

Mitigating blight and building community pride in a legacy city: lessons learned from a land bank's clean and green programme

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Abstract Property abandonment presents pervasive problems for legacy cities, but land bank-oriented greening programmes that engage residents – including youth – in improving neighbourhood conditions provide the opportunity to mitigate the consequences of property abandonment. Diminishing the negative effects of vacant properties is essential for improving the health and well-being of residents in these cities. This research examines the impact of a vacant land greening programme in the Rust Belt city of Flint, MI, through interviews with thirty-three participating community groups. Participants believed that the programme was effective at mitigating blight and building community pride. These results are directly applicable to the development of future blight elimination programmes throughout the region.

Background

Legacy cities of the American Rust Belt – the former manufacturing heartland that includes much of the Great Lakes Region and cities such as Buffalo, Cleveland, and Detroit – exhibit a range of maladies derived from population decline, including ongoing declines in property values, increases in property abandonment, shrinking tax bases, and difficulty in basic service provision. This dynamic is linked to increasing crime rates and diminishing civic pride. Those involved in planning for the future of today's legacy cities

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continue to devise new, innovative methods for improving urban quality of life amidst a context of increasing challenges and shrinking resources. This research examines the impact of a vacant land greening programme in a Rust Belt city as measured by perceptions of community pride, neighbourhood attractiveness, and public safety. Participatory research and interviews with representatives from thirty-three community organizations yielded a deep, qualitative approach to understanding the benefits of these programmes, while maintenance reports from fifty-four unique groups helped quantify the extent of the greening.

Legacy cities

Unlike growth-based urbanism – which is premised on the idea that cities continually grow geographically and economically, and whose policy priorities focus on managing this growth (Hollander, 2011a) – legacy cities with declining populations face different issues that make basic operation and sustaining quality of life especially difficult (Pallagst, 2009). The departure of industry and other employers reduces direct economic activity and leads to declines in personal income (Ehrenfeucht and Nelson, 2011). As higher-income, mobile residents leave the city/region and the population becomes poorer, remaining residents are less able to address ongoing legacy costs. Blight and abandonment thus increase as low-income neighbourhoods reach the end of the neighbourhood life-cycle, a concept used to describe the growth, maturity, decline, and revitalization of neighbourhoods (Hoover and Vernon, 1959). This real estate appraisal idea was long used to justify disinvestment from formerly high-income neighbourhoods that had entered the final ‘decline’ stage (e.g. as neighbourhoods turned over to lower-income and often minority groups) – thereby exacerbating issues of abandonment (Metzger, 2000). The concentration of poverty and racial/economic segregation inherent in this cycle can ‘negatively influence social and economic opportunities for urban youth, especially educational attainment, criminal involvement, and employment prospects’ (Can, 1998, p. 65).

Furthermore, the decline in housing demand lowers property values, further stressing financially strained municipal services (Glaeser and Gyourko, 2005). This lack of servicing can exacerbate abandonment, as rates of violent crime, arson, and blight increase with cutbacks in police and firefighters (Hollander, 2011b), and more residents leave increasingly dangerous neighbourhoods. Over time, this perpetual property abandonment renders the urban form into a skeleton of its former structure (Ehrenfeucht and Nelson, 2011). The omnipresent nature of vacant land in modern American cities – referring specifically to previously developed property experiencing dereliction or demolition of the primary building – is particularly troublesome

since most metropolitan regions continue to grow in population overall (Beckman, 2010).

Issues of vacant properties

Vacant properties are a symptom of urban decline and a source of social ills. When vacant properties are not maintained, urban environments become sites of physical disorder as informal controls break down and graffiti and other minor property crimes proliferate (Sampson and Raudenbush, 2001). Physical disorder contributes to a range of negative health and social outcomes, including mental illnesses (such as depression and substance abuse), cardiovascular disease, stigmatization of residents, and threats to public health from waste build-up and rodents (Garvin *et al.*, 2012). Unmaintained vacant properties are linked to higher rates of aggravated assault, gun violence, vandalism, and sedentary lifestyles (Branas *et al.*, 2011; Branas, Rubin, and Guo, 2012); these issues taken together also drive perceptions of neighbourhood quality of life (Greenberg and Schneider, 1996). The large volume of vacant lots in some legacy cities also creates an added challenge: communities are presented with more available land than can be currently maintained or put to productive use (LaCroix, 2010).

Throughout the mid-twentieth century, the responses to urban decline and blight focused on slum clearance or urban renewal – sometimes euphemistically called ‘urban redevelopment’ (Collins and Shester, 2011). The rationale given was that blight was contagious, and federal policies were instituted to support demolition of occupied but declining (and often minority) neighbourhoods with the intention of re-locating or dispersing social issues (Collins and Shester, 2011). These policies disproportionately affected and further disenfranchised black populations, whose neighbourhoods and social fabrics were undemocratically destroyed (Carpenter and Ross, 2009). Recently in New Orleans, “shrinking the footprint” was seen as an attempt to prevent African-Americans from returning and allow developers access to well-situated property’ (Ehrenfeucht and Nelson, 2011, p. 131). This policy of forced removal is criticized for targeting minority communities without any legitimate rationale. More recent efforts have focused on the more sensitive idea of ‘right-sizing’, which recognizes that ‘because depopulating neighborhoods are occupied, cities need mechanisms and resources to integrate underused property’ (Ehrenfeucht and Nelson, 2011, p. 132).

Identifying strategies to cope with vacant properties is therefore essential to improving the health and well-being of residents. In spite of the many negative implications of vacant property, however, governments remain ‘unwilling to acknowledge, much less address, the impact of vacant, abandoned, and substandard properties’ (Alexander and Powell, 2011, p. 3).

Thus research is needed to examine the implications of vacant and abandoned properties and explore the prospects for addressing blight through innovative programmes.

Theoretical background/benefits of greening

This research adapts two theories recently integrated by [Branas et al. \(2011\)](#) to understand the issues of declining cities and blight. 'Broken windows' theory suggests that, by virtue of decline, the perception of surveillance diminishes and criminal activity becomes commonplace ([Wilson and Kelling, 1982](#)). Similarly, 'incivilities' theory suggests that the physical manifestation of disorder and decline discourages social relations and creates the perception of crime ([Hunter, 1978](#)). 'Central to both theories is that criminals are thought to feel emboldened in areas with greater physical disorder . . . residents are driven toward greater anonymity and are less willing or able to step in and prevent crime' ([Branas et al., 2011](#), p. 1297). Crime mapping can itself serve as a "'broken window" to initiate the spiral of decay' ([Ratcliffe, 2002](#), p. 222) as residents become more wary of their neighbourhoods and property values decline further. This cycle of 'blight begets blight' can be interrupted by devising strategies to address neglected properties and create a well-ordered environment. One such method entails greening programmes of vacant land.

Greening programmes – defined here as maintenance which improves the quality of greenspace at an abandoned house/commercial business or on a vacant lot, especially lawn mowing, shrub/tree trimming, and garbage clearance – have a number of social, economic, and environmental benefits ([Schilling and Logan, 2008](#)). The implementation of greening programmes is correlated to decreases in gun violence, vandalism, stress, and sedentary lifestyles ([Branas et al., 2011](#)); a sense of accomplishment among participants; and stronger ties among community organizations ([Westphal, 2003](#)). Greening efforts have been used to help youth develop a community sense of place ([Kudryavtsev, Krasny, and Stedman, 2012](#)) and tied to gardening programmes to address issues of food insecurity, unemployment, and hopelessness ([Brown and Jameton, 2000](#); [Allen et al., 2008](#)). Suggestions have also been made to convert vacant land into inner-city wilderness ([Hollander and Németh, 2011](#)).

Despite these benefits, community members can be deterred from maintaining vacant lots by associated private costs. In recent years, however, many communities have created land banks and other programmes to manage vacant land ([Garvin et al., 2012](#)). These often county-level entities are given responsibility for returning tax-foreclosed properties to productive use ([Genesee County Land Bank, 2015](#)). In Genesee County, Michigan – our research site – funding for the Genesee County Land Bank Authority

(GCLBA) is leveraged from land-sale proceeds, brownfield tax increment financing, and grant support from various sources (Schilling and Logan, 2008). The community and GCLBA, therefore, have an opportunity to work together to address vacant land issues in ways that other communities may not. Our intention is to demonstrate the impact of a community-based greening programme of the GCLBA – called ‘Clean & Green’ – on citizens’ perceptions of community pride, neighbourhood attractiveness, and public safety.

Study context

The city of Flint, MI, and surrounding suburbs in Genesee County offer a severe example of urban disinvestment. Once a city of nearly 200,000 residents planning for 500,000 people (Segoe and Associates, 1960), Flint has lost 77 percent of its manufacturing jobs, 41 percent of its jobs overall (Jacobs, 2009), and half of its population (US Census Bureau, 2010). The loss of jobs and population elsewhere linked to increases in crime (White, 1999) is likewise the case in Flint, where violent crime rates have been among the highest in the United States for many years (Flint Journal, 2013). Beyond economic decline, fragmented municipal governance and racial tensions have exacerbated the decline of housing by magnifying disincentives to remain in ageing neighbourhoods (Highsmith, 2009).

Together, this region contains over 12,000 tax-foreclosed and vacant properties currently owned by the GCLBA (Genesee County Land Bank, 2015). Within the city of Flint, the GCLBA owns nearly 20 percent of all properties. An additional 9.4 percent of properties in the city are vacant but not owned by the GCLBA. In many neighbourhoods, retail and office uses are practically absent, meaning existing residents are disadvantaged in terms of accessing work opportunities and basic services such as groceries (Sadler, Gilliland, and Arku, 2013). A serious quandary is created by the continually growing number of properties that lack maintenance, a lack of code enforcement by an overburdened city government, and the downloading of responsibilities from federal to municipal governments as a consequence of neoliberal economic restructuring (Harvey, 1989), which strains the ability of municipalities to deliver civic services.

To improve property maintenance, in 2004 the GCLBA pursued a grant-funded community outreach programme called Clean & Green (C&G), with the purpose of maintaining concentrated clusters of vacant lots through regular mowing, clean-ups, and beautification efforts (including planting of flowers, vegetables, shrubs, and trees). During each growing season, community groups, block clubs, churches, and other non-profit organizations apply for stipends to partially offset the cost of equipment and labour for maintaining at least twenty-five vacant properties. Organizations

more stable neighbourhoods of mostly occupied homes. Successful applicant organizations receive a minimum stipend of US\$ 3500 (paid over seven equal instalments every three weeks). Nearly all participating organizations maintain more than the minimum of twenty-five properties and receive an increased stipend.

Given the known benefits of greening programmes, and the increasing need for programmes that mitigate blight, we intend to demonstrate the impact of C&G as reported by participants. The methods employed here are a direct response to [Hollander and Németh's \(2011\)](#) call for more on-the-ground research, 'through qualitative fieldwork to explore how residents of shrinking cities perceive their changing environments and how they make sense of shrinkage' (p. 139). The qualitative analysis presented here provides this insight into the perception of Flint residents regarding their changing environment.

As well, this research advances recent scholarship by [Johansen, Neal, and Gasteyer \(2014\)](#), who reported on the perceived origins of disorder among a community group in Flint. In contrast, we draw from a rich dataset of thirty-three in-depth interviews and a series of recurring reports filed by fifty-four unique neighbourhood groups over the summers of 2012 and 2013. This allows us to demonstrate the most salient themes of a city-wide sample of residents active in greening initiatives. [Johansen, Neal, and Gasteyer \(2014\)](#) indicated a need to understand whether 'after adopting a strategy focused on environmental modification to reduce social disorder, do residents perceive reductions in neighbourhood disorder?' (p. 14). We will address this very need, enumerating the benefits seen by C&G participants.

Methods

A mixed-methods approach is used to understand the impact of the GCLBA's C&G programme: maintenance reports from participating groups are combined with interview data from individual participants. While potentially lacking generalizability, as with [Garvin et al. \(2012\)](#) this article 'points to important questions to be addressed in other locales and with other sampling strategies and methods' (p. 10).

All data were collected directly from fifty-four participating groups during the 2012 and 2013 C&G maintenance seasons (April to September). As part of an agreement, groups were required to submit service reports every three weeks throughout the season. These reports detailed specific lots being maintained, neighbour interactions, youth and adult participation, and significant challenges or surprises faced by the groups. The authors managed report collection and programme evaluation for C&G and were the GCLBA's point of contact to participating groups. As discussed, a need exists to

understand individual-level perceptions of the amelioration of neighbourhood blight. The reports were thus used to inform creation of a semi-structured interview script to capture the opinions of participants involved in C&G. In 2012, representatives from thirty-three groups participated in these one-on-one interviews, while in 2013, all groups were asked to provide these data via the final service report.

Participant recruitment

Group representatives were contacted via phone or in person and invited to participate in a site visit/interview to share a more in-depth account of their C&G experience. Perhaps owing to a widely felt desire to share more deeply, participating groups came from a representative sample of organizations in C&G and included a diversity of ages, races, organizational affiliations (e.g. churches, block clubs, and social service organizations), time of tenure in the programme, and geographical locations within the city. Time and scheduling constraints which limited the number of interviews that could be completed with groups inspired the collection of these data from all groups in 2013. Our original aim was to interview participants until data saturation occurred – past research suggests that metathemes are present after six and saturation typically occurs by twelve interviews (Guest *et al.*, 2006) – but the desire to participate in the interviews far exceeded this anticipated minimum number.

Representatives were visited ‘on site’ to provide the opportunity to showcase their work and visually identify any joys or concerns. These representatives were typically in charge of maintenance (but not necessarily of the organization – i.e. a pastor or block club president), thus they were closely connected to their group’s efforts to maintain vacant lots. To ensure a fluid and comfortable dialogue, interviews were not tape-recorded, and questions were presented throughout the course of a conversation. Because the participants and the researchers had already been working together for several months, the interviews allowed for ‘an inter-change of views between two persons conversing about a theme of mutual interest’ (Kvale and Brinkman, 2009, p. 2). Even so, the authors also recognized possible power imbalances with the participants (Kvale and Brinkman, 2009, p. 33), and thus endeavoured to practice the ‘cultural humility’ discussed by Tervalon and Murray-Garcia (1998) to maintain awareness of this potential source of bias. Detailed field notes were taken during the conversations and immediately transcribed to word processing software upon return to the GCLBA. Notes were later shared with groups to confirm the veracity of the comments presented. Interview themes included perceptions of neighbourly interactions, safety, maintenance, youth involvement, reasons for being involved, suggested changes to the programme, and the impact on the neighbourhood.

Pseudonyms were used for quotes for confidentiality, but also to convey the breadth of responses from different participants.

Results

Results from interviews and reports are presented by corresponding major themes to enhance the understanding of the impact of C&G on various aspects of community development, including: the geographic and social impact; specific effects on neighbours, public safety, and quality of life; and ongoing challenges and proposed solutions for moving forward. Values collected from service reports – shown in Table 1 – are referenced throughout this section.

Quantifying the impact of maintenance

More than any top-down or city-run lawn maintenance programme, C&G had a substantial impact on inducing participation by community groups: 256 people (including 111 youth) participated every three weeks. During each mowing season, nearly 1800 vacant lots were maintained continuously. Furthermore, 87 percent of participants believed that other people were taking better care of their neighbourhood because of C&G, and 97 percent of participants believed that their neighbourhoods looked better overall.

Table 1 Summary of questions collected from service reports^a

Quantitative questions	Yes	No	#	Percent
Unique lots maintained			1789	
Participation			255	
Youth paid			65	
Youth volunteer			46	
Adult paid			58	
Adult volunteer			87	
Groups indicating neighbourly interaction	31	10		76
Percent of interactions which were positive				93
Total interactions (2012)			551	
Total interactions (2013)			824	
Groups indicating neighbouring lots are maintained	37	3		93
Percent of neighbouring lots better maintained				50
Qualitative questions ^b	Yes	No	Maybe	Percent
Other people are taking better care of the neighbourhood	59	0	9	87
People spend more time outside	42	4	14	70
Neighbours interact more with each other	42	3	10	76
The neighbourhood is safer	53	1	9	84
The neighbourhood looks better	61	0	2	97

^a $n = 44$ in 2012 and $n = 46$ in 2013; fifty-four unique groups.

^bSome groups asked in 2012 and 2013.

Many indicated that the programme was an essential motivating factor to help participating youth stay safe by changing attitudes towards their communities.

[C&G] gives communities an opportunity to see tangible results by their own hands. It is important to engage young people because they have the largest impact. Communities can reduce vandalism by encouraging youth to be a part of maintenance programs.

(Elliott)

It sure does change the attitude of youth. I say to them: you're not working for me, you're working for yourself – this is for you.

(Myrtle)

The program engages youth in improving community and learning work skills and habits. It brings hope and a little income where it is badly needed.

(Lewis)

In a community heavily affected by unemployment and crime, participants see C&G as a vital opportunity to break the cycle of poverty by providing practical job skills and much-needed income. While participants recognize the challenge of dissuading some youth from working in illegal activities, they feel that the culture they nurture is a counterweight to activities such as drug dealing or burglary.

Neighbour interaction and 'spillover' effects

Throughout the 2012 and 2013 seasons, 76 percent of participants indicated that neighbours had spoken to their group at least once during the preceding mowing period. Participants noted 551 conversations in 2012 and 824 conversations in 2013. Throughout this period, participants indicated that 93 percent of all conversations were positive in nature. Most 'negative' conversations reflected neighbours' concerns about lawn maintenance that the groups themselves addressed through C&G. These numbers are notable because many participants noted that otherwise neighbourly interactions are scarce, supporting the notion of incivilities theory (Branas *et al.*, 2011). Furthermore, 76 percent of participants also believed that neighbours interacted more with each other because of C&G, and 70 percent believed that neighbours were spending more time outside. Given that neighbourhood disorder and blight can cause anxiety, depression, and a decline in social interaction (Ross and Mirowsky, 2009), this neighbourly interaction is a clear victory for C&G.

Ninety-three percent of group reports indicated that at least some neighbours were taking better care of their own properties because of C&G. To determine the spillover impact of the programme, we conducted GIS analysis of occupied (i.e. not GCLBA-owned) residential parcels bordering

C&G-maintained lots. Any lot immediately bordering or across the street from a C&G lot was included, yielding nearly 2800 lots. Participants estimated that 50 percent of these neighbours were taking better care of their properties, suggesting that an additional 1400 lots were maintained indirectly as a result of the programme – 78 percent greater than the number of C&G lots alone. This statistics supports the idea that greening programmes can have a positive contagious effect on communities (Gobster and Dickhut, 1995).

Participants also indicated that the programme served as a catalyst for building community pride and encouraging residents to participate in greening other neighbourhood properties (as in Bonham and Smith, 2011).

Some guys clean up the basketball courts because they want the young kids to have a place to play – [C&G] is rebuilding pride in the neighborhood.
(Warren)

This program instills community pride. When people see others caring for community they step up to help.
(George)

Regarding the burden of overabundant land, participants also felt that their maintenance kept residents from feeling overwhelmed at the prospect of neighbourhood-level clean-ups.

Our presence encourages neighbors to take care of their own properties. It's more manageable for them when they don't have to worry about caring for other lots as well.
(Scott)

It provides the means for ordinary citizens to take initiative to clean their neighborhoods and come together.
(Sherman)

Public safety and quality of life

In spite of Flint's challenges with violent crime, 84 percent of participants believed that community-based greening programs such as C&G made their neighbourhoods safer. Participants perceived declines in rates of prostitution, drug dealing, break-ins, violence, and dumping of waste in their neighbourhoods after starting C&G. The solution was elegant but simple: criminals simply had fewer places to operate. As one participant noted:

Some of the drug dealers used to . . . try to hide out in our mowing crew when the police would come to round them up. I would tell them to man up and get back over there. The more we mow, the fewer places they have to hide.

(Leslie)

As supported by past research, increasing visibility in the neighbourhood (Loukaitou-Sideris, 1999) and boarding up vacant houses (Nachbaur, 1971) was perceived by participants to inhibit the ability for people to 'hide out' in vacant lots and houses, and thus led to reductions in crime.

Additional effects of mowing were often more subtle. Several participants noted implicit 'agreements' whereby drug dealers pledged to respect the areas maintained by the community groups. The visibility created on maintained streets helped alleviate the presence of more minor 'crimes of opportunity' such as dumping of waste or littering.

We have fewer issues with dumping now that lots are clean. There is a perception that people are around, there are people who care, and you could get caught if you dumped.

(Patrick)

Improvements in quality of life were evidenced by participants indicating a perceived increase in children playing in streets and parks, people sitting on their porches, and residents walking their dogs and spending more time outside in general. While groups recognized the negative impact that years of blight and poverty had on residents, they were optimistic about the benefits already being seen.

People are just shells of what they once were, but this program provides resources for neighbors to stop the violence.

(Fulton)

Ongoing challenges

Participants were careful to note ongoing challenges they and their neighbours face in spite of C&G. As noted by the 'agreements' held between some groups and local drug dealers, a careful tension must be navigated. Groups have a small hand in curbing drug dealing and random acts of violence by engaging these people, but the threat is not fully resolved.

The dealer is somewhat friendly right now (he hands out bottled water), but we are concerned he will not remain nice forever. He attracts bad people to the neighborhood.

(Jean)

While some communities have seen an improvement in neighbourly interaction and cleanliness, other groups are still met with scepticism by neighbours. Some residents are wary of others maintaining vacant lots, and race at times plays a hand in this antipathy (e.g. black residents maintaining lots in predominately white neighbourhoods have experienced distrust). Other groups have continued to deal with dumping, not only by residents but by local building contractors.

We have a huge dumping location – with that school being closed there are no eyes on the neighborhood.

(Lloyd)

Another problem relates to the large need for basic lawn maintenance. Additional community partners could participate in mowing vacant lots, but logistical and financial constraints have limited the size of the programme. Participants are confident that much more could be done by their groups at the current rate of subsidy, but the funding is not available to cover the entire city.

[C&G] is too small, not funded well enough to do the level of job it could do. Poor people have learned there's more to be done with a dollar.

(Willis)

Proposed solutions

Many common solutions for vacant land included parks, community centres, or community gardens in advance of potential future development.

We should consolidate into green space until we decide what to do with it.

(Grant)

Manufacturing is not coming back... get rid of vacant houses and start growing food – raspberries & mulberry trees are still growing.

(Warren)

Participants emphasized a desire to re-use the land for food production while recognizing the long time horizon for future development. One participant suggested using vacant land to produce renewable energy (as noted in [Schilling and Logan, 2008](#)). In a city with few export products and a meagre economy focused on the service sector, encouraging the growth of renewable energy and food production may provide a realistic opportunity for diversifying economic development. Participants discussed other strategies for moving from merely maintaining lawns to other forms of self-sustaining green economic development, reflecting a desire to grow beyond C&G. Many were also keen to the overabundance of green space in many neighbourhoods.

Green space is nice, but people are better – how do we bring people back? You can't put gardens everywhere.

(Ray)

Flint's old population is not coming back. I think we should deliberately allow growth of forests and re-zone certain areas to allow reclamation.

(Willis)

These two quotes represent sometimes opposing views of the best method for dealing with vacant land long-term: pursue redevelopment or allow a

return to nature. While some are supportive of allowing currently vacant land to be reclaimed by nature, others are still optimistic that new residential or commercial development could supplant vacant land.

Discussion

While Flint continues to face population decline, high unemployment rates, pervasive poverty, and high crime rates, C&G may provide an avenue for diminishing the physical, social, and psychological consequences presented by vacant properties in Flint's neighbourhoods. The impacts of the programme are instructive for other communities with a surplus of vacant land who are interested in community-based maintenance.

Nearly every participating group perceived that C&G had a positive influence on safety and neighbourliness, and many attributed this influence to the social ties nurtured through the programme. This reflects [Can's \(1998\)](#) argument that 'neighbourhoods with strong cohesive social networks have a stronger sense of community and are politically better positioned to take collective action when confronted with social problems such as crime and violence' (p. 65).

The programme also created the opportunity to quickly and cheaply establish informal parks on vacant lots, whereby community groups furnished lots with playground or sports equipment (as noted by [Heckert, 2012](#)). Because the maintenance of official parks and recreation venues is underfunded, the proliferation of informal community-run parks provides a meaningful opportunity for children and adults to recreate in a safe environment.

As is the case in many legacy cities, one continuing challenge facing Flint is a troubled history with urban renewal. Many Flint residents (and disproportionately those of minority or low socioeconomic status) were victims of urban renewal programmes, including clearances of the St. John and Floral Park neighbourhoods ([Highsmith, 2009](#)). These residents and their descendants reside in Flint today, participate in C&G, and have often expressed a distrust of city-wide planning. While C&G groups and other neighbourhood leaders have an important role to play in shaping policy change, leadership by municipal authorities is also integral to addressing issues of abandonment and blight ([Ehrenfeucht and Nelson, 2011](#)).

Amidst and in response to Flint's historical planning context, the City of Flint launched its first comprehensive master planning process in over fifty years in 2012. At all stages, the city sponsored participatory planning forums to ensure that policy and master plan development reflected the needs and desires of local residents. Through this process, proposals were made to encourage vibrant open spaces by re-zoning some neighbourhoods and/or

increasing sales of land to nearby homeowners. 'Green' residential zones intentionally encourage lower housing densities and emphasize available land as an asset. This commitment reflects the hesitance towards 'shrinking' policies and instead focuses on leaving the final decision on land use to local property owners. The City and other authorities have been active in devising blight elimination plans that employ the Master Plan's commitments with close community input as well (Pruett, 2014).

A food systems component in the city's master plan further suggests that civic leaders are open to encouraging urban agriculture on these properties in lieu of standard crabgrass lawns. Recent research conducted with stakeholders of Flint's local food network also suggests momentum in public sector engagement around programmes such as community gardening (Sadler, Gilliland, and Arku, 2014a).

Many C&G groups expressed positive views towards strategic reclamation of some streets by nature – with community buy-in. They spoke of focusing on neighbourhoods that remained strong and seeking to stem services elsewhere (but *only* once people moved out). Some were supportive of strategies to consolidate vacant land to encourage more intensive agricultural uses and likened the process of land consolidation to the Hantz Woodlands strategy of cleaning and maintaining vacant properties in Detroit to grow hardwood trees (as discussed in Bradshaw, 2013).

Given Flint's current participatory planning context, C&G groups continue to have the opportunity to lead the discussion on re-purposing vacant land. Indeed, these groups contain many of the city's most active citizens who espouse well-informed, practical solutions to neighbourhood problems. C&G can serve as a clearinghouse for local knowledge on this topic, and participants' opinions should continue to be valued as a critical element of effecting civic change and community development, both at the neighbourhood and the city level.

Research limitations and future research

The authors recognize the limitations of the current approach. First, the collection of subjective perceptions about environmental and social change could be skewed, given that many participants are civic boosters and may be predisposed to a positive reporting bias. These concerns could be directly addressed in future research on the spatial–statistical associations between greening and objectively derived changes in crime statistics or health outcomes. Second, the data do not demonstrate the dollar value of the greening in terms of improvements in home sale prices. Future research could combine home sales and/or foreclosures to determine if improvements are attributable to C&G. Finally, this programme may not be broadly transferrable to other sites. A follow-up study with a similar evaluation of

greening programmes in other cities may yield an opportunity to demonstrate the broader relevance of this method. The current article serves as the first step in future research inquiry and policy advocacy around the benefit of greening programmes.

Policy implications

Whether policy advocacy efforts are led by city- or neighbourhood-level groups, this research has several key implications. Foremost, C&G has fostered a perception that it can mitigate the consequences of abandoned properties and blight suggested by broken windows theory and incivilities theory (Branas *et al.*, 2011). Greening programmes represent another link in the growing relationship between public health and urban planning (Garvin *et al.*, 2012). Many C&G groups emphasize not only community beautification, but healthy living through physical activity and consumption of locally grown healthy foods. This commitment is partly attributable to the concomitant membership of many groups in a local food network, *edible flint*. Their stated goals include emphasizing economic development, job creation, and urban agriculture and gardening (Sadler, Arku, and Gilliland, 2014b). As both C&G and *edible flint* grow in size and reputation their ideals spread into the ethos of both groups.

This research also presents evidence towards a city-wide model of youth involvement in greening. Nearly half of those involved in C&G were youth, many of whom otherwise would have been unemployed. Unlike traditional workforce placement programmes, C&G puts youth to work beautifying their own neighbourhoods. Several groups specifically sought out youth who were seeking work. More than service-sector jobs (e.g. fast food) could do, the jobs created by C&G instil a sense of ownership and pride in the local community, which can have a cascading effect on rates of crime and vandalism.

The results from the qualitative interviews overwhelmingly indicated improvements in the perception of public safety and quality of life. Indeed, answering the dual calls for more qualitative research on how residents of 'shrinking cities' perceive their changing environments (Hollander and Németh, 2011) and the need to understand how residents perceive reductions in blight (Johansen, Neal, and Gasteyer, 2014), we uncovered major recurring ideas present in community groups participating in greening in a legacy city. Our findings will inform future work on vacant land greening programmes, for as Garvin *et al.* (2012) said, 'as researchers and policy makers learn more about the connections between neighborhood conditions like vacant land and health, new interventions to address the impact of poor conditions will be developed and tested' (p. 2). Broadly, this research has demonstrated how a greening programme can interrupt the downward

spiral suggested by the twin broken windows and incivilities theories and will serve as a guide to future efforts to address these vexing problems of legacy cities.

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