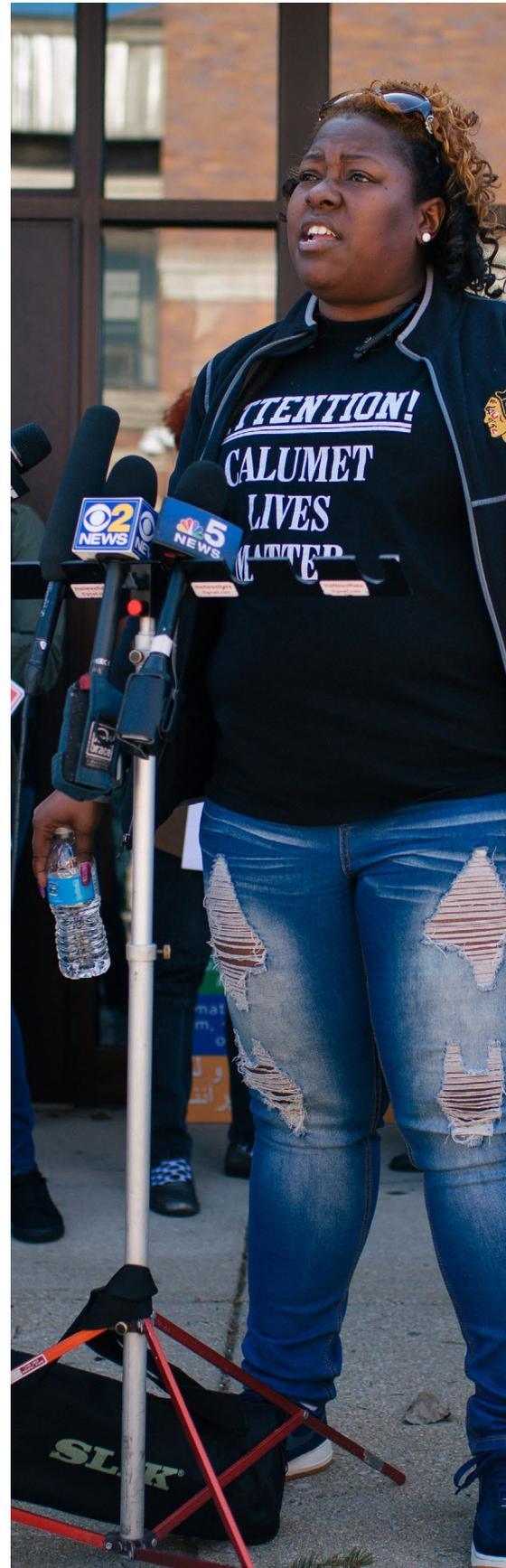
When a new site is listed on the National Priorities List, residents should receive actual notice of the listing and any associated health risks. In particular, federal agencies must ensure that tenants of and applicants for federally assisted housing receive notice of environmental hazards and health risks. Notices should explain the contamination, its impact on human health, and why individuals should be tested.

Federal housing agencies must ensure robust public participation when any housing project or proposal presents human health risks due to proximity to an unremediated Superfund site. Likewise, when state and local funds are used for housing development or rehabilitation, state and local government should ensure there is robust public participation when any federal housing project is proposed that may present an environmental justice concern.

HUD must update its guidance to ensure that EPA is notified before a NEPA environmental review is prepared at federally assisted housing within one mile of a Superfund site. HUD should likewise sync its online tools and most current guidance to ensure high-quality reviews under NEPA. Further, all new construction, redevelopment, and rehabilitation of federally assisted housing should trigger appropriate civil rights review, and the nation's largest creator of new federally assisted housing, the Low-Income Housing Tax Credit Program, should be subject to NEPA.

Federal housing agencies and local public housing authorities must improve their environmental assessment process, including engaging environmental experts to handle issues related to complex hazardous waste sites. The lack of environmental expertise within HUD or local housing authorities can lead to dangerously deficient plans that do not appropriately account for actual risks and, in some cases, can actually create new risks.

Akeeshea Daniels talking to the media at a rally held outside East Chicago Mayor Anthony Copeland's office in 2017.
© Alyssa Schukar Photography 2017.



EPA, HUD, and other federal agencies should make information about contaminated sites more available and accessible. EPA and other federal agencies should increase availability of data and fund additional research. Federal agencies must ensure an adequate housing inspection process that evaluates human health risks associated with living near an unremediated Superfund site. Likewise, federal, state, and local housing codes should expressly consider environmental hazards that threaten life, health, and safety.

Funding should be made available to ensure expeditious testing, support for the community, and comprehensive cleanup at Superfund sites. Although as much of this funding as possible should come from the polluters, Congress should refund the Superfund Trust to ensure that communities have access to necessary technical support, medical monitoring and treatment, and community-driven relocation or housing benefits.

Tenants in environmentally contaminated housing should be permitted to voluntarily relocate to other federally assisted housing or receive a Tenant Protection Voucher. Moreover, where hazards to the life, health, and safety of residents have been identified, the tenant rent should be abated until the tenant's right to healthy housing is realized.

EPA should include communities in the site-characterization process. Community members bring knowledge to this process that can improve the understanding of risks at a site.



West Calumet Housing Complex residents talk to HUD Deputy Regional Director James Cunningham, left, after an August 2016 public hearing regarding lead contamination in the soil of the complex at the West Calumet Community Center in East Chicago. Credit: Jonathan Miano — The Times of Northwest Indiana

EPA should provide information concerning contamination to the public at the same time that it provides information to potentially responsible parties or when it receives information from them. Members of the public cannot take actions to protect themselves or to advocate for their interests if they do not know or understand the levels or extent of the contamination in their homes and neighborhoods.

Community-based organizations in impacted communities must foster collaboration to tackle contaminated sites near low-income housing, and advocates must work across disciplines to support affected communities. Directly impacted communities can be supported with critical technical assistance in order to navigate the complex funding and legal framework they must understand to achieve their goals and protect the health of their community.

Sites in or near residential areas should be cleaned up to residential cleanup standards. States and EPA should limit or eliminate the use of site-specific relaxed standards that are near residential areas.

EPA’s use of “institutional controls” should not result in recontamination at Superfund sites. Institutional controls are the use of deed restrictions or other legal instruments as part of a cleanup plan to constrain future uses of a contaminated site, on the theory that such restraints will prevent people from being exposed to contamination left in place and, therefore, less contamination needs be remediated. This practice must be scrutinized and disfavored.

PROACTIVELY ADDRESS HEALTH IMPLICATIONS OF ENVIRONMENTAL EXPOSURES

Affected communities should have increased access to public benefits, including TANF, SNAP, WIC, and Medicaid. WIC participants should also have supplemental benefits and screenings to mitigate and prevent the effects of environmental exposure. States should be encouraged to use flexibility within Medicaid programs and demonstration projects and the Children’s Health Insurance Program to monitor exposed individuals, especially children with elevated blood lead levels, to provide care coordination, and to identify and remediate environmental hazards.

All federal agencies, including EPA, USDA, and HUD, should update their definitions of lead poisoning to match the Centers for Disease Control and Prevention reference value. Because low-level lead poisoning does not have any outward presenting symptoms, early identification of elevated blood lead levels and the source of exposure is critical to protecting children exposed to lead from further neurological damage.

Health interventions should be triggered automatically for all federally assisted households living at or near contaminated sites. Federal housing providers and EPA should work with local and state health departments to ensure adequate notice to tenants. Notices to tenants should clearly explain the contamination, its impact on human health, and why individuals should be tested. Public health departments must make access to testing free and accessible and should offer free onsite testing and prompt follow up.

Introduction

For four years, Krystle Jackson and her four young children lived at the West Calumet public housing complex in East Chicago, Indiana. This was the first stable housing the family had secured in years. The three-bedroom attached home had a small front and back yard, and the children spent their days playing outside in the grass or at the nearby playground on the complex. Ms. Jackson’s oldest children attended the nearby Carrie Gosch Elementary School, which was adjacent to the complex.¹

Across the country, tens of thousands of individuals and families living in federally assisted housing are chronically exposed to the country’s most dangerous environmentally contaminated sites.

In 2015, Ms. Jackson’s three-year-old son was diagnosed with lead poisoning. Ms. Jackson reported this to the East Chicago Housing Authority (ECHA). ECHA staff denied the presence of lead in the home and told Ms. Jackson there was nothing they could do for her or her children. Worried that the source of lead may be from lead-based paint, Ms. Jackson painted the inside of her unit. About a year later, Ms. Jackson’s one-year-old son was also screened for lead poisoning. During the medical appointment, the pediatrician informed Ms.

Jackson that the test would likely come back with an elevated blood lead level due to the “known” lead and environmental contamination in the area. This was the first time Ms. Jackson was made aware of lead contamination in the area. ECHA had made no mention of the well-known hazards. As expected, Ms. Jackson’s baby was also diagnosed with lead poisoning. The test results confirmed Ms. Jackson’s suspicions: her public housing home was harming her children.



West Calumet Housing Complex resident Cassidy Carter looks out her family’s window at their home in East Chicago in September 2016. Credit: Jonathan Miano — The Times of Northwest Indiana

In desperation, Ms. Jackson moved her family out of the complex, doubling up with relatives who were themselves about to become homeless, and subsequently even living out of her car. Two weeks after she left, Ms. Jackson and more than 300 other families were told, for the first time, that the housing complex was being shut down due to serious lead and arsenic contamination. Current residents would receive Housing Choice Vouchers (HCV) and were told they had 90 days to relocate. When Ms. Jackson inquired about an HCV, however, ECHA staff told her that she was ineligible for a voucher because she had already left the complex.

As government officials rolled out the mandatory relocation of residents in the summer of 2016, they withheld critical information about the history of the contamination, including the fact that soil testing in the 1980s confirmed the presence of lead and arsenic in the soil. In fact, city officials, ECHA, EPA, and HUD had known for over three decades that thousands of infants, children, and adults who had lived at the complex had been chronically exposed to dangerous levels of lead and arsenic, leading to high lead poisoning rates among children and cancer among adults. Instead of protecting residents from the health hazards, officials continuously invested federal housing dollars to build and maintain the low-income housing and invited low-income families to live there.

Sadly, Ms. Jackson's experience is not unusual. Across the country, tens of thousands of individuals and families living in federally assisted housing are chronically exposed to the country's most dangerous environmentally contaminated sites. These families are disproportionately low-income communities of color. EPA and HUD estimate that approximately 1,000 public and project-based Section 8 housing developments² home to approximately 77,000 families³ are located within one mile of the country's most hazardous waste sites — those officially listed on the National Priorities List (NPL) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund). Viewed another way, 70% of all Superfund sites are located within one mile of certain HUD-assisted housing developments — an estimate that does not account for other federally supported housing programs not administered by HUD or hazardous waste sites that are not on the NPL.

While this report focuses on the proximity of federally assisted housing to Superfund sites and shuttered and demolished lead smelting factories where dangerous levels of lead are in the soil, this crisis is by no means limited to these types of housing or environmental contamination. Many of the recommendations laid out in this report apply to communities with other types of housing and environmental contamination.

The federal government has invested billions of dollars in the construction and preservation of affordable housing but has done little to protect affordable housing residents from toxic and hazardous environments — both inside and surrounding their homes. The cumulative impacts of multiple sources of lead and other contaminants are devastating.⁴ As a result, exposed residents are suffering substantial, irreversible and life altering health implications ranging from neurological and biological damage to cancer.

This report considers important questions about environmental contamination on or near federally assisted housing:

How did the development of, and continued investment in, federally assisted housing on toxic sites happen?

- **How was the health and well-being of federally assisted housing residents repeatedly ignored by government officials?**
- **How many other families living in federally assisted housing are currently living, without knowing or understanding the risks, on or near hazardous waste sites?**

To answer these questions and advance solutions, this report presents:

Historical context: The siting of federally assisted housing on or near environmental contamination has not been accidental or isolated. Federally assisted housing was intentionally placed near contaminated areas, and industry was often sited near existing federally assisted housing, without consideration of the public health implications to residents.

Existing legal framework: A patchwork of, and silos between, housing, environmental, and health laws perpetuate the exposure of low-income communities of color to disproportionate environmental harm and fail to properly notify or engage residents in any meaningful way so that they can make their own choices and determine what is best for them and their families.

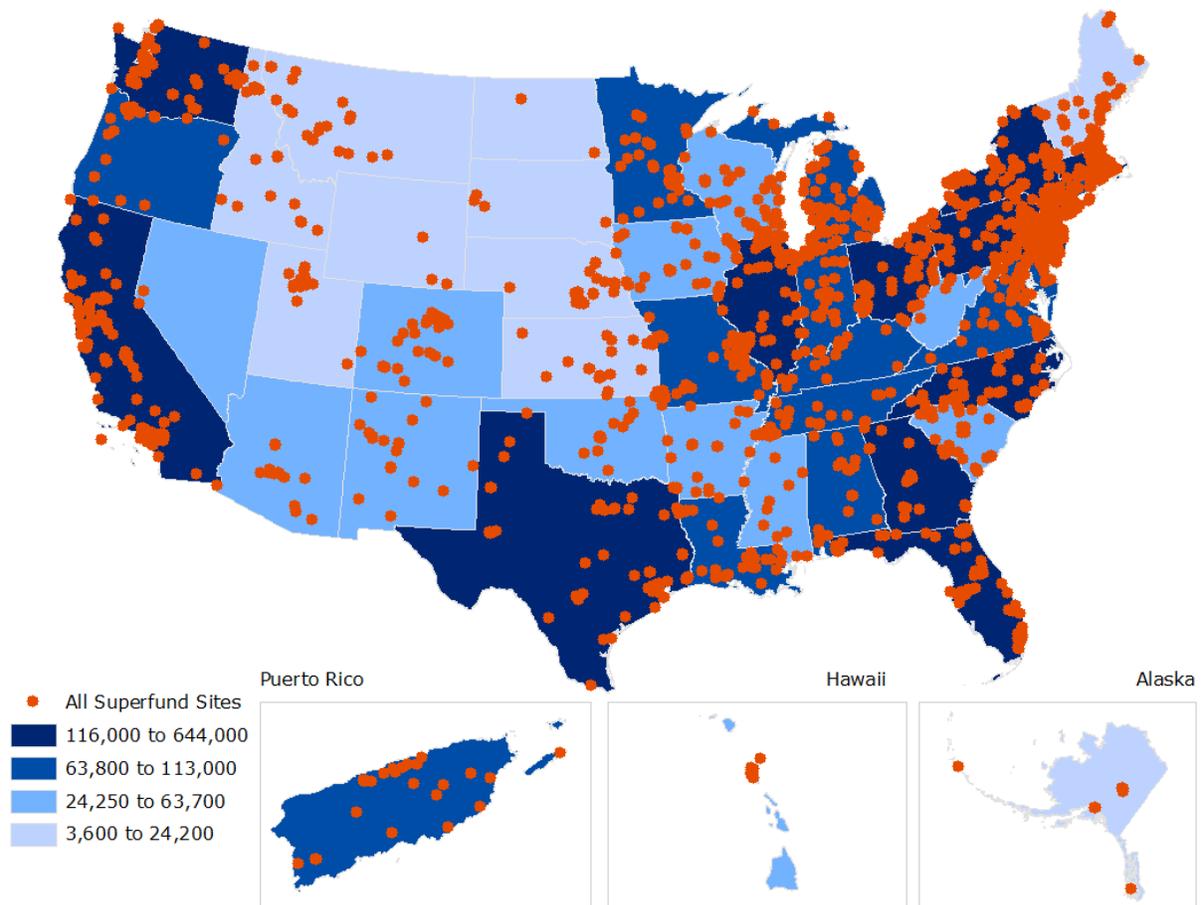
Case studies: The report highlights examples of federally assisted housing located near contaminated areas. These examples were selected based on a review of Superfund sites as well as lead smelter sites with severe contamination where (1) lead was a primary contaminant of concern, (2) there is an ongoing risk of human exposure, and (3) federally assisted housing was located within one mile of the site. These are not the only contaminated sites in the country that merit attention; other sites have high levels of other pollutants, may not be in the Superfund program, or may affect federally assisted housing located more than one mile from the site. Some examples provide important opportunities to reflect about harm that has already happened, and others offer the opportunity for government agencies (or advocates) to take immediate action to better protect the health of residents.

Recommendations: The report presents concrete recommendations for residents, advocates, and policymakers. These recommendations are based on the residents' response with advocate support to the USS Lead Superfund crisis in East Chicago, Indiana; advocacy undertaken at other contaminated sites; and a review of existing laws and select Superfund sites. These recommendations require interdisciplinary collaboration and a commitment to ensuring that federally assisted housing does not harm the individuals and children who reside in it. Most critically, the recommendations highlight the necessity of involving the directly impacted communities in decisions that are made about the future of their homes and lives.

Scope of this report. This report focuses on federally assisted housing that is sited at or near contaminated sites that are formally designated for cleanup under the Superfund law, known as CERCLA. It is important

to recognize that, both from a housing and environmental perspective, this report presents only a small subset of low-income housing units in environmentally contaminated places. Additionally, this report does not address the myriad other environmental and public health considerations — including threats related to climate change, proximity to highways or other transportation that create air pollution, or proximity to facilities that handle or dispose of toxic or hazardous materials — that should be considered in the development or redevelopment of federally assisted housing, and, indeed, all housing. The focus on Superfund sites is partially dictated by data availability — CERCLA sites are far more documented and studied than contaminated sites that are cleaned up under other federal laws or state laws.⁹ Sites cleaned up under these other authorities may be just as contaminated as CERCLA sites and may present equal concerns for low-income communities and residents of federally assisted housing.

All Housing Types within a Quarter Mile of a Superfund Site



How Did We Get Here? The Siting of Federally Assisted Housing in Proximity to Environmental Contamination

A confluence of historic policies and practices have encouraged the construction of federally assisted housing in areas of environmental contamination — and have also enabled the polluting industry to be

built near existing low-income housing. Today, over 1,000 federally assisted housing developments are located within one mile of a site listed on the National Priorities List (NPL). But how did it happen that tens of thousands of households could

Over 5 million households, which include over 10 million people, receive federal housing assistance.

Percentage of People Who Live in Federally Assisted Housing by Race



be put in harm's way simply because they rely upon the federal government for their housing? This section analyzes housing and environmental law and policy, and their intersection, to show how the federal and local governments exposed generations of families to contaminated environments.

WHO LIVES IN FEDERALLY ASSISTED HOUSING?

Many people most vulnerable to exposure to environmental contamination — children, people with disabilities, and older adults — live in federally assisted housing.

Over 5 million households, which include over 10 million people, receive federal housing assistance. Of these households, 978,666 live in public housing, 2,264,047 use housing choice vouchers, 1,210,032 reside in project-based section 8 properties, almost 2 million live in Low-Income Housing Tax Credit (LIHTC) units, and 394,504 live in USDA multi-family housing.⁶

The communities that live in federally assisted housing are predominately comprised of the people most vulnerable to exposure: children, people with disabilities, older adults, and are people of color.

Most residents are people of color. 43% of public housing residents are Black (non-Latinx), 33% are White (non-Latinx), 21% are Latinx, and 3% are Asian or Pacific Islander.⁷ The demographics of voucher holders are fairly similar: 48% are Black, 31% are White, 18% are Latinx, and 3% are Asian or Pacific Islander.⁸ Among those who live in project-based section 8 housing, 42% are White, 34% are Black, 15% are Latinx, and 5% are Asian or Pacific Islander.⁹ With respect to residents of LIHTC units, approximately 21% are White, 21% are Black, 11% are Latinx, and almost 3% are Asian or Pacific Islander.¹⁰ In addition, 66% of those who reside in USDA housing are White, 20% are Black, and 12% are Latinx.¹¹

A significant portion of these households are older adults living in HUD-assisted housing: 33% of households in public housing, 25% of voucher holder households, and 49% of households that live in project-based section 8 properties are older adults.¹²

A large number of households with children also live in these programs: 38% of households that reside in public housing, 44% of households that use vouchers, and 28% of households in project-based section 8 housing include one or more children under 18.¹³ Approximately 29% of LIHTC households include at least one child under 18, and 26% include at least one household member who is over 62 (25% have a head of household who is over 62).¹⁴ Additionally, 35% of all residents in USDA housing are older adults and 42% are minors.¹⁵

The Role of Race in the Siting of Federally Assisted Housing

From the inception of federal housing programs, racism played a driving force in determining where public and other federally assisted housing was built. As part of the New Deal, the Public Works Administration built the first public housing units starting in 1934.¹⁶ In 1939, the federal government imposed the

Neighborhood Composition Rule, which required the racial composition of public housing developments to reflect the racial composition of the surrounding neighborhoods, meaning that national policy was intent on rigidly maintaining residential segregation.¹⁷ Before the rule was invalidated in 1949, more than 170,000 units of public housing were already built.¹⁸ Even after the invalidation of the rule however, public housing, in particular family housing, continued to be largely built in communities of color. By 1980, more than one million public housing units that families call home to this day were built, often in highly concentrated and segregated neighborhoods throughout the country that are disproportionately burdened by environmental contamination.¹⁹

The Development of Public-Private Partnerships to Develop Affordable Housing

In 1974, President Nixon issued a moratorium on construction of new public housing and shifted the focus to federally funded private affordable housing development, where private property owners act in partnership with the federal government to provide affordable housing.²⁰ As with the siting of public housing, local governments were required to approve the siting of these private federally assisted housing developments. As a result, many of the same segregated housing patterns continued. Through 1983, over 800,000 units of low-income private housing were constructed or substantially rehabilitated in the project-based Section 8 New Construction and Substantial Rehabilitation programs alone.²¹ While HUD has for the most part stopped issuing new affordable housing contracts for multi-family housing,²² HUD continues to renew existing affordable housing contracts and offers financial incentives to private owners of affordable housing to do so.

Rural Development

The U.S. Department of Agriculture's (USDA's) Rural Development (RD) also oversees several low-income housing programs through its Rural Housing Service. To spur development of low-income housing in rural areas, Congress annually set aside Section 8 appropriations for HUD to use under Section 515 of the Housing Act of 1949.²³ USDA also provides mortgages to developers through the Section 515 program, which is home to many families and older adults, and the Section 514 program which houses farmworkers. RD also provides rental assistance programs under Section 512. Most commonly now, federal funds are used to preserve and rehabilitate existing housing.

The Low-Income Housing Tax Credit Program

Since 1986, the primary generator of new affordable housing units has been the Low-Income Housing Tax Credit Program (LIHTC), administered by the Internal Revenue Service, with oversight authority to state and local housing finance agencies. There are an estimated 2 million LIHTC units today with an additional 100,000 units generated annually. The program provides tax incentives to encourage developers to create and rehabilitate affordable housing. Each housing finance agency allocates LIHTC according to

selection criteria contained in each housing finance agency's Qualified Allocation Plan (QAP). Similar to other subsidized housing programs, a developer seeking to use the tax credits was often required to seek the support of the local government where the housing would be sited as part of the tax credit application process.²⁴ The LIHTC statute further prioritizes developments in Racially and Ethnically Concentrated Areas of Poverty (R/ECAPS),²⁵ which only increases the likelihood those developments are sited in areas of environmental contamination.²⁶

Federal Block Grant Programs

Block grants are another source of current federal financial support for the creation and redevelopment of low-income housing. These include Community Development Block Grants (CDBG) and grants made under the HOME Investment Partnerships Program (HOME). CDBGs were first issued in 1974 and provide grants annually to 1,209 units of local governments and states.²⁷ CDBG provides funding for the preservation and creation of affordable housing, and funds other economic development activity. HOME provides grants to states and units of local government that fund a wide variety of activities, including building and rehabilitating affordable housing or providing direct rental assistance to people with low incomes. HOME is the largest federal affordable housing block grant.

Housing Choice Voucher Program

In addition to the site-based housing programs, many tenants currently participate in the Housing Choice Voucher (HCV) program. The HCV program is currently the largest federal rental assistance program, assisting over 5 million people in 2.2 million households.²⁸ In 1981, HUD began to focus on HCVs as it shifted away from site-based affordable housing, and today HCVs are the primary federal mechanism for subsidizing low-income families. HCVs are tenant-based vouchers where HUD provides a rental subsidy to a private market landlord.

Like the site-based programs, however, the HCV program has failed to ensure that tenants can live in areas without an unjust burden of environmental contamination.²⁹ The program does not protect voucher holders from discrimination by landlords who refuse to accept vouchers, leaving families with fewer housing choices. As well, the voucher rents set by HUD often fail to match market rents, especially in more environmentally safe areas. Finally, as noted below, the housing inspection program for vouchers fails to consider environmental hazards.

The Laws Regarding Federally Assisted Housing

FEDERAL HOUSING LAWS THAT LIMIT HOUSING CHOICE

Because HUD's public housing and project-based Section 8 programs are site-based, residents cannot generally move and retain their affordable housing. There are two exceptions to this rule. First, the site-

based units can be removed from the affordable housing programs and tenants receive tenant-based assistance. Second, the housing provider can propose to transfer the subsidy attached to the unit to a different development.

When housing providers propose to demolish, dispose, or terminate the contract of site-based affordable housing developments, residents may become eligible for Tenant Protection Vouchers — a form of Housing Choice Voucher specifically for tenants impacted by the loss of site-based housing.³⁰ In the public housing program, vouchers may be issued to tenants when the housing authority's application to demolish or dispose of the housing through Section 18 of the United States Housing Act is approved by HUD.³¹ In the project-based Section 8 program, vouchers are issued to tenants when the owner of a development elects not to renew the HAP contract upon its expiration, or when HUD elects to terminate the HAP contract for noncompliance.³²

Over the years, Congress has provided public housing authorities with options to redevelop housing and potentially move the housing and tenants to a different location. From year to year, Congress authorized the HOPE VI program, which financed the conversion of traditional public housing development into new mixed-income housing, and substantially reduced the number of public housing that was replaced.³³ HOPE VI has not been funded recently and appears to be winding down.³⁴ Since 2011, HUD has instead focused on a more comprehensive redevelopment program called the Choice Neighborhoods Initiative, which provides critical support for neighborhood revitalization to local communities with distressed public housing or project-based Section 8 housing.³⁵ The Choice Neighborhoods Initiatives program targets developments in severely distressed neighborhoods, requiring in most cases one for one replacement of units, and offering tenants the option to take a Housing Choice Vouchers rather than remain at the development.

The newest redevelopment program is the Rental Assistance Demonstration (RAD) program.³⁶ RAD authorizes the conversion of public housing and certain other project-based housing programs³⁷ to project-based Section 8 or project-based vouchers. Through RAD, public housing authorities can convert and rehabilitate public housing units utilizing other federal and private capital. RAD provides another opportunity to move the location of the housing, while not losing units and giving tenants an option to take vouchers.³⁸ Tenants with project-based vouchers, where the voucher is attached to the housing unit pursuant to a contract between the landlord and the PHA, can move out of their project-based unit after one year. Similarly, RAD tenants in properties that convert to project-based rental assistance are authorized to move out of their project-based unit with a tenant-based voucher after two years, under the Choice Mobility Program.³⁹ Tenants in the project-based Section 8 program generally do not have this option.

Outside of these demonstration programs, the United States Housing Act permits the transfer of project-based Section 8 Housing Assistance Payment (HAP) contracts through a process known as a Section 8(bb) transfer.⁴⁰ 8(bb) transfers also permit tenants to choose if they want to move with the project-based Section 8 contract or take a voucher.⁴¹ Any transfer of the affordable housing subsidy is subject to HUD approval, and triggers civil rights and environmental review requirements.

CIVIL RIGHTS LAWS

Programs and activities receiving federal dollars are prohibited from discriminating based on race, color, and national origin under Title VI of the Civil Rights Act of 1964 (Title VI).⁴² Title VI applies to all public housing authorities and HUD-assisted properties.⁴³ Likewise, the Fair Housing Act, also known as Title VIII of the Civil Rights Act (Title VIII), prohibits housing discrimination because of race, color, religion, sex, familial status, national origin, and disability.⁴⁴

The Fair Housing Act also mandates that HUD administer its programs in a way that affirmatively furthers fair housing (AFFH).⁴⁵ PHAs must include a certification they will affirmatively further fair housing as part of their annual plan.⁴⁶ States and local governments that receive HOME and/or CDBG funding are known as entitlement jurisdictions that have an obligation to affirmatively further fair housing by taking meaningful actions to undo historic patterns of segregation and promote fair housing.⁴⁷ Nearly 50 years after the passage of the Fair Housing Act, HUD promulgated the AFFH final rule in 2015 that created a framework to increase accountability for this mandate, including analyzing the impact of inequitable environmental burdens on communities of color.⁴⁸ The rule, however, has not to date been implemented and is currently being rolled back.⁴⁹ As a result of the inaction by federal agencies, and despite legal requirements to the contrary, low-income communities of color continue to be exposed to an inequitable burden of environmental hazards.

In furtherance of Title VI of the Civil Rights Act and the Fair Housing Act, HUD imposes site and neighborhood standards mandating that new construction, existing housing undergoing significant rehabilitation, and transfers of housing assistance comply with civil rights laws.⁵⁰ These standards are designed to prevent further residential segregation through the location of federally assisted housing.

MINIMUM HOUSING QUALITY STANDARDS IN FEDERALLY ASSISTED HOUSING

Federally assisted housing is routinely inspected to ensure that it meets housing quality standards. HUD-assisted housing is governed by the Uniform Physical Conditions Standards (UPCS) that are designed to ensure the housing is in decent, safe, sanitary condition, and in good repair.⁵¹ The HUD site-based housing programs undergo regular inspections by the Real Estate Assessment Center (REAC), which is responsible for inspecting and assessing the quality of most of HUD's site-based housing in accordance with the UPCS.⁵² Likewise, PHAs are responsible for ensuring housing units participating in the voucher program pass Housing Quality Standards (HQS) prior to entering into a contract with the property owner.⁵³ These inspections look for exigent health and safety issues, but, they do not inspect for environmental hazards. The HCV program, for example, only requires ineffective visual inspections for lead hazards, which leaves children vulnerable to lead poisoning from lead-contaminated soil, water, and dust.⁵⁴ For USDA projects, state field offices inspect the housing to ensure that owners meet their obligation to maintain their properties in decent, safe, and sanitary condition.⁵⁵ For the LIHTC projects, state and local housing finance agencies (HFAs) are responsible for inspecting the physical conditions of projects. If a property has undergone the HUD REAC process or HQS inspection, HFAs can use this process to satisfy the LIHTC physical inspection requirements.⁵⁶

An Overview of the History of Environmental Justice

Low-income communities and communities of color have historically borne and continue to bear a disproportionate share of environmental harms.

The location of federally assisted low-income housing on or near contaminated sites is part of a broader history in the United States of subjecting low-income people and people of color to disparate levels of environmental harm. The movement to challenge these environmental inequities through a civil rights lens is commonly known as environmental justice,⁵⁷ which seeks to ensure that low-income communities and communities of

color receive fair treatment and are meaningfully involved in decisions that should protect them from the disproportionate share of environmental harms that they have historically borne and continue to bear.

Hazel M. Johnson, a public housing resident in Chicago’s Altgeld Gardens who exposed the effects of pollution from area landfills in her community is often described as the “Mother of the Environmental Justice Movement.”⁵⁸ Hazel Johnson’s story speaks to the history and the heart of the environmental justice movement.



EPA Project Manager Michael Berkoff points out areas on a historic map of East Chicago during a public meeting in July 2012 on proposed lead clean-up plans for the US Smelter and Lead superfund site. Credit: Kyle Telechan — The Times of Northwest Indiana



Historical photographs of the West Calumet Housing Complex provided by the East Chicago Public Library.



Hazel Johnson and the “toxic doughnut” map. Credit: People for Community Recovery Archives, Chicago Public Library

Hazel Johnson: Mother of the Environmental Justice Movement

Hazel Johnson was born in 1935 in New Orleans and moved to Chicago with her husband, John Johnson, in the 1950s.⁵⁹ In 1962, they moved into Altgeld Gardens Homes, a public housing development built in 1945 as housing explicitly for Black veterans and their families.⁶⁰ Johnson lived in Altgeld Gardens while working and raising her seven children. After her husband died of lung cancer in 1969 and her children were increasingly ill with skin and respiratory issues, she became increasingly concerned about the environmental hazards surrounding Altgeld Gardens.⁶¹ Johnson would come to learn that officials intentionally chose to place Altgeld Gardens and the Black families who would live there in an area surrounded by dangerous and toxic pollution.

Altgeld Gardens was surrounded by industry and built on a toxic waste dump and sewage farm that had been created by the Pullman Palace Car Company decades earlier.⁶² The far south side of Chicago has been a dumping ground for industrial waste since the late nineteenth century, and it became officially sanctioned as the waste site for the whole metropolitan area when the city opened a large municipal dump there in 1940, five years before Altgeld Gardens opened.⁶³ While Johnson lived there, about 250 underground chemical storage tanks actively leaked into the groundwater.⁶⁴ Altgeld Gardens was also surrounded by approximately 50 landfills.⁶⁵ Johnson famously called her neighborhood “the toxic doughnut” because it was surrounded on all sides with industrial hazards and pollution.⁶⁶

Johnson organized residents to confront the main polluters around Altgeld Gardens, including Waste Management, Sherwin-Williams Paint Co., PMC Specialty, Ford Motor Co., and the Metropolitan Water Reclamation District of Chicago.⁶⁷ She collected health data from Altgeld Gardens residents to back up anecdotal reports that the pollution was affecting people’s health.⁶⁸ Neighbors told her about other local residents who had died from cancer, as well as lung-related illnesses, birth defects, and miscarriages.⁶⁹ From her research, Johnson uncovered that Altgeld’s southeast side community had the highest rate of cancer in the city.⁷⁰ In 1979, Johnson founded People for Community Recovery (PCR), focused on fighting the environmental racism experienced by Altgeld Gardens residents.⁷¹

Johnson also exposed the fact that the Chicago Housing Authority, which owned and operated Altgeld Gardens, made resident exposure even worse by ignoring what toxins were coming from the former waste dump underneath Altgeld Gardens, using building materials containing asbestos and dumping PCB waste⁷² at the site.⁷³

In 1986, Johnson persuaded Mayor Harold Washington to visit Altgeld Gardens, and he promised to ban future landfills from being placed in the neighborhood.⁷⁴ Around the same time, Johnson and

PCR were successful in lobbying city health officials to test the well water at Maryland Manor, an annex to Altgeld Gardens that predominantly housed seniors, and then pushing for the installation of water and sewer lines after the tests found that the drinking water from the well contained cyanide and other toxins.⁷⁵

PCR continued to carry out health surveys among Altgeld Gardens residents through the 1980s and 1990s. These surveys continued to find very high rates of infant deaths and cancer, as well as lung and skin-related diseases.⁷⁶

In 1987, PCR led hundreds of protestors as they blocked 57 dump trucks from entering the gate to a nearby landfill; later protests led to the city revoking the permits of three other landfills. PCR lobbied the EPA, testified at hearings, and submitted hundreds of anti-landfill petitions. As a result of their efforts, Altgeld Gardens residents were hired to monitor compliance at nearby landfills, which eventually led to no more new landfills and incinerators being placed in the neighborhood.⁷⁷ Along her advocacy journey, Johnson built a team of medical experts, legal advocates, and organizers to support the public housing residents as they demanded accountability and reform.

In 1992, Johnson received the title “Mother of the Environmental Justice Movement” at the first National People of Color Environmental Leadership Summit. By that point, PCR had grown to

an organization with six employees, 13 board members, 200 dues-paying members, and many volunteers. In that same year, EPA gave PCR a grant to provide environmental job training to Altgeld Gardens residents and others in the area.⁷⁸

In 1994, in direct response to Johnson’s effort and the broader environmental justice movement’s demands, President Clinton signed Executive Order

No. 12898, which centered racial justice in the federal government’s environmental work. In addition to mandating that federal agencies identify and address the environmental and health effects of their actions on low-income communities and communities of color, the Order prompted the creation of the National Environmental Justice Advisory Council (NEJAC) and National Advisory Committee on Environmental Policy and Technology (NACEPT). Johnson actively participated in NEJAC for several years, and PCR shared its expertise and community perspective in these groups.⁷⁹

Hazel Johnson worked for PCR until 2009 and continued to serve on the board until 2010. She died in 2011, having never moved from her home in Altgeld Gardens. Her daughter, Cheryl Johnson, continues her mother’s fight for environmental justice today.

Hazel Johnson, whose pioneering work to expose toxic waste surrounding Altgeld Gardens, is known as the Mother of the Environmental Justice movement.

In another environmental justice fight in the mid-1980s, residents of a predominantly Black community in Warren County, North Carolina, protested against the siting of toxic waste disposal sites in their community.⁸⁰ The Warren County protests were the impetus for a landmark 1987 report by the United Church of Christ's Commission for Racial Justice, *Toxic Wastes and Race in the United States, A National Report on the Racial and Socio-Economic Characteristics of Communities with Hazardous Waste Sites* (UCC Report).

The UCC Report documented — on a national level and with significant data — racial disparities in exposure to environmental hazards.⁸¹ The UCC Report examined the race and socio-economic status of communities with commercial hazardous waste facilities and uncontrolled toxic waste sites and concluded that a community's racial composition was the strongest predictor of a hazardous waste facility's location.⁸² As part of a broad range of recommendations, the UCC Report urged the issuance of a presidential executive order requiring federal agencies to review how their policies and regulations impact minority communities. The UCC Report also recommended the establishment of both an EPA office and an EPA advisory council dedicated to environmental justice.⁸³

The UCC Report's findings sparked the creation of countless environmental justice organizations and the publication of studies and books examining the relationship between social justice and the environment.⁸⁴ It also led to the creation of EPA's Environmental Equity Working Group, which published its examination of the environmental risks experienced by communities of color in a 1992 report.⁸⁵ The EPA Office of Environmental Justice was established in 1992, and, in 1994, President Clinton issued Executive Order No. 12898 to promote environmental justice.⁸⁶

Executive Order 12898 requires federal agencies to develop strategies to address the negative health and environmental conditions experienced by minority and low-income groups.⁸⁷ In particular, it directs agencies to improve enforcement of the health and environmental laws in low-income communities and communities of color, increase and improve public participation, and increase research related to communities of color and low-income communities.⁸⁸ Executive Order 12898 also established the Interagency Working Group on Environmental Justice to facilitate all federal agencies' incorporation of environmental justice issues into their programs and assure agency coordination.⁸⁹

Communities seeking to challenge their exposure to environmental harm through a civil rights lens used Title VI of the Civil Rights Act⁹⁰ in their advocacy, and, in accordance with Title VI, EPA adopted regulations prohibiting programs receiving EPA funding from discrimination.⁹¹

Beyond the specific Title VI regulations and complaint process,⁹² EPA has made episodic attempts to incorporate environmental justice into the agency's general programs and policies. For example, since 2010, EPA has developed and updated EJSCREEN, a publicly available computer mapping tool that can be used to overlay a location's environmental conditions and demographics.⁹³ In addition, EPA has issued guidance documents designed to facilitate the incorporation of environmental justice into agency regulations and permitting decisions.⁹⁴ The agency also has developed several environmental justice strategic plans, most recently the EJ 2020 Action Agenda, published in October 2016, which includes specific goals for EPA's environmental justice work.⁹⁵ Starting in 2017, EPA has taken no demonstrable steps to further develop or implement its EJ policies.

Federal Environmental Laws That Directly Impact Federally Assisted Housing

While no federal statute expressly incorporates environmental justice principles and priorities, two federal environmental laws are potentially relevant to federally assisted housing and could be used to protect low-income communities and communities of color. First, CERCLA, or Superfund, looks back in time to cleanup historically contaminated sites that may be near — or, in fact, beneath — federally assisted housing. Second, the National Environmental Policy Act (NEPA) looks forward in time by requiring the federal government to consider environmental impacts before taking certain actions, which include a subset of decisions related to federally assisted housing. Although agencies have integrated environmental justice principles in the implementation of CERCLA and NEPA in limited ways, such efforts have fallen far short of protecting residents of federally assisted housing.

SUPERFUND

In response to the manmade disaster at Love Canal, Congress enacted CERCLA in 1980 to remediate hazardous pollutants from old or abandoned industrial sites.⁹⁶ The Love Canal community was built on top of the seeping toxic waste of the Hooker Chemical Company in Niagara Falls, New York. Noting the resulting

“Quite simply, Love Canal is one of the most appalling environmental tragedies in American history. But that is not the most disturbing fact. What is worse is that it cannot be regarded as an isolated event. It could happen again — anywhere in this country — unless we move expeditiously to prevent it.”

— Eckardt C. Beck



health effects among residents, Eckardt C. Beck, an EPA Regional Administrator in the late 1970s, described sites like Love Canal as “ticking time bombs” and called for a broad national solution.⁹⁷

But the government and media attention on this ticking time bomb almost exclusively focused on the area’s White homeowners, even though the community included Griffon Manor, a public housing development primarily housing Black families and home to approximately 1,200 people.⁹⁸ Griffon Manor residents faced racial animosity at all turns in their fight for relocation — from government officials who resisted

their relocation to predominantly White neighborhoods in Niagara Falls, to their very neighbors in Love Canal who saw them as undeserving of relocation benefits because they were not homeowners.⁹⁹

With the help of the local NAACP chapter, the Concerned Love Canal Renters Association (CLCRA) demanded attention for the public housing families, who were ignored by President Jimmy Carter’s 1978 emergency declaration.¹⁰⁰ By 1980, the federal government and State of New York approved a relocation package for homeowners that, initially, provided no relief for the public housing families.¹⁰¹ As a result of CLCRA’s advocacy, HUD ultimately approved Housing Choice Vouchers (HCVs) for those families, and the City of Niagara Falls approved a relocation package.¹⁰²

Despite the fact that public housing residents were among the most harmed by the specific toxic site that ignited the passage of CERCLA, the intersection between highly contaminated waste sites and federally assisted housing has largely been ignored by federal agencies.

The Superfund law gave EPA the authority to require those responsible for the contamination, the polluters referred to as “potentially responsible parties” (PRPs) in the law, to pay for or to conduct, under EPA’s supervision, a site’s cleanup.¹⁰³

The EPA’s Superfund Process



Superfund authorized the creation of a trust fund to pay for site cleanups, and it taxed the petroleum and chemical industries to provide funding for the trust.¹⁰⁴ The trust fund provided EPA with the financial ability to remediate a Superfund site expeditiously by first unilaterally conducting a cleanup and then recovering the costs from PRPs. When the trust fund tax expired in 1995, Congress failed to reauthorize it.¹⁰⁵ As a result, by 2004, all funding from the program-wide trust fund was depleted and the Superfund program has not been adequately funded ever since that time.

EPA places the most contaminated sites on the National Priorities List (NPL), making the sites eligible to receive financing from the Superfund program.¹⁰⁶ Currently, there are 1,178 sites on the NPL.¹⁰⁷ EPA uses a complex and proscribed process to assess whether a site is eligible for listing on the NPL.¹⁰⁸

After EPA lists a site on the NPL, the agency studies the site conditions, the nature of the contamination, and the risks to human health, while also evaluating options for remediating the contamination.¹⁰⁹ As part of the analysis of human health risk, the Agency for Toxic Substances and Disease Registry (ATSDR) conducts a public health assessment designed to inform EPA cleanup decisions.¹¹⁰ These health assessments evaluate potential risk to human health based on the site-specific contamination and human exposure pathways.

Deciding “how clean is clean” is a complex but critical determination in the Superfund remediation process. The Superfund statute does not mandate specific cleanup levels applicable to all sites nationwide, but rather requires EPA to consider a variety of factors in selecting a remedy, including standards provided by other laws, known as Applicable, Relevant, and Appropriate Requirements.¹¹¹ One key determinant in how EPA chooses the level of protection that a remedy must provide is the anticipated future use of the site (e.g., residential or industrial).¹¹² Once the remedial investigation is concluded and a cleanup remedy is chosen, EPA’s proposed remedy is made available for public comment.¹¹³

The Superfund statute directs EPA to educate the community about creating a group of representatives, a Community Advisory Group (CAG), and to assist in a CAG’s formation.¹¹⁴ A CAG should serve as the community’s conduit to EPA for exchanging information and voicing community concerns. Of course, even at sites where a CAG is formed, EPA still has an obligation to disseminate information to the community at large and to consider input from all impacted members of the public.¹¹⁵ To facilitate public participation in the heavily technical Superfund process, a community group may apply for an EPA Technical Assistance Grant. A single such grant is available in relation to each site and provides up to \$50,000, paid out over three years, so the community can hire a technical advisor.¹¹⁶

Even after construction or engineering work is done to remove contamination or build safeguards containing contamination left in place, EPA must follow a detailed procedure to assure that health and the environment continue to be protected.¹¹⁷ For instance, if any contamination remains at a site, EPA must undertake five-year reviews to assess ongoing environmental monitoring data and inspections and to ensure the remedy continues to be protective as intended. In some situations, this ongoing monitoring and maintenance can go on for decades. Once EPA has determined that all remedial work is complete, the site is eligible to be delisted from the NPL on the premise that the site no longer poses a threat to human health or the environment. EPA must provide public notice and an opportunity for public comment before the site is taken off the list.¹¹⁸

NATIONAL ENVIRONMENTAL POLICY ACT

NEPA, enacted in 1970, requires federal agencies to examine the environmental impact of any proposed “major Federal action” before deciding to undertake the action.¹¹⁹ Though NEPA defines “major Federal action” broadly as any agency action that “significantly affects the quality of the human environment,”¹²⁰ agencies have interpreted many types of agency action related to proposed projects to be outside the scope of NEPA even if the underlying project has serious environmental consequences.

NEPA reviews are intended to be holistic evaluations of the environmental consequences of a federal action; the process is not solely focused on the lead soil contamination risks. NEPA reviews of housing decisions

also explore other environmental and public health issues relevant to the decision, such as air quality, water quality, and traffic impacts. The purpose of such reviews is to allow decision-makers and the public to make fully informed, holistic, and transparent decisions.

HUD requires that any property being considered for a HUD program must be free of contamination.¹²¹ HUD or the responsible entity (RE) must examine the history of any site to be used for housing to assure it is safe.¹²² HUD has a variety of forms and guidance documents to assist with HUD NEPA reviews. One such online tool that is currently being phased in, the HUD Environmental Review Online System, standardizes the forms for conducting environmental reviews to ensure greater consistency in NEPA reviews and independence between contractors and HUD or the RE.¹²³



EPA contractors excavate contaminated soil in October 2016 at a home in the USS Lead Superfund site's zone 3 in East Chicago. Credit: Jonathan Miano — The Times of Northwest Indiana

Unless a final action falls within certain exclusions, the lead federal agency is required to undertake an environmental assessment as a first step, published in “a concise public document,” to decide whether more study is necessary. If the environmental assessment finds significant environmental impacts are likely, the agency must conduct an environmental impact statement (EIS), a thorough written evaluation.¹²⁴ Determining the scope of the EIS must be an “early and open process” and include any interested persons.¹²⁵ Detailed requirements govern EIS preparation with the aim of assuring that the EIS “provide[s] a full and fair discussion of significant environmental impacts and shall inform decisionmakers and the public of reasonable alternatives.”¹²⁶

Each federal agency adopts its own agency-specific NEPA regulations. HUD has two sets of NEPA regulations that apply depending on whether HUD is undertaking the environmental review or has delegated its NEPA responsibilities to an RE.¹²⁷ The RE is usually a state or local government with authority to oversee a housing-related project; a public housing authority cannot be designated as the RE.¹²⁸

Federal Agencies' Current Response to Federally Assisted Housing Near Superfund Sites

Despite the complex web of federal environmental laws ostensibly in place to prevent any family from experiencing unhealthy levels of environmental contamination, there remains a startling lack of interagency coordination and communication between the federal agencies responsible for federally assisted housing and the EPA. This puts federally assisted housing tenants at elevated risk of harm. The shortcomings resulting from the lack of coordination fit into four categories:

1. Failure to notify families of environmental contamination;
2. Failure to provide families real choice as to where they live;
3. Failure to include environmental health issues in housing inspections and to monitor existing housing not undergoing significant reinvestment; and
4. Failure to consider known environmental contamination when approving new construction and substantial rehabilitation.

NOTICE REQUIREMENTS FOR RESIDENTS IN FEDERALLY ASSISTED HOUSING

Federal law does not require any federal agency or housing provider to give current or prospective tenants actual notice that a housing unit is located on or near a Superfund site. EPA sends notice to property owners, who may elect to inform their tenants, but federal law does not require that owners notify them. Although federal law mandates notice and disclosure when property owners discover the presence of lead-based paint or lead-based paint hazards on their property,¹²⁹ there is no similar federal requirement that property owners disclose the presence of lead hazards from other pathways, such as highly contaminated soil. Instead, the federal government leaves this decision to state and local agencies, who decide how and whether to tell tenants about environmental contamination.

In East Chicago, Indiana, the absence of a federal disclosure requirement meant that tenants were moving into the West Calumet Housing Complex even after local officials were notified of extremely high levels of contamination at the site. Demetra Turner was one of the last residents to move into West Calumet just weeks before being told she had to move again. But she never would have moved into the complex had the East Chicago Housing Authority disclosed the contamination.

In contrast to East Chicago, the City of Omaha, Nebraska, provides public access to an extensive database with lead testing information for properties within a Superfund site that affects a large part of that city.¹³⁰ In 2008, the City of Omaha developed the Omaha Lead Registry; EPA began supporting the registry in 2012 by providing data about soil testing and cleanup, exterior paint testing and stabilization, and dust response.¹³¹ EPA's 2012 cooperative agreement with the City of Omaha included a grant of \$987,000 through May 30, 2019, in order to enhance the database as a resource for the City and the public.¹³² The lead database is updated by the City, which pulls data from the EPA's internal database when the status of a property is changed.¹³³ Unfortunately, not all stakeholders in Omaha are aware of the database's existence.

Washington Park Lead Committee, Inc. v. U.S. Environmental Protection Agency

Helen Person and her four children were among the first families to move into the Washington Park Public Housing Project in Portsmouth, Virginia, when it opened in 1964.¹³⁴ But Ms. Person did not learn until the 1990s that the housing complex was severely contaminated with lead.¹³⁵ The local and federal government knew about the contamination for four decades but failed to notify Ms. Person and the public housing residents about this hazard.

The Portsmouth Redevelopment Housing Authority (PRHA) intentionally built the Washington Park development in an area bordered by highways, warehouses, and industry, with some homes as close as 50 feet from the active Abex bronze foundry.¹³⁶ The Washington Park development was part of a nationwide strategy to demolish Black neighborhoods and then push a neighborhood's Black residents into isolated, segregated public housing in industrial areas.¹³⁷ Washington Park's approximately 490 residents were almost entirely Black.¹³⁸

The Abex foundry released toxic emissions and dumped about 4,000 cubic feet of excess waste into the landfill next to the foundry.¹³⁹ The toxic waste containing lead, copper, and zinc was used as fill material for land around the property, spreading further contamination.¹⁴⁰ Washington Park residents, unaware of their toxic surroundings, grew vegetables in contaminated soil and the children played at a playground directly across the street from the landfill.¹⁴¹ Even when the foundry closed in 1978, there were no clean-up efforts and the landfill was never capped.¹⁴²

The Washington Park development was part of a nationwide strategy to demolish Black neighborhoods and then push a neighborhood's Black residents into isolated, segregated public housing in industrial areas.

In the early 1980s, the Portsmouth Health Department conducted tests that found that children who lived in Washington Park were suffering from lead poisoning.¹⁴³ The children had blood lead levels that were five times higher than the 10 microgram per deciliter threshold.¹⁴⁴ The families of these children sued Abex, settling in 1983 for a very small amount of money, and Abex denied any liability.¹⁴⁵ EPA sent a team to investigate the Abex site in 1983 and noted the risks, but they took no samples until a year and a half later.¹⁴⁶ When the samples showed dangerously high lead concentrations in the soil, EPA still took no action for another two years and did not notify local residents or initiate any cleanup.¹⁴⁷

In 1986, EPA entered a consent decree with Abex under which Abex promised to remove contaminated soil from parts of the residences and the playground as well as to clean up the landfill. However, even with the evidence of health threats and the cleanup plan, all the

agencies involved failed to warn residents.¹⁴⁸ In 1989, the Virginia Department of Waste Management persuaded Abex to conduct an investigation of the contamination and possible remediation strategies.¹⁴⁹ Workers in sealed suits visited the site to take samples, which bewildered the unsuspecting residents.¹⁵⁰ The samples from the 1989 investigation revealed lead levels of 46,500 mg/kg in Washington Park soil, 100,000 mg/kg in the foundry, and 58,000 mg/kg in the landfill area, which bordered the neighborhood's only playground.¹⁵¹ In 1990, the site was added to the NPL.¹⁵² However, EPA and state authorities again failed to notify residents or take any emergency measures.¹⁵³

Once Ms. Person learned about the contamination, she founded the Washington Park Lead Committee, and worked to ensure that all residents could be relocated to safe housing.¹⁵⁴ Ms. Person attended almost every Portsmouth City Council meeting to beg for relocation and testified at public hearings on the cleanup.¹⁵⁵

After EPA developed a remediation plan in 1992, it finally met with Washington Park residents to explain the plan and the health impacts of lead exposure.¹⁵⁶ After these meetings, residents urged the Portsmouth Department of Public Health to offer free blood testing to all residents.¹⁵⁷ The tests found that 4% of tested children had blood lead levels of at least 10 micrograms per deciliter.¹⁵⁸ However, EPA and the public health department decided that these results did not justify relocating the residents.¹⁵⁹ Residents argued that no amount of cleanup would make the site habitable.¹⁶⁰ The residents forced EPA to revisit oversights in the plan, such as their failure to test the inside of heating vents for lead and to clean up the crawl spaces beneath homes.¹⁶¹ EPA's plan did even not require the relocation of residents during the cleanup process, even though residents were told that they should probably relocate their pets.¹⁶²

In 1993, Abex, the City of Portsmouth, and the PRHA developed a new plan to conduct a less thorough cleanup and permanently relocate local homeowners who would also be compensated for their homes.¹⁶³ All the residential properties at the site, except for Washington Park, would be converted to industrial or commercial use.¹⁶⁴ In 1994, EPA adopted this plan into its amended remediation plan and told the Washington Park residents that the area was safe.¹⁶⁵ However, EPA warned the residents to prevent their children from digging in the ground and putting their fingers in their mouths.¹⁶⁶

Washington Park residents demanded permanent relocation at public hearings on the new plan. In a 1994 hearing, Ms. Person testified, demanding to know "how can you say that our children at Washington Park is safe when our children are continuously becoming contaminated? Where can they play? Where can they dig?...We are somebody, too...Just because we are poor and live in a housing project does not mean that we shouldn't be treated equally and fairly... We do intend to get out of that Superfund area, and we will not

settle for anything, not nothing but permanent relocation.”¹⁶⁷ Because moving on their own would have been financially impossible for most residents, the residents demanded mandatory relocation. EPA, HUD, the City of Portsmouth, and the PRHA however were steadfast in their refusal to move the residents.

Because moving on their own would have been financially impossible for most Washington Park residents, the residents demanded mandatory relocation.

In 1997, the final remediation of the site began. This time, many residents were relocated for about one to two months while the single-family homes and the former foundry building were demolished and the soil was excavated.¹⁶⁸ Afterwards, the public housing residents were forced to return to Washington Park.¹⁶⁹

In 1998, the Lawyers’ Committee for Civil Rights filed suit on behalf of the Washington Park Lead Committee and individual residents to challenge the discriminatory treatment of the public housing residents and their continued segregation.¹⁷⁰ The case was brought against the EPA, the City of Portsmouth, the PRHA, and Abex.¹⁷¹ HUD was subsequently added as a defendant.¹⁷² The

suit alleged violations of the Fifth, Thirteenth, and Fourteenth Amendments to the U.S. Constitution. Plaintiffs claimed that the defendants, through the design of the CERCLA remedial plan, intentionally ensured that Washington Park’s Black residents remain segregated, isolated, and exposed to further lead contamination.¹⁷³ Essentially, if the remedial plan had called for the relocation of Washington Park residents, the segregation would not have been perpetuated.¹⁷⁴ In 2000, a settlement was reached that provided for the immediate relocation of all the residents.¹⁷⁵ The PRHA agreed to help the residents find housing units with Housing Choice Vouchers, demolish the Washington Park complex, and prohibit the use of the property for residential purposes.¹⁷⁶



Logan Anderson, 19 months, plays with his older brother Lamont Anderson Jr., 8, at the West Calumet Housing Complex in East Chicago, Indiana. Anderson Jr.’s blood lead levels test results were above the CDC’s 5.5 µg/dL threshold for action. After living in the complex for more than a decade, the family moved to Gary, Indiana. © Alyssa Schukar Photography 2016.

FORCING TENANTS TO REMAIN IN TOXIC HOUSING TO MAINTAIN RENTAL ASSISTANCE

Because most affordable housing programs tie the affordable rent assistance to the particular unit, they give tenants who reside on Superfund sites an impossible choice: lose their affordable housing entirely (and likely experience homelessness as a result) or live on contaminated land that is toxic to their health. While both the public housing program and the project-based Section 8 program authorize a transfer of the affordable housing contract to another development, or, in some cases, a voucher as an alternative, HUD rarely makes these options available to tenants.

In 2018, as a result of the East Chicago crisis, HUD issued new guidance on the approval of Section 18 demolition and disposition applications, which added as a new justification for demolishing public housing the need to address imminent health and safety issues outside of the building itself.¹⁷⁷ But demolition without replacement is not sufficient. Most tenants are then shifted into the Housing Choice Voucher program, which does nothing to protect tenants from harm when they move near contamination or ensure tenants the support necessary to make the right housing choices.

In Portsmouth, Virginia, public housing residents also had to fight with the local authorities for the ability to relocate, an effort that spanned a decade after tenants first suspected the soil beneath their homes was poisoning them.¹⁷⁸ Resident leaders sued EPA, HUD, the Portsmouth Housing Authority, the Abex company, and the City of Portsmouth for failing to provide residents with vouchers so that they could relocate away from the environmental contamination. Two years after filing the lawsuit, and after more than a decade of advocacy, HUD agreed to issue the residents vouchers and provide a comprehensive housing mobility program¹⁷⁹ to support residents as they moved to new homes and communities. This case may represent the first time a Superfund remediation plan was changed in order to address racial discrimination in public housing.¹⁸⁰

FAILURE TO INCLUDE ENVIRONMENTAL CONTAMINATION IN HOUSING INSPECTIONS

Despite the objective of national housing policy to provide safe, decent and sanitary housing for every American, dangerous environmental conditions in federally assisted housing often go overlooked and unaddressed.¹⁸¹ Current federally mandated housing inspections do not take into consideration environmental contamination. HUD's recent guidance on public housing demolitions is the agency's only acknowledgement that an environmental assessment under NEPA may be warranted when housing at or near a Superfund site is proposed for demolition and Tenant Protection Vouchers will be ordered as replacement housing for the tenants. To be effective, the environmental assessment must take into consideration where tenants will move with their vouchers.¹⁸²

CONSTRUCTION AND REDEVELOPMENT DESPITE EXISTING ENVIRONMENTAL CONTAMINATION

HUD and the LIHTC program, the main drivers of affordable housing construction and redevelopment, continue to approve new housing construction and substantial rehabilitation in areas with existing

environmental contamination, including within Superfund sites. For the RAD program, Choice Neighborhoods Initiative, and LIHTC program, there is lax federal oversight of environmental reviews, resulting in federal dollars being delegated despite existing and poorly assessed environmental risk. Absent clear guidance across programs and technical support for PHAs and affordable housing developers, affordable housing projects will continue to move forward on contaminated sites.

As is explained in more detail below, while HUD requires an environmental review under NEPA for proposals in some of its programs, it does not in others. When HUD does undertake a NEPA review prior to siting a new development, that review is performed by its Office of Environment and Energy and includes an environmental justice review under Executive Order 12898. Generally, HUD has an announced “policy” to “reject [housing] proposals which have significant adverse environmental impacts and to encourage the modification of projects in order to enhance environmental quality and minimize environmental harm.”¹⁸³ HUD’s policy is also aimed at ensuring “that all property proposed for use in HUD programs be free of hazardous materials, contamination, toxic chemicals and gasses, and radioactive substances, where a hazard could affect the health and safety of occupants or conflict with the intended utilization of the property.”¹⁸⁴ HUD also generally claims to pay “[p]articular attention . . . to any proposed site on or in the general proximity of [areas] that contain hazardous wastes,”¹⁸⁵ such as Superfund sites.¹⁸⁶

Certain HUD programs provide more specific guidance on environmental contamination. For example, a 2012 HUD notice applicable to Section 202 Supportive Housing for the Elderly and Section 811 Supportive Housing for Persons with Disabilities stated that “[a]ny time contamination above de minimis levels is allowed to remain on site after initial occupancy and final closing, all . . . building residents . . . are to be informed of the general nature and distribution of contamination and the protective measures that have been taken.”¹⁸⁷ This notice refers to contamination regarding hazardous substances (e.g., lead), hazardous waste, petroleum, or petroleum products.¹⁸⁸ The same notice also explained that properties within the footprint of a Superfund site are “generally . . . not acceptable for development unless the hazardous substances . . . are completely removed.”¹⁸⁹ This specific and relatively protective direction is notable because that level of robust guidance is lacking from other development and redevelopment programs, including the main drivers of creating and redeveloping multifamily housing where children live, such as RAD, Choice Neighborhoods, and LIHTC programs.

Rental Assistance Demonstration Program. While the RAD program is allowing PHAs across the country to rebuild and substantially rehabilitate assisted housing, and an environmental review should be conducted consistent with HUD’s NEPA regulations¹⁹⁰ prior to receiving approval to convert under RAD,¹⁹¹ HUD’s inadequate oversight and lack of expertise on issues related to environmental contamination have resulted in HUD’s approval of RAD applications in areas of uncontrolled environmental contamination. For example, in Evansville, Indiana, five of the six public housing properties located within the boundaries of the Superfund site are part of the RAD program. Three of the public housing properties (Caldwell Homes, Terrace Gardens, and Fulton Square Apartments) are designated for families, and another property (Buckner Towers) serves older adults and people with disabilities.¹⁹² The Evansville Housing Authority has authorized the expenditure of millions of dollars in improvements at multiple RAD properties since 2015,¹⁹³ which is well after the Superfund Site was formally designated with boundaries that encompass those RAD properties.¹⁹⁴ Indeed, though HUD received copies of private environmental assessments that were conducted

as part of securing financing for the RAD conversion, those consultants' reports sometimes did not even identify the fact that the property was located within a NPL site.¹⁹⁵

The Choice Neighborhoods Initiative. Choice Neighborhood implementation grants are extremely competitive and limited to only a few cities across the country each year. In FY 2018, the City of Omaha, Nebraska, received a Choice Neighborhoods implementation grant for \$25 million. The City of Los Angeles applied for an implementation grant at the Jordan Downs development, and was a FY2019 finalist. Choice Neighborhoods presents an opportunity to ensure that housing gets rehabilitated and that the environmental contamination is remediated and the rehabilitated housing is not located in an area harmful to human health. To do this, there must be significant oversight by all agencies and levels of government, and importantly, directly impacted residents and their advocates must be at the table where decisions are made.

LIHTC funding. The deficiency of federal oversight is at its most glaring when a housing development project's only source of federal revenue is LIHTC funding. LIHTCs are the primary generator of new affordable housing in this country and one of the main vehicles supporting the redevelopment of affordable housing. Because LIHTC is administered as tax credit, and not through affirmative federal distributions of financial support, the Department of Treasury considers it exempt from NEPA requirements.¹⁹⁶ This Department of Treasury policy choice means that low-income housing units can be built using the most common form of federal financial assistance without any environmental review that could identify lurking environmental hazards.

The Department of Treasury has issued no regulations on NEPA environmental review for these tax credits nor guidance to state housing finance agencies or developers on any environmental review requirements. Investors and lenders generally require developers to engage consultants to perform environmental assessments and plan to address any conditions discovered, but this does not necessarily mean that cleanup occurs prior to LIHTC units being developed, that protective outcomes are achieved through inclusive processes, or, indeed, that remediation is ever undertaken. For example, in Iola, Kansas, a multi-family LIHTC development was built just prior to the area being listed as a Superfund Site and well after it was common knowledge throughout the community that decades of lead smelting caused significant soil contamination throughout the city.

Environmental Laws Systemically Fail to Protect Tenants of Federally Assisted Housing

While federal housing laws and policies have failed to protect assisted housing residents from environmental threats and kept them in harm's way, environmental laws and policies have also failed to protect these communities for a variety of systemic reasons.

Despite the extraordinary gains of the environmental justice movement and the existence of federal statutes such as CERCLA and NEPA, community members who live in federally assisted housing remain at great risk from environmental and public health hazards. These failings are due to a lack of resources, poor

public engagement, the use of outdated scientific information and procedures, limited legal recourse by communities, and racist and inequitable systems.

INSUFFICIENT FUNDING SLOWS THE PACE OF CLEANUPS

The expiration of the Superfund tax in 1995 made EPA reliant on either Potentially Responsible Parties (generally, polluters) or ever-decreasing appropriations to finance Superfund work.¹⁹⁷ EPA has also failed to fully implement CERCLA provisions requiring that companies in polluting industries set aside adequate financial assurances to cover potential cleanup costs.¹⁹⁸ The lack of funding has not only slowed the pace of site remediation,¹⁹⁹ but also impacted the nature of the cleanups.

Without sufficient federal funds, there is significant pressure on EPA to allow potentially responsible parties to conduct or control remediation themselves, which creates further obstacles to thorough and timely cleanups.²⁰⁰ Responsible parties can challenge their liability or EPA's remedy selection, both in the context of negotiations with EPA in the technical review processes and through litigation, stalling cleanups for years.²⁰¹ At sites with identified responsible parties who are conducting the technical investigation and planning work, EPA is also more likely to adopt final remedial plans shaped by those polluters. Additionally, EPA's lack of clearly established timelines for completing the phases of the Superfund process, including cleanup implementation, leaves communities at risk.²⁰² All combined, this leaves communities, especially environmental justice communities, at risk.

For example, in Evansville, Indiana, cleanup of the Jacobsville Neighborhood Soil Contamination Site has dragged on for decades, beginning years before the site was placed on the NPL in 2004. EPA performed an emergency cleanup of an industrial facility in 1990 but determined no further action was needed beyond the boundaries of that property. In 2000, the Indiana Department of Environmental Management (IDEM) discovered shocking levels of lead in neighborhood soils — as high as 6,150 ppm.²⁰³ The agencies identified only long-shuttered industrial facilities as likely contributors and, therefore, have not recovered any costs from the responsible polluters, forcing them to finance cleanup efforts at the site through agency budgetary resources. Despite those alarming lead levels in the soils of federally assisted housing, it took EPA four years to list the site on the NPL and another four years after listing to select a cleanup plan from its 2008 Record of Decision. Actual cleanup of residential soils has been just as slow as the investigation. In 2017, EPA's consultant reported that, from 2010 to 2015, 310 properties had been remediated as part of "Operable Unit 1" of the cleanup, and another 469 properties were cleaned up in 2012 as part of "Operable Unit 2."²⁰⁴ From 2013 to 2015, an additional 900 properties were remediated to complete work on "Operable Unit 2."²⁰⁵ Also in 2017, EPA and IDEM signed an agreement to continue remediation at the site, which projected remediation in an additional 700 to 1,000 properties, as "necessary to protect human health from exposure to lead and arsenic contaminated soils."²⁰⁶ In other words, nearly three decades after EPA conducted a taxpayer-funded emergency cleanup at an industrial facility, hundreds of contaminated residential properties remain unaddressed even though there are ongoing threats to human health.

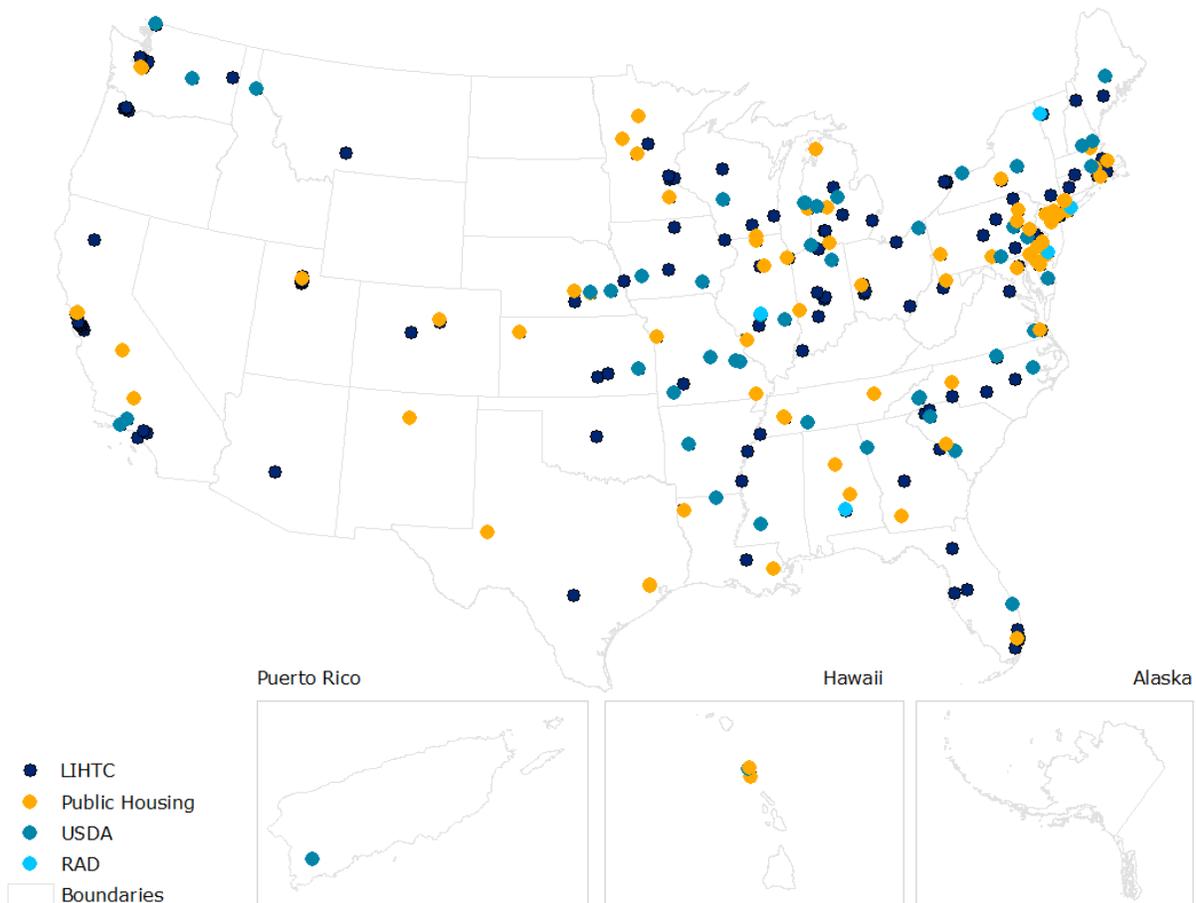
On the other hand, in East Chicago, Indiana, disputes between EPA and the responsible polluters caused an extreme delay in distributing soil sampling results, which in turn caused residents to suffer prolonged exposure to extremely high levels of lead and arsenic contamination. Although EPA began sampling in the winter of 2015, the responsible parties challenged the sampling results over the course of a nine-month

period.²⁰⁷ Meanwhile, residents were not provided any notice about the dangerous conditions or urgent steps that they should have been taking to protect themselves and their families.

USE OF OUTDATED AND INADEQUATE SCIENTIFIC INFORMATION AND PROCEDURES

EPA guidance documents instruct EPA staff on how they should develop the remedial investigation and feasibility study (RI/FS),²⁰⁸ portions of which the PRPs or state agencies may conduct.²⁰⁹ Unfortunately, several of these guidance documents are severely outdated — by as much as 25 years — and do not incorporate environmental justice concerns.²¹⁰

All Housing Types within a Quarter Mile of a Superfund Site



Incomplete and Inaccurate Assessment of Exposure Pathways. Although lead contamination is common at Superfund sites, EPA's treatment of lead contamination does not reflect current science and EPA practices inadequately address cumulative exposures — as in where people are exposed to lead-based paint and lead-contaminated drinking water in addition to lead-contaminated soil. EPA regularly commits in its work plans and consent decrees to follow its guidance about lead-contaminated residential sites.²¹¹ However, despite its own Superfund handbook and the presence of significant indoor, lead exposure pathways, EPA frequently fails to account for risks relating to indoor lead dust at Superfund sites.²¹² Indeed, fewer than five sites were identified where EPA initiated indoor lead dust sampling: East Chicago, Indiana; Pueblo, Colorado; Bunker Hill, Idaho; and Anaconda, Montana.

Relatedly, EPA uses insufficiently protective standards to evaluate the effects of any investigation of lead threats it does conduct. EPA relies on the flawed Integrated Exposure Biokinetic Uptake (IEUBK) model, a method of estimating blood lead levels, to determine the remedial action level and thereby provide a site-specific answer to the “how clean is clean” question.²¹³ The IEUBK model does not rely on the most accurate assessments available.²¹⁴ Also, EPA continues to rely on 10 µg/dL as the target for estimated average blood lead level that cleanup standards should be designed to achieve for 95% of children impacted by a Superfund site. EPA continues to use the 10 µg/dL threshold even though the Centers for Disease Control and Prevention (CDC) replaced the blood lead level of concern of 10 µg/dL with a reference value of 5 µg/dL in 2012 in response to the latest scientific research.²¹⁵ Reprehensibly, EPA's guidance specifically endorses cleanups where its model predicts that 5% of children will still suffer from blood lead levels higher than that outdated and under protective threshold.

In East Chicago, Indiana, EPA incorporated indoor lead dust sampling only in response to resident and advocate pressure. Even then, EPA only conducted indoor lead dust sampling at homes where soil sampling indicated lead levels in excess of the action level of 400 ppm. This approach does not reflect the reality that excavation at neighboring properties creates additional dust, and residents can track in lead-contaminated dust from neighboring properties. EPA also did not appropriately set the action level for indoor cleanup.

At the Omaha Lead Site in Omaha, Nebraska, the local government — not EPA — stepped up to conduct interior sampling. The Douglas County Health Department initiated the Interior Lead Dust program, which targets homes where the soil tests above 400ppm to evaluate using dust wipe sampling.

Similarly, while NEPA requires environmental review of federal agency actions, including actions undertaken at Superfund sites, HUD regulations allow the agency to outsource its environmental assessment responsibility to an RE. The regulations and guidance however provide no standards for how HUD should determine that a RE or its consultants have the requisite expertise to properly conduct an environmental review. Additionally, HUD NEPA regulations require investigation of potential site contamination, but do not clearly spell out the necessity to communicate with EPA about Superfund sites near HUD-related properties or require HUD or REs to utilize EPA's expertise to fully understand the risks posed by these sites. Finally, many HUD documents related to the NEPA process are outdated and fail to include environmental justice concerns and key HUD and EPA online tools.²¹⁶

POOR PUBLIC ENGAGEMENT THWARTS COMMUNITY KNOWLEDGE AND DECISION-MAKING

Despite the fact that EPA engages in a significant process to investigate site-related risks to the public and environment before proposing to list a site on the NPL, the first opportunity for community input mandated by law is the public comment period that EPA requires when it formally proposes to include a site on the NPL.²¹⁷ Yet, the community is likely to have valuable information to contribute to the process of EPA considering a site for the NPL and throughout the Superfund process.

Once a site is listed on the NPL, EPA is required to engage the community and create a community-relations plan to address community concerns.²¹⁸ However, the extent of outreach and community involvement varies by region and is also very dependent on the particular EPA personnel assigned to a site.

One obstacle to community participation in site decisions is the haphazard way EPA and states share site information. Site-specific information is sometimes outdated, incomplete, or simply inaccessible.²¹⁹ For instance, for many Superfund sites, the information is only available at a single location — a public library — and not available online. What information EPA and state agency websites provide about contaminated sites is often extraordinarily outdated, incomplete, and hard to navigate.

By the time EPA does announce a proposed final remedy and make it available for public input, community input is too late to influence decision-makers as a practical matter. Because thousands of personnel hours and sometimes millions of dollars have been invested in the development of the proposed remedy and the PRPs have often agreed to the selected remedy, EPA decision-makers are institutionally resistant to community input that challenges their preferred plan.

The need for earlier community input is not limited to sites that include properties where people will continue to live. Even when a site's planned post-remediation use is industrial or commercial, the community perspective is critical because nearby residential areas could be at risk if residential standards are not employed in the remediation. EPA's failure to uniformly consider the risks to neighboring residential areas and to discuss with those communities how the site's future use might impact what standards should be used to guide the cleanup leaves those communities at risk.

Finally, the requirements underlying the small EPA Technical Assistance Grants (TAG) that are available to an impacted community are complex, especially for community members who do not have financial or legal expertise, who are volunteers, and who may be focused on managing health-related problems that come from living on the contaminated site.

Given the many years of complex decisions that can be involved in site remediation, EPA's current approach to community input falls short.

LIMITED LEGAL RECOURSE BY INDIVIDUALS OR COMMUNITY GROUPS

Existing legal tools have provided limited relief to date for impacted communities. First, the Superfund statute includes a right of interested parties to intervene in Superfund enforcement litigation,²²⁰ but

communities have been blocked from using this tool. EPA typically opposes such motions on the grounds that the government adequately represents the community's interests, even when the government's



Lamont Anderson Jr. and his father moved to neighboring Gary, Indiana. © Alyssa Schukar Photography 2016.

positions and the community's interests do not completely align, such as to the extent and speed of the cleanup.²²¹ Some courts have denied motions to intervene based on a rigid and impractical application of the requirement that intervention be "timely" in relation to triggering events that may be obscure to the community, ignoring the complexity, opaqueness, and unpredictability of the Superfund process.²²²

Despite EPA's claims that it represents community interests, federally assisted housing residents, however, are by and large not included in decision making regarding the future of their homes and community. In Portsmouth, Virginia, for example, only after public housing residents brought a lawsuit, *Washington Park Lead Committee v. USEPA*, did federal officials agree to permanently relocate the residents and close the complex. Thus, only when federally assisted housing residents were able to force their interests to be heard were they able to influence the cleanup process and whether they should remain on the site during it.

HUD has, in fact, acknowledged this. In March 2000, then HUD Secretary Andrew Cuomo produced a report entitled "Promoting Fairness in Public Housing — Many Neighborhoods, One America."²²³ In this report, Cuomo noted HUD's long history of intentionally building subsidized housing in predominately low-income, minority neighborhoods that "were more dilapidated, higher in poverty, lower in political power, and more poorly supported by necessary public services."²²⁴ In response, HUD committed that the implementation of the Public Housing Reform Act of 1998 would do more to protect federally subsidized residents from discriminatory siting.²²⁵

Cuomo also acknowledged that HUD was often sued for failing to "adequately counteract discriminatory practices on the part of individual housing authorities."²²⁶ Among the case illustrations in the report was the Portsmouth, Virginia's Washington Park Lead Committee case as well as two other examples of where minority public housing residents alleged that they were intentionally sited next to or more directly exposed to, when compared to the housing authority's White public housing tenants, environmental contamination.

And in Galveston, Texas, Black public housing residents filed suit, alleging that HUD, the housing authority, and local officials intentionally segregated Black public housing residents and placed multi-family developments in predominantly minority, low-income neighborhoods in proximity to "storage tanks, industrial uses, and vacant and abandoned buildings."²²⁷

In Biloxi, Mississippi, a HUD investigation found that Black and Vietnamese public housing residents were segregated from White public housing residents and placed in housing filled with asbestos and lead-based paint, while the White public housing residents were placed in well maintained units in better areas of the town.²²⁸

But when communities invoke civil rights protections in the environmental remediation context, their petitions for relief from EPA under Title VI of the Civil Rights Act have faced enormous obstacles. EPA has a poor track record of responding to private party claims alleging Title VI violations. A review of discrimination complaints from 1996 to mid-2013 revealed that EPA rejected most Title VI claims filed with the agency, often failing to investigate the complaint properly.²²⁹ EPA only found discrimination in two Title VI cases.

A U.S. Commission on Civil Rights' 2016 report concluded that EPA was struggling to comply with Executive Order 12898 and Title VI.²³⁰ The Commission's report documented EPA's inability to meet its own deadlines for reviewing Title VI complaints.²³¹ It also highlighted EPA's failure to ever make a formal finding of discrimination or removed a recipient's financial assistance despite almost 300 Title VI complaints filed with the agency since 1993.²³² The Commission concluded that "EPA does not take action when faced with environmental justice concerns until forced to do so. When they do act, they make easy choices and outsource environmental justice responsibilities onto others."²³³



Akeeshea Daniels and her two sons were among the families relocated from the lead-contaminated West Calumet Housing Complex to Chicago's Altgeld Gardens, nicknamed the "toxic doughnut."
© Alyssa Schukar Photography 2016.

RACIAL DISPARITIES IN THE SUPERFUND DESIGNATION PROCESS

Racial disparities also plague the Superfund designation process. Communities with larger minority populations are significantly less likely to be listed as Superfund sites, even though the sites are just as hazardous as sites with fewer residents of color.²³⁴ This problem has persisted in recent years. For potential sites discovered from 1994 to the mid-2000s, communities having a 10% higher minority population have a 7% decreased chance of being designated a Superfund site, and a 10% higher Native American population decreases the chance of being listed by almost 80%.²³⁵ Low-income communities are also impacted: a 10% increase in the poverty rate lowers the likelihood of being listed by 31%.²³⁶ Therefore, not only are low-income communities and communities with a higher proportion of people of color disproportionately exposed to environmental contamination, these communities are also less likely to be listed as Superfund sites in the first place, even when the particular community would support Superfund listing, so they are never eligible for the federal funding and attention they require.

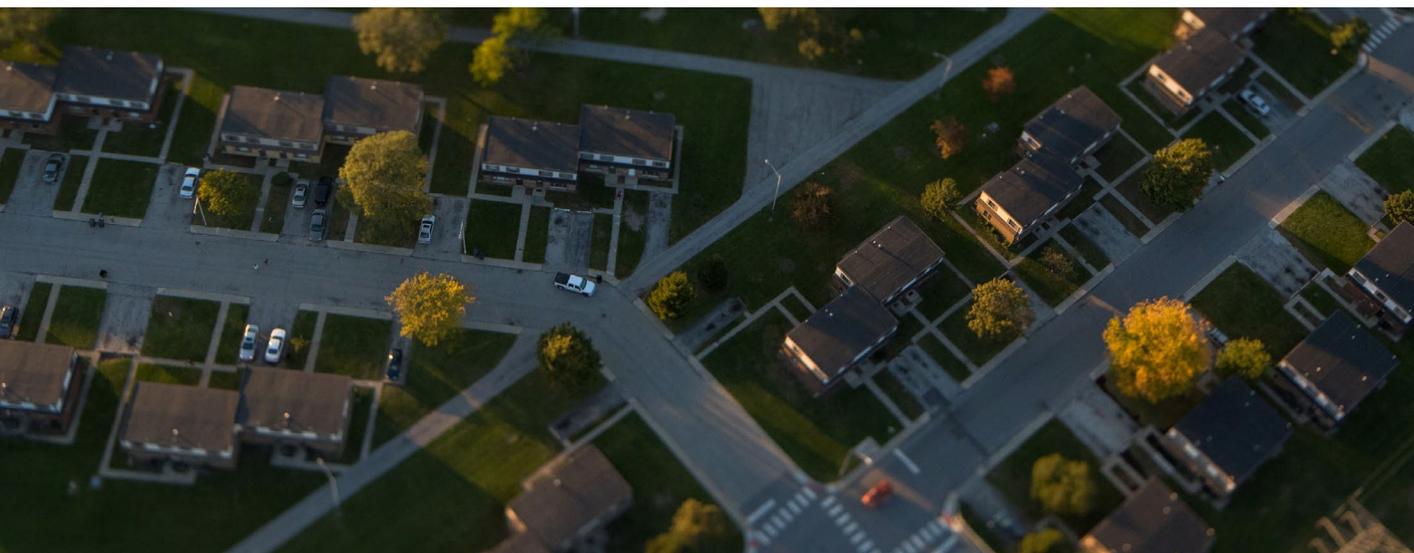
The West Calumet Public Housing Complex in East Chicago, Indiana

For over forty years, families resided at the West Calumet Complex without knowing that the soil they were living on was highly contaminated with lead and arsenic.

This first case study presents several examples of both where governments and federal policy fell far short and where community power stepped up to challenge those deficits. The struggle continues in East Chicago, however, as it does in many other communities in the United States impacted by environmental contamination.

Siting of the West Calumet Public Housing Complex

The West Calumet Public Housing Complex was constructed on the former site of an Anaconda Copper Company lead refinery and an Eagle-Picher Company white lead plant, and across the street from a U.S. Smelter and Lead Refinery facility (U.S.S. Lead).²³⁷ When the West Calumet Complex was constructed, U.S.S. Lead was still in operation; it was later converted into a secondary lead smelter.²³⁸



The West Calumet Housing Complex in East Chicago. Credit: Jonathan Miano — The Times of Northwest Indiana

In 1966, then East Chicago Housing Authority (ECHA) Executive Director Benjamin Lesniak stated that there were limited siting options for public housing in East Chicago and as a result developments would either require the demolition of current buildings or be placed “in vacant areas surrounded by industries, and undesirable residential areas.”²³⁹ Lesniak also stated that the majority of tenants would be people of color and that the ECHA would build public housing in areas that are predominantly Black and/or Latinx, a position consistent with the federal government’s directives of placing public housing sites for racial and ethnic minorities in majority minority communities.²⁴⁰ In 1970, the ECHA received a \$13.4 million grant from the Department of Housing and Urban Development (HUD) to build the West Calumet Public Housing Complex.

For over forty years, families resided at the West Calumet Complex without knowing that the soil they were living on was highly contaminated with lead and arsenic. Countless children and their families were exposed to these health-harming toxics. In 1985, at least 53 children at West Calumet were lead-poisoned. At that time, USS Lead was still in operation, and the EPA’s tests found that emissions from the plant were eight times higher than EPA’s allowable admissions standards.²⁴¹

By the 1990s, 40% of the children tested at West Calumet had elevated blood lead levels.²⁴² No efforts were taken to protect children at the site or even to fully inform or notify current and future residents of the risks, despite receipt of federal housing dollars in 1996 for modernization of the West Calumet Complex.²⁴³ Minimal, if any, precautions were taken during renovation and new construction within the site, which included building a new elementary school — with a vegetable garden — and constructing new playgrounds and adding ramps and landscaping.

In 2009, the USS Lead Site in East Chicago was added to the National Priorities List and declared a Superfund site.²⁴⁴ Nevertheless, residents received no information directly about the fact that the West Calumet Complex was included in the boundaries of the Superfund site. Thereafter, the EPA held meetings with the City of East Chicago and ECHA regarding soil sampling and soil excavation from some yards within the Superfund site, again, without any direct notice to the residents. In 2012, EPA issued a record of decision (ROD), which provided the remediation plan for the site. In 2014, EPA, the Department of Justice, the State of Indiana, and the corporations responsible for the contamination entered into a consent decree; the consent decree omitted an entire neighborhood of homes from the remediation plan, even though that neighborhood had been included in the ROD.

In 2016, after decades of environmental contamination and neglect by polluting corporations, the state, and federal authorities, the EPA reported to the City of East Chicago that it found lead levels in the soil as high as 91,100 parts per million — which is 228 times the EPA’s maximum permitted lead level. Two months later, the City of East Chicago sent a letter to the West Calumet Public Housing Complex residents telling them for the first time of the contamination and informing them that they would need to relocate immediately.

In the weeks that followed, a chaotic relocation process began for the USS Lead Site residents who were living in public housing. Some residents panicked and moved immediately to uninhabitable housing, while other residents who had recently left to prevent their children from being lead poisoned were told they were ineligible for relocation assistance. Most residents were stuck at the West Calumet Complex without any clear information as to the future of their housing and their community.

At the same time, residents were experiencing the trauma of learning for the first time that their children were exposed to lead and may permanently suffer from the effect of that exposure. Soon after the Mayor of East Chicago announced that the site would be closed, the East Chicago Health Department, with support from the Indiana State Department of Health and the Agency for Toxic Substances and Disease Registry (ATSDR), set up free lead testing clinics to encourage families to get tested. It took months for people to get their lead tests back, and during that time, residents attended meetings where EPA-hired experts remarked that most people had been exposed to lead.

Other than the letter notifying public housing residents of the impending relocation and the site's closure, the City of East Chicago and ECHA initially provided no concrete information on the relocation process or the rights of residents. In fact, ECHA had no written relocation plan at the time the closure and relocation were announced, and residents who had recently left due to lead contamination were ineligible for vouchers. As a result, the relocation process virtually guaranteed that families would face terrible housing outcomes, including homelessness, loss of housing subsidies, residential segregation, and continued harm to their health caused by the location and condition of their future homes. The relocation process also threatened the support networks residents had that could help minimize the long-term effects of lead poisoning. Contrary to what was happening on the ground, ECHA was bound by federal law to provide Housing Choice Vouchers to all eligible households, as well as comprehensive relocation assistance and meaningful support in helping families make moves to healthier communities.²⁴⁵

At the request of a collective of current and former residents and a community organization, the Shriver Center on Poverty Law (Shriver Center) filed a housing discrimination complaint with HUD's Office of Fair Housing and Equal Opportunity alleging that ECHA's actions violated residents' civil rights.²⁴⁶ Residents were concerned that without a comprehensive relocation process and sufficient time to move, they would be forced to relocate within the Superfund site or other contaminated parts of Northwest Indiana, one of



An EPA sign warning residents not to play in the dirt or around the mulch in August 2016 at the West Calumet Housing Complex in East Chicago. Credit: Jonathan Miano — The Times of Northwest Indiana

the most heavily industrialized and contaminated regions in the United States. Complainants included Calumet Lives Matter, a community-based organization created to respond to the lead contamination in the Calumet neighborhood; a lifelong resident of East Chicago, who had raised three children within the Superfund site; three families who had recently moved to East Chicago from Chicago with their young children and who expected a safe and quiet home to raise their kids; a resident with a disability struggling to find accessible housing near her support networks; and a mother who left the complex after two of her children were diagnosed with elevated blood lead levels and after ECHA told her that she must have caused their lead exposure.

After three months of negotiation with ECHA, the City of East Chicago, and HUD, the West Calumet Complex residents entered into a Voluntary Compliance Agreement (VCA) with ECHA. The agreement provided residents with comprehensive relocation services, expanded the timeline for residents to move, provided residents rent abatements so they did not have to pay rent to live on toxic land, guaranteed risk assessments in the new housing for families whose children had been diagnosed with elevated lead levels to prevent re-exposure, and extended relocation benefits, including Housing Choice Vouchers, to families who had recently left the Complex.²⁴⁷

When the last of the remaining families were given notice that they had to move to an emergency transfer unit — including many families who would be moving across state lines to Chicago, where many tenants had no connections — the Shriver Center coordinated legal support for the residents. With the help of Indiana Legal Services and pro bono counsel at Goldberg Kohn, the moves were blocked so that families who did not want to move across state lines did not have to. Families were also promised that they could continue to look for permanent housing with their Housing Choice Vouchers.

Then, in the summer of 2017, due to concerns that the demolition would further contaminate or re-contaminate the soil and nearby homes, East Chicago residents challenged HUD's demolition plans for the West Calumet Complex.²⁴⁸ The environmental assessment (EA) for the demolitions recognized that the impacted community was an environmental justice community.²⁴⁹ Of the 13,600 residents living within a one-mile radius of the project, the population is 96% minority (compared to 19% statewide) and 60% low income (compared to 35% statewide).²⁵⁰ Yet, the EA concluded — without explanation — that there would be no adverse environmental justice impacts from the demolition for the community.²⁵¹ In response to community comments, HUD made substantial changes to the demolition plans to minimize the risk of exposure to contaminants for neighboring communities.²⁵² Yet HUD ultimately went forward with the demolition in April 2018, without fully evaluating or preventing the environmental or environmental justice impacts.²⁵³

While West Calumet Complex residents were leaving, community organizations came together to address the environmental contamination impacting all residents living on the USS Lead Site. On behalf of Calumet Lives Matter, We the People of East Chicago, and some individuals, the Abrams Environmental Law Clinic at the University of Chicago Law School, Northwestern's Environmental Advocacy Clinic, and Goldberg Kohn filed a motion to intervene in the EPA's Superfund lawsuit. The motion laid out many of the residents' concerns about the way that EPA was handling the remediation at the USS Lead Site. During the eighteen months that the motion to intervene was pending, EPA took some action to address the deficiencies highlighted by the residents, including: (1) sampling and remediation of more than 500 additional residential properties that had been omitted from the consent decree, and (2) sampling of

drinking water, indoor dust, and basement seepage. This sampling confirmed residents' fears that lead and arsenic were present in indoor dust and lead was present in the drinking water, as a result of the presence of lead service lines and inadequate corrosion control. In response to demands from advocates, the State of Indiana provided funding for the City of East Chicago to replace lead service lines. In addition, the Indiana State Department of Health provided some funding for lead paint remediation and abatement in the community.

East Chicago residents also wanted to ensure that the Indiana Family and Social Services Administration (FSSA) was meeting its obligation to ensure testing, follow-up services and investigation into the source of lead exposure for Medicaid-eligible children in East Chicago. On behalf of East Chicago families, the Shriver Center, Goldberg Kohn, the Health Justice Project, National Health Law Program, and Northwestern Pritzker School of Law, Bluhm Legal Clinic requested that FSSA immediately (1) identify every Medicaid-eligible child under age 21 currently or previously residing in East Chicago and, therefore, eligible for Early and Periodic Screening, Diagnostic, and Treatment Services (EPSDT); (2) arrange for the immediate blood lead level and arsenic screening for each person identified; and (3) provide the appropriate diagnosis and treatment for each individual with an elevated blood lead level, including coordinating services for children who had moved or would move out of state. The advocacy organizations offered to help by creating a database or registry to track information about affected families, services, and other information. To date, however, FSSA has not demonstrated that it has fulfilled its legal obligations or met the needs of the community.

In 2018, with the support of the existing legal network for East Chicago families, Indiana Legal Services began an outreach project targeted to the communities affected by lead contamination in East Chicago. An attorney and paralegal conducted numerous events and attended community meetings. The project provided advice and representation to individuals and families affected by the lead contamination crisis.

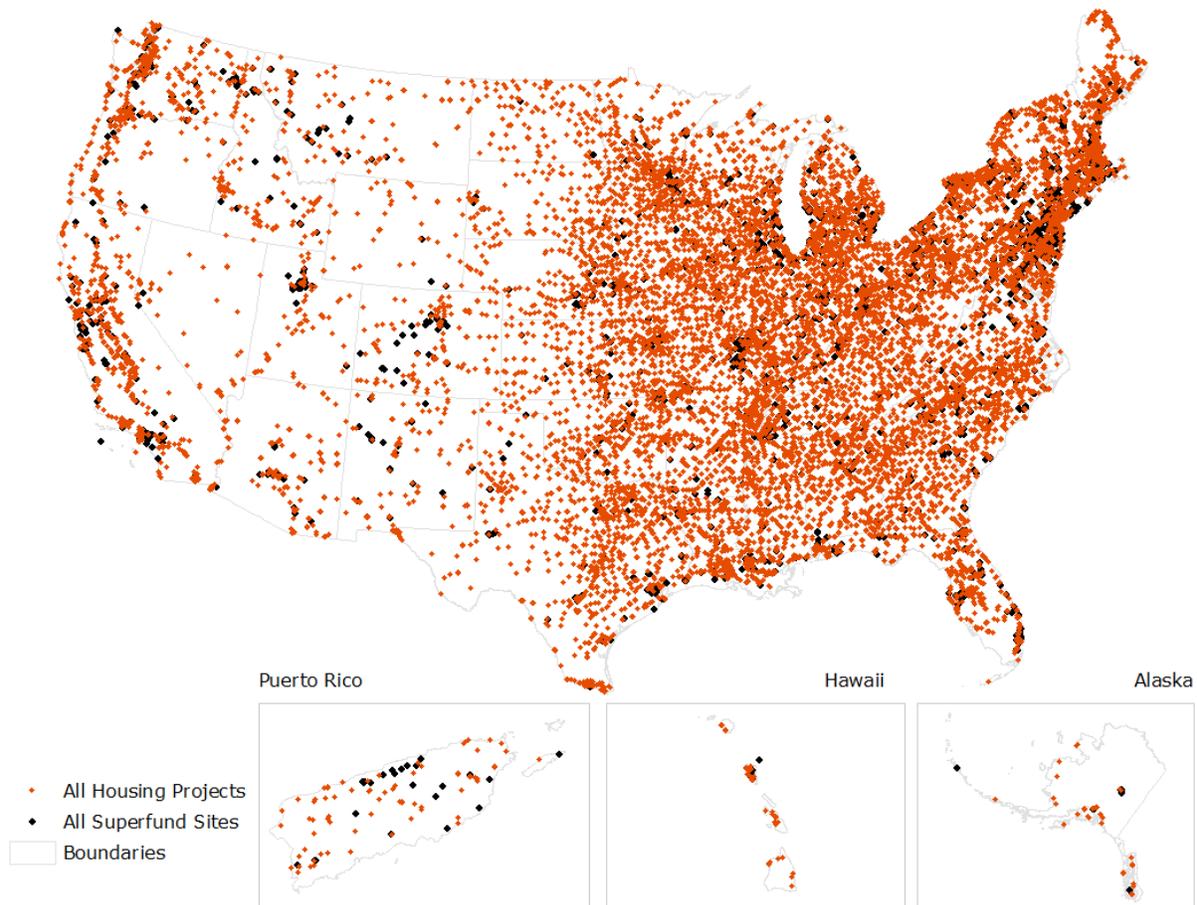
As West Calumet Complex residents were relocating and thereafter, advocates worked in partnership with the community groups and resident leaders to not only ensure their housing rights were protected but also to build their capacity to respond to the environmental crisis by guiding them through a complex array of funding and laws. The community organizations obtained a Declaration of Emergency from the City of East Chicago and the State of Indiana to release federal and state resources needed to respond to the lead crisis in the city. Community members and their organizers also met with HUD Secretary Ben Carson and former EPA Secretary Scott Pruitt to demand continued attention and support for the West Calumet community. The Community Strategy Group took the lead in distributing bottled water to community members.

In response to the significant public attention brought to the East Chicago's environmental contamination, HUD and the EPA entered into a Memorandum of Understanding (MOU) to improve data sharing and interagency communication. Unfortunately, the MOU is lacking in many respects. It covers only certain programs administered by HUD, specifically the public housing and HUD Multifamily housing programs, and fails to cover other HUD programs or programs administered by the Department of Treasury or Agriculture.²⁵⁴ Most notably, the MOU directs EPA to notify HUD as an interested party for all sites on the National Priorities List that could affect the covered HUD properties and directs HUD to issue guidance to agencies and third-parties who conduct environmental reviews that they must notify EPA. It is not

known if the EPA is notifying HUD, and, to date, HUD has not issued the guidance. While the language of the MOU does not limit it to Superfund sites where lead is a primary contaminant, former HUD Secretary Julian Castro explained preventing lead contamination was a primary focus of this effort and the initial sites designated for further investigation are lead sites.²⁵⁵

The community groups, also submitted comments on many subsequent activities at the Superfund site, including the amended remediation plan for the West Calumet Complex land, the remediation plan for the DuPont property that sits adjacent to the Superfund site, and in response to the EPA Inspector General's study of EPA's communication and handling of risk at the site. The East Chicago Calumet Coalition Community Advisory Group obtained a technical assistance grant from EPA designed to support community members in the comment process. Advocacy is ongoing to this day.

Public Housing, RAD, and USDA Housing Including All Superfund Sites



Recommendations and Guiding Principles

As this report details, across the country, federally assisted housing complexes are in areas surrounded by industry, including lead smelter and refinery plants. For generations, families residing in these sites have suffered chronic exposure to neurotoxins and carcinogens. Despite these undisputed facts, the federal

To advance a more equitable society, impacted residents, legal services, health, and environmental justice organizations must work together and across disciplines to tackle these issues.

government has done little to protect assisted housing residents from environmental contamination that threaten their health and wellbeing. It has not even informed tenants of the invisible toxics in their home and community.

These recommendations intend to bring the core values of the environmental justice movement to focus on the specific intersection between federally assisted housing and the environment, and to hold federal, state, and

local agencies accountable to environmental justice principles.²⁵⁶ To advance a more equitable society, impacted residents, legal services, health, and environmental justice organizations must work together and across disciplines to tackle these issues.

Though the specific recommendations below build from this report’s focus on federally assisted housing in proximity to Superfund sites, the underlying principles and even many particular strategies described



EPA contractors from the SCST engineering firm take soil samples in August 2016 in the USS Lead Superfund site’s zone 2 in East Chicago. Credit: Jonathan Miano — The Times of Northwest Indiana

can and should be applied to other locations and policies where low-income housing residents face environmental public health threats, from transportation and industrial air pollution sources to facilities handling toxic substances and municipal landfills.

The following recommendations describe federal, state, and local interventions to ensure that the health and livelihood of federally assisted housing residents are protected. Although the laws and policies necessary to address this crisis are largely dictated at the federal level, improving state and local laws and policies can also lead to meaningful improvements in public participation, environmental, health, and housing outcomes, and community power.

It is important to note that HUD's draft report detailing its 2016-2020 Environmental Justice Strategies provides a strong starting point to tackling this issue.²⁵⁷ It emphasized the importance of identifying and addressing disproportionate human health impacts faced by low-income populations and communities of color by, for example, providing geospatial data on environmental health.²⁵⁸ It identified the need to expand access to resources, information, and best practices for health and environmental benefits from HUD programs — with a focus on benefits for low-income communities and communities of color.²⁵⁹ It also sought to expand opportunities for meaningful involvement of communities of color and low-income communities in HUD's policies and input on proposed uses of HUD funding.²⁶⁰ But the report has not been finalized, nor have the recommendations been realized.

THE RECOMMENDATIONS ARE GUIDED BY FOUR OVERARCHING PRINCIPLES:

First, it is critical that the directly impacted community be centered at all stages of decision making, as it is ultimately their health, future, and community that is at risk. Absent meaningful engagement, and the ability of directly impacted communities to drive decision-making, environmental justice cannot be realized.

Second, primary prevention — preventing environmental contamination and associated health consequences — is the central goal. Primary prevention means that efforts are taken to prevent physical harm and disease, rather than treating poor health conditions after they materialize. It is the most just, reliable, and cost-effective measure to protect children and individuals from exposure to hazards.

Third, there must be a real financial commitment to addressing these issues. Many of the failures across health, housing, and environmental programs stem from an insufficient commitment of financial resources. Polluters should bear the cost of full implementation of a remediation that is protective of human health and the environment and reflects the impacted community's priorities. Environmental, health, and housing agencies should also receive federal appropriations at levels consistent with what is needed to investigate contamination and to protect impacted communities, as determined in large part by those communities.

Finally, in order to achieve environmental justice, a federal cross-disciplinary approach focused on primary prevention and addressing the needs of impacted communities is critical. Currently, federal agencies operate in silos and fail to listen to impacted communities, communicate with one another, or prioritize the principles of environmental justice in their actions. Thus, effective interagency practices should be developed and implemented.

Critical Interagency and Multi-Agency Commitments to Environmental Justice

Federal agencies should promulgate regulations and interagency agreements to increase interagency accountability to impacted communities. Interagency regulations could outline the expectations and responsibilities of all agencies involved in or effected by the cleanup process, including data and information sharing, and facilitate the flow of vital information to and engagement with impacted communities. For example, the regulations should require that all notices be sent to all community members, including notices of the contamination, information regarding access to health screenings, and notices of all meetings. The regulations should mandate that the notices be accessible to community members, in their primary languages, identify the technical assistance available from local agencies, and provide information concerning health data and soil testing. For example, regulations could mandate that ATSDR and state health agencies enter into cooperation agreements that facilitate sharing of site-specific public health data and keep communication flowing. As a supplement to the regulations, sub-regulatory guidance from the EPA and HUD could outline best practices for how state and local housing agencies and affordable housing developers should conduct environmental assessments when there is federally assisted housing.²⁶¹

Interagency agreements, both subject- and site-specific, should also be deployed, especially where the local and national needs cannot wait for federal regulations. The January 2017 MOU between HUD and the EPA is a promising first step toward necessary data sharing, but because of the limitations of an MOU, it does not create binding or enforceable obligations, does not include all agencies necessary to effectuate change, and does not include any involvement of state or local agencies or, most importantly, directly impacted communities. The 2017 MOU should be expanded to include all federal agencies potentially involved in or impacted by decisions at Superfund sites and be regularly updated to identify highly contaminated areas on the EPA's radar that encompass federal housing. The MOU should also outline significant public health issues known to HHS and any disaster management issues governed by FEMA. The MOU should also mandate sharing data these federal agencies already maintain to better identify health hazards and environmental contamination. Impacted communities should be express third-party beneficiaries to any MOU.

All agencies involved in a specific Superfund cleanup, the public health response, and the administration of federal housing programs should also enter into binding MOUs with the directly impacted communities, including the Community Advisory Group, Resident Advisory Board or tenant association, and other resident stakeholders. At the same time, government agencies should enter binding, site-specific MOUs between all agencies, including affected tribal governments²⁶² and all levels of government involved in the cleanup. Such MOUs should govern information sharing and notice, community education and technical assistance, processes for community visioning, and relocation options and requirements if appropriate.

Governmental officials should likewise create an interagency "Action Team" to coordinate and prioritize actions across entities from different disciplines (e.g. housing, environmental, public health) and levels of government. The team should take direction based on regular consultation with a working group of residents from the affected communities, including grassroots community leaders.²⁶³ The

team should have regular meetings that are open to the public and at which they receive public comment. As a first step, the interagency team should ensure that the recommendations of this report are implemented. Currently, there are a number of federal groups that, if given the power and resources, could work to this end or serve as models:

- The federal government's Interagency Working Group on Environmental Justice should effectuate its mission to ensure federal agencies are collectively advancing environmental justice principles. The Interagency Working Group is chaired by the EPA Administrator and includes 17 other federal agencies and cabinets in the White House. It provides a forum to increase local capacity to promote and implement innovative and comprehensive solutions to environmental justice issues.
- The Sustainable Communities Initiative should be replicated and expanded. Sustainable Communities was a joint effort of HUD, EPA, and the Department of Transportation to advance intensive discussions, led by directly impacted communities, concerning how to advance environmental justice and equity through intensive Fair Housing Equity Assessments.
- The Domestic Policy Council has the authority to ensure coordination and communication among the various federal agencies for issues.

The West Calumet Housing Complex in East Chicago in 2016. Jonathan Miano — The Times of Northwest Indiana



- The National Environmental Justice Advisory Committee, Interagency Council on Homelessness or the President's Task Force on Children's Environmental Health Risks and Safety provide some potential models for effective cross agency collaboration.

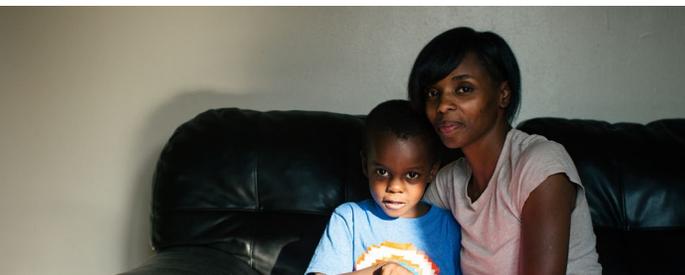
When a site is added to the National Priorities List, residents must get actual notice of the listing and any associated health risks. Currently, the EPA, HUD, the IRS, and the USDA neither issue notice to impacted tenants or applicants nor obligate housing providers to issue notice to tenants or housing applicants of likely or identified health hazards caused by environmental contamination. The EPA also does not require sellers of properties located on Superfund sites to disclose that information to prospective buyers.

Few state laws require housing providers to notify their tenants or buyers. Property owners have little incentive to voluntarily advise tenants or buyers if the information would likely result in tenants leaving the property or scuttle a sale. Moreover, the notice currently received by property owners themselves is insufficient as it is very technical and provides little information. The notice should be comprehensive and accessible.

Federal agencies must ensure that tenants of and applicants for federally assisted housing directly receive notice of environmental hazards and health risks. EPA should provide notice of environmental contamination to the relevant federal agencies and then, in turn, HUD, IRS, and USDA should provide such information to housing providers. Housing providers must then be mandated to provide notices to tenants and applicants of the environmental contamination and potential health hazards. State and local laws should likewise require landlords to timely notify tenants and applicants of environmental hazards and associated health risks at or near rental housing. In addition to the notice to federal agencies. EPA should require sellers and landlords —

including any housing provider receiving federal housing assistance — to disclose contamination regardless of what state disclosure laws mandate. Buyers or tenants have a right and need to know the risks they are going to be exposed to when they purchase or occupy a site. EPA should amend its regulations to set minimum disclosure requirements, and the federal agencies should ensure that prospective buyers are capable of keeping residents safe. States and local governments should also update real estate disclosure laws to ensure disclosure of known impacts from contaminated sites. Disclosure must also occur when a federally assisted property is converting to market rate housing or being demolished or otherwise disposed of.

The notices must be provided in a form that is accessible to tenants and applicants and in their primary language. The notice should also include information about how and where to be tested for exposure to certain contaminants and information describing how to get involved in discussions about the



Stephanie King embraces her youngest son, Josiah King, 3, whose blood lead levels test results were above the CDC's 5 µg/dL threshold for action. Two and a half years ago, King left Chicago's South Side to find a safer environment for her four sons and one daughter. "If I'd have known the dirt had lead, he wouldn't have been out there playing in it," King said. © Alyssa Schukar Photography 2016.

contamination, including contact information for any Community Advisory Group, EPA, and any state department of environmental management. Notices should be issued at key events, including but not limited to, when the environmental hazards are identified, at the receipt of a housing application, notice of an available unit, at lease signing, and recertification. This notice must be delivered in a variety of means, from flyers in the development's common spaces, at each door, in neighborhood newspapers and online community forums, through houses of worship, and other places that residents frequent. Housing providers must also annually certify compliance with these notice requirements under penalty of perjury and be audited by the federal agencies on their compliance. Notice should also be sent to local public health agencies so that they can take immediate action to mitigate the harm.

At all stages of the Superfund process, there should be robust public participation, including holding meetings in the community and at various times to meet the varied availability of community members. Public written comment periods should be extended given the often complex environmental, scientific, and public health issues being raised. The community must also be given access to objective scientific expertise. Early engagement is also critical because residents are the most knowledgeable about on-the-ground conditions and impacts.²⁶⁴

Compliance with Title VI of the Civil Rights Act, the Fair Housing Act, and Executive Order 12898 must be fully realized. If vigorously enforced, these civil rights laws could be powerful tools to address environmental justice and remediate discrimination. The relevant federal agencies must take corrective action when there is noncompliance and harm to communities of color. All new construction, redevelopment, and rehabilitation of federally assisted housing must also trigger appropriate civil rights review. When existing housing is located within an environmental justice community, or where new housing intends to be sited there, HUD's Site and Neighborhood standards should be deployed so that residents are not disproportionately exposed to environmental hazards upon the infusion of new capital. These standards should also be amended to reflect consideration of the human health risks associated with living near a Superfund site.

Agencies must take meaningful action when environmental reviews identify public health threats. HUD and all federal agencies can and should do more to ensure that the NEPA environmental review process meaningfully protects residents from environmental harm. This is particularly important when harm could be prevented entirely, such as when an environmentally contaminated site may be under consideration for the development of housing. Although the 2017 MOU between HUD and EPA²⁶⁵ states in Section V(C) that HUD will issue guidance for REs, "to include EPA as an interested party to receive notification when the RE's NEPA environmental review identifies HUD Properties where NPL sites could result in impacts to health and safety," this recommendation has not been implemented in any guidance or other agency documents. HUD must update its guidance to ensure that EPA is notified as part of a NEPA review at federally assisted housing within one mile of a Superfund site.²⁶⁶ EPA should also provide required quarterly training as a part of the certification needed before HUD employees or REs can prepare, review, or oversee a consultant preparing a NEPA environmental review. The 2017 MOU also states that EPA will provide more information about its procedures, including its guidance documents on soil sampling procedures and Superfund risk assessment.²⁶⁷

HUD should likewise ensure that its online tools are used by all of its federally assisted housing providers and reflect current guidance that will result in high-quality environmental reviews under NEPA. For example, not all housing programs utilize HEROS, the “HUD Environmental Review Online System” that is designed to walk housing authorities and entitlement jurisdictions through the environmental review process. HEROS, however, has not been updated to reflect more recent guidance for performing NEPA environmental reviews. As well, no HUD NEPA guidance documents reference NEP Assist,²⁶⁸ which is a critical online tool that includes data related to Resource Conservation and Recovery Act facilities, Superfund sites, Brownfields, and toxic releases. EJSCREEN is also not referenced in key HUD guidance documents. As a result, HUD NEPA environmental reviews are likely missing key information that could alter HUD’s conclusions.

Environmental reviews should include early and diligent environmental justice community engagement. HUD should mandate that the NEPA environmental review process for these housing actions should include early and continued engagement with the public. While the 2016 Interagency Working Group on Environmental Justice Guidance on NEPA and Environmental Justice recommends “early and diligent efforts” to engage with environmental justice communities,²⁶⁹ HUD’s environmental justice worksheet states that “HUD strongly encourages starting the environmental justice analysis only after all other laws and authorities, including Environmental Assessment factors if necessary, have been completed.”²⁷⁰ The HUD environmental justice worksheet also fails to reference the 2016 NEPA and Environmental Justice Guidance, which provides factors for HUD to consider in mitigating the adverse

impacts of a project. For example, given that RAD is the primary vehicle for financing housing authority redevelopment or rehabilitation, the 2019 RAD Guidance should be revised to emphasize the importance of taking public participation seriously, including engaging the affected environmental justice community involved in considering site alternatives.²⁷¹

The lack of environmental expertise within HUD or local housing authorities can lead to dangerously deficient plans that do not appropriately account for actual risks.

HUD must use its power to delegate NEPA obligations responsibly. While HUD can delegate its NEPA obligations to a RE — a unit of local or state

government or private entity — for certain RAD transactions²⁷² and the CDBG entitlement program,²⁷³ HUD should delegate its responsibility to conduct NEPA environmental reviews only if it can verify that RE will conduct the reviews with the appropriate level of expertise and rigor.²⁷⁴ Before HUD delegates its NEPA responsibilities to an RE at a site, HUD should verify the ability and independence of the entity that will perform the required environmental reviews and not rely on the RE’s certification of its own or its consultants’ experience and expertise.

HUD and local public housing authorities can improve their environmental assessment process by directly retaining environmental experts to handle issues related to complex, hazardous waste sites that prioritize the protection of public health and the environment. Otherwise, the lack of environmental expertise within HUD or local housing authorities can lead to dangerously deficient plans that do not appropriately account

for actual risks and, in some cases, can create new risks.²⁷⁵ Moreover, the Government Accountability Office should regularly prepare a report on HUD’s compliance with the NEPA environmental review process.

Environmental reviews should consider the impacts of climate change. The NEPA environmental review process should also require consideration of the environmental impacts of climate change. The 2016 NEPA and Environmental Justice Guidance also states that climate change may create additional stresses on environmental justice communities, and that agencies “may benefit by considering climate resilience in the proposal’s design and alternatives.” However, the 2019 RAD Guidance, for example, doesn’t mention consideration of climate resilience in conducting environmental reviews and considering alternatives.

The LIHTC program should be subject to environmental reviews. Even though Low-Income Housing Tax Credits are the primary generator of new affordable housing in this country and one of the main vehicles supporting the redevelopment of affordable housing, the Department of Treasury considers LIHTC decisions exempt from NEPA requirements.²⁷⁶ As a result, low-income housing units can be built using federal financial assistance without any environmental review that could identify lurking environmental hazards. Department of Treasury can protect future residents of LIHTC projects by applying the existing NEPA review process to all LIHTC projects.²⁷⁷ Some state agencies responsible for administering LIHTC programs do require detailed environmental review of development proposals and should be encouraged to continue to do so.²⁷⁸ Housing Finance Agencies can — and should — adequately screen for environmental risk through their Qualified Allocation Plans (QAP), which set forth the eligibility criteria and priorities for LIHTC projects, even though DOT has not required it.

In order to identify environmental risks proactively, federal, state and local housing inspection rules should expressly require evaluation of environmental hazards that threaten life, health, and safety. Because federal and local government housing quality inspections currently fail to consider outside environmental contamination, these housing inspection codes should be modified to expressly require the evaluation of exterior environmental risks. State and local laws should also mandate that comprehensive lead risk assessments of rental housing occur, especially at Superfund sites where lead is a primary contaminant. Comprehensive lead risk assessments include testing of soil, indoor dust, and water samples; testing of paint samples or by X-ray fluorescence analyzer; and a report indicating the location of any hazards and recommendations for containing or abating them.²⁷⁹ Any federal housing inspections at Superfund sites must also include comprehensive risk assessments. Inspections should be conducted at least annually and prior to any rehabilitation, redevelopment, sale, transfer, demolition, disposition, or conversion of the housing. There should be no ability to delay inspections or risk assessments due to pending construction, redevelopment or rehabilitation. The inspections and risk assessments should consider the siting of housing on or near environmentally contaminated land hazardous to life, health, or safety of the tenants.²⁸⁰

Federal housing agencies should identify their physical assets most vulnerable to climate change and target disaster preparedness and resources to those communities. Flooding, climate change, and the continued nondisclosure of the use, storage, and release of hazardous materials continues to pose extraordinary risk to affordable housing communities in spite of existing federal requirements.

All housing developments within or near environmentally contaminated land should have in place resiliency preparedness to ensure communities are better able to prepare for natural disasters. For example, federal housing agencies should expand and replicate the National Disaster Resilience Competition²⁸¹ to ensure federally assisted housing has substantial resiliency preparedness to ensure environmental justice communities with federally assisted housing are better prepared for natural disasters. As part of this effort, federal agencies must ensure disaster planning for housing within environmentally contaminated land and ensure that federally assisted housing is built to withstand flooding. Likewise, climate change and disaster relief planning at the state or local level should expressly consider and attempt to address how to help environmentally harmed communities from being disproportionately harmed by climate change and natural disasters.

In conjunction with EPA and other agencies, FEMA should launch a targeted effort to reassess flood mapping in areas with contaminated sites and to update the maps as needed. The Federal Emergency Management Agency (FEMA) is responsible for ensuring the accuracy of flood maps. But the flooding of hazardous wastes into vulnerable communities triggered by recent storms like Hurricanes Maria and Harvey and Superstorm Sandy dramatically demonstrate the need to improve disaster planning as it relates to contaminated sites.

Recommended Changes to Specific Agency Actions or Specific Laws and Policies

Beyond the interagency and multi-agency needs described above, specific agency action and/or law and policy changes are critical to protect households from further environmental harm.

Amend and improve the Superfund law. A core priority must be to ensure that when there is environmental contamination, the cleanup process is set up for success from the outset, especially for the residents impacted by it. One of the largest barriers to directly impacted communities getting involved in the Superfund process has been judicial rulings limiting what rights they have during any CERCLA litigation.²⁸² Congress should amend CERCLA to make it easier for affected community members to participate in enforcement and litigation related to recovery of costs associated with cleanup. Specifically, Congress should remove language that allows a state or the federal government to forestall or prevent an individual's intervention by claiming that the government "adequately represents" their interests.²⁸³ Residents subjected to environmental contamination should be able to participate in their own protection and express their own interests, especially when the government does not share their priorities.

Congress should also add language to clarify that CERCLA does not limit the timing of when affected persons can seek to intervene in these cases. Some courts have rejected motions to intervene by community members on the basis of timeliness, finding that citizens can intervene only within weeks of certain administrative milestones. However, investigations, planning, implementation, and litigation can take decades, involve changes of course or unexpected developments, and do not proceed in precisely the same steps in every case. Residents should be able to advocate for their interests before the court at any point during these processes.

Ensure adequate funding for expeditious soil testing, support for the community, and comprehensive cleanup. Many of these recommendations increase the cost of the cleanup process, and thus additional funding will be needed. Fortunately, CERCLA's past can help us chart this future. As much of this funding as possible should come from the responsible parties who caused the contamination at a particular site, but it is also imperative that Congress re-fund the Superfund trust. When CERCLA was enacted, it imposed taxes on certain industries generally responsible for historic contamination and those funds were deposited into a Superfund trust account. EPA drew on this trust to pay for its response actions necessary to combat contamination. As discussed above, the industry taxes lapsed in 1995 and were never renewed. As a result, the only funding is allocated by congressional appropriations, and the EPA's Superfund budget has declined steadily after the Superfund trust ran out of money. This resource constraint hampers especially cleanups at sites where EPA must fund work because the responsible parties no longer exist. Whether through the reenactment of the original taxes or other means, additional funding must be allocated to government-led Superfund cleanups.

Congress should also amend CERCLA to ensure that the new funding will cover broader categories of costs that are necessary to protect community priorities at these sites. CERCLA currently limits the types of activities related to responding to a contaminated site that are relevant "response costs."²⁸⁴ This narrow definition constrains what actions EPA can require that PRPs undertake or for which EPA can hold PRPs responsible through cost recovery litigation. The definition of "response costs" under CERCLA should be amended to explicitly and uniformly allow for recovery of expenses that address the priorities identified by the community, such as independent technical support, medical monitoring and treatment, property devaluation, community-driven relocation or housing benefits, and remediation of health threats that impose cumulative impacts in concert with site contamination. Currently, whether many of these types of expenditures are included in the work done at a site is left to the discretion of the agency or subject to negotiation with potentially responsible parties. As such, many of these important aspects of responding to contamination are often never conducted and, when they are, responsible polluters regularly avoid bearing the necessary costs. Amending CERCLA to explicitly include these kinds of expenses in the definition of "response costs" would authorize EPA to fund these actions during agency-led cleanups and assure regulatory agencies and private parties — which could include municipal governments, housing authorities and directly impacted communities — that they could recover their costs furtherance of community interests.

EPA should increase the availability and usefulness of Technical Assistance Grants (TAGs), which can be awarded to organizations in impacted communities to support a community having its own independent technical consultants. Currently, regulations limit the availability of TAGs to a single grantee and \$50,000, divided over three years. Remediation of a CERCLA site, however, can span decades, involve significant technical complexities, and impact multiple communities. Accordingly, EPA should make technical assistance grants available to as many community groups as qualify and in sums and over time periods that will allow the community groups to participate meaningfully throughout the remedial and redevelopment process, regardless of the technical complexity at a site. EPA could implement this change by including such grants within a broadened interpretation of "response costs" in its regulations or through its model settlement agreements and guidance documents.

EPA needs to undertake a specific and nationwide effort to ensure all information regarding the geographic definition of Superfund Sites is accurate, up to date, thorough, and accessible. It is essential that all parties involved understand the environmental conditions, and associated health risks, that effect a housing development or redevelopment. Standard environmental due diligence performed during property transactions, and often required by HUD or other agencies reviewing federally assisted housing proposals, such as those for RAD conversions, relies upon certain EPA databases and public information resources. These databases, notably the Environmental Data Resources (EDR) database, pull information from EPA to determine if the property under review is within one mile of a CERCLA site. Sometimes, due to the manner in which EPA maintains its data, the EDR database returns a result indicating there is no CERCLA site within one mile despite the fact that the property is actually within the footprint of a CERCLA site.²⁸⁵ This outcome is particularly likely for sites that involve contamination from air deposition, as well as contaminated groundwater sites, because EPA’s understanding and documentation of the geographic extent of such contamination can develop and change over time. Air deposition sites are particularly problematic, because they often involve neurotoxins like lead and arsenic that were dispersed by historic industrial sources located in low-income communities of color, where affordable housing was and remains more likely to be sited.

Tenants in environmentally contaminated housing should be permitted to voluntarily relocate to other federally assisted housing or receive a Tenant Protection Voucher. Currently, tenants in site-based projects lack the option to voluntarily move to other assisted housing or to receive a tenant protection voucher to escape likely or identified health hazards attributed to living near environmentally contaminated land. Congress must enact legislation and appropriate funds, which should include considering related relocation costs as a “response cost” under a revised definition in CERCLA, to enable tenants facing health risks due to environmental contamination to voluntarily move out of their federally assisted housing and into other federally assisted housing or to move with a Tenant Protection Voucher. This funding should include the cost of relocation, such as moving expenses, security deposits, utility deposits, and, as elaborated below, mobility counseling. Tenants should be given a priority to move into other housing before waiting list applicants. The notice of environmental hazards and health risks would provide information to tenants about their right to transfer to other assisted housing or receive a voucher.

Tenants with project-based vouchers should be permitted to exercise their choice to secure a tenant-based voucher early. Tenants with project-based vouchers, where the voucher is attached to the housing unit pursuant to a contract between the landlord and the PHA, are already authorized to move out of their project-based unit after one year. Similarly, RAD tenants in properties that convert to project-based rental assistance are authorized to move out of their project-based unit with a tenant-based voucher, if available, or other tenant-based rental assistance, after two years, under the Choice Mobility Program.²⁸⁶ In areas of environmental contamination, Choice Mobility and project-based voucher rights should be expedited to ensure tenants receive vouchers upon request from a pot of voucher funds designated for them.

Tenants with portable tenant-based vouchers should be permitted to exercise their own choice to move before the end of the lease and contract for assistance. While tenants with portable vouchers have a greater ability to move than tenants living within site-based housing, there are still limitations

that prevent them from moving at any time without landlord or housing authority permission, even if there is risk of exposure. Voucher holders must also have the resources to be able to move.²⁸⁷ Funds could be appropriated to train housing relocation and mobility counselors who could help families to help and have the available resources and knowledge to advise moving households on the benefits of living in environmentally healthier communities in order to help reduce a family's cumulative exposure to harmful contaminants.

With the consultation and consent of the tenants, federal housing agencies should exercise authority to allow site-based affordable housing to be moved to a healthier community. Most forms of site-based federally assisted housing, where the subsidy is attached to the unit, limit the ability of tenants to move out of harm's way and keep their housing subsidy. However, there is existing statutory authority within certain federal housing programs that could be tapped to help tenants who wish to move and maintain their affordable housing. This could serve as a model for the other site-based federal housing programs. For example, HUD could approve the transfer of project-based Section 8 contracts sited on environmentally contaminated land to uncontaminated land.²⁸⁸ HUD could also approve transfer of project-based rental assistance, debt, and use restrictions to another property, as congressional appropriations have allowed since 2007, currently allowed through Section 219 of the General Provisions of the 2019 Appropriations Act. The same could be true for public housing. HUD, as a part of a demolition application, could authorize the public housing annual contributions contract to be moved to another property or site for redevelopment of the public housing.²⁸⁹ Likewise, public housing that can be converted to the Rental Assistance Demonstration program could have the assistance transferred to uncontaminated land, if there are sufficient funds to ensure that PHAs can rebuild the housing on uncontaminated land. However, any proposed move must be made with the consultation and express consent of the impacted tenants. As well, any new location must consider the expressed needs of the tenants, including access to existing employment, support networks, health, education, and other opportunities. Any transfer of site-based assistance must occur with sufficient environmental review as detailed above.

Residents living on or near environmentally contaminated land that is hazardous to their life, health, and safety should not be required to pay rent.

Where hazards to the life, health, and safety of residents have been identified, the tenant rent should be abated until the tenant's right to healthy housing is realized. A constant within the federal housing programs is the legal obligation of a tenant to pay rent in order to maintain their housing assistance.

Housing regulations, contracts, and leases should be amended to expressly recognize that residents living on or near environmentally contaminated land that is hazardous to their life, health, and safety should not be required to pay rent. For example, the language of 24 C.F.R. § 966.4(h) and the public housing lease provide a current path to permit this rent abatement in public housing when conditions cannot be resolved within a reasonable period of time.²⁹⁰ The rent abatement should continue until alternative accommodations can be provided.

State and local laws should be amended to permit tenants to end their lease early due to environmental hazards and health risks. Tenants are generally not able to unilaterally end the lease early without the landlord's permission, even in cases where environmental hazards and health risks associated with living at the property are present. State and local laws could expressly authorize tenants to end leases early without penalty when there are health risks present. These laws must include explicit protections for nonpayment of rent due to housing conditions as well. The burden of showing health risks from environmental contamination should not be on tenants — laws should presume adverse health effects when populations are exposed to multiple hazards from multiple sources.

Ensure the site characterization process is done in a timely manner. EPA should revise regulations to impose more effective timelines for the site-characterization process. The site-characterization process, which results in a document called a remedial investigation/feasibility study (RI/FS), is how EPA or a private party taking responsibility for the cleanup studies the contamination and health risks at a contaminated site and provides the basis for a cleanup plan. Protection of human health and the environment depends on an investigation upfront that is both thorough and timely. On the one hand, budget cuts and a desire to act swiftly and to reduce costs at Superfund sites sometimes lead to rushing or shortcutting the site characterization process. On the other hand, at other sites, where agencies oversee cleanups conducted by the private corporations responsible for the pollution, those responsible parties drag out the process of completing the site characterization, presumably to defer costs or to seek ways to minimize costs. To address these problems, EPA should revise the National Contingency Plan regulations to establish an anticipated deadline for completion of the site characterization and hold site managers to those deadlines.

Engage communities throughout the entire remedial process. EPA should also revise its regulations to ensure that residents are involved in the site characterization process to ensure that the community is brought into this phase of the cleanup process. EPA already espouses this goal in 40 C.F.R. § 300.430(c)(2)(ii)(A), which states that the EPA should “[e]nsure the public appropriate opportunities for involvement in a wide variety of site-related decisions, including site analysis and characterization, alternatives and analysis, and selection of remedy.”²⁹¹

Community members bring knowledge to this process that should be incorporated to improve the understanding of risks at the site. For example, community members know if there is fishing in a waterway with contaminated sediment or if children play in or near seemingly vacant contaminated properties.

EPA needs to improve risk communication at Superfund sites. There is widespread recognition that EPA's current practices with respect to communicating risks to communities and including communities in the risk assessment process are inadequate. The EPA Office of Inspector General (OIG) recently began an investigation into whether EPA is effectively communicating to impacted communities about sampling results or other indicators of human health risk at hazardous waste sites. Subsequent to beginning its inquiry with a focus on EPA-led CERCLA sites, the OIG met in person with residents at a number of CERCLA sites and expanded its focus to include sites at which EPA is not the lead agency but is involved in risk communication.²⁹² EPA's recently published “Getting Risk Communication Right” document contains laudable sentiment, but its lack of actionable detail and its limited focus on long-term stewardship of already remediated sites renders it the most marginal of steps in this direction.

EPA should provide information concerning contamination to the public at the same time as it provides information to potentially responsible parties or when it receives information from them. Members of the public cannot take actions to protect themselves or to advocate for their interests if they do not know or understand the levels or extent of the contamination in their homes and neighborhoods. With tragic results, EPA has withheld information about contamination while it reviews sampling results with responsible or potentially responsible parties, including in situations in which the data revealed a public health catastrophe. Rather than keeping data from the public, EPA needs to share that information with the public and help the public understand the risks to their health and well-being as soon as such information is available. EPA can — and should — explain uncertainties or data validation questions to the public, rather than withhold information simply because there may be open technical issues.

Communities should be given the power to improve the substantive terms of the cleanup plan. In developing and implementing a cleanup plan, the EPA’s process should be monitored to ensure the most protective cleanup possible. EPA’s cleanup plans often do not account for modern science because EPA’s technical guidance documents do not reflect current scientific standards. Likewise, guidance documents often do not reflect modern best practices, including ensuring that all exposure pathways are evaluated to ensure that site-specific standards reflect actual risk to the community.

Environmental Justice at Work: Duwarmish Waterway Site

EPA can incorporate communities into the risk assessment process, as seen at the Lower Duwamish Waterway Site (LDW) in Washington state. At that site, EPA employed an environmental justice analysis and direct consultation with local Native American tribes during risk assessment. As a result, “Consideration of how Tribal members may be exposed to contaminants in the LDW while engaging in seafood harvest activities has been a primary factor shaping the assessment of human health risks.” The environmental justice community at that site was a represented tribe with recognized rights as “a sovereign nation.” EPA should be equally solicitous of input early in the Superfund process from any and all impacted communities.²⁹³

CERCLA currently prohibits courts from reviewing regulators' decisions related to cleanup plans except in very narrowly defined types of cases at specific junctures in the remedial process.²⁹⁴ Congress should allow impacted communities — i.e., the people who live on or sufficiently close to a site — to challenge regulators' decisions related to clean-up. Community members should be able to argue that remedial decisions are insufficiently protective at the time those decisions are made, not years later (if at all), when cancers may have developed, contamination may have migrated, or responsible parties have disappeared. To avoid disrupting truly emergency response actions, this provision could be crafted so as not to apply during emergency cleanups (i.e., “emergency removal actions”). This provision should allow only challenges that seek to increase substantive or procedural protections and should specifically exclude challenges that assert arguments that proposed plans are too costly, too speedy, inefficient, or over-protective. An amendment allowing such community challenges should be tailored to avoid creating a means for the parties responsible or potentially responsible for the contamination to delay work or oppose more protective cleanup requirements. Such a change would be consistent with the original intent of the specific part of the law, which was designed to prevent responsible parties from delaying cleanups through litigation and to ensure that communities can participate in their own protection.

Absent Congressional action to ensure communities can participate in litigation, there are still many steps that can be taken locally to ensure protective cleanup occurs. EPA sets cleanup standards (i.e., numerical targets that must be reached for particular contaminants before the cleanup is considered complete) for each individual CERCLA site that are intended to reflect actual site conditions and the actual risks to communities. As it is currently implemented, however, the cleanup process does not always reflect actual risk to the community based on all site-specific threats — such as drinking water, interior lead dust, and interior and exterior lead paint — or how residents use the contaminated areas. Accordingly, EPA should update its regulations to codify key guidelines, like the Superfund Lead-Contaminated Residential Sites Handbook, which lays out procedures that EPA should use to evaluate the risks at a site, including the scope and approach to sampling. EPA should apply these codified guidelines consistently at all sites. These updates should ensure that site investigations reflect the best scientific understanding with respect to health-driven risk assessments and require best practices for sampling, risk assessment, and community engagement. Independent academic and community input should be a primary driver of such updates, not industry-sponsored research or advocacy.

EPA must change its practices to ensure information is accessible. EPA should publish all site-related information in a timely and accessible manner and, where needed, should publish vital documents in both English and additional languages. EPA should post the complete and up-to-date set of materials on site-specific websites immediately when submitted or generated so that anyone can easily find and review the materials. EPA site managers should supplement these materials with explanations where necessary to make technical documents understandable to the public. Communities should be regularly consulted about how information can be most usefully shared and explained.

EPA should improve compliance with planning and disclosure requirements by private companies who are responsible for hazardous materials. The Emergency Planning and Community Right-to-Know Act (EPCRA) requires companies to disclose the storage, use, and release of hazardous materials and to have plans in place to deal with emergency releases of those materials. These plans are intended to be

available to communities and first responders so that residents can know what risks they live among and emergency personnel know what risks they run toward when they respond to emergencies at industrial or contaminated properties. EPA has failed to prioritize and modernize EPCRA implementation; noncompliance is therefore common, and what plans that are submitted are often inadequate, incompletely implemented, or inaccessible.²⁹⁵ EPA should launch a dedicated effort aimed at improving compliance with planning and community notification measures under EPCRA. This effort should include both an enforcement emphasis and an outreach effort aimed at strengthening local emergency planning committees and modernizing disaster notification and response efforts through updating information and increased use of remote monitoring, social media, and other modern technologies.

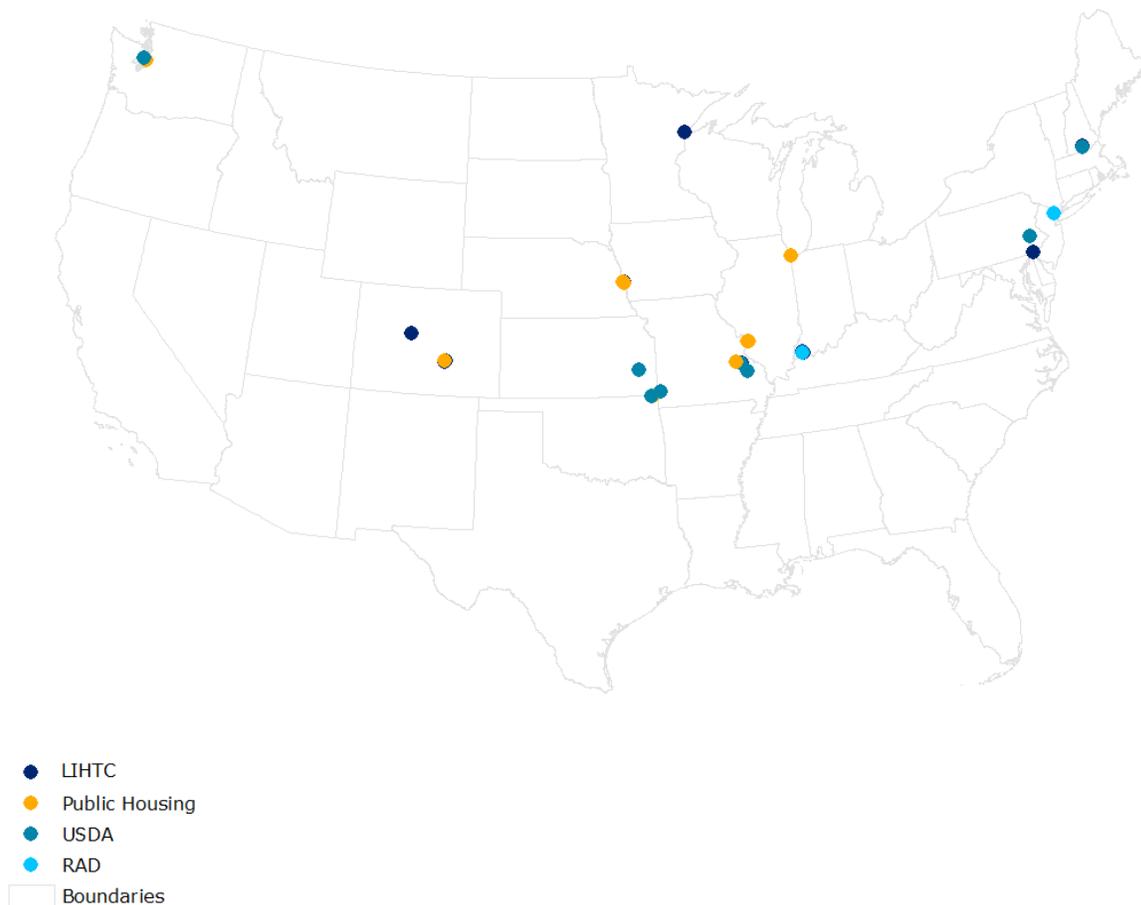
EPA must ensure all data available to the public, such as that presented in its EJScreen tool, is up to date and comprehensive. Communities can learn whether there are any Superfund sites near them through EJScreen, a tool created by EPA to identify various forms of environmental contamination. Unfortunately, this tool is only as useful as the data it contains. The shapefiles that EPA uses to show the boundaries of Superfund sites are not complete and do not always accurately reflect the boundaries where there may be an associated health risk. Moreover, EJScreen identifies only certain types of HUD-assisted housing, including public housing and project-based Section 8 housing, but does not include the USDA’s Rural Development programs and the Low-Income Housing Tax Credit program.²⁹⁶

Fair housing enforcement agencies should provide guidance on and investigate environmental justice complaints involving housing. HUD’s Office of Fair Housing and Equal Opportunity and state and local civil rights commissions charged with enforcing the civil rights laws and companion state laws need to develop guidance that describes how to handle fair housing complaints in the environmental justice context. Communities disproportionately exposed to environmental and health hazards due to policies and decisions that intentionally or unintentionally placed them in harm’s way should have their claims investigated fully and with relevant subject matter expertise. Guidance should address the intersection of civil rights laws with environmental justice, setting forth how these complaints should be investigated and what claims may be available.

There should be regular and early resident engagement, especially in any discussions regarding the redevelopment of Superfund sites, with attention paid to avoiding gentrification that displaces environmental justice communities. Even though EPA regularly states that it strives to engage local stakeholders in redevelopment, too often this does not include those directly impacted by the contamination. The 2017 Superfund Task Force Report specifically encourages EPA to facilitate relationships between local stakeholders, responsible parties, and communities.²⁹⁷ The Task Force Report also recommends that EPA provide technical information to parties interested in redevelopment. Troublingly, however, the Task Force Report emphasizes a “[h]igher focus” on “industry partners” in its articulation of stakeholder engagement.²⁹⁸ While redevelopment will of course include commercial developers at many sites, this work must be done in a way that engages existing community members upfront and not after EPA, local governments, and industry partners settle on a redevelopment plan. Further, special consideration should be paid to preserving and creating low-income housing and employment opportunities in the community.

There should be financial support for community power at all stages of the process through targeted legal assistance and community organization funding. Effective community engagement is critical in all stages of decision making at Superfund sites to ensure community concerns are always prioritized. Legal assistance for environmental justice communities could be provided to support impacted communities and enforce meaningful participation. Legal services organizations can play a critical role in assisting communities access justice, but few legal services organizations are knowledgeable on environmental justice. In part, this is a result of the lack of dedicated funding for legal aid agencies to work in this area. Congress should set aside funds for legal aid organizations to work with environmental justice communities, and state and local governments should fund legal aid organizations to ensure the community is adequately represented in the cleanup process.

All Housing Types Near a Lead Contaminant Superfund Site



Community-based organizations are especially vital to ensuring a strong community voice, but they are too often without adequate resources. Organizers can support community members to build their own source of power to hold government agencies and polluters accountable. Community organizations should be funded to organize directly impacted communities so that they can meaningfully participate in the Superfund process and make decisions about the future of their homes and community. Congress, local governments, and foundations should set aside funds for local community organizations to play this role.

States should have protective environmental standards to require a more robust cleanup of the site. Under existing regulations, EPA must consider “applicable or relevant and appropriate requirements,” including relevant state standards, when developing and implementing a cleanup plan. For example, EPA must consider a state’s drinking water standards when considering whether a cleanup would be sufficient to protect public health if groundwater at the site is a source of drinking water. State standards for soil remediation vary widely in their protectiveness. States should reevaluate and strengthen their soil remediation standards; at sites in states with weak standards, EPA can and should impose more stringent standards.²⁹⁹ Thus, states must be pushed to require more protective remedial outcomes by increasing the stringency of pollutant-specific or other standards and ensuring they are applied in a protective manner.

Additionally, it is critical to ensure sites in or near residential areas are always cleaned up to residential cleanup standards. EPA should apply residential cleanup standards, which are sufficiently protective to allow for residential use after remediation, in more cases and should apply relaxed industrial-site cleanup standards in a far more limited set of cases than its current practice. Moreover, many states relax standards — or set no standards at all — for a cleanup if a contaminated property will be used for commercial or industrial purposes. While it may be appropriate, in limited circumstances where necessary to facilitate redevelopment, to approve less protective standards for sites that are and will remain industrial or commercial and are situated among other industrial or commercial properties, such relaxation of standards is dangerous and inappropriate where there is any possibility of impacts on residential areas. States and the EPA should limit or eliminate the use of site-specific relaxed standards for sites that are near residential areas. Instead, both the EPA and state agencies should protect public health by requiring cleanups at sites in or near residential areas to meet residential cleanup standards

EPA’s use of “institutional controls” as an alternative to more stringent cleanup standards must also be scrutinized. While cleaning up sites, EPA often leaves in place dangerous levels of soil and groundwater contamination and relies on “institutional controls” designed, in theory, to assure that residents are not exposed to the remaining contamination through the application of deed restrictions that prohibit certain



Shantel Allen’s two-year-old daughter Samira Allen’s blood lead levels test results came back at 33, which is remarkably above the CDC’s 5 µg/dL threshold for action. Allen said her whole family, including 5 young children, herself and her husband, have elevated lead levels. © Alyssa Schukar Photography 2016.

uses (i.e., for residential redevelopment or private drinking water wells). This practice must be closely examined and disfavored. First, EPA may be underestimating the costs of implementing the institutional controls by not factoring in the staffing needs at environmental regulatory agencies and local governments required to ensure that residents know about and adhere to these deed restrictions. Second, this practice creates a significant opportunity for responsible parties to take advantage of unrepresented residents who lack technical expertise and to outsource costs of contamination to current and future residents by undercompensating them (or not compensating them at all) for the reduced usability of their property. Such practices contravene the basic “Polluter Pays” principle at the heart of the Superfund law.³⁰⁰

Proactively Address Health Implications of Environmental Exposures

Increase access to public benefits. Although primary prevention is the goal, attention must also be paid to mitigating what harm has already been caused. To start, federal agencies can increase financial support to participants exposed to environmental contamination, costs that should be recoverable “response costs” under CERCLA that the polluter would pay. Most people receiving federally housing assistance are also enrolled in, or eligible for, other federal programs, including Temporary Assistance for Needy Families (TANF), the Supplemental Nutrition Assistance Program (SNAP), the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), and Medicaid, among others.³⁰¹ When a participant is exposed to environmental contamination, access to healthy foods, healthcare, and supplemental services are critical.³⁰² Federal housing agencies and EPA should immediately alert federal agencies that administer these programs when tenants are exposed, and tenants who are not enrolled should have their applications for TANF, SNAP, WIC, or Medicaid expedited. The benefit amount for TANF and SNAP should be increased on an emergency basis, deemed to be medically necessary, and coupled with nutrition counseling based on the specific exposure.

Support screening of WIC participants for exposure to environmental hazards and provide resources that could reduce the effects of the exposure.³⁰³ USDA must provide WIC participants with supplemental benefits and screenings to mitigate the effects of environmental exposures, and Medicaid must cover remedial services when a screen is positive.

WIC programs can take additional measures to identify exposed participants by coordinating with the public health department, regional EPA, and housing providers and including an environmental hazard screening during the initial WIC intake. If the family resides near a Superfund site, WIC should coordinate with the public health department to inspect the interior and exterior of the home for hazards. WIC must also provide participants with water filters that remove lead and other toxics from water and readymade formula for infants to prevent cumulative exposure.

Expand access to healthy foods. Since access to healthy foods is key to improving health outcomes, USDA must also expand funding for the Fresh Fruit and Vegetables Program³⁰⁴ and WIC Farmers Market Nutrition Program and extend the Summer Electronic Benefit Transfer³⁰⁵ funds to increase access to healthy meals. The Emergency Food Assistance Program must also coordinate with local food banks near hazardous

sites to deliver foods rich in calcium, iron, and Vitamin C.³⁰⁶ If lead-contaminated water is also a possibility, USDA must allow families to use WIC benefits to purchase pre-mixed formula.³⁰⁷ USDA must work with all local schools to participate in the Community Eligibility Provision that guarantees access to free school breakfasts and lunches.³⁰⁸ At the same time, USDA should collaborate with local partners to notify tenants of enhanced benefits and to increase community nutrition education designed to limit absorption of lead and arsenic.³⁰⁹ Increased benefits must be provided whether or not a person has a confirmed elevated blood lead level in order to reduce the extent of potential harm.

Health interventions should be triggered automatically for all federally assisted households living at or near contaminated sites. Federal housing providers should work with local and state health departments to ensure adequate notice to tenants. Notices to tenants should clearly explain the contamination, its impact on human health, and why individuals should be tested. Public health departments must make access to testing free and accessible and should offer free on-site testing and prompt follow up.

State and local public health departments need to coordinate with healthcare providers to conduct environmental exposure screenings in a setting that is readily available to community members. To ensure ample opportunity for community members, screenings should be mobile, offered directly in the community, before and after school and work hours, and provided in the patient's first language.³¹⁰ State and local public health departments should also inform healthcare providers of the extent and location of Superfund sites in the jurisdiction and the impact of the site on human health. As soon as state and local jurisdictions are made aware of environmental hazards that could affect health outcomes, public health departments should educate providers and offer informational sessions to community members about the type of exposure, potential health harms, and opportunities for screening and care. This education and notification should be repeated annually throughout the Superfund site remediation process.

Medicaid requirements should be enforced to ensure children who are exposed to environmental contamination are tested and treated, especially since children in federally assisted housing are among the highest at risk for lead poisoning and other environmental exposures.³¹¹ Medicaid requires all Medicaid-eligible children to be tested for lead poisoning, but many children are never tested.³¹² At Superfund sites, all exposed children under the age of 21 should be regularly tested, with an emphasis on increasing screening among Medicaid-eligible households.

Adequate funding must also be allocated to prioritize treatment in impacted communities. In managed care states, The U.S. Department of Health and Human Services (HHS) can direct state Medicaid agencies to issue notices to care coordinators about the need to increase interaction with individuals potentially exposed to environmental hazards in order to conduct health screenings and ensure access to health-related necessities. In states without managed care, HHS could request that the state send notice to tenants about health care screening and services, including information about Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) for any children in the household. Residents must also receive long-term health monitoring by a primary care physician. State and local public health departments should also facilitate the identification of a primary care physician for residents who live in proximity to a Superfund site. In the event a resident does not have a medical home, the public health department, Medicaid agencies and

managed care organizations should identify providers with availability, make that information available to residents and assist with scheduling appointments and transportation.³³ Where necessary, the state should increase funds for child and adolescent health centers.

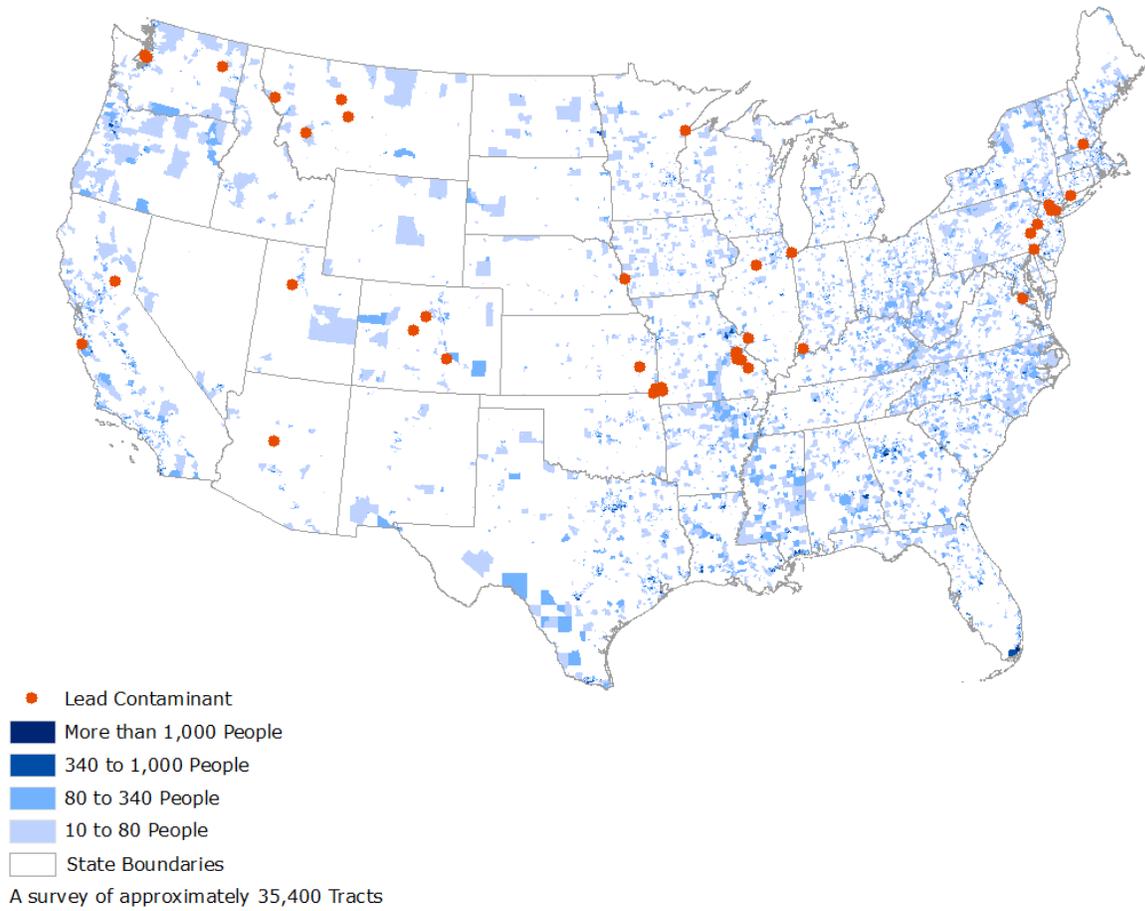
Medicaid or Marketplace health care enrollment assistance must also be provided to any low-income adults who are exposed to environmental toxics. In addition, extended Medicaid coverage must be available for pregnant women who are exposed to environmental toxics for 12 months postpartum. Because of the widespread exposure to environmental toxics on Superfund sites, Medicaid waivers would allow states to conduct a targeted project to improve the health of a population in fulfillment of the Medicaid Act objectives.³⁴

States must be encouraged to use Medicaid and the Children’s Health Insurance Program to monitor children with elevated blood lead levels, provide care coordination, and remediate environmental hazards. Under the EPSDT requirement, states are allowed Medicaid reimbursement for medical expenditures, such as case management, and environmental inspections to identify hazards that result in health impairments.³⁵ Federal guidance could be issued to states making it clear that EPSDT includes the identification of the source of lead or arsenic poisoning as allowable as medically necessary services. At the same time, state efforts via Medicaid to increase screening rates, provide service coordination including health departments, provide long-term monitoring, and expand eligibility should be encouraged.³⁶

Lead poisoning definitions should be updated. All federal agencies and state and local jurisdictions should update their definitions of lead poisoning to match the CDC reference value, as opposed to an outdated elevated blood lead level of concern measurement.³⁷ Because low-level lead poisoning does not have outward presenting symptoms, early identification of elevated blood lead levels and the source of exposure is critical to preventing further neurological damage.³⁸

EPA should also develop more protective standards for toxic soil contaminants. EPA uses an outdated 10 µg/dL as the threshold for blood-lead levels that trigger action on lead contamination in soils.³⁹ EPA should update its analysis for lead using, at a minimum, the 5 µg/dL level as adopted by the CDC and HUD, which would result in EPA lowering its standard for triggering action on lead in soils, which is typically 400 ppm, to a more protective level. EPA should likewise update its analysis for other toxics, which would likely lead EPA to set more protective standards for cleanups. Additionally, EPA should develop and adhere to a specific plan for regularly reviewing and updating these standards, with independent expert and community input.

2017 Housing Choice Voucher Population and Lead Contaminant Sites



Conclusion

Residents living in federally assisted housing must not continue to suffer the injustice of ongoing toxic exposure simply because of where they live. As it stands, a variety of laws and policies unconscionably limit their access to information, housing choices, and health care. Moreover, directly impacted communities must be engaged and drive decision-making to determine what is best and safest for their community. At the same time, housing, health, and environmental laws and policies and the public agencies who implement and enforce those laws and policies must collectively and cooperatively respond to this crisis.

No family's future and health should be determined by where they live. Yet many families and individuals exposed to environmental contamination, often sick and scared, have fought and continue to fight tirelessly for environmental justice and a seat at the table to determine their own futures. This report is in deep gratitude to the directly impacted communities and leaders who have faced these crises head on and a call to action for public agencies who have the authority and the opportunity to respond and protect the hundreds of thousands of families who live in federally assisted housing in close proximity to Superfund sites.

Facing page: 18-year-old brothers Antwon Jones, at left, and D. Jones pose for a portrait near their home in the West Calumet Housing Complex. "This is where we hang out every day. We are still here with the lead," D. Jones said. © Alyssa Schukar Photography 2016.



Case Studies



Carteret, New Jersey

SUMMARY

From 1903 to 1986 the US Metals Refining Company (USMR) conducted copper, lead, and tin smelting and refining operations at a site in Carteret, New Jersey.³²⁰ Of Carteret's 23,652 residents, 28% are White, 34% are Latinx, 23% are Asian, and 15% are Black.³²¹ However, Carteret residents living closest to the site are predominantly Latinx and Asian. There is also a significant amount of federally assisted housing within or near the site.

HISTORY

Through the land-based disposal of slag from the smelting processes, as well as deposition from air emissions at the facilities, USMR spread heavy metal contaminants across its site and the soils of the neighboring community.³²² USMR's stormwater and wastewater discharges likely also contributed heavy metal contamination to the surrounding area.³²³ Over the course of USMR's operations, its property holdings expanded and it deposited hundreds of thousands of cubic yards of slag and scrap materials on its site.³²⁴

USMR sold part of its site to Reichhold in 1960, but continued smelting operations on the remaining portion.³²⁵ Air pollution controls were added to its facilities in the 1970s and early 1980s.³²⁶ However, the emissions of airborne heavy metals had been ongoing for decades, and the emissions reduction measures did not prevent all air pollution from the facility. A 1982 report found that heavy cadmium, lead, and mercury emissions were still coming from the smelter.³²⁷ In 1983, the State of New York filed a citizens' suit under the Clean Air Act, alleging that the plant's emissions into the air were affecting the residents of Staten Island, New York.³²⁸ In 1984, the Middlesex County Department of Health cited USMR for 134 violations of air quality standards on the basis of its emissions.³²⁹

Almost 700 units of federally assisted housing are located within or near the the contaminated USMR site in Carteret, New Jersey.

In 1985, the successor company to USMR began phasing out its metals refining operation at the site, which triggered a site investigation and cleanup under a particular New Jersey state statute.³³⁰ During its investigation, the groundwater was found to have elevated concentrations of copper, zinc, selenium, nickel, arsenic, cadmium, and lead.³³¹ Soil sampling of areas of the site where metal slag was disposed indicated lead and cadmium levels that exceed the state groundwater quality standards.³³² These findings led the New Jersey

Department of Environmental Protection (NJDEP) to bring an action against the facility, which resulted in entering into a consent order with the successor company in 1988.³³³ The 1988 consent order required further investigation and remediation of contaminated groundwater, surface water, and soil. That investigation found arsenic, cadmium, chlorobenzene, copper, lead, nickel, selenium, and zinc.³³⁴ However, the company failed to complete other required steps under the consent order, such as a Baseline Environmental Evaluation, which could have triggered further investigations to confirm the level of contamination and evaluate the risks to human health.

In 2003, Reichhold filed suit against USMR seeking to recover the money it spent investigating and cleaning hazardous materials from the site it had bought from USMR.³³⁵ A 2009 decision noted that:

For the entire period [of operation], the [USMR] smelter spewed forth enormous amounts of contaminating materials, entirely from the cupola until a stack was built and thereafter both from the cupola and the stack. Even after controls were put in place the controls were inadequate, defective and often non-functional.³³⁷

One of Reichhold's claims was that USMR had caused elevated lead concentrations in groundwater flowing from the site into the surrounding area. In 2007, NJDEP filed suit regarding groundwater contamination and sought restitution and remediation.³³⁷

In 2011, USA Today tested soil samples from the closest neighborhood to the facility. It found 21 locations where lead soil levels exceeded the 400 ppm contamination limit EPA has set for bare residential soil in children's play areas.³³⁸ In December 2011, following USA Today's story, NJDEP sent a letter to USMR requiring the company to develop a soil testing program for offsite residential areas.³³⁹

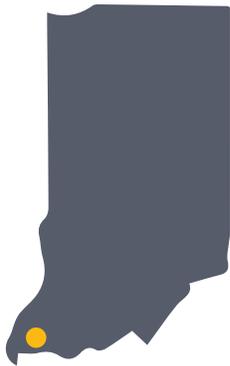
In 2012, Carteret threatened to sue USMR and its parent corporation for contaminating the groundwater.³⁴⁰ Carteret argued that the state's actions were insufficient to abate the contamination, noting that the state failed to enforce 1988 Consent Order and took action only after the USA Today story broke.³⁴¹ A preliminary settlement was reached where USMR agreed to undertake an investigation and remediation program.³⁴² As a result, the company sampled the soil of 60 offsite public and private properties at staggered distances from the site in order to determine the extent of soil contamination in the area and to notify residents whether their soil was contaminated with lead, arsenic, or copper.³⁴³ After testing was complete, the company distributed letters reporting that the testing had found that some properties had lead levels of up to four times the state standard and arsenic levels in excess of the state standard.³⁴⁴ Surface soil tests found levels at or slightly above the state standard.³⁴⁵

In 2017, Carteret and USMR reached a final settlement that required USMR to pay \$4.25 million to fund public and environmental health initiatives. It also requires USMR to pay an additional \$3.15 million over the following 10 years. Carteret agreed not to file further litigation against the company.³⁴⁶ At the same time, a group of Carteret residents filed a class action lawsuit against USMR seeking the costs of medical monitoring and the payment of damages to property owners whose homes have lost value as a result of the contamination.³⁴⁷ The litigation is ongoing.

FEDERALLY ASSISTED HOUSING WITHIN OR NEAR THE SUPERFUND SITE

Against this backdrop of more than a century of environmental contamination, there are almost 700 units of federally assisted housing within or near the site. In the HUD programs alone, there are 628 homes assisted through the public housing, Housing Choice voucher, project-based section 8, and HOME programs. The majority of residents receiving Housing Choice vouchers or residing in project-based Section 8 or public housing units are Latinx or Black.

Of the two public housing properties near the site of the former smelter, the Edward J. Dolan Homes has 112 units and entered the Rental Assistance Demonstration (RAD) program in 2015.³⁴⁸ There are a substantial number of children residing in the complex.³⁴⁹ The site is listed as a state facility of interest on the EPA's website.³⁵⁰ The other public housing site, Jeanette Smith Village, has 140 units and is located approximately 0.5 miles away from the smelter.³⁵¹ The housing is targeted at elderly and disabled residents. The property has also been part of the RAD program since 2015.³⁵² Finally, a 39-unit Low Income Housing Tax Credit property, the Cleveland Arms, is located 0.5 miles from the smelter site.³⁵³



Evansville, Indiana

SUMMARY

Evansville is home to 117,963 residents in southern Indiana.³⁵⁴ From the 1880s through the 1950s, several manufacturing facilities operated in what is now the Jacobsville neighborhood, emitting lead in the air, which then contaminated the soil in the neighborhood and throughout Evansville's central city area.³⁵⁵

The contamination was discovered in the early 2000s, and the EPA declared the area a Superfund site in 2004. In 2009, EPA expanded the scope of the site and cleanup to a 4.5 square mile area encompassing 12 neighborhoods.³⁵⁶ Compared to Evansville's residents overall, the residents who live in the Superfund site area are disproportionately poor and Black.³⁵⁷ The cleanup work is ongoing.³⁵⁸

HISTORY

Several manufacturers and foundries, making stoves, plows, lead shot for guns, and homes, called Evansville their home in the late 19th and 20th centuries and likely contributed to the contamination.³⁵⁹ All of the companies responsible for polluting the Jacobsville neighborhood are no longer viable, which means that the EPA, in partnership with the Indiana Department of Environmental Management (IDEM) is responsible for remediating the site.³⁶⁰

In 2000, IDEM discovered lead and arsenic contaminated soil in Evansville's Jacobsville neighborhood. Subsequent sampling found lead concentrations above the EPA action level of 400 parts per million (ppm) in most of the samples of the residential soil, with levels reaching as high as 7,700 ppm.³⁶¹ IDEM also discovered contaminated soil beyond the Jacobsville neighborhood.³⁶²

Since 2015, the Evansville Housing Authority has authorized the spending of millions of dollars in improvements to housing within the Superfund site.

In 2002, IDEM evaluated the site's risk to human health and the environment. The cutoff score for listing on the National Priorities List (NPL) is 28.5, and the Jacobsville site received an overall score of 35.52, which prompted IDEM to recommend that the site be placed on the NPL.³⁶³ In 2004, EPA declared 250 acres in

the Jacobsville neighborhood to be a Superfund site.³⁶⁴

In 2005, EPA interviewed more than 20 local residents who lived in the Jacobsville neighborhood and found that most did not realize that they lived near the site, although a neighborhood group and community corporation were aware of the site and in contact with government officials.³⁶⁵

Based on sampling in 2006, the average lead levels in surface soil were over 600 ppm, and in some areas levels were as high as 8,210 ppm.³⁶⁶ During the first phase of cleanup beginning in 2007, EPA cleared hazardous soil from 83 residential properties where lead concentration exceeded 1200 ppm.³⁶⁷

In 2009, EPA expanded the cleanup area beyond the Jacobsville neighborhood to an area of approximately 4.5 square miles surrounding the neighborhood, and the agency set out to test 10,000 more homes and planned to cleanup 4,000 more.³⁶⁸ EPA stated that, for rental properties, notices asking for permission to cleanup properties are sent to the tenants and the owners. But EPA had difficulty contacting the owner for every household and owners must give permission for cleanup.³⁶⁹ Since 2007, the EPA has removed lead contaminated soil from over 2,000 residential properties.³⁷⁰ There are planned cleanup efforts through 2020 that should reach another 2,000 residential properties.³⁷¹



The Jacobsville neighborhood of Evansville bounces back after years of blight and a lengthy lead cleanup process. Credit: Annie Ropeik for Indiana Public Broadcasting

FEDERALLY ASSISTED HOUSING WITHIN OR NEAR THE SUPERFUND SITE

Of Evansville's 117,963 residents, 80% are White and 13% are Black.³⁷² Evansville is a segregated city with the majority of non-White residents living to the east of the downtown area and within the southern portion of the Superfund site.³⁷³ While the majority of households who live within the Superfund site are White, the area has the highest poverty rate in the city. As well, the residents of federally assisted housing within the site are 50% Black, disproportionate to their representation in the city as a whole.³⁷⁴

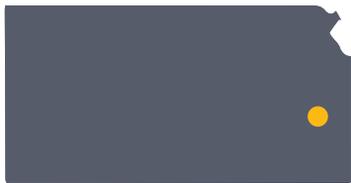
Within the Superfund site, there are currently 1,075 Housing Choice vouchers, 175 project-based Section 8 units, and 9 units of Section 202 housing.³⁷⁵ Of the seven public housing properties in Evansville, six are within the Superfund site. As of December 2016, 49 of the 68 site-based assisted properties within the site

had been sampled. Of the 49 that were sampled, 23 exceeded the action level and required remediation. However, more than half of the units had not been sampled or cleaned up, more than seven years after the record of decision was published and 12 years after the site was declared a Superfund.

Five of the public housing properties within the site are part of the Rental Assistance Demonstration (RAD) program. Being a part of RAD means that these properties are being converted from public housing to Section 8 housing, which frees up additional sources of funding, including tax credits and private funds, in order to invest in significant rehabilitation projects. Two of the properties undergoing RAD renovations (Caldwell Homes and Fulton Square) were built in the 1950s; another two (Kennedy and Buckner Towers) were built in the 1960s, and the fifth (Schnute Apartments) was built in 1972. The one property within the site that is not undergoing RAD rehabilitation is John Cable Apartments, which was built in 2004.³⁷⁶

All of Evansville's public housing properties within the site became part of the Rental Assistance Demonstration (RAD) program. By participating in the RAD program, the Evansville Housing Authority authorized the spending of millions of dollars in improvements since 2015.³⁷⁷ Some of the RAD redevelopment even included planned landscape work, which should have triggered heightened environmental scrutiny.³⁷⁸

There are also 17 LIHTC properties, totaling 508 units, within the Superfund site. Seven were issued credits after the area was placed on the NPL in 2004.³⁷⁹



Iola, Kansas

SUMMARY

Iola, Kansas, located about 100 miles south of Kansas City, is a small town of 5,312.³⁸⁰ The overwhelming majority of residents are White, and close to a quarter live in poverty.³⁸¹ Iola's Superfund site encompasses the entire town.³⁸² Investigations of the contamination began in the 1990s, and the EPA added the site to the National Priorities List in 2003.³⁸³ While the EPA has conducted emergency cleanups of 400 properties, almost 1,000 still need to be addressed.³⁸⁴

HISTORY

Starting in the 1880s, long before lead poisoning was recognized as a widespread public health hazard, the "Tri-State Mining District" of southeast Kansas, southwest Missouri, and northeast Oklahoma became the center of the largest lead and zinc mining operation in the world.³⁸⁵ Iola was caught up in this lead/zinc frenzy after natural gas was discovered in the area.³⁸⁶ Because natural gas made smelting zinc so cheap, the town enticed smelters to move to the area by offering free natural gas.³⁸⁷ Smelting at the former United Zinc, East Iola, and IMP Boats facilities from 1896 to the 1920s resulted in excess, lead-containing smelting waste materials being widely spread across Iola.³⁸⁸ As Iola grew, few safety precautions were taken, and

hazardous heavy metals spread from the smokestacks and seeped from the waste piles into the air and local groundwater. Residents even used leftover, hazardous lead-smelting material to build the foundations for homes, sidewalks, and roads.³⁸⁹

Investigations of the smelter sites began in the 1990s. In 2001, the Kansas Department of Health and Environment (KDHE) identified the area as possibly contaminated and began to investigate United Zinc

Iola's Superfund site encompasses the entire town.

as a source of contamination due to its history of lead smelting. Following a historical survey of the area, KDHE began soil testing in 2003, and, by 2005, identified high levels of lead and other contaminants near schools

and many residential areas.³⁹⁰ In September 2005, KDHE referred Iola as a Superfund site to the EPA.³⁹¹

In 2006, EPA tested residential areas in Iola, including hundreds of residential properties, daycare centers, public school yards, churches, and commercial areas.³⁹² The testing found elevated lead concentrations throughout Iola, especially in older neighborhoods.³⁹³ In August 2006, EPA began cleaning residential and school properties.³⁹⁴

Despite the test and cleanups, the soil in Iola continued to pose a high risk to the health of children. Testing of children under the age of six revealed that, from 2007–2010, 14.1% of the 391 children tested had elevated blood lead levels.³⁹⁵ Subsequent tests in 2011 and 2012 found that approximately 14% of the children tested had elevated blood lead levels.³⁹⁶ These findings prompted the EPA to add Iola to the National Priorities List (NPL) in 2013.³⁹⁷

After Iola was added to the NPL, EPA cleaned up lead-contaminated soil at 274 properties from 2015 to 2017.³⁹⁸ EPA also tested 2,955 properties, finding that 1,371 qualified for cleanup.³⁹⁹ As of January 2018, EPA had cleaned up 400 properties, but 971 properties remain unremediated.⁴⁰⁰

FEDERALLY ASSISTED HOUSING WITHIN OR NEAR THE SUPERFUND SITE

The Housing Authority of the City of Iola manages a 158-unit public housing development that was built in 1971.⁴⁰¹ In June 2017, EPA cleaned up the soil in the yard of one public housing unit. There are also 31 voucher holders in Iola. Since 1980, the U.S. Department of Agriculture (USDA) has operated 40 units of housing for seniors and persons with disabilities.⁴⁰² In March 2019, in response to an open records request for documents or communications related to this property and the Superfund site, USDA responded that it had no such documents.

There are also 4 LIHTC properties in Iola, totaling 123 units. Two of the projects, River Valley Homes I and II, were developed in and after 2009, after the state became aware of the widespread contamination and even after Iola was put on the NPL.⁴⁰³ In 2019, in response to an open records request for documents or communications related to these properties and the Superfund site, the Kansas Housing Resources Corporation, which is the state agency that oversees LIHTC properties, reported that it had no such records.



Omaha, Nebraska

SUMMARY

The Omaha Lead Superfund site covers 27 square miles of downtown Omaha, Nebraska, defined by contamination from over 125 years of smelting, refining, and lead battery recycling in the downtown area.

The site includes almost 40,000 residential properties.⁴⁰⁴ Shortly after the site was placed on the National Priorities List in 2003, EPA estimated that 16,000 residential properties could have lead contamination that exceeded 400 ppm lead, 5,600 properties could exceed levels of 800 ppm lead, and 2,800 properties could exceed 1,200 ppm lead concentration levels.⁴⁰⁵ In 2018, nearly 1,000 properties still needed to be addressed.⁴⁰⁶ The Superfund site disproportionately impacts residents of color in Omaha.⁴⁰⁷ Though 34% of Omaha's residents are people of color, the Superfund site includes a much higher concentration of people of color, with 59% of the residents of the Superfund site area either Black or Latinx.⁴⁰⁸

The Omaha Lead Superfund site includes over 5,000 units of HUD-assisted housing.

HISTORY

From the 1870s to 1997 the American Smelting and Refining Company (ASARCO) conducted ore smelting and refining operations in what is now downtown Omaha. From the 1950s through 1982, Gould Electronics

also operated a lead battery recycling plant within the same area.⁴⁰⁹ Both facilities released waste from their smokestacks, including lead particulates that were then scattered by the wind across downtown Omaha, often settling on residential yards.⁴¹⁰

Investigation of lead pollution and its effects in the Omaha area began in 1984, when the Douglas County Health Department (DCHD) started to monitor ambient air quality in the area surrounding the facility. DCHD routinely measured air concentrations well in excess of the standard of 1.5 µg/m³. The Health Department has also compiled over 25 years of blood lead results for children under age 7 and discovered that, before remediation, area children consistently had elevated blood lead levels above 10 µg/dL. DCHD also found that these children had elevated blood lead levels at much higher rates than children from other areas in the county.⁴¹¹ In the 1990s, more than 25% of the children in Douglas County, ages 0 to 6, had blood lead levels greater than 10 µg/dL; in one zip code alone, 42% of children's blood lead levels exceeded the 10 µg/dL threshold.⁴¹²

In 1998, the Omaha City Council requested EPA assistance to help address lead contamination. The next year, EPA began sampling for lead at residential properties and childcare facilities. The U.S. Army Corps of Engineers was also enlisted to help remediate 257 "time-sensitive" properties where soil samples exceeded the action level of 400 ppm in the yards of children with elevated blood lead levels. EPA took over for the Corps in 2002, changing the action level to 2,500 ppm, which was then reduced to 1,200 ppm in 2003. In 2004, an additional 144 properties were remediated, using a lower 800 ppm action threshold. The Omaha Lead site was added to the National Priorities List in April 2003.⁴¹³

In its 2009 Final Record of Decision, EPA developed a plan to excavate, backfill, and revegetate all lead-contaminated residential soils on an estimated 9,966 properties using a 400 ppm remedial action level (RAL).⁴¹⁴ This was in addition to the similar remediation work that had already been conducted on 4,615 properties at the time of publication. Also in 2009, the site received \$186 million as one of 80 Superfund sites involved in a \$1.79 billion settlement from the federal bankruptcy reorganization of ASARCO.⁴¹⁵ In 2015, EPA awarded \$31 million to the City of Omaha to take over the remediation of the remainder of the contaminated properties.⁴¹⁶ As of mid-2017, 14,065 of the 42,000 yards tested were found to have high levels of lead contamination.⁴¹⁷ In 2018, approximately 975 properties remained in need of remediation.⁴¹⁸ EPA also removed 100 properties that had been cleaned up from the Superfund site designation in 2018.⁴¹⁹

According to DCHD, EPA's actions have so far had a positive effect on the community's health. From 2000 to 2017, the rates of tested children in Douglas County with elevated blood lead levels above 9.5 µg/dL dropped from 6.1% to 0.3%.⁴²⁰

In 2017 in Douglas County, 1.1% of the 20,080 children tested who were between the ages of 0 and 7 years had blood lead levels greater than or equal to 5 µg/dL, and in the eleven zip codes within the Superfund site, the rate was 1.53%.⁴²¹ There were 66 confirmed new elevated blood lead level cases in 2017, so there is still work to be done despite the progress.⁴²²

FEDERALLY ASSISTED HOUSING WITHIN OR NEAR THE SUPERFUND SITE

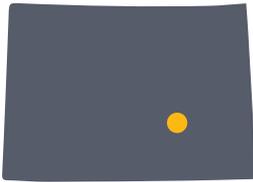
The site contains a large number of federally assisted housing units, which are disproportionately home to Black and Latinx households. There are over 5,000 units of HUD-assisted housing within the Superfund Site, including 1,977 units of public housing, 2,314 units for Housing Choice vouchers, 571 project-based Section 8 units, 123 mod-rehab units, 625 HOME units, and 90 Section 202 units.⁴²³ EPA has sampled the soil of the majority of the public housing and project-based Section 8 and 202 properties, and only one Section 202 project, Durham Booth Manor, qualified for clean-up.⁴²⁴ A 2019 open records response from HUD stated that it did not have any documents or communications related to these properties and the Superfund site.

Some of the 625 HOME units located within the site still need to be tested or cleaned up.⁴²⁵ The site also includes 106 Low-Income Housing Tax Credit (LIHTC) properties, totaling 2,882 units.⁴²⁶ Twenty-nine of the LIHTC developments were built after the site's 2003 placement on the National Priorities List. However, a March 2019 open records response from the Nebraska Investment Finance Authority, which oversees LIHTC properties in Nebraska, reported that it had no records related to the LIHTC properties and the Superfund site.

Though the LIHTC properties are a part of a city-administered lead registry, EPA has not tested the soil for lead at 20 LIHTC properties.⁴²⁷ Moreover, not all LIHTC properties found to have soil lead levels over 1,000 ppm have had their soil cleaned-up.⁴²⁸ For example, Georgeanna Court Apartments qualified for soil cleanup in 2015 with a high lead result of 444 ppm, but had not received cleanup as of August 2019.⁴²⁹

COMMUNITY RESPONSE

The Omaha Healthy Kids Alliance, in concert with the Community Advisory Group, the Lead Safe Omaha Coalition, and the City of Omaha, led the community response and pushed EPA to deal with both contaminated soil and lead-based paint in the home. The Alliance was able to get EPA to agree to hire local contractors for the work.⁴³⁰ EPA has conducted lead paint stabilization on the exterior of the home, leaving interior lead work to HUD, and HEPA vacuums are to be provided to eligible households who need to clean up interior lead dust and require soil remediation.⁴³¹ In 2016, the Alliance received EPA funding for a six-year, \$5.4 million lead health education program called the Lead Education Action Program (LEAP).⁴³² LEAP is meant to support the city as it takes over the cleanup effort from the EPA and provide outreach and education services to impacted residents.



Pueblo, Colorado

SUMMARY

Pueblo, Colorado, located about 100 miles south of Denver, is home to 111,750 residents.⁴³³ Investigation of the contamination around the former Colorado Smelter began in the 1990s, and the site was added to the National Priorities List in 2014. The Superfund site's boundaries have yet to be finalized, but the current study area includes a residential area surrounding the site of the former Colorado Smelter. The contamination most impacts the Eilers, Bessemer, and Grove neighborhoods.⁴³⁴ Compared to Pueblo's overall population, the residents who live within the Superfund site area have lower incomes and a higher proportion are Latinx.⁴³⁵ The current Superfund study area contains approximately 1,900 homes.⁴³⁶ As of 2019, over 1,000 homes had been tested and over 100 had been cleaned up.⁴³⁷ More than 250 units of federally assisted housing sit within or near the site area.

HISTORY

Historically referred to as "Steel City," Pueblo has long attracted a wide array of families with the promise of industry jobs. Pueblo had one steel mill and five ore smelters within its boundaries. The Colorado Smelter was in operation from 1883 to 1908, and its air emissions deposited high levels of contaminants, particularly arsenic and lead, in neighboring communities. The Colorado Smelting Company, which originally built the Colorado Smelter, merged with the American Smelting and Refining Company (ASARCO) in 1899. ASARCO shut down the smelting operation in 1908, leaving behind a 700,000-square-foot pile of slag, which is the waste generated from the smelting process. After a flood in 1921 damaged the smelter facility, the Newton Lumber Company took over the site and used it as a lumber yard through the 1960s.⁴³⁸

Contamination was first discovered in 1989, which spurred investigations throughout the 1990s. In 1991, the Colorado Department of Public Health and Environment (CDPHE) prepared a preliminary assessment that noted that some slag piles were close to residential development.⁴³⁹ The CDPHE's 2008 preliminary assessment found that 800 homes and approximately 1,952 residents were living in the contaminated area.⁴⁴⁰

In 2011, an EPA and CDPHE site assessment confirmed the presence of elevated amounts of lead and arsenic, and the agencies began engaging in community outreach efforts.⁴⁴¹

In 2012, EPA sought to declare the neighborhoods surrounding the smelter a Superfund site. Though it wanted the site cleaned up, the Pueblo City Council initially resisted the declaration, concerned about the stigma associated with it for the impacted neighborhoods.⁴⁴² By December 2013, after further study, pressure from EPA, county commissioners, and the Sierra Club, the City Council sent a letter to the governor asking that the site be put on the National Priorities List.⁴⁴³

Another factor that influenced the City Council's decision was a 2013 study that found that blood lead levels in children living in Pueblo were significantly associated with distance from the old smelter sites in the city.⁴⁴⁴ Of the 240 children tested, 7.5% had blood lead levels above 5 µg/dL,⁴⁴⁵ which is nearly three times higher than the 2007–2010 national average.⁴⁴⁶ Children who lived closer to the old smelter site also had higher elevated lead levels than children who lived farther away.⁴⁴⁷ Additionally, 38.5% of the sampled houses near the smelters had topsoil lead levels higher than the EPA action level.⁴⁴⁸ Later, as part of the

How and when Superfund site boundaries are set often leave area residents without access to testing or cleanup.

Superfund process, ATSDR performed a study of lead and arsenic exposure in Pueblo. ATSDR evaluated 33 children under six, far fewer children than the earlier studies, but its core findings as to childhood blood levels were similar—over 12% of children under six had elevated blood lead levels.⁴⁴⁹ Unlike the earlier studies, however, which also examined lead in soils and

correlated elevated blood lead levels with smelter air depositions in nearby residential soils, the ATSDR focused more on lead paint as a driving factor of the observed elevated blood lead levels.⁴⁵⁰

In 2014, EPA added the Colorado Smelter to the National Priorities List and awarded the Pueblo City-County Health Department a grant to start a lead investigations program.⁴⁵¹ Even before the site was added to the NPL, the Colorado Smelter Community Advisory Group had formed and met once a month to provide the community with information and attempt to shape the cleanup process.⁴⁵² After community feedback, EPA added no trespassing and cautionary signs around the former smelter area in 2015 and performed emergency cleanups in 2016.⁴⁵³ In 2017, EPA approved a cleanup plan to remove contaminated soil, which also encompassed land outside of the former smelter area.

As of 2018, CDPHE mailed out site updates to 2,500 properties, residents, and property owners, and the local public health department performed over 186 lead blood screenings.⁴⁵⁴ In July 2018, EPA increased funding for the smelter site, bringing the annual total to \$15 million. With the additional funds, EPA expects to complete the residential cleanup in four to six years, cleaning up 150 properties per year for a total cost of \$75 million.⁴⁵⁵ As of March 2019, EPA sampled 54 city parks and 1,617 homes for outdoor and indoor lead and other metal contamination. EPA also completed more than 100 outdoor soil and indoor lead dust cleanups.⁴⁵⁶

FEDERALLY ASSISTED HOUSING WITHIN OR NEAR THE SUPERFUND SITE

In Pueblo, 52% of the residents are Latinx, and 43% are White.⁴⁵⁷ Some of the areas closest to the Superfund site have higher percentages of non-White residents than other parts of the city.⁴⁵⁸

Within the two census tracts that most overlap with the Superfund site, there are 188 units of HUD housing, including public housing, HOME units, Housing Choice vouchers, and moderate rehabilitation units. The majority of those residents are Latinx or Black.⁴⁵⁹ There are also 18 units of LIHTC housing within the site.⁴⁶⁰ A 2019 open records response from the Colorado Housing and Finance Authority, which oversees LIHTC properties, provided physical inspection reports and recertification documents but no documents concerning the property's proximity to the Superfund site.

How and when Superfund site boundaries are set often leave area residents without access to testing or cleanup, which is particularly challenging for federally assisted housing residents who cannot move on their own. For example, Minnequa Park Apartments is a 40-unit elderly/disabled public housing development that sits just across the street from the site's boundaries.⁴⁶¹ As a result, the apartment complex was never sampled because it was just outside the site's boundaries.⁴⁶² As well, the boundaries for this site are still not finalized, leaving other federally assisted housing at this point within the buffer area but just outside of the site's proposed boundaries.⁴⁶³ For example, the Santa Fe Crossing Apartments is located about a half mile north of the study area and offers 30 family LIHTC units.⁴⁶⁴ Two HUD Section 202 buildings, totaling 94 units, also sit within approximately a half mile the study area.⁴⁶⁵ In response to a 2019 Freedom of Information Act request to HUD asking for documents or communications related to these properties and the Superfund site, HUD stated that it did not have any responsive documents.

Glossary of Terms

ATSDR: Agency for Toxic Substances and Disease Registry, a federal agency within the U.S. Department of Health and Human Services

CAG: Community Advisory Group, which is to be representative of community interests and a focal point for the exchange of information among the local community and EPA, the state regulatory agency, and other pertinent federal agencies involved in cleanup of the Superfund site

CDBG: Community Development Block Grant as authorized by the Housing and Community Development Act of 1974

CDC: Centers for Disease Control and Prevention, the leading national public health institute of the United States, responsible for protecting health and safety through the control and prevention of disease, injury, and disability

CHIP: Children's Health Insurance Program, a block grant program that provides funding to states to expand publicly funded health care to uninsured children who are not eligible for Medicaid

CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act, also known as Superfund

CMS: Centers for Medicare and Medicaid Services, a federal agency within the United States Department of Health and Human Services (HHS) that administers the Medicare program and works in partnership with state governments to administer Medicaid, the Children's Health Insurance Program (CHIP), and health insurance portability standards

DOE: U.S. Department of Education, a federal cabinet-level agency responsible for establishing the policies, administration, and coordination of education assistance throughout the country

EBLL: elevated blood lead level, which means a confirmed concentration of lead in the blood equal or greater than the guidance from the Centers for Disease Control

ECRCCO: U.S. EPA's External Civil Rights Compliance Office, formerly known as the Office of Civil Rights

EIS: environmental impact statement required under the National Environmental Policy Act

EJSCREEN: a publicly available computer mapping tool offered by EPA that documents a location's environmental conditions and demographics

EPA: U.S. Environmental Protection Agency, a federal agency responsible for protecting human health and the environment

EPSDT: Early and Periodic Screening, Diagnosis, and Treatment, is the child health component of Medicaid, which requires that children under the age of 21 and enrolled in Medicaid receive comprehensive treatment and preventive health care services

HCV: Housing Choice Voucher program, a federal tenant-based rental assistance program for low-income households traditionally operated by public housing authorities

HEROS: HUD Environmental Review Online System, an online system developed by HUD's Office of Environment and Energy for developing, documenting, and managing environmental reviews

HHS: U.S. Department of Health and Human Services, a cabinet-level federal agency responsible for providing effective health and human services and fostering advances in medicine, public health, and social services

HUD: U.S. Department of Housing and Urban Development, a cabinet-level federal agency responsible for creating strong, sustainable, inclusive communities and quality affordable homes for all

IDEA: Individuals with Disabilities Education Act

IEUBK: Integrated Exposure Uptake Biokinetic model, a method of estimating blood lead levels used to determine the remedial action level and thereby provide a site-specific answer to the "how clean is clean" question

LIHTC: Low-Income Housing Tax Credit program, which is a federal program overseen by the Internal Revenue Service that provides financial incentives for the development and rehabilitation of housing for low-income individuals

MOA: Memorandum of Agreement

NPL: National Priorities List, the list of sites of national priority among the known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States and its territories. The NPL is intended primarily to guide the EPA in determining which sites warrant further investigation

NEPA: National Environmental Policy Act

PHA: public housing authority, which manages local public housing developments and/or Housing Choice Vouchers for low-income households

PRP: potentially responsible party under the Superfund statute

RAD: Rental Assistance Demonstration program, which is a federal housing program administered by HUD that is intended to meet the unmet capital needs of certain forms of federally assisted rental housing in order to maintain the long-term viability and affordability of that housing

RCAP: Racially or Ethnically-Concentrated Area of Poverty, which is defined by HUD as an area with one or more census tracts containing a threshold of poverty and non-White populations

RE: responsible entity under National Environmental Protection Act

REAC: Real Estate Assessment Center, which assesses the condition of HUD's portfolio of housing to determine if it is meeting minimum standards for safe, healthy, and decent affordable housing

RI/FS: remedial investigation and feasibility study performed at a site after it is listed on the National Priorities List

SNAP: Supplemental Nutrition Assistance Program, formerly known as Food Stamps, a supplemental non-cash program to support low-income households address food insecurities

TANF: Temporary Assistance for Needy Families, a federal block-grant cash assistance program for low-income families with minor children

TPV: Tenant protection vouchers, a federal tenant-based housing assistance program for low-income households traditionally operated by public housing authorities

UPCS: Uniform Physical Conditions Standards, an inspection protocol developed by HUD to evaluate if its residents live in decent, safe and sanitary housing

USDA: the U.S. Department of Agriculture, a cabinet level federal agency which administers the WIC, SNAP, and Rural Development housing programs

WIC: the Special Supplemental Nutrition Assistance for Women, Infants, and Children, a nutrition assistance program that serves low-income pregnant, breastfeeding, and non-breastfeeding postpartum women, and infants and children up to age five



After living in the West Calumet Housing Complex for the first eight years of his life, James Anderson Jr.'s blood tested high for lead. From inside his grandmother's home at the complex, he plays with his brother Logan Anderson, 19 months. © Alyssa Schukar Photography 2016



Endnotes

- 1 Carmen McCollum, *The history of Carrie Gosch Elementary*, *The Times of Northwest Indiana* (Oct. 16, 2016), https://www.nwitimes.com/news/education/the-history-of-carrie-gosch-elementary/article_55f9701f-7e07-532d-b9e7-0e4c8f249b.html.
- 2 Sylvia Carignan, Majority of Superfund Sites Near Low-Income Housing, *Bloomberg Environment* (May 8, 2017, 4:10 PM), <https://news.bloombergenvironment.com/environment-and-energy/majority-of-superfund-sites-near-low-income-housing>.
- 3 This is a conservative estimate. On average, 77 households live at every public or project-based Section 8 development. There are 27,428 developments combined in both programs across the country, with a total of 2,260,765 units. There are thus an average of 83 units at each development. At a 93.4% occupancy rate, this means there are on average 77 households. U.S. DEP'T OF HOUS. & URBAN DEV., *Picture of Subsidized Households* (2017), <https://www.huduser.gov/portal/datasets/picture/yearlydata.html> [HEREINAFTER PICTURE OF SUBSIDIZED HOUSEHOLDS]
- 4 The health implications for residents living with toxic exposures, such as lead and arsenic, are substantial, irreversible, and life altering. No amount of lead exposure is safe. Lead poisoning causes irreversible neurological harm and results in numerous and severe morbidities, such as significant biological and neurological damage affecting cognition, behavior, bodily functions, growth, and development. Exposure to arsenic, a heavy metal, can cause skin, lung, bladder, liver, and kidney cancer. See, *American Academy of Pediatrics, Council on Environmental Health, Policy Statement: Prevention of Childhood Lead Toxicity*, 138 *Pediatrics* 1, 5 (July 2016).
- 5 Carteret, New Jersey, provides an apt example. There, a metal smelter spewed lead and other heavy metals through its smokestacks and buried contaminated slag in the soil of a census tract where the residents are predominantly Latinx and Asian-American and that is home to hundreds of residents of various forms of federally assisted housing. For decades, the State of New Jersey, City of Carteret, and its neighbor New York City sought to halt and then address the contamination through federal lawsuits under the Clean Air Act and Resource Conservation and Recovery Act, and the state required the owners to conduct a cleanup under a state law. Though corporations with ownership interests at the site have invoked CERCLA to fight over which company is liable, the site has never been listed under CERCLA nor been the subject of EPA-led cleanup under that law.
- 6 PICTURE OF SUBSIDIZED HOUSEHOLDS, *supra* note 3; U.S. DEP'T OF HOUS. & URBAN DEV., UNDERSTANDING WHOM THE LIHTC SERVES: DATA ON TENANTS IN LIHTC UNITS as of December 31, 2015, 7 (2018), <https://www.huduser.gov/portal/publications/LIHTC-TenantReport-2015.html> [hereinafter DATA ON TENANTS IN LIHTC UNITS]; U.S. DEP'T OF AGRIC., RESULTS OF THE 2017 MULTI-FAMILY HOUSING ANNUAL FAIR HOUSING OCCUPANCY REPORT, 3 (2018), <https://www.rd.usda.gov/files/RDUL-MFHAnnual.pdf> [hereinafter MULTI-FAMILY HOUSING ANNUAL FAIR HOUSING OCCUPANCY REPORT].
- 7 PICTURE OF SUBSIDIZED HOUSEHOLDS, *supra* note 3.
- 8 *Id.*
- 9 *Id.*
- 10 DATA ON TENANTS IN LIHTC UNITS, *supra* note 6, at 10 (the data in this report is severely limited; 41% of tenants did not report race/ethnicity, and many state agencies significantly underreported this data).
- 11 MULTI-FAMILY HOUSING ANNUAL FAIR HOUSING OCCUPANCY REPORT, *supra* note 6, at 1.
- 12 PICTURE OF SUBSIDIZED HOUSEHOLDS, *supra* note 3.
- 13 *Id.*
- 14 DATA ON TENANTS IN LIHTC UNITS, *supra* note 6, at 15 (2018); see also *supra* text accompanying note 10.
- 15 MULTI-FAMILY HOUSING ANNUAL FAIR HOUSING OCCUPANCY REPORT, *supra* note 6, at 22.
- 16 The U.S. Housing Act of 1937 established the public housing program Pub. L. No. 412, 50 Stat. 888 (Sept. 1, 1937) (formerly codified at 42 U.S.C.A. §§ 1401–1430). The 1937 Act was revised and readopted in 1974, recodified at 42 U.S.C. § 1437, then substantially revised by the Quality Housing and Work Responsibility Act of 1998, Pub. L. No. 105–276, Title V, 112 Stat. 2518 (Oct. 21, 1998), but still codified at 42 U.S.C.A. § 1437.
- 17 THE CHI. AREA FAIR HOUS. ALL. and Sargent Shriver Nat'l Ctr. on Poverty Law, *A City Fragmented* 83 n.19 (2018) [hereinafter A CITY FRAGMENTED].
- 18 ALEX SCHWARTZ, *HOUSING POLICY IN THE UNITED STATES* 126, Table 6.1 (2d ed. 2010).
- 19 *Id.*

20 ED GRAMLICH, PUBLIC HOUSING: 2019 ADVOCATES' GUIDE 4-25, 4-25 (2019), https://nlihc.org/sites/default/files/AG-2019/04-07_Public-Housing.pdf. Throughout the 1960s and 1970s, a variety of federally assisted housing programs, including HUD's Section 236 and Section 221(d)(3) programs, and the Department of Agriculture's Section 515 program financed the creation of approximately a million privately owned, federally subsidized and/or insured housing units. HUD Project-based Section 8 contracts and Department of Agriculture rural housing assistance contracts were later added to ensure the financial sustainability of those developments.

21 ELLEN LURIE HOFFMAN, NATIONAL HOUSING TRUST, PROJECT-BASED RENTAL ASSISTANCE I (2019), https://nlihc.org/sites/default/files/AG-2019/04-10_Project-Based-Rental-Assistance.pdf.

22 HUD continues to issue Section 202 housing assistance payment contracts for senior housing and Section 811 housing for people with disabilities, but the bulk of family housing programs are only renewed as the HAP contracts expire.

23 42 U.S.C.A. § 1485 (2008).

24 See e.g., A CITY FRAGMENTED *supra* note 17 at 45-46; see also Am. Civil Liberties Union, *Cases: BRHC v. State of Maryland* (2017), <https://www.aclu-md.org/en/cases/brhc-v-state-maryland>.

25 Racially/ethnically concentrated areas of poverty are census tracts where more than half of the population is not White and 40% or more of the population is living in poverty, or where the poverty rate is greater than three times the average poverty rate in the area.

26 Florence Wagman Roisman, *Mandates Unsatisfied: The Low-Income Housing Tax Credit Program and the Civil Rights Laws*, 52 U. MIAMI L. REV. 1011, 1012-13 (1998).

27 U.S. DEP'T OF HOUS. & URBAN DEV., COMMUNITY DEVELOPMENT BLOCK GRANT PROGRAM - CDBG (2019), https://www.hud.gov/program_offices/comm_planning/communitydevelopment/programs.

28 Alicia Mazzara & Brian Knudsen, *Where Families with Children Use Housing Vouchers: A Comparative Look at the 50 Largest Metropolitan Areas*, POVERTY & RACE RESEARCH ACTION COUNCIL (2019), <https://www.cbpp.org/research/housing/where-families-with-children-use-housing-vouchers>

29 Megan Haberle, *Fair Housing and Environmental Justice: New Strategies and Challenges*, 26 J. of Affordable Hous. 271, (2017).

30 U.S. DEP'T OF HOUS. & URBAN DEV., IMPLEMENTATION OF THE FEDERAL FISCAL YEAR (FFY) 2019 FUNDING PROVISIONS FOR THE HOUSING CHOICE VOUCHER PROGRAM (April 18, 2019), <https://www.hud.gov/sites/dfiles/PIH/documents/PIH-2019-08.pdf>.

31 The Housing Act of 1937, Pub. L. No. 75-412, §18 (1937) (approved Aug. 21, 1937); HUD has promulgated a regulation, 24 C.F.R. § 970, and PIH Notice 2018-04.

32 U.S. DEP'T OF HOUS. & URBAN DEV., SECTION 8 RENEWAL POL'Y HANDBOOK CHAPTER 1: SECTION 8 RENEWAL GUIDE, 1 (July 28, 2017), https://www.hud.gov/sites/documents/508FIN_CONSOL_GUIDE6_8_17.PDF.

33 42 U.S.C.A. § 1437v, and amended by Pub. L. No. 105-276, Tit. V, § 535, 112 Stat. 2461, 2581 (Oct. 21, 1998).

34 83 C.F.R. 56091 (Nov. 9, 2018), available at <https://www.federalregister.gov/d/2018-24480/p-13>.

35 Consolidated Appropriations Act of 2010, Pub. L. No. 111-117, div. A, tit. II, 123 Stat. 3081 (2009).

36 Consolidated and Further Continuing Appropriations Act of 2012, Pub. L. No. 112-55 (2011) (amended 2014, 2016, 2017, 2018, 2019); HUD Notice PIH 2019-23.

37 RAD Component 2 authorizes the conversion of smaller housing programs overseen by HUD, including the Moderate Rehabilitation program, Rent Supplement Program, the Rental Assistance Payment program, and Section 202 Supportive Housing for the Elderly Project Rental Assistance Contracts. *Id.*

38 Tenants can obtain vouchers in the RAD program 1 year after conversion to project-based vouchers and 2 years after conversion to project based rental assistance. U.S. DEP'T OF HOUS. & URBAN DEV., NOTICE H-2019-09 PIH-2019-23 (HA): RENTAL ASSISTANCE DEMONSTRATION - FINAL IMPLEMENTATION, REVISION 4, 1, 1-2 (Sept. 5, 2019), [https://www.radresource.net/notice/H%202019-09%20PIH%202019-23%20\(RAD%20Notice%20Rev%204\)%20Issued%202019-09-05.pdf](https://www.radresource.net/notice/H%202019-09%20PIH%202019-23%20(RAD%20Notice%20Rev%204)%20Issued%202019-09-05.pdf); The Housing Act of 1937, Pub. L. No. 75-412, § 8(o)(13)(E)(I) (1937).

39 24 C.F.R. § 983.260(b) (2017).

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48 24 C.F.R. Parts 5, 91, 92, 570, 574, 576, 903, 905; see Megan Haberle, *supra* note 29.

49 U.S. DEP'T OF HOUS. & URBAN DEV., PROPOSED RULE: 24 C.F.R. PARTS 5, 91, 92, 570, 574, 576, 903, 905 AFFIRMATIVELY FURTHERING FAIR HOUSING (n.d.), <https://www.hud.gov/sites/dfiles/GC/documents/Pre-PubPropRule1-7-20.pdf.pdf>.

50 See 24 C.F.R. § 983.57 (2006); U.S. DEP'T OF HOUS. & URBAN DEV., H 2016-17: RENTAL ASSISTANCE DEMONSTRATION (RAD) NOTICE REGARDING FAIR HOUSING AND CIVIL RIGHTS REQUIREMENTS AND RELOCATION REQUIREMENTS APPLICABLE TO RAD FIRST COMPONENT – PUBLIC HOUSING CONVERSIONS (Nov. 10, 2016), https://www.hud.gov/sites/documents/16-17HSGN_16-17PIHN.PDF.

51 24 C.F.R. Parts 5, 200; 72 Fed. Reg. 20405 (Oct. 17, 2007).

52 *Id.*

53 24 C.F.R. § 982 (1994).

54 Emily A. Benfer, *Contaminated Childhood: How the United States Failed to Prevent the Chronic Lead Poisoning of Low-Income Children and Communities of Color*, 41 HARVARD ENV. L. REV. 493 (2017); U.S. GOV'T ACCOUNTABILITY OFFICE, LEAD PAINT IN HOUSING (June 2018), <https://www.gao.gov/assets/700/692603.pdf>. Currently, the U.S. Department of Housing and Urban Development does require carbon monoxide alarms in federally assisted housing outside of a very limited number of voucher-based units in the Universal Physical Conditions Standards. U.S. Dep't Of Hous. & Urban Dev., Uniform Physical Condition Standards for Vouchers (UPCS-V) Protocol, <https://www.hud.gov/sites/documents/UPCSV-PROTOCOLREV.PDF>; Notice of Continuation of Demonstration To Test Proposed New Method of Assessing the Physical Conditions of Voucher-Assisted Housing, 84 Fed. Reg. 24416 (proposed Jun. 28, 2019) (codified at 24 C.F.R. 982). *Silent Killer: Carbon Monoxide Poisoning in Public Housing*, NBC News (2019), <https://www.nbcnews.com/carbon-monoxide-hud>. Even though HUD's Housing Choice Voucher Program regulations address carbon monoxide in the "acceptability criteria" for indoor air quality, they do not require operable carbon monoxide alarms. 24 C.F.R. § 982.401(h)(2)(i). Similarly, federally assisted housing is not required to undergo inspections for radon and other nonvisible toxins. Radon, public housing, Portland: Tell us your stories, The Oregonian (Nov. 23, 2019), <https://www.oregonlive.com/news/2019/11/radon-public-housingportland-tell-us-your-stories.html>.

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and why environmental inequalities are created. He also explains how class and racial politics have influenced the waste industry throughout the history of Chicago and the United States. After examining the roles of social movements and workers in defining, resisting, and shaping garbage disposal in the United States, he concludes that some environmental groups and people of color have actually contributed to environmental inequality. By highlighting conflicts over waste dumping, incineration, landfills, and recycling, Pellow provides a historical view of the garbage industry throughout the life cycle of waste. Although his focus is on Chicago, he places the trends and conflicts in a broader context, describing how communities throughout the United States have resisted the waste industry's efforts to locate hazardous facilities in their backyards. The book closes with suggestions for how communities can work more effectively for environmental justice and safe, sustainable waste <https://github.com/citation-style-language/schema/raw/master/csl-citation.json>"}

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66 Ramirez, *supra*, note 58.

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75 Ramirez, *supra* note 58.; Pellow, *supra* note 62 at 68. A study of the struggle for environmental justice, focusing on conflicts over solid waste and pollution in Chicago. In *Garbage Wars*, the sociologist David Pellow describes the politics of garbage in Chicago. He shows how garbage affects residents in vulnerable communities and poses health risks to those who dispose of it. He follows the trash, the pollution, the hazards, and the people who encountered them in the period 1880–2000. What unfolds is a tug of war among social movements, government, and industry over how we manage our waste, who benefits, and who pays the costs. Studies demonstrate that minority and low-income communities bear a disproportionate burden of environmental hazards. Pellow analyzes how and why environmental inequalities are created. He also explains how class and racial politics have influenced the waste industry throughout the history of Chicago and the United States. After examining the roles of social movements and workers in defining, resisting, and shaping garbage disposal in the United States, he concludes that some environmental groups and people of color have actually contributed to environmental inequality. By highlighting conflicts over waste dumping, incineration, landfills, and recycling, Pellow provides a historical view of the garbage industry throughout the life cycle of waste. Although his focus is on Chicago, he places the trends and conflicts in a broader context, describing how communities throughout the United States have resisted the waste industry's efforts to locate hazardous facilities in their backyards. The book closes with suggestions for how communities can work more effectively for environmental justice and safe, sustainable waste management.”

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- 84 ROBERT BULLARD, ET AL., UNITED CHURCH OF CHRIST, TOXIC WASTES AND RACE AT TWENTY 1987-2007: A REPORT PREPARED FOR THE UNITED CHURCH OF CHRIST JUSTICE & WITNESS MINISTRIES 2, 16-17 (2007).
- 85 U.S. ENVTL. PROT. AGENCY, EPA-230-R-92-008, ENVIRONMENTAL EQUITY: REDUCING RISK FOR ALL COMMUNITIES (1992).
- 86 Exec. Order No. 12898, 59 Fed. Reg. 7629 (Feb. 11, 1994); U.S. Environmental Protection Agency, Factsheet: Office of Environmental Justice in Action (2017), https://www.epa.gov/sites/production/files/2017-09/documents/epa_office_of_environmental_justice_factsheet.pdf.
- 87 Exec. Order No. 12898, 59 Fed. Reg. 7629 (Feb. 11, 1994).
- 88 *Id.*
- 89 *Id.*
- 90 Civil Rights Act of 1964 § 601, 42 U.S.C.A. § 2000d (1964); Federal agencies that provide federal funding are responsible for Title VI enforcement, and Title VI directs them to promulgate regulations and orders to address and prevent discrimination. *Id.* at § 2000d-1.
- 91 42 U.S.C.A. § 2000d et seq., (West 2019) (part of EPA’s enforcement authority derives from Title VI of the 1964 Civil Rights Act that prohibits discrimination by recipients of federal funds).
- 92 40 C.F.R. §§ 7.30, 7.35(a)(2) (2020); EPA’s External Civil Rights Compliance Office (ECRCO) oversees the agency’s Title VI work. Private parties can file Title VI complaints with ECRCO. At the end of 2016, EPA reorganized its Office of Civil Rights, and the External Civil Rights Compliance Office became responsible for Title VI enforcement. *See*, U.S. ENVIRONMENTAL PROTECTION AGENCY, U.S. EPA’S EXTERNAL CIVIL RIGHTS COMPLIANCE OFFICE COMPLIANCE TOOLKIT (2017), https://www.epa.gov/sites/production/files/2017-01/documents/toolkit-chapter1-transmittal_letter-faqs.pdf; EPA’s regulations set forth timelines for ECRCO to respond to and investigate such complaints. 40 C.F.R. § 7.120 (2020).
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- 96 42 U.S.C.A. §§ 9601-9675 (West 2018). The last significant Superfund amendments were adopted in 1986. The Superfund Amendments and Reauthorization Act of 1986, Pub. L. No. 99-499, 100 Stat. 1613 (1986); In 1996, the Asset Conservation, Lender Liability, and Deposit Insurance Protection Act added a section to CERCLA to protect lenders. *See*, 42 U.S.C.A. § 9601(20)(E) (West 2018).
- 97 Eckardt C. Beck, *The Love Canal Tragedy*, EPA J. (Jan. 1979), available at <https://archive.epa.gov/epa/aboutepa/love-canal-tragedy.html>.
- 98 RICHARD S. NEWMAN, LOVE CANAL, A TOXIC HISTORY FROM COLONIAL TIMES TO THE PRESENT 134 (2016).
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- 100 *Id.* at 134.
- 101 ECUMENICAL TASK FORCE OF THE NIAGARA FRONTIER, INC., TO ADDRESS THE LOVE CANAL DISASTER, AN INTERFAITH RESPONSE, PROGRESS REPORT II 45, 67 (1981), https://library.buffalo.edu/archives/lovecanal/collections/pdfs/etf_progress2.pdf.
- 102 *Id.*
- 103 42 U.S.C. § 9607(a) (1988). CERCLA covers four types of PRPs: (1) a site’s current owners or operators, (2) owners or operators when the contamination occurred, (3) anyone who arranged for the hazardous substance’s disposal or treatment at the site, and (4) transporters of hazardous substances to the site.
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- 106 42 U.S.C. § 9605(a)(8)(B) (1988).; The long-term cleanups for sites listed on the NPL are called remedial actions. EPA may also conduct more limited cleanup, removal actions, at sites that pose a more immediate threat and may or may not be listed on the NPL.
- 107 U.S. ENVTL. PROT. AGENCY, SUPERFUND: NATIONAL PRIORITIES LIST (2019), <https://www.epa.gov/superfund/superfund-national-priorities-list-npl> (the number represents non-federal government sites; there are also 157 federal facilities on the NPL that are ineligible for Superfund funds for remediation) [hereinafter NATIONAL PRIORITIES LIST].
- 108 The agency conducts a preliminary assessment, including a review of the site’s history, and site investigation to determine the level of risk posed by a site prior to recommending a site for NPL listing. EPA uses this information to generate a numerical score for the site, which EPA then uses as the basis for proposing listing on the NPL. 40 C.F.R. § 300.425(c) (2015); The preliminary site assessment and site investigation results in a hazardous ranking score, and the site will be recommended for the NPL if it receives a sufficiently high score. There are additional mechanisms for listing a site on the NPL. For example, if the Agency for Toxic Substances and Disease Registry issues a health advisory recommending persons be removed from the area and EPA agrees there is a significant threat to public health that requires remedial action, a site can also be placed on the NPL. NATIONAL PRIORITIES LIST, *supra* note 107.
- 109 40 C.F.R. § 300.430 (2011) (setting out the process for conducting a “remedial investigation/feasibility study” in support of selecting a final remedy at a particular site).
- 110 *See* 42 U.S.C. § 9604(I)(6)(A) (1988). Note that even before a site is listed, section 104(i)(6)(H) of CERCLA requires EPA to consider for NPL listing or prioritization sites that ATSDR finds “may pose a serious threat to human health” and subsection (i)(ii) requires EPA to “take such steps as may be necessary to reduce[,] eliminate or substantially mitigate” any exposure ATSDR deems “presents a significant risk to human health.” 42 U.S.C. § 9604(i)(6)(H) (1988).
- 111 42 U.S.C. § 9621(d) (1986).
- 112 Several of EPA’s own guidance documents state the importance of agency personnel seeking input from the local community regarding anticipated future use of a site. *See*, U.S. ENVTL. PROT. AGENCY, OSWER NO. 9335.7-04, LAND USE IN THE CERCLA REMEDY SELECTION PROCESS (1995), <https://www.epa.gov/sites/production/files/documents/landuse.pdf>; U.S. ENVTL. PROT. AGENCY, OSWER 9335.7-19, CONSIDERING REASONABLY ANTICIPATED FUTURE LAND USE AND REDUCING BARRIERS TO REUSE AT EPA-LEAD SUPERFUND REMEDIAL SITES (2010), <https://semspub.epa.gov/work/tu/175563.pdf>.
- 113 40 C.F.R. § 300.430(F)(4) (2011).
- 114 U.S. ENVIRONMENTAL PROTECTION AGENCY, BASIC COMMUNITY ADVISORY GROUP (CAG) INFORMATION, <https://www.epa.gov/superfund/basic-community-advisory-group-cag-information#creation>.
- 115 *Id.*
- 116 42 U.S.C. § 9617(e) (2011); 40 C.F.R. § 35.4005 (2019). U.S. ENVTL. PROT. AGENCY, TECHNICAL ASSISTANCE GRANT (TAG) PROGRAM: FACT SHEET, <https://semspub.epa.gov/work/HQ/174964.pdf>.
- 117 40 C.F.R. § 300.425(e) (2011); U.S. ENVTL. PROT. AGENCY, OSWER 9320.22, CLOSE OUT PROCEDURES FOR NATIONAL PRIORITIES LIST SITES (2011), <https://semspub.epa.gov/work/HQ/176076.pdf>.
- 118 40 C.F.R. § 300.425(e); EPA is required to undertake a five-year review at sites where the remediation was completed but the use of the site is restricted due to hazardous substances or contamination remaining at the site. 42 U.S.C.A. § 9621(c) (1986).
- 119 National Environmental Policy Act of 1969, 42 U.S.C.A. §§ 4321-4370 (West 2019).
- 120 42 U.S.C. § 4332(2)(C) (2010).
- 121 24 C.F.R. § 50.3(i) & § 58.5(i)(2).
- 122 *Id.*
- 123 *HEROS – HUD Environmental Review Online System*, U.S. DEP’T OF HOUS. & URBAN Dev. <https://www.hudexchange.info/programs/environmental-review/heros/> (last visited Jan. 30, 2020).
- 124 40 C.F.R. § 1508.9 (West 2019).
- 125 40 C.F.R. § 1501.7 (West 2019).
- 126 40 C.F.R. § 1502 (West 2019).
- 127 24 C.F.R. § 50 (West 2019) (HUD NEPA review); 24 C.F.R. § 58 (West 2019) (NEPA review conducted by a RE).
- 128 24 C.F.R. § 58.2(7)(2)(B) (2003) (In addition to HUD, the U.S. Department of Agriculture and the U.S. Treasury Department administer

low-income housing programs and have their own NEPA requirements); *See*, 7 C.F.R. Part 1b (West 2019); U.S. DEP'T OF THE TREASURY NAT'L ENVTL. POLICY ACT PROGRAM, TREAS. DIR. 75-02 (2015), <https://www.treasury.gov/about/role-of-treasury/orders-directives/Pages/td75-02.aspx>.

129 42 U.S.C. 4852d (1992).

130 OMAHA CITY PLANNING, *Omaha Lead Registry*, <http://www.omahalead.org/> (last visited Jan. 30, 2020).

131 CITY OF OMAHA, *Omaha Lead Registry History* (2019), https://s3.amazonaws.com/dcgis-documents/Omaha_Lead_Reports/HTML_pages/History.html.

132 U.S. ENVTL. PROT. AGENCY. FIVE-YEAR REVIEW REPORT FOR OMAHA LEAD SUPERFUND SITE DOUGLAS COUNTY, NEBRASKA 13 (2014), <https://semsub.epa.gov/work/07/30285310.pdf>.

133 *Id.* at 22.

134 Armen H. Merjian, *Washington Park Lead Committee, Inc. v. United States Environmental Protection Agency: Helen Person and the Landmark Struggle against Environmental Injustice*, 30 CHICANO-LAT. LAW REV. 65–95, 79 (2011).

135 *Id.*

136 *Id.* at 72.

137 *Id.*

138 *Id.*

139 *Id.* at 73.

140 *Id.*

141 *Id.*

142 *Id.* at 74.

143 *Id.*

144 *Id.* at 75.

145 *Id.*

146 *Id.* at 76.

147 *Id.*

148 *Id.* at 77.

149 *Id.*

150 *Id.*

151 *Id.*

152 *Id.* at 78.

153 *Id.*

154 *Id.*

155 *Id.* at 80–81.

156 *Id.* at 81.

157 *Id.*

158 *Id.*

159 *Id.*

160 *Id.* at 82.

161 *Id.*

162 *Id.*

163 *Id.*

164 *Id.*

165 *Id.* at 83.

- 166 *Id.*
- 167 *Id.*
- 168 *Id.*
- 169 *Id. at 86.*
- 170 *Wash. Park Lead Comm., Inc. v. U.S. Envtl. Prot. Agency*, 2:98 cv 421 (E.D. Va., Dec. 1998), <https://elr.info/sites/default/files/litigation/29.20540.htm>.
- 171 Merjian, *supra* note 134 at 86.
- 172 *Id.* at 88.
- 173 Wash. Park Lead Comm., *supra* note 170.
- 174 Merjian, *supra* note 134 at 94.
- 175 *Id.*
- 176 *Id.*
- 177 OFFICE OF PUBLIC AND INDIAN HOUSING, NOTICE PIF 2018-04 2 (Dec. 14, 2018), <https://www.hud.gov/sites/dfiles/PIH/documents/pih2018-04.pdf>.
- 178 Merjian, *supra* note 134 at 79.
- 179 Housing mobility counseling refers is housing counseling specializing in the support and counseling of educating voucher holders on the benefits of living in communities of opportunity. For an example of a comprehensive framework for a mobility counseling program see *Voluntary Compliance Agreement in Calumet Lives Matter v. East Chicago Housing Authority*, Case No: 05-16-5210-8/6; 05-16-5211-8/6; 05-16-5212-8/6; 05-16-5213-8/6; 05-16-5214-8/6/4; 05-16-5215-8/6/4; 05-16-5216-6 (Nov. 2, 2016) available at https://www.hud.gov/sites/documents/ECHA_11032016.PDF.
- 180 Merjian, *supra* note 134. *Justice*, 30 UCLA Chicana/o Latina/o L. Rev. 65, 79 (2011) available at, <https://escholarship.org/content/qt5zj0k6vv/qt5zj0k6vv.pdf>.
- 181 42 U.S.C. 12702 (1990).
- 182 U.S. DEP'T OF HOUS. & URBAN DEV., PUBLIC HOUSING PROPERTY DAMAGED OR DESTROYED BY CASUALTY LOSS OR NATURAL DISASTER, n.i, https://www.hud.gov/program_offices/public_indian_housing/centers/sac/phdamage (“If [tenant protection vouchers] are being used in an area with known environmental hazards such as a Superfund or Formerly Used Defense site, this might be considered extraordinary circumstances and require an Environmental Assessment. HUD’s approval of a Section 18 application that involves relocation and displacement of residents from occupied public housing developments requires an Environmental Assessment be prepared prior to a Section 18 approval that would enable such relocation.”)
- 183 24 C.F.R. § 50.3.
- 184 *Id.*
- 185 *Id.*
- 186 At least, this would *presumably* apply to Superfund sites; however, they are not mentioned expressly in the regulation. *See id.*
- 187 U.S. DEP'T OF HOUS. & URBAN DEV., NOTICE H 2012-13; ENVIRONMENTAL PROCESSING NOTICE FOR FISCAL YEAR 2010/2011 SECTION 202 SUPPORTIVE HOUSING FOR THE ELDERLY AND SECTION 811 SUPPORTIVE HOUSING FOR PERSONS WITH DISABILITIES AWARD RECIPIENTS 1, 20 (July 12, 2012), <https://www.hud.gov/sites/documents/12-13hsgn.pdf>.
- 188 *Id.* at 6, 21-22.
- 189 *Id.* at 13.
- 190 24 C.F.R. §§ 50, 58.
- 191 *See* U.S. DEP'T OF HOUS. & URBAN DEV., ENVIRONMENTAL REVIEW REQUIREMENTS RAD CONVERSIONS FOR FIRST COMPONENT TRANSACTIONS, <https://www.radresource.net/output.cfm?id=0204ER> (last updated Jan. 2020).
- 192 *RAD Property Directory*, EVANSVILLE HOUSING AUTHORITY, <https://www.evansvillehousing.org/property-directory/> (last visited Mar. 10, 2020).
- 193 *EHA Finalizing Public Housing Conversion to Rental Assistance Demonstration (RAD) Program*, EVANSVILLE HOUSING AUTHORITY, <https://www.evansvillehousing.org/rad/> (last visited Jan. 31, 2020).

- 194 *Kennedy Towers*, EVANSVILLE HOUSING AUTHORITY, <https://www.evansvillehousing.org/kennedy-towers/> (last visited Mar. 10, 2020) (describing a newly renovated lobby); *Evansville public housing to revamp under private takeover*, ANNOTATED PRESS NEWS (Jul. 3, 2016), <https://apnews.com/94f0c24d288541188a921401dfbca847/Evansville-public-housing-to-revamp-under-private-takeover> (describing new renovations for Kennedy Tower, Buckner Tower, White Oak Mano, Schnute Tower, and Caldwell Homes); *Evansville Public Housing Units Set for Renovations*, TRISTATE HOMEPAGE <https://www.tristatehomepage.com/news/evansville-public-housing-units-set-for-renovations/> (last updated May 12, 2015, 6:12PM).
- 195 According to environmental review documents on file with the authors.
- 196 JOINT CENTER FOR HOUSING STUDIES OF HARVARD UNIVERSITY, *THE DISRUPTION OF THE LOW-INCOME HOUSING TAX CREDIT PROGRAM: CAUSES, CONSEQUENCES, RESPONSES, AND PROPOSED CORRECTIVES* 1, 24-25 (2009).
- 197 See CENTER FOR HEALTH AND ENVIRONMENTAL JUSTICE, *SUPERFUND: POLLUTER PAYS SO CHILDREN PAY: A REPORT ON THE USEPA'S SUPERFUND PROGRAM UNDER THE TRUMP ADMINISTRATION* 13 (2019), <http://chej.org/wp-content/uploads/CHEJ-Superfund-Report-2019x.pdf>.
- 198 This means that EPA is dependent on PRPs and must negotiate with them to get a settlement to fund the clean up so PRPs shape the cleanup in ways that they would not have the power to do if EPA was controlling the cleanup.
- 199 Ellen Knickmeyer, Matthew Brown, and Ed White, “Backlog of toxic Superfund clean-ups grows under Trump,” AP January 2, 2020, <https://apnews.com/a7b70f21b6c75f95210112390cc813ad>; see also U.S. ENVTL. PROT. AGENCY, FY 2019 EPA BUDGET IN BRIEF (2019), <https://www.epa.gov/sites/production/files/2018-02/documents/fy-2019-epa-bib.pdf>; U.S. ENVTL. PROT. AGENCY, FY 2020 JUSTIFICATION OF APPROPRIATION ESTIMATES FOR THE COMMITTEE ON APPROPRIATIONS: TAB 07: HAZARDOUS SUBSTANCE SUPERFUND (March 2019), <https://www.epa.gov/sites/production/files/2019-04/documents/fy20-cj-07-superfund.pdf>.
- 200 Martina Cartwright, *Superfund: It's No Longer Super*, 18 TUL. ENVTL. L.J. 299, 301 (2005).
- 201 William N. Hedeman, et al., *Superfund Transaction Costs: A Critical Perspective on the Superfund Liability Scheme*, 21 ENVTL. L. REP. 10413, 10426 (1991).
- 202 U.S. ENVTL. PROT. AGENCY, SUPERFUND TASK FORCE RECOMMENDATIONS 1 (2017), https://www.epa.gov/sites/production/files/2017-07/documents/superfund_task_force_report.pdf [hereinafter TASK FORCE RECOMMENDATIONS].
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- 204 U.S. ENVTL. PROT. AGENCY, FINAL REMEDIAL ACTION REPORT, JACOBSVILLE NEIGHBORHOOD SOIL CONTAMINATION SITE 9-10 (2017), <https://semspub.epa.gov/work/05/516208.pdf>.
- 205 *Id.* at 13.
- 206 U.S. ENVTL. PROT. AGENCY, AMENDMENT #2 TO THE SUPERFUND STATE CONTRACT BETWEEN THE UNITED STATES ENVTL. PROT. AGENCY AND THE INDIANA DEP'T OF ENVTL. MGMT. (2017), <https://semspub.epa.gov/work/05/934477.pdf>.
- 207 EPA has explained that the delay resulted from concerns with the accuracy of the data and ultimately an ongoing debate with the PRPs about the accuracy of the data. See Community Groups' Reply in Support of Motion to Intervene at 1, 17, 2:14-cv-00312-PPS-PRC (citing to EPA employee Alcamo Declaration, ¶ 14 and Balotti Declaration, ¶ 28(c)(ii)).
- 208 Creates guidance documents that clarify how the agency interprets certain statutes or regulations and the agency's policies on specific issues.
- 209 42 U.S.C.A. §§ 9604(a), 9604(d)(1)(A), 9622(a) (2011); 40 C.F.R. § 300.62 (2006).
- 210 See e.g., U.S. ENVTL. PROT. AGENCY, OSWER 9380.3-10 EPA 540-R-92-071A, GUIDE FOR CONDUCTING TREATABILITY STUDIES - FINAL (1992), <https://semspub.epa.gov/work/HQ/475665.pdf>.
- 211 *Id.* at 51.
- 212 U.S. Env'tl. Prot. Agency, Superfund Lead-Contaminated Residential Sites Handbook Memo 51 (2003), <https://nepis.epa.gov/Exec/QueryPDF.cgi/p100k3un.pdf?dockey=p100k3un.pdf>.
- 213 U.S. ENVTL. PROT. AGENCY, DEVELOPMENT OF AN INDOOR DUST SCREENING CRITERIA FOR THE USS LEAD SITE MEMO (2016), <https://semspub.epa.gov/work/05/929996.pdf>.
- 214 BP Lanphear, et al., *A Side-by-Side Comparison of Dust Collection Methods for Sampling Lead-Contaminated House Dust*, 68 Env'tl. Research 114 (1995), <https://www.ncbi.nlm.nih.gov/pubmed/7601072>.
- 215 CTRS. FOR DISEASE CONTROL & PREVENTION, BLOOD LEAD LEVELS IN CHILDREN, https://www.cdc.gov/nceh/lead/acclpp/blood_lead_levels.htm (last updated July 30, 2019). The new “reference level” standard is tied to the 97.5th percentile of the NHANES blood lead

level distribution in children 1-5 years old. The CDC has stated its intention to update this limit every four years. Based on this assertion, the CDC is overdue in updating the reference level to 3.5 µg/dL. U.S. DEP'T OF HEALTH AND HUMAN SERVICES, *NTP Monograph: Health Effects of Low-Level Lead* (2012), https://ntp.niehs.nih.gov/ntp/ohat/lead/final/monographhealtheffectslowlevellead_newissn_508.pdf.

216 *Supra* notes 119-128.

217 40 C.F.R. § 300.425(d)(5)(i) (2006).

218 40 C.F.R. § 300.67 (2006); EPA's most recent guidance on community involvement does discuss some environmental justice concerns to be considered when engaging the community. U.S. ENVTL. PROT. AGENCY, SUPERFUND COMMUNITY INVOLVEMENT HANDBOOK 3-4 (2016).

219 Joaquin Sapien, *Human Exposure "Uncontrolled" at 114 Superfund Sites*, THE CENTER FOR PUBLIC INTEGRITY (May 19, 2014, 12:19 PM), <https://publicintegrity.org/environment/human-exposure-uncontrolled-at-114-superfund-sites/>.

220 42 U.S.C. § 9613(i) (2011).

221 *Id.* (provides that the federal government or a state can prevent a person's right to intervene if the federal government or state can show the existing parties represent the person's interests); Mary Waldron, *A Proposal to Balance Polluter and Community Intervention in CERCLA Litigation*, 38 ECOLOGY L.Q. 402, 414 (2011).

222 *United States v. Atl. Richfield Co.*, 324 F.R.D. 187 (N.D. Ind. 2018).

223 U.S. DEP'T OF HOUS., PROMOTING FAIRNESS IN PUBLIC HOUSING (Mar. 2000), <https://archives.hud.gov/news/2000/decrept.pdf> [hereinafter PROMOTING FAIRNESS IN PUBLIC HOUSING]

224 *Id.* at 2.

225 *Id.*; Quality Housing and Work Responsibility Act of 1998, Pub. L. No. 105-276, Title V, § 536 (Oct. 21, 1998).

226 Promoting Fairness in Public Housing, *supra* note 223 at 3.

227 *Id.* at 8; Prior to the suit being filed, HUD was also investigating the residents' allegations but did not complete its investigation and review in a timely manner.

228 *Id.* at 10.

229 Kristen Lombardi, et al., *Environmental Racism Persists, and the EPA is One Reason Why*, CENTER FOR PUBLIC INTEGRITY (September 4, 2015, 4:55 PM), <https://publicintegrity.org/environment/environmental-racism-persists-and-the-epa-is-one-reason-why/>.

230 U.S. COMM'N ON CIV. RTS., ENVIRONMENTAL JUSTICE: EXAMINING THE ENVIRONMENTAL PROTECTION AGENCY'S COMPLIANCE AND ENFORCEMENT OF TITLE VI AND EXECUTIVE ORDER 12898 (2016), https://www.usccr.gov/pubs/2016/Statutory_Enforcement_Report2016.pdf [hereinafter ENVIRONMENTAL JUSTICE]; *see id.* (an investigation showed that EPA's Office of Civil Rights repeatedly failed to respond to complaints of Title VI violations); *see also, Alexander v. Sandoval*, 532 U.S. 275 (2001) (holding that Title VI does not create a private right of action for actions that cause a disparate impact, effectively eliminating judicial vindication of citizen complaints under the statute). Proposed legislation by New Jersey Senator Cory Booker, the Environmental Justice Act of 2017, would abrogate *Alexander v. Sandoval* by providing a right of private citizens to bring Title VI claims if they can show disparate impact. S. 1996, 115th Cong. § 10 (2017).

231 ENVIRONMENTAL JUSTICE, *supra* note 230, at 25-26.

232 *Id.* at 40.

233 *Id.*

234 Sandra George O'Neil, *Superfund: Evaluating the Impact of Executive Order 12898*, 115 ENVT. HEALTH PERSP. 1090 (2007).

235 *Id.* at 1091.

236 *Id.*

237 *West Calumet Housing Complex – East Chicago, Ind.*, U.S. ENVTL. PROT. AGENCY, (May 1, 2018), <https://www.epa.gov/uss-lead-superfund-site/west-calumet-housing-complex-east-chicago-ind>.

238 *For New 346 Unit Housing Project East Chicago Gets \$13.4 Million*, CHI. DAILY DEFENDER, 1, 18 (Apr. 11, 1970).

239 *Public Housing Sites Are Scarce*, CHI. TRIB. (Oct. 6, 1966), [https://chicagotribune.newspapers.com/\[https://perma.cc/HJW8-37SQ\]](https://chicagotribune.newspapers.com/[https://perma.cc/HJW8-37SQ]).

240 *Id.*

241 U.S. ENVTL. PROT. AGENCY, EPA TO BEGIN TESTING FOR LEAD CONTAMINATION IN YARDS (Dec. 2009), <https://sempub.epa.gov/src/document/os/424396> [hereinafter EPA TO BEGIN TESTING].

- 242 U.S. DEP'T OF HEALTH AND HUMAN SERVICES, AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY, PUBLIC HEALTH ASSESSMENT FOR U.S. SMELTER AND LEAD REFINERY, INC. (USS LEAD) EAST CHICAGO, INDIANA, EPA FACILITY ID IND047030226 (Jan. 29, 2010), <https://semspub.epa.gov/src/document/05/424408>.
- 243 Benfer, *supra* note 54.
- 244 EPA TO BEGIN TESTING, *supra* note 241.
- 245 42 U.S.C. § 1437p (1998); 24 C.F.R. pt. 970 (2000); 24 C.F.R. § 971.21 (2012); U.S. DEP'T OF HOUS. AND URBAN DEV., NOTICE PIH 2012-7 (2012).
- 246 Complaint, *O'Berry v. E. Chi. Housing Auth.*, No. 4847-0339-6110, v. 1 (Aug. 29, 2016), available at <https://www.povertylaw.org/wp-content/uploads/2020/04/oberry-complaint.pdf>.
- 247 U.S. DEP'T OF HOUS. AND URBAN DEV., TITLE VI OF THE CIVIL RIGHTS ACT OF 1964 AND SECTION 504 OF THE REHABILITATION ACT, PRELIMINARY VOLUNTARY COMPLIANCE AGREEMENT AND TITLE VIII CONCILIATION AGREEMENT BETWEEN THE U.S. DEPT. OF HOUSING & URBAN DEV. AND CALUMET LIVES MATTER (2016), https://www.hud.gov/sites/documents/ECHA_11032016.PDF.
- 248 Lauren Cross, *East Chicago residents seek time to comment on West Calumet demo*, THE TIMES OF NORTHWEST INDIANA (Jun. 8, 2017), http://www.nwtimes.com/news/local/lake/east-chicago-residents-seek-time-to-comment-on-west-calumet/article_5ado27ca-cdfb-571d-aae5-6a8c207b3833.html; East Chicago Community Comments on HUD's Environmental Assessment, West Calumet Housing Complex Demolition, 3 (July 5, 2017), available at <https://www.povertylaw.org/wp-content/uploads/2020/04/Final-Demolition-comment-07-05-17.pdf>.
- 249 *Id.*
- 250 *Id.*
- 251 U.S. DEPT. OF HOUSING & URBAN DEV., ENVIRONMENTAL ASSESSMENT DETERMINATIONS AND COMPLIANCE FINDINGS FOR HUD-ASSISTED PROJECTS 57 (May 25, 2017), <https://bloximages.chicago2.vip.townnews.com/nwtimes.com/content/tncms/assets/v3/editorial/9/96/99659062-2268-5d0d-9e0b-a8f39d3989a/595320a2cb77d.pdf.pdf>.
- 252 HUD Official Response to Public Comments (September 13, 2017), [http://echa-in.org/drupal/drupal-7.26/sites/default/files/09%2018%2017%20Official%20HUD%20Response%20to%20Public%20Comments%2091317%20\(3\).pdf](http://echa-in.org/drupal/drupal-7.26/sites/default/files/09%2018%2017%20Official%20HUD%20Response%20to%20Public%20Comments%2091317%20(3).pdf)
- 253 *Id.* at 11.
- 254 The MOU governs only certain HUD assisted site-based housing programs and does not include the Department of Treasury, which oversees the Low-Income Housing Tax Credit program, or Department of Agriculture, which oversees Rural Development. The MOU also ignores Housing Choice Vouchers and project-based vouchers. The MOU further ignores other Tribal housing programs and HUD grant programs including Emergency Shelter Grants, HOME, and Community Development Block Grants.
- 255 Julián Castro, *Archive: HUD and EPA are Collaborating to Better Address Lead Contamination* (Jan. 13, 2017), <https://web.archive.org/web/20181209063635/https://medium.com/@SecretaryCastro/hud-and-epa-are-collaborating-to-better-address-lead-contamination-c72d762df6a>.
- 256 EPA defines environmental justice as the “fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.” According to EPA, “meaningful involvement” means that (1) people have an opportunity to participate in decisions about activities that may affect their environment and/or health; (2) the public’s contribution can influence the regulatory agency’s decision; (3) community concerns will be considered in the decision making process; and (4) decision makers will seek out and facilitate the involvement of those potentially affected.” The EPA must effectuate this process in partnership with other government actors, and it is incumbent on environmental justice communities to hold the EPA and other government agencies accountable to these goals.
- 257 U.S. DEP'T OF HOUS. AND URBAN DEV., HUD ENVIRONMENTAL JUSTICE STRATEGY: 2016-2020 I, 10 (Nov. 2016), <https://files.hudexchange.info/resources/documents/HUD-Environmental-Justice-Strategy.pdf>.
- 258 *Id.*
- 259 *Id.* at 9.
- 260 *Id.* at 6, 9.
- 261 This guidance could be modeled on USEPA’s 2007 School Siting Guidelines, which provides key, relevant considerations and strategies for local school districts to review environmental issues in making school siting decisions. See, U.S. ENVTL. PROT. AGENCY, SCHOOL SITING GUIDELINES (2011), https://www.epa.gov/sites/production/files/2015-06/documents/school_siting_guidelines-2.pdf. Unlike local school district siting decisions -- which are not, generally, subject to NEPA or regulated by USEPA or the Department of Education -- public housing agencies are spending federal dollars under oversight by HUD.
- 262 Executive Order 13175 requires all agencies to have meaningful consultation policies with tribal governments. Under the Obama Administration, an Executive Memorandum on Tribal Consultation directed all Executive Departments and Agencies to engage in regular and meaningful consultation and collaboration with tribal officials when developing federal policies that have tribal implications. When environmental

contamination is on or in close proximity to tribal land with Native American housing assistance, the federal environmental, health, and housing agencies should execute an agreement with tribal governments to ensure collaboration.

263 The community-based participatory approach allows affected individuals to interact with policymakers while identifying issues and developing strategies that address social determinants of poor health and is especially critical in environmental justice communities.

264 For example, in East Chicago, residents only learned about the draft EA when a lawyer spotted the posting in a legal notices listing and had the benefit of a legal team and other advocates to push for a more inclusive public process that should have been required at the front end.

265 U.S. DEP'T OF HOUS. AND URBAN DEV. AND U.S. ENVTL. PROT. AGENCY, IMPROVING COMMUNICATION ABOUT CERTAIN PUBLIC AND HUD-ASSISTED MULTIFAMILY HOUSING NEAR SUPERFUND SITES MEMORANDUM OF UNDERSTANDING (2017), <https://www.hudexchange.info/resources/documents/Memorandum-of-Understanding-between-HUD-and-EPA-Regarding-Improving-Communication-About-Certain-Public-and-HUD-Assisted-Multifamily-Housing-Near-Superfund-Sites.pdf>; [hereinafter MEMORANDUM OF UNDERSTANDING].

266 *Site Contamination*, U.S. DEP'T OF HOUS. AND URBAN DEV., <https://www.hudexchange.info/programs/environmental-review/site-contamination/> (last visited Feb. 5, 2020).

267 See, MEMORANDUM OF UNDERSTANDING, *supra* note 265, at 4.

268 *NEPAssist*, U.S. ENVTL. PROT. AGENCY (updated Dec. 23, 2019), <https://www.epa.gov/nepa/nepassist>.

269 FEDERAL INTERAGENCY WORKING GROUP ON ENVIRONMENTAL JUSTICE & NEPA COMMITTEE, PROMISING PRACTICES FOR EJ METHODOLOGIES IN NEPA REVIEWS 6 (2016), https://www.epa.gov/sites/production/files/2016-08/documents/nepa_promising_practices_document_2016.pdf [hereinafter EJ METHODOLOGIES IN NEPA REVIEWS].

270 *Environmental Justice*, U.S. DEP'T OF HOUS. AND URBAN DEV., <https://www.hudexchange.info/resources/documents/Environmental-Justice-Worksheet.docx> (last visited Feb. 5, 2020).

271 EJ METHODOLOGIES IN NEPA REVIEWS, *supra* note 269, at 1, 19.

272 An RE can oversee the environmental reviews for RAD transactions involving PBV Non-FHA and PBV FHA Risk-Share RAD transfers.

273 See 24 C.F.R. § 50.1(d) (highlighting that HUD environmental review regulations apply to “all HUD project actions,” including those “carried out by recipients subject to environmental policy and procedures of 24 C.F.R. part 58, when the recipient that is regulated under 24 C.F.R. part 58 claims the lack of legal capacity to assume the Secretary’s environmental review responsibilities and the claim is approved by HUD or when determines to conduct an environmental review itself in place of a nonrecipient responsible entity.”).

274 A benefit of institutionalizing the use of the HUD Environmental Review Online System (HEROS) is that the online forms are structured to force HUD and REs to conduct an independent review by preventing contractors’ ability to answer certain questions.

275 For instance, the draft environmental assessment for the demolition of the West Calumet Housing Complex in East Chicago posed a serious risk to the residents living adjacent to the proposed demolition. Although residents successfully advocated for a safer demolition plan there, there may be many sites where HUD or the local housing authority proceeds with unsafe plans.

276 JOINT CENTER FOR HOUSING STUDIES OF HARVARD UNIVERSITY, THE DISRUPTION OF THE LOW-INCOME HOUSING TAX CREDIT PROGRAM: CAUSES, CONSEQUENCES, RESPONSES, AND PROPOSED CORRECTIVES 1, 24-25 (2009).

277 In fact, in implementing the Tax Credit Assistance Program under the American Reinvestment and Recovery Act, HUD issued grants to LIHTC projects. ARRA expressly required NEPA review for projects receiving TCAP grants and HUD issued a policy that “[n]o TCAP funds may be committed to a project before completion of the environmental review process.” See U.S. DEP'T OF HOUS. AND URBAN DEV., COMTY PLANNING AND DEV., IMPLEMENTATION OF THE TAX CREDIT ASSISTANCE PROGRAM (May 4, 2009), <https://www.hud.gov/sites/documents/09-03cpdn.doc>.

278 See e.g., MICH. STATE HOUS. DEV. AUTH., MSHDA-RENTAL DEVELOPMENT DIVISION ENVIRONMENTAL REVIEW REQUIREMENTS (2020), https://www.michigan.gov/documents/mshda/MSHDA_2015_Environmental_Review_Requirements_Final_478201_7.pdf (showcasing Michigan as just one example).

279 *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*, U.S. DEP'T OF HOUS. AND URBAN DEV. (2012), https://www.hud.gov/program_offices/healthy_homes/lbp/hudguidelines.

280 For a detailed description of lead poisoning prevention best practices, see Emily Benfer, Emily Coffey, Allyson Gold, Mona Hanna-Attisha, Bruce Lanphear, Helen Li, Ruth Ann Norton, David Rosner, Kate Walz, *Health Justice Strategies to Eradicate Lead Poisoning: An Urgent Call to Action to Safeguard Future Generations*, YALE J. OF HEALTH, L. & ETHICS (2020).

281 The Natural Disaster Resiliency Competition began in 2014 as part of the Community Development Block Grant program. It invited communities that have experienced natural disasters to compete for nearly \$1 billion in funding to help them rebuild and increase their resilience to future disasters. It included significant capacity building and training for communities.

282 42 U.S.C. § 9613 (2010).

283 42 U.S.C. § 9613(i) (2010).

284 42 U.S.C. § 9607(a) (2010).

285 In Evansville, Indiana, environmental due diligence was performed for both a RAD conversion of an existing apartment complex and for the possible acquisition and redevelopment of vacated properties. Both properties involved were within an area-wide Superfund Site known as the Jacobsville Neighborhood Soil Contamination Site, which contains thousands of residential properties with soil contaminated with lead and arsenic from industrial air depositions. The due diligence documents show that EDR searches for Superfund Sites within 1 mile yielded no results. While some of the due diligence reports uncovered the presence of the Site through informal channels, others failed to note the Site at all.

286 24 C.F.R. § 983.260(b) (2017).

287 When a family with an HCV moves, they have to pay for the move, which is often unaffordable for low income families. A move often requires a security deposit, background check fees, and other fees. Households as well may struggle to find housing in communities without environmental contamination and need access to housing mobility professionals for help finding quality housing.

288 42 U.S.C. § 1437f(bb) (2011).

289 42 U.S.C. § 1437p (2011); 24 C.F.R. § 970.5 (2017).

290 24 C.F.R. § 966.4(h) (2020). For the voucher program, Housing Opportunity Through Modernization Act of 2016 (HOTMA) also changed this rule for major Housing Quality Standard violations. The Public Housing Agency abates and tenant is not required to pay rent, nor can the tenant be evicted for nonpayment. This should also provide for eviction protections even after the abatement period ends and the HAP is terminated.

291 The regulations governing the selection of the remediation plan should also be strengthened to require EPA to ensure upfront that each proposed plan complies with all state laws. Although EPA regulations and guidance make clear that “applicable or relevant and appropriate requirements,” see e.g., 40 C.F.R. § 300.430(e)(9)(iii)(B) (2018), state laws and regulations, must be met as a threshold matter before a proposed plan will be considered in more detail, the EPA often does not approach this step with sufficient rigor or with a broad perspective that includes state or local requirements related to real estate.

292 Memorandum from Christina Lovingood, Director Land Cleanup and Waste Management Directorate, Office of Audit and Evaluation to Barry N. Breen, Acting Asst. Administrator, Office of Land and Emergency Management (Feb. 4, 2019), available at https://www.epa.gov/sites/production/files/2019-02/documents/epa_oig_notificationmemo_2-4-19_communication.pdf.

293 U.S. ENVTL. PROT. AGENCY RECORD OF DECISION: LOWER DUWAMISH WATERWAY SUPERFUND SITE I, 9 (2014), <https://semsub.epa.gov/work/10/715975.pdf>.

294 42 U.S.C. § 9613(h) (2010).

295 These problems have been on tragic display in situations like a 2013 explosion at a West Texas fertilizer plant that killed 14 and injured hundreds. See, M.B. Pell, et al., *Special Report: Poor planning left Texas firefighters unprepared*, REUTERS (May 22, 2013, 7:39 PM), <https://www.reuters.com/article/us-chemical-emergency-specialreport/special-report-poor-planning-left-texas-firefighters-unprepared-idUSBRE94L19020130523>.

296 To find out whether a Superfund site exists in a certain community, advocates can look up Superfund sites on the EPA’s website. U.S. ENVTL. PROT. AGENCY, *Search for Superfund Sites Where You Live*, <https://www.epa.gov/superfund/search-superfund-sites-where-you-live> (last visited April 6, 2020).

297 TASK FORCE RECOMMENDATIONS, *supra* note 202 (recommending to “[f]acilitate interactions for local stakeholders/PRPs/communities to work together. Actively encourage PRPs to engage and be supportive of the process, demonstrating that an engaged community looking to the future can speed up cleanups, have realistic expectations, act as stewards, and promote successful reuse.”).

298 *Id.* at v.

299 *Id.* (regarding EPA developing more protective standards and applying residential standards more regularly).

300 The OIG has recently launched an investigation into the use of institutional controls; such an investigation itself demonstrates the need for scrutiny and reform on this issue; the results of this investigation could and should lead to positive change. U.S. ENVTL. PROT. AGENCY, NOTIFICATION OF EVALUATION: SUPERFUND SITE VISITS – VERIFICATION OF THE EFFECTIVENESS OF INSTITUTIONAL CONTROLS PROJECT 1.1 (Sep. 20, 2019), https://www.epa.gov/sites/production/files/2019-09/documents/epa_oig_notificationmemo_9-20-19_superfundsitevisits.pdf.

301 Sara Edelstein, Michael R. Pergamit, & Caroline Ratcliffe, *Characteristics of Families Receiving Multiple Benefits*, URBAN INSTITUTE 1-2 (Feb. 2014), <https://www.urban.org/sites/default/files/publication/22366/413044-Characteristics-of-Families-Receiving-Multiple-Public-Benefits.PDF>.

302 CTRS. FOR DISEASE CONTROL & PREVENTION, MANAGING ELEVATED BLOOD LEAD LEVELS AMONG YOUNG CHILDREN: RECOMMENDATIONS FROM THE ADVISORY COMMITTEE ON CHILDHOOD LEAD POISONING PREVENTION 70 (Mar. 2002), <https://www.cdc.gov/nceh/lead/casemanagement/managingEBLLs.pdf> (recognizing that some nutritional measures may reduce lead

absorption in children).

303 To identify additional participants who may have been exposed to environmental hazards, WIC offices should be directed to conduct a capillary test of pregnant women and children for elevated blood lead levels. While medical testing must not be a condition of benefits, this test can be conducted at WIC offices at the same time as the routine nutritional panel. WIC offices should be permitted to enroll as a provider for the purpose of Medicaid reimbursement for any blood lead level testing. Where a participant is not eligible for Medicaid, WIC funds should be used for blood lead level testing. For example, in Rhode Island, a pilot program offered blood lead level testing for clients not compliant with universal lead screening requirements at Women, Infant and Children offices. HEALTH JUSTICE INNOVATIONS, COMPARATIVE ASSESSMENT OF LEAD POISONING SCREENING PRACTICES IN MAINE AND NEW ENGLAND 21 (Mar. 2019), <https://mainehousingcoalition.org/wp-content/uploads/2019/03/Lead-Screening-Report-Final-Full-Report-2.pdf>. Nearly 100% of participants offered the screen accepted. *Id.*

304 See, e.g., U.S. Dep't of Agr., USDA to Temporarily Allow WIC Funds to be Used for Lead Testing for Flint-Area WIC Recipients, Announces Other Measures to Expand Access to Healthy Foods (Oct. 17, 2017), [hereinafter U.S. DEP'T OF AGR.] <https://www.fns.usda.gov/pressrelease/2016/003716> (noting that USDA approved additional funding for Flint, Michigan to expand the Fresh Fruit and Vegetable Program to more eligible schools in order to help schools incorporate more foods high in Vitamin C, calcium, and iron that can help reduce lead levels in body). See also Emily A. Benfer et al., *Duty to Protect: Enhancing the Federal Framework to Prevent Childhood Lead Poisoning and Exposure to Environmental Harm*, 18 YALE J. HEALTH POL'Y, L., & ETHICS 1, 47 (2019).

305 See, e.g., U.S. DEP'T OF AGR., *supra* note 304 (stating that USDA expanded Summer Electronic Benefits Transfer to Flint, Michigan).

306 *Id.*, *supra* note 304 (mentioning that USDA worked to provide Michigan with food items that can mitigate effects of lead absorption via the Emergency Food Assistance Program).

307 *Id.*, *supra* note 304 (stating that USDA is allowing WIC benefits to be used for purchasing pre-mixed formula in Flint, Michigan, as one measure to address the lead crisis).

308 For example, in Flint, Michigan, USDA expanded programs that promote access to healthy school lunches and encouraged all eligible schools to participate in the Community Eligibility Provision. U.S. DEP'T OF AGR., FACT SHEET: USDA ASSISTANCE TO RESIDENTS AFFECTED BY THE WATER EMERGENCY IN FLINT, MICHIGAN (Aug. 16, 2016), <https://www.usda.gov/media/press-releases/2016/0210/fact-sheet-usda-assistance-residents-affected-water-emergency-flint>

309 For example, the Pediatric Public Health Initiative created by Michigan State University and Hurley Children's Hospital offered WIC beneficiaries in Flint, Michigan, additional coupons to buy locally grown fruits and vegetables through WIC Project Fresh. *Fight Lead With Nutrition*, MICH. ST. U. EXTENSION (Jan. 20, 2016), https://www.canr.msu.edu/resources/fight_lead_with_nutrition.

310 See, e.g., *Lead-Safe Kids and Healthy Homes*, MINNEAPOLIS HEALTH DEPT., <http://www.minneapolismn.gov/health/homes/lead/index.htm> ("The City of Minneapolis Health Department periodically contracts with Sustainable Resource Center to bring its mobile testing lab to neighborhoods with high risk of childhood lead poisoning."); Patrick Yeagle, *Mobile Screening Unit Tests Children for Unsafe Levels of Lead*, THE ENTERPRISE (Jul. 14, 2009), <https://www.enterpriseneews.com/x1888894938/Mobile-screening-unit-tests-children-for-unsafe-levels-of-lead> (noting that the Peoria Health Department is hosting a mobile lead testing).

311 *Jaime Raymond, Will Wheeler & Mary J. Brown, Lead Screening and Prevalence of Blood Lead Levels in Children Aged 1–2 Years — Child Blood Lead Surveillance System, 2002–2010 and National Health and Nutrition Examination Survey, United States, 1999–2010*, 63 MORBIDITY & MORTALITY WKLY. REP. 36, 36 (2014); see also Emily A. Benfer et al., *Duty to Protect: Enhancing the Federal Framework to Prevent Childhood Lead Poisoning and Exposure to Environmental Harm*, 18 YALE J. HEALTH POL'Y, L., & ETHICS 1, 47 (2019) (reproducing comments from Letter from Emily Coffey & Emily Benfer et al. to Scott Pruitt, Co-Chair, President's Task Force on Environmental Health and Safety Risks to Children, Administrator, U.S. Environmental Protection Agency; Eric Hargan, Co-Chair, President's Task Force on Environmental Health and Safety Risks to Children, Acting Secretary, U.S. Department of Health & Human Services; Warren Friedman, Office of Lead Hazard Control and Healthy Homes, Department of Housing and Urban Development, November 24, 2017 RE: Comments on "Drafting a New Federal Strategy to Reduce Childhood Lead Exposures and Impacts: Request for Information" Docket No. FR-6049-N-01).

312 *Lead Screening*, Medicaid (stating that the federal law requirement that "[a]ll children enrolled in Medicaid . . . are required to receive blood lead screening tests at ages 12 and 24 months."); Joshua Schneyer & M.B. Pell, *Unsafe at Any Level: Millions of American Children Missing Early Lead Test, Reuters Finds*, REUTERS (June 9, 2016), <https://www.reuters.com/investigates/special-report/lead-poisoning-testing-gaps/> (finding that only 41% of Medicaid-enrolled one- and two-year olds had been tested despite the requirement for universal testing of Medicaid-enrolled children of those ages).

313 Benfer et al., *supra* note 311, at 37; see *supra* text accompanying note 311.

314 Section 1115 of the Social Security Act gives the Secretary of Health and Human Services authority to waive certain provisions of the Medicaid law and approve experimental, pilot, or demonstration projects that are found to promote Medicaid objectives. *About Section 1115 Demonstrations*, MEDICAID.GOV <https://www.medicaid.gov/medicaid/section-1115-demonstrations/about-section-1115-demonstrations/index.html>.

315 *Early Periodic Screening, Diagnosis, and Treatment*, HEALTH RES. SERVS. ADMIN. (Dec. 2018), <https://mchb.hrsa.gov/maternal-child-health-initiatives/mchb-programs/early-periodic-screening-diagnosis-and-treatment> (noting that Title V program funds case management).

316 Benfer et al., *supra* note 311, at 38; *see also* GREEN & HEALTHY HOMES INITIATIVE, STRATEGIC PLAN TO END CHILDHOOD LEAD POISONING 15 (2016); *see supra* text accompanying note 311. (recommending that Medicaid m5 waiver proposals should include pilots to study lead hazard reduction interventions in homes where children with elevated blood lead levels reside).

317 President’s Task Force on Environmental Health Risks and Safety Risks to Children, Federal Action Plan to Reduce Childhood Lead Exposures and Associated Health Impacts (Dec. 2018), 12/documents/fedactionplan_lead_final.pdf.

318 *Lead Toxicity Clinical Assessment – Signs and Symptoms*, AGENCY FOR TOXIC SUBSTANCES & DISEASE REGISTRY (July 12, 2019), <https://www.atsdr.cdc.gov/csem/csem.asp?csem=34&po=12> (acknowledging that because low-level exposure to lead can be asymptomatic, screening is crucial).

319 40 C.F.R. § 745.65 (2020).

320 *Reichhold, Inc. v. U.S. Metals Refining Company*, 655 F. Supp.2d 400, 404-05 (D.N.J. 2009).

321 U.S. CENSUS BUREAU, *Community Quick Facts* (2018), <https://www.census.gov/quickfacts/carteretboroughnewjersey>.

322 “Local and Regional Environmental Impacts from the U.S. Metals Refining Company Facility Operations in Carteret, New Jersey,” CH2M HILL, prepared for Reichhold, Inc., August 2008, iii, <https://www.documentcloud.org/documents/215908-site-203-consultant-report-environmental-impacts.html> [hereinafter Environmental Impacts in Carteret].

323 *Id.* at v.

324 *Id.* at 1-2 and 2-5.

325 Environmental Impacts in Carteret at 2-6; *Reichhold*, 655 F. Supp.2d at 405.

326 *Reichhold*, 655 F. Supp.2d at 414-415.

327 *See*, Collected Correspondence between USMR, USEPA, and NJDEP, *available at*: <https://www.documentcloud.org/documents/281836-site-203-emissions-correspondence-1983.html>.

328 *State of New York v. U.S. Metals Refining Co.*, 771 F.2d 796, 798 (3rd Cir. 1985). New York had produced a preliminary report on the metals refining plant’s emissions and this appeal denied New York’s petition to overturn a district court order compelling the state to not disclose the report to the public.

329 Peter Eisler, *Ghost Factories: U.S. Metals Refining Co., About This Site*, n.d. USA TODAY. <http://usatoday30.usatoday.com/news/nation/smelting-lead-contamination/sites/203>.

330 *New Jersey Dep’t of Env’l Protection v. U.S. Metals Refining Co., Inc.*, Complaint, available at <https://www.nj.gov/oag/newsreleases07/NRD-lawsuits-07/Amox-Complaint.pdf> [hereinafter *New Jersey Dep’t of Env’l Protection Complaint*]. The Act imposes a precondition on the closure or sale of properties “associated with the manufacture, refining, transportation, treatment, storage, handling, or disposing of hazardous substances or wastes;” the precondition requires the execution of an approved cleanup plan or a certification that there were no hazardous waste discharges on the property (or that the discharges were cleaned up). N.J.S.A.13:K-6.

331 *In the Matter of Amax, Inc., Amax Copper, Inc., U.S. Metals Refining Company, Amax Realty Development, Inc., and Accredited Labs, Inc.*, “Administrative Consent Order,” ¶ 8, available at: <https://www.documentcloud.org/documents/2943200-Site-203-Carteret-1988-Administrative-Consent.htm>. [Hereinafter “Administrative Consent Order”]

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333 *Id.* at ¶ 18.

334 *Id.* at ¶ 8.

335 *Reichhold*, 655 F. Supp. 2d at 404.

336 *Id.* at 416.

337 *New Jersey Dep’t of Env’l Protection Complaint*, *supra* note 330

338 Alison Young, *N.J. City Takes Legal Action to Hasten Toxic Metals Testing*, USA TODAY, Jul. 30, 2012, *available at*: <http://usatoday30.usatoday.com/news/nation/story/2012-07-30/new-jersey-smelter-lawsuit/56596696/t>.

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- 347 McCarthy, *supra* note 343.
- 348 U.S. DEP'T OF HOUS. & URBAN DEV., *RAD Resource Desk* (2018), http://radresource.net/pha_data.cfm [hereinafter "*RAD Resource Desk*"].
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- 351 National Low Income Housing Coalition, *National Housing Preservation Database* (2018), <https://nhpd.preservationdatabase.org/Data>.
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