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WINTER 2021
A Literature Review

This document is meant to increase understanding and a sense of urgency about the condition of vacant land in Pittsburgh, and to develop a shared language among decision-makers, funders, and partners.

FUNDED BY THE HEINZ ENDOWMENTS

Understanding the Effects of Vacant Lots on Neighborhood Health

grounded

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PREPARED BY GROUNDED STRATEGIES FOR THE HEINZ ENDOWMENTS



For more than a decade,
Grounded has empowered
communities with access
to the right tools and
resources to turn vacant
lot liabilities into resilient
greenspaces.

Executive Summary

Grounded Strategies works to improve the environmental health of distressed and transitional communities by building capacity to reclaim vacant and underutilized land. We provide technical assistance on vacant parcel maintenance and greenspace design to residents, organizations, and municipalities. For more than a decade, Grounded has empowered communities with access to the right tools and resources to turn vacant lot liabilities into resilient greenspaces.

The City of Pittsburgh suffers from chronic and increasing levels of vacant lots due to pressures exerted by macroeconomic forces including deindustrialization, urban flight, and more recently, worsening income inequality. Vacant parcels markedly compromise the quality of life for residents, negatively impact property values, and significantly weaken the City's tax base. According to the Department of City Planning's 2016 distressed parcel dataset, there are 26,743 vacant and distressed parcels without structures in the City of Pittsburgh. 8,337 (31.2%) of these parcels are city-owned vacant parcels, while 16,518 (61.8%) are privately-owned vacant parcels. The remaining parcels are owned by the URA or other public entities. The current parcel maintenancesystemstructure does not allocate enough capacity to maintain all vacant parcels. This results in overgrown vacant parcels concentrated in our most vulnerable communities. The proactive greening of vacant lots has been linked to positive economic, environmental, and social benefits for communities. Despite the demonstrated benefits of proactive maintenance, there is a severe shortage of resources allocated to property stabilization activities, particularly in Black neighborhoods. These neighborhoods are disproportionately burdened by vacant properties due to systemic racism and chronic disinvestment.

Through this literature review, we present a snapshot of the current issues surrounding vacant land as it exists today in Pittsburgh and share findings related to the challenges and benefits of greening vacant land at scale.

Introduction

The health of the land in a community has a direct impact on the health of the people in a community. Pittsburgh's industrial past and shrinking population has led to the proliferation of tens of thousands of vacant properties. Decades of neglect have resulted in vacant lots that are filled with trash and debris, littered with invasive species, infested with rodents, and overgrown to an extent that encroaches on the public right-of-way and neighboring houses. In many cases, the soil of urban vacant lots is contaminated with toxic levels of lead. This complex environmental challenge also has economic and social impacts. Neighborhoods with higher concentrations of vacancy have lower property values. In Columbus, Ohio, researchers found that having a vacant property on the block can reduce the property value of nearby properties by 20 percent or more.¹

In recent decades, many cities in the rust belt have had to manage declining population and adjust planning activities, especially around blight and vacancy. Pittsburgh is one of these cities. Before the 1960s, Allegheny County was an economic engine of the country as the epicenter of steel and coal production. However, the collapse of these industries led to an enormous contraction of the population from estimates of 676,806 in the 1950 census to approximately 305,704.² According to the 1960 and 2010 census, the City of Pittsburgh experienced a 50% drop in population.³

The overarching population decline in this region has led to numerous challenges for infrastructure, yet an important and often overlooked issue is the economic impact of distressed vacant land. Pittsburgh's population has steadily declined, and vacant lots have increased, primarily in low-income and Black neighborhoods. However, growth plans and policies have not fully adjusted to the fact that Pittsburgh is a shrinking city. This failure to adapt leads to unrealized potential in health, safety, and wellness, specifically in neighborhoods where there are large concentrations of vacant land.

According to the City's Office of Management and Budget 2018 Request for Proposal for Three Taxing Bodies (3TB) Property Maintenance, there are 12,684 vacant and abandoned properties in the City of Pittsburgh that fall under the 3TB real estate portfolio.⁴ The unfortunate truth is that the City is not only responsible for its 12,684 vacant parcels, but it is also legally required to respond to emergency requests on privately-owned parcels for safety purposes. Though they do not retain ownership, the city has a legal obligation to meet all safety and security issues including trespassing, fire, and code enforcement.

That figure -12,684 — is a staggering number. The way the current property maintenance system is structured does not allocate enough capacity to maintain all vacant parcels. This results in overgrown vacant lots concentrated in our most vulnerable communities. These overgrown properties have numerous detrimental effects: they attract crime, lower property values, pose health hazards, and simply lower the quality of life for residents who live and work near them.

Further complicating this issue is the fact that residents cannot legally access overgrown parcels to remedy the situation. They are at the mercy of city authorities to maintain vacant parcels as capacity allows it. Communities facing challenges with neighborhood stability and physical livability get stuck in a cycle of disinvestment.

Currently, the City's process works reactively, responding to property issues as they arise and rarely providing much-needed and beneficial routine maintenance. This reactive approach misses opportunities to stabilize vacant properties, disproportionately affects low- to moderate-income communities, decreases adjacent property values, and costs the City more money over time. Given the steadying population and relative predictability of labor trends, the City is well-positioned to enact an equitable vacant management strategy.

The Structure of Vacant Land Management in Pittsburgh

When it comes to managing the City's inventory of vacant properties, there is a decentralized network of distinct actors. This is one of the overarching challenges with the City's land maintenance system. There is an opportunity to create a new system that is streamlined, centralized, and strategic. One that invests in land as an asset, earns tax revenue, improves property values in distressed markets, and provides workforce development opportunities for residents. In order to understand where improvements are needed within the City's vacant lot maintenance process, Grounded mapped the current workflows. The land recycling pipeline includes many departments, each responsible for discrete actions. No single department provides an overarching vision or oversight. After speaking with the departments within the land recycling process, Grounded found several existing gaps in the system that contribute to a lack of coherent oversight and accountability.

Currently, the Department of Finance has the largest role, managing and transacting land with public and private buyers. The Department of Finance not only manages vacant parcels owned by the City, it also manages properties held by the three taxing bodies. The three taxing bodies are the City, School District, and County. The Department of Finance works under terms stipulated in the three taxing bodies agreement, which appoints the Department of Finance as the agent for acquiring properties through Treasurer's Sale. In 2018, the Department of Finance took over managing the property maintenance contract that the City issues on a yearly or bi-yearly basis. Funding for maintenance comes from the three taxing bodies' trust fund, which is administered by the Department of Finance. A 2019 audit of the City's Department of Finance made 44 recommendations to improve the property sales process, pointing to the need for steps to be taken for a better functioning land acquisition process.⁵ A Pittsburgh Post-Gazette article detailed several of these recommendations that are worth highlighting:

- The city [through the Department of Finance] has given its Urban Redevelopment Authority veto power over any sale, and the URA exercises that in nearly half of proposed purchases. Around one-fourth of the time that it vetoes a proposed sale, the URA opts not to provide any reason.
- As a result of the vetoes, the city has 2,845 parcels on hold for the URA, including 439 that have buildings, according to the audit. More than a third of them have been on hold for more than eight years-- including 78 that have been held for more than 50 years and the city must maintain them until the URA decides to take title or broker a sale.
- Since 2015, the city hasn't had a licensed real estate agent in the nine-member property sale office, and it should have one, according to the audit. Ms. Lanier responded that the URA supplies that expertise.⁶

The Urban Redevelopment Authority is the City's economic development agency. Its stated goals are to create jobs, increase the City's tax base, improve the vitality of the City's businesses and neighborhoods, and improve the City's livability as a whole. In conversations with Grounded in September 2020, the URA identified one key issue in transferring ownership of vacant property is lack of clear title. Clear title is a title without any lien or levy from creditors or other parties that would cause the validity of ownership to be called into question. According to the Land Recycling Handbook, "without clean, insurable title, property has no value in the marketplace or as a transferable asset, therefore it is important to deliver clean, insurable title at all times." A lack of clear title is a barrier to land ownership, as the extra time and money necessary to clear title leads to a drop in interest or ability to maneuver through the complicated process. Of the publicly-owned distressed parcels in the City, only around 350 are reported to have a clear title, due to an internal City policy not to clear title before a user is identified. The first step in solving this issue would be for the City to begin to clear title on all parcels in its inventory that are already intended for sale.

Housed under the URA, the Pittsburgh Land Bank is poised to be the strategic leader for overhauling the City's land recycling and maintenance system. The Land Bank was an important accomplishment by the City and its partners, with great potential to start transacting vacant properties. However, in the last 5 years since the Land Bank's creation, no property has been transacted through the Land Bank. One of the greatest barriers to the successful functioning of the land bank is board representation from council members who opposed the creation of the Land Bank. In addition, the process for transferring property has not been tested. However, some worry that transparency in the transfer process could be a challenge. The Center for Community Progress notes that, "Successful land banks have gone to great lengths to build and maintain trust with the public through complete transparency in the establishment of priorities, policies, and procedures that govern all actions. Land banks should make sure these ground rules and policies are established prior to any transactions, and annually revisited with public input to maintain a high standard of transparency and accountability." In addition to the Department of Finance, the Urban Redevelopment Authority, and the Pittsburgh Land Bank, several other departments play a role in City-owned vacant land.

The Department of City Planning works to create and maintain an orderly, timely, environmentally-sustainable, and consistent approach to land use and development within the City. Within vacant land planning, the Department of City Planning operates programs that activate vacant parcels, such as the Adopt-A-Lot program. The Adopt-A-Lot program, developed as part of the Vacant Lot Toolkit, was created to allow residents a streamlined process by which to access city-owned vacant lots for food, flower, or rain gardens. In an effort to combat the problem of vacant city-owned lots, the program had three goals: (1) Foster neighborhood interaction, (2) Re-imagine the potential of vacant lots, and (3) Encourage environmental awareness.

The Department of Public Works maintains the City's infrastructure and supports environmental services, such as refuse and recycling collection. When it comes to vacant lots, the Department of Public Works responds to emergency situations, such as dumping, abandoned vehicles, and sidewalk repairs. For example, the Department of Public Works is the city department which typically responds to and closes out 311 calls. The Department of Public Works works closely with the Department of Permits, Licenses, and Inspections to monitor and track nuisance properties.

The Department of Permits, Licenses, and Inspections (PLI) is responsible for enforcing the City's Property Maintenance Code and ensuring the health, safety, and welfare of Pittsburgh's neighborhoods. PLI operates a Clean and Lien program that takes the necessary steps to remove overgrowth, weeds, and debris from vacant lots. PLI prioritizes clean and liens on privately-owned properties but has recently moved to complete them on publicly-owned property. The purpose of the clean and lien program is to provide a one-time clearing of a vacant lot, not to maintain it in perpetuity.

Vacant Land As a Public Health Challenge

When neglected, vacant land is considered a significant public health challenge. Rather than acting as the green infrastructure of a neighborhood, neglected vacant land fragments communities. Through the research of mid-size cities, such as Pittsburgh, and larger cities, such as Philadelphia and Baltimore, the negative effects of vacant land have emerged in three aspects of public health: community health, mental health, and physical health.

COMMUNITY HEALTH

The health of a community is often tied to the resident's own view of their community, as well as the perception of the community to outsiders. This sense of community well-being is often thwarted by the presence of vacant land, which undermines residents' efforts to improve the physical appearance of their community, along with the external image of the community. Another common problem that arises is disagreement and resentment over responsibilities regarding the upkeep of vacant land, with residents often feeling as though their efforts are futile in the face of a problem that is simply too large and bureaucratically confusing to adequately address. Not to mention, vacant land is a problem that individual residents did not cause and should not be responsible for fixing.

Vacant land also creates an image, whether true or perceived, of increased crime in the neighborhood (discussed further in Neighborhood Livability), and this image has a negative effect on residents' own view of their community, as well as the outside perception of the neighborhood. Some cities prioritize providing proactive maintenance on vacant lots to combat unsightly overgrown properties. A 2018 study of the Philadelphia LandCare program, a maintenance program that proactively cleans, greens, and stabilizes vacant lots, found that residents living near these well-kept vacant lots experienced a 40 percent decrease in feelings of depression. Another study showed a 29 percent decrease in gun violence in neighborhoods with Philadelphia LandCare lots.

Finally, neglected vacant land tends to decrease the value of homes in the neighborhood. A 2012-2014 study in Allegheny County found that blighted vacant lots are estimated to decrease surrounding home values between 3.8% and 11.5%." A 2010 Philadelphia study estimated that vacant properties result in \$3.6 billion in reduced household wealth. This can lead to residents' frustration about the lack of control and autonomy over the reputation of the neighborhood and lower home values.

MENTAL HEALTH

Neighborhood physical conditions, including vacant or dilapidated spaces, trash, and lack of quality infrastructure, such as sidewalks and parks, are associated with depression. ^{15,14,15,16} Vacant and dilapidated spaces are unavoidable neighborhood conditions that residents in low-resource communities encounter every day, making the very existence of these spaces a constant source of stress and possibly mental illness. ¹⁷ In 2018, researchers assessed 110 randomly sampled vacant lots clusters. Among 342 participants included in the analysis, feeling depressed significantly decreased by 41.5% and self-reported poor mental health showed a reduction of 62.8% for those living near greened vacant lots compared with control participants. The remediation of vacant and dilapidated physical environments, particularly in resource-limited urban settings, can be an important tool for communities to address mental health problems.

The mental health implications of vacant land are often the result from continuing negative emotions associated with living close to vacant land. "These emotions are related to long-term living in proximity to illicit trash dumps, anxiety about children's interactions with dangerous neighborhood environmental conditions, stigma associated with living in a poorly perceived neighborhood, and defeat related to their lack of personal/community agency." The burdensome property transaction process means that vacant properties are often vacant for decades before seeing new ownership or renewed care.

Residents often experience the opposite effect when it comes to caring for vacant land in their community, and those who "were already involved in caring for these vacant lots...described satisfaction about using this work to exert a degree of social control over the neighborhood." ¹⁹

In a Duquesne University study partnering with youth researchers in Homewood, the youth recognized that Homewood residents are disproportionately exposed to negative environmental features. However, engaging youth in addressing community-level environmental disparities can have the dual positive impact of helping youth developmentally/ interpersonally and helping to improve the community.²⁰ Also, promoting environmental literacy among young people can also improve health literacy and, in effect, empower youth to address environmental health disparities.²¹

PHYSICAL HEALTH

Vacant land often undermines physical health through individuals' proximity to unsanitary and dangerous conditions. These conditions can involve arson and illicit dumping, two dangerous acts that occur in vacant lots. Research shows that residents "[worry] that they [are] in danger of being physically harmed through proximity to illegal trash dumps, the wild animals that were drawn to these dumps, illicit activities (and their perpetrators) in abandoned homes, and fears of fires being started in these spaces."²²

Many vacant lots have high levels of lead in the soil. The lots were typically sites for houses that used lead-based paint, which can weather or flake off and contaminate the soil as homes were abandoned and deteriorated. Also, in many cases, debris from housing demolition was simply buried on site. These lots with high lead levels pose a threat to residents' health and safety. Contaminated soil can be tracked into homes on shoes and clothing or can be blown as dust and ingested.²³ Young children performing hand-to-mouth activity are at risk for contamination as well.



Neighborhood Livability

BROKEN WINDOWS THEORY

Philip Zimbardo's 1968 study of destruction and anonymity led to the larger theory of "Broken Windows." The theory of Broken Windows, "asserts that untended property becomes fair game for people out for fun or plunder and even for people who ordinarily would not dream of doing such things and who probably consider themselves law-abiding such that 'untended' behavior also leads to the breakdown of community controls. Within the theory of Broken Windows, and within neighborhoods overcome with vacant land, "a breakdown in community controls (displayed through both social and physical disorder) leads to a perception of an increase in crime and a subsequent decrease in community cohesion."²⁴

Vacant lots do not always result in an increase in criminal behavior. However, the perception of increased criminality is often enough to cause residents to withdraw from community life, both physically and mentally. As the feeling of community within a neighborhood deteriorates, the social norms that tend to prevent crime in neighborhoods decrease, causing another potential uptick in crime.

The Benefits of Greening Vacant Lots

Research indicates that vacant land, if managed and cared for properly, can become a vital part of a city's green infrastructure.

GREENING/ECOSYSTEM VALUES

The ecosystem values of vacant lots include the potential for provisioning services (water, food), regulating services (climate and air pollution), cultural services (recreation, education), and supporting services (nutrient cycling, soil building).²⁵

Greening vacant lots can improve urban air quality, as well as counteract the urban heat island effect by cooling the air. The results of greening vacant lots benefit public health, while also aiding cities in any relevant stormwater management strategies. The greening of vacant lots has also shown to decrease the demand for air conditioning and support climate change adaptation.²⁶

Vacant land presents an important opportunity for alternative outdoor space for those who may not have access to it otherwise. This may include individuals in the neighborhood without means of transportation to leave the neighborhood in search of green space, artists and other creative opportunities who are in need of a place to gather, families with children who don't have access to a park or playspace, and others.

According to Professor Kim, vacant land that acts as part of a city-wide network provides, "different types of open space that 'extend choice' from the 'approved formal garden and manicured park' and also provides walking, bicycle, or riding trails, generating an alternative way of exploring and learning about the city and its ecology."²⁷ Professor Kim continues, "Vacant land also contributes to open space in dense city areas, where it provides a resting area, important distant views, and a visual connection with other parts of the city in a way that is more effective than other densely planted parks or woods areas. Open space is an important component of the built environment as a 'void' physical form that provides

openness for accessibility in the city mass. In psychological terms, openness is associated with freedom, a loosening of control and regulation, adventure, and play."²⁸

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RECOGNIZING COMMUNITY VALUATION OF VACANT LAND

It is also important to acknowledge the memory of vacant land, especially those concentrated in Black communities and communities of color, as these spaces hold the legacies of families who fought and persisted through legalized racial segregation, police brutality and hypersurveillance, and mass incarceration. Ecowomanism, a framework for land and restorative justice put forth by Melanie Harris, places an emphasis on the "political, physical, psychological, spiritual, sexual, and economic freedom of African peoples and their communities", which in turn is an emphasis on their freedom of environmental health and wholeness.²⁹

In African and Indigenous cosmologies, spirit, nature, and humanity are connected in an interdependent web of life. This interconnectedness is revealed in the words of Alisha Wormsley, co-author of "The People Are the Light", when she says: "Just like these areas of Homewood, they aren't abandoned or vacant. They're filled with spirits. I see them everywhere. Memories. The past, present and the future. The hood is filled with light. That's why they want it. We have always kept them out of the dark." When architecturing the future of neighborhoods experiencing systemic vacancy and disinvestment, it is important to uplift and center the vision and wisdom of community members in pioneering the future of their communities.³⁰

ECONOMIC VALUE

Research from the Pennsylvania Horticultural Society (PHS) greening program indicates that the economic and social well being of neighborhoods involved in the program have increased due to the encouragement of reinvestment. These neighborhoods also showed a significant decrease in gun violence within a decade.³¹

"An economic study by the Philadelphia Redevelopment Authority (PRA) estimated that homes within one quarter of a mile of one of PHS's greened vacant lots has increased in value by 2% to 5% annually, equivalent to \$35,000 over five years, generating an additional \$100 million in annual property taxes for the city. The study estimated that each public dollar invested in the LandCare clean and green program returns \$7.43 dollars of tax revenue." 32

Conclusion

Vacant lots are an issue that affects the quality of life for people as well as a sense of place. There is a direct link between economic and environmental health and clean and safe community conditions. The environmental hazards of blight and vacancy are disproportionately concentrated in areas with large minority populations and low median incomes, requiring both grassroots action and systematic changes to public policy to ensure environmental injustices are truly addressed.

Distressed communities with high concentrations of vacant lots experience a disparity in access to the safe, clean, activated open space that residents in higher-income communities benefit from. Access to these kinds of open spaces has broad benefits, including positive impacts related to social cohesion, mental health, reduced crime, community investment, physical health, and opportunities for open-ended play. Greening projects on vacant land have the potential to bridge a distinct gap faced by residents of distressed areas.

There are more vacant parcels in the City of Pittsburgh than one entity alone can maintain. A comprehensive solution

will be iterative, innovative, and draw from the unique strengths of Pittsburgh's resilient communities. All adjustments and updates to the land recycling system must produce equitable outcomes that increase social and economic opportunity for all residents. A solution that engages community members, stimulates the local economy, develops leaders, creates small business opportunities, and targets our most vulnerable communities to help tackle this problem will benefit Grounded ambassadors, the City, and its residents.

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