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Historical waterscape trajectories that need care: the unwanted refurbished flood homes of Kinston's devolved disaster mitigation program

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Abstract

In 1999 Hurricane Floyd pummeled the eastern portion of North Carolina (NC, U.S.A.), and in its wake many localities participated in federal home acquisition-relocation programs in flood-prone areas, with shared and devolved governance. This article reports on one such program that was conducted in the City of Kinston, where a historical African-American neighborhood called Lincoln City was badly flooded by water containing raw sewage from a compromised wastewater treatment plant upstream. Afterwards, some of the acquired homes were relocated to an adjacent area populated by middle-class, African-American families. The article explores to what extent political devolution of flood mitigation disempowered residents to deal with this crisis in their waterscape. Combining a framework from medical anthropology regarding the logics of choice and care with historical political ecology, it illustrates how devolved government policy led to a continuation of the waterscape's discriminatory history after the buyout program, with no recourse for local citizens as the program worked through a logic of choice that demarcated responsibilities. Understanding this case requires a historically informed assessment of social impact, in which the chosen flood mitigation measures are critically assessed using tools from historically-informed political ecology, leading to a longer-term logic of care where needed.

Keywords: Devolution, flooding, path-dependency, waterscape, buyout, mitigation, care, choice

Résumé

En 1999, l'ouragan Floyd a battu la partie orientale de la Caroline du Nord (NC, États-Unis) et, dans son essor, de nombreuses localités ont participé à des programmes fédéraux d'acquisition et de réinstallation de maisons dans des zones sujettes aux inondations, avec une gouvernance partagée et dévouée. Cet article rapporte un tel programme qui a été mené dans la ville de Kinston, où un quartier historique afro-américain appelé Lincoln City a été relocalisé. Par la suite, certaines des maisons acquises, inondées d'eaux usées brutes provenant d'une usine de traitement des eaux usées compromise en amont, ont été transférées dans une zone adjacente peuplée par des familles afro-américaines de classe moyenne. L'article explore dans quelle mesure la déconcentration politique en réalité (dis) a permis aux résidents de faire face à cette crise dans leur paysage aquatique. En combinant un cadre anthropologique médical concernant les logiques de choix et de soins avec l'écologie politique historique, il illustre comment la politique gouvernementale décentralisée a conduit à la poursuite de l'histoire discriminatoire de l'eau au-delà du programme de rachat. Les citoyens locaux manquaient de pouvoir alors que le programme fonctionnait avec une logique de choix que les responsabilités délimitées. La compréhension de ce cas nécessite une évaluation d'impact social historiquement informée, dans laquelle les mesures d'atténuation des inondations choisies sont évaluées de manière critique à l'aide d'outils d'écologie politique historiquement informée, conduisant à une logique de soins à plus long terme.

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Mots-clés: Dévolution, inondation, dépendance au chemin, paysage aquatique, rachat, atténuation, soins, choix

Resumen

En 1999, el huracán Floyd golpeó la parte este de Carolina del Norte (NC, U.S.A.), y para su recuperación varias poblaciones participaron en los programas federales de adquisición y reubicación que dependen de formas compartidas de gobierno delegado. Este artículo reporta uno de estos programas llevado a cabo en la ciudad de Kinston, donde un vecindario histórico Afro-Americano llamado Lincoln City fue adquirido. Posteriormente, algunas de estas casas que se inundaron con aguas residuales provenientes de una planta de tratamiento río arriba, fueron reubicadas en un área adyacente poblada por familias Afro-Americanas de clase media. Con el apoyo de un marco antropológico médico sobre las lógicas de elección y cuidados, y con ecología política histórica, este artículo explora hasta qué punto la descentralización política (des)empoderó a los residentes para negociar la crisis en su zona acuática. Este artículo ilustra cómo la descentralización de una política gubernamental dió continuidad a la historia de discriminación en esta zona acuática más allá del programa de adquisición, y sin oportunidad de otro recurso para los ciudadanos locales, ya que el programa funcionó con una lógica de selección que demarcaba las responsabilidades. Este artículo propone una evaluación histórica e informada del impacto social, en que la lógica para mitigar la selección es críticamente evaluada con herramientas de ecología política históricamente informada, y es intercambiada por cuidados de largo plazo en situaciones donde esta necesidad pueda ser evidenciada.

Palabras clave: descentralización, inundación, dependencia del camino, zona acuática, adquisición, mitigación, cuidado, selección

1. Introduction

Over the twentieth century, federal approaches to floodplain management in the U.S.A evolved from structural engineering projects (levées and dams) to mitigation initiatives, such as home acquisition and relocation of homeowners—buyouts—out of the flood-prone areas (Barry 1998; Berke 1995, Brody *et al.* 2011; Godschalk 1999; Milette 1999; Nilsson 2005; Platt 1999). While existing since the 1970s, the rising cost of payouts from the National Flood Insurance Program (NFIP) to affected households made buyouts an increasing policy priority from the 1990s (Holladay and Schwartz 2010; Kick *et al.* 2011; Platt 1999). During this same period, the flood mitigation agenda also became increasingly contextualized by a governance model of devolution, or a "democratic experimentalism" characterized by decentralization and deregulation (Super 2008). While influenced by a decline in trust in federal (national) government (Jennings 1998), devolution appeared in the 1988 U.S. Stafford Act, designed to encourage states and localities to develop comprehensive disaster preparedness plans. Good governance of mitigation measures needed to be local and inclusive, led by its "first responders", empowering citizens to shape the policies that affect their lives (Birkland 2008). In the period following Hurricane Andrew in 1992, the federalist agenda began circumventing state governments by engaging directly with cities and counties (IFMRC 1994). Reports even called for devolution to the level of the individual (Faber 1996). The passing of the Bunning-Bereuter-Blumenauer Flood Insurance Reform Act of 2004 (P.L. 108-264) mandated that property owners suffering repetitive losses from flooding were held responsible for damage if they chose not to leave the affected zone, the 100-year floodplain.

The assumption that local governments (city and county) are best suited to develop and implement flood mitigation projects has not been borne out by evidence from other fields. Many devolved programs fail because the state does not actually relinquish *enough* control to local people, and powerful people capture status, resources, or gain more power through implementation (Batterbury and Fernando 2006; David and Lockwood 2009). In addition, devolution has often been linked to "neoliberalized governing at a distance" leading to intensification of market-based instruments such as competitive bidding (David and Lockwood 2009; Bockmeyer 2003) and using a community as on-the-ground implementation agents of regional strategies. In a study by Bockmeyer (2003) on community development cooperation in the Lower East Side of New York City, devolution did not enhance access to services, but instead encouraged community group competition, shrinkage or elimination of smaller community based organizations (CBOs) and growth of professionalized community development corporations (CDCs). Based on long-term experience with devolution in welfare and poverty programs, the "devolution revolution" has also created openings for new

forms of racial inequality that disadvantage African-Americans in the U.S. welfare system (Soss 2001), constrained the agency of welfare workers (Morgen 2001), and contributed to the calamity that low-income people suffered during and after Hurricane Katrina (Super 2008). Super (2008) has argued that underlying these problems is the impossibility of finding consensus on a range of issues, including the nature of problems and appropriate governance actions, and a lack of reliable metrics, time, and means to pay for expensive local deliberations. Berkes (2010) noted that for devolution to be effective, it requires a shift in focus from a static concept of management to a dynamic concept of governance shaped by interactions, feedback and adaptation over time.

This article provides a case study of devolution from the field of disaster mitigation. It illustrates the difficulties of implementing devolved programs in disaster mitigation contexts that are historically embedded in racial and economic inequality, like many floodplain communities in the US rural south. The case shows how flooded homes were repurposed without recognizable consideration for the health and well-being of their owners, or of the larger community. Our key informants sought justice, but ended up in disputes about rules, regulations and definitions, and with a lack of accountability. There was a conflict between a 'historical' ideology of discrimination, actively re-constructed through technologies of risk in the waterscape, and the cornerstone idea of 'choice' that led devolved, mitigation decision making, permitting voluntary decisions to be made in response to offers of mitigation. We argue a logic of *care* would have been better suited to govern this mitigation project (Mol 2008; Mol *et al.* 2010). Understanding neighborhood history could have guided more informed assessment of its social impacts.

2. Care, choice and waterscapes

Political ecology and medical anthropology have in common the development of important critiques of the 'logic of choice.' Political ecologists encourage historical examination of the dynamic pressures of inequality that co-produce geographies of distress (Blaikie *et al.* 1994; Pelling 1999). Their point of entry is a critique of rational choice.² Choices in flood recovery and mitigation, they argue, never lie outside the historical production of flood hazards that result from complex spatio-temporal processes linking ecological ("natural") relationships to political, economic, social and cultural domains. In these processes, some groups are rendered more likely to experience flood risk than others. While removing housing from flood-prone urban areas appears reasonable to safeguard residents, political ecologists argue that disasters do not simply flatten landscapes but they deepen and erode the "ruts of social difference they encounter" (Smith 2006: 3). In this sense, "choice" is a continuation of historically specific achievements or dynamic pressures that are co-produced by ecological and social interactions over time. The terms "waterscape" focuses attention toward this complex relationship in floodplains (Perrault *et al.* 2012; Mustafa 2013). Waterscapes are seen as hybridized socio-natural flows that fuse together nature and society in inseparable ways (Swyngedouw 2009).

Medical anthropology deals with social, cultural, biological and environment factors that contribute directly and indirectly to well-being and health. The focus on well-being underpins disaster mitigation and patient care, allowing for productive translation of concepts between these domains. The conceptual translation from floodplain victim to patient care is closer than it may seem as both domains deal with suffering agents that have become politically embedded with outside expertise. This article draws attention specifically to the distinction between the logic of care in flood mitigation programs and the logic of choice developed by the medical anthropologist Annemarie Mol (2008). As medical caregivers became unsatisfied with the lack of power of patients—seen as passive care-receivers—the solution in the medical field was to see the "patient" or person who receives care as a "customer" with purchasing power. After all, in the market customers make their own choices. This consumptive approach to care—the choice made available to patients to seek their own care—is likened to the Western ideal of individual autonomy (see also, Markus and Schwartz 2010). Mol argues that this also framed healthcare as a product for sale, obscuring the idea that it is a relationship between caregiver and patient, and not a product to be bought or merely exchanged.

² Which argue aggregate social behavior is result of individual behavior - each makes their own decisions.

Instead of a *logic of choice*, Mol argues for a *logic of care* in which fragility is taken to be part of life. She points out that care professionals in practice accept that sooner or later everyone may need help, and that an enduring quality of care-giving is that professionals also refuse to give up on anyone. Care professionals do not abandon their patients. They keep trying, tinkering, and re-examining the situation. This logic contrasts with the idea of consumption, where a group of people to whom nothing can be sold anymore stop being a 'target group.' The art of care is to figure out how various actors might best collaborate in order to improve, or stabilize a person's situation. And in this process, the patient him-/herself actively performs and plays a role, attending to symptoms and engaging with care professionals to make care practices a reality.

Within devolved hazard mitigation practice, a logic of choice is discernable at two levels. First, choices are made by local mitigation programmers to offer buyouts of property based on FEMA-data; second, choices are given to floodplain victims to accept or deny these offers. Starting with the former, in floodplain mitigation, a hierarchical chain of command exists in which municipalities submit land acquisition applications to the federal level (FEMA) through state and regional agencies for approval, based on cost-benefit analysis. Political-economic technologies such as digital flood insurance rate maps (DFIRMS) that employ hydrologic modeling, estimate the probability that a parcel of land will be inundated with a certain amount of water. DFIRMS create a cost-benefit rationale that is used to determine whether or not people residing in them should be targeted for a buyout intervention. However, beyond the cost-benefit analysis, localities retain a great deal of authority—*choice*—over where they will implement buyout programs. Thus, there is a "system in which the power to govern is shared between national/central and state or unit governments" (Doyle 2012: 6). Theoretically, the benefit of this multi-scalar approach to floodplain governance is that shared power between levels of government increases the likelihood of the best policy ideas surfacing (Doyle 2012; Kettl 2002). However, when using cost-benefit analyses alone, FEMA funnels economic rationality down bureaucratic hierarchies to the most local city or county levels, leaving (socio-) political understanding out of its accountability framework.

Having made their own choices within the cost-benefit framework, a second framing of the logic of choice occurs when offers of voluntary acquisition are presented to homeowners by frontline workers. As homeowners make the decision whether to vacate their homes and accept compensation, buyout professionals communicate messages of risk, at times supported by emotional references to previous flood hazards. In this context, floodplain populations are seen to be in need of care in the form of protection against unnecessary flood risk, for themselves and for the economic wellbeing of entire localities. Yet, care is framed in such a way that acceptance of offers of mitigation is dominant. For many, this choice is a valuable opportunity. On the other hand, it is also constrained; if property owners refuse to be bought out, they not only must pay increased insurance rates (although this is debated, Caruso 2014) but also risk being left without further public flood protection investments if they remain. As Kick *et al.* write "Under these circumstances, it is anticipated that homeowners will adopt the apparently rational course and accept the mitigation offer to secure their homes or relocate out of harm's way" (Kick *et al.* 2011: 511).

In planning and mitigation literature, choice is conceptualized as the cornerstone of decision-making. In general the sentiment among hazard mitigation officials, in the popular media and among academic observers is that people *choose* to live in floodplains in the first place. In many cases—particularly when it concerns vacation homes in expensive beach front areas—they are correct. Yet in disadvantaged communities as political ecologists have identified, there is far less room to choose, and 'choice' in devolved mitigation practice may have limitations. In this article medical anthropology and historical political ecology are combined to provide a framework for balancing choice and care. A waterscape's historical influences and threats to democratic governance need to be understood alongside cost-benefit calculations. Historical political ecology has shown the latter may be self-reinforcing (Pierson 2004). Processes of social change may be path-dependent, meaning they exist semi-independently from the people involved in or affected by them (Mahoney 2000; Pierson 2004). In other words, waterscapes become locked in a certain direction that stakeholders find hard to change or reverse (Joosse 2010). If this is correct, then tracing connections between current and past practices may reveal situations in which a caring approach is better suited to deal with the buyout program than offering choice. Here, insights from medical anthropology can help to provide a second step in this approach; the development of and motivation for a logic of care that supports mitigation programming within a devolved context. Here the caregivers do not give up after contractual obligations are

over, but instead continue to monitor and engage with individuals and communities in order to address injustices.

3. The case of refurbished homes

A devolved government buyout and relocation program took place in the City of Kinston, North Carolina (U.S.A.). In 1999, Hurricane Floyd brought disastrous flooding to several parts of Kinston, including the lower-income, historically African-American neighborhood referred to as "Lincoln City" (De Vries 2008; De Vries 2011; De Vries and Fraser 2012). Lincoln City is located close to the bank of the Neuse River and near hazardous land uses, including a junkyard and a wastewater treatment plant. Flooding from Hurricane Floyd inundated many Lincoln City homes (330mm of rain fell in 24 hours), while releasing raw and partially treated sewage as well as oil, gas and other toxic compounds from these two facilities. After the flood, local government authorities acquired homes that residents presumed would be destroyed, following common mitigation rules. Yet, some of these homes were relocated to a nearby African-American neighborhood, refurbished, and sold to new homeowners as part of an effort to provide affordable housing needed after the flood had destroyed a large part of Kinston's homes.

This article focuses on the efforts of a local African-American couple, Gladys and William Johnson³, to prevent these refurbished houses from being located next to their home. We and our colleagues first learned about them when we heard their voices on a two-hour long 2001 video—on VHS tape—which circulated through the offices of the mitigation division in the FEMA headquarters in Washington D.C. which we were visiting for a mitigation research project. Mr. Johnson was heard on his home video providing commentary on a house which had been placed on the lot next door. After this, the video included hour-long public broadcasts of four City Council meetings of Oct 1st, Oct 22nd, Nov. 5th and Nov. 19th. The video showed City Council meetings discussions, including remarks from residents. To our astonishment, the video was given to us with a comment by the FEMA official: "Take a look at this, it may interest you." The official hosting us noted that they had not taken any further action on the complaints in the video, because the issue was deemed "outside their jurisdiction."

Soon after, we scheduled an appointment with the video's producer, Mr. William Johnson, and his wife Gladys. As we watched the video together during a half-day meeting we solicited feedback on what they had seen and how they understood the events described, pausing many times for questions, commentary and reflections. After the viewing, we asked more follow-up questions, and Mr. Johnson drove us around the area showing some of the properties which the local Greater Kinston Community Development Cooperation (GKCDC) apparently had acquired through the buyout process, and showed us the GKCDC office location downtown. We went back to Kinston and consulted the *Kinston Free Press* newspaper archive at Lenoir College and organized the reports and documents which our informants had provided to us, including council meeting minutes and agendas, and official correspondence with the couple. We found no additional technical documentation about the GKCDC refurbishment action, but we did conduct a telephone interview with a key staff member of the GKCDC who oversaw the relocation of the same refurbished homes highlighted in the video. We were unable to trace the original owners of the homes affected.

All of this information was contextualized by fieldwork on the general experience of the residents of Lincoln City, which included ethnographic observations in the floodplain area of Lincoln City and long interviews with six older floodplain residents, two City mitigation planners and one planning consultant about general buyout issues. In addition, a buyout experience dataset was used from a FEMA-funded buyout study led by the Center for Urban and Regional Studies at the University of North Carolina at Chapel Hill (De Vries and Fraser 2012; Fraser Rohe and Godschalk 2004). This dataset consisted of a randomly sampled telephone survey among 89 floodplain property owners who had been offered a mitigation offer to relocate outside of the 100-year floodplain. This dataset included background information on 5 of the refurbished properties.

Piecing these bits of information together, the analysis that follows captures hopelessness, vulnerability and injustice. We had experienced this during our interaction with floodplain populations.

³ To protect privacy, these are not the real names of the respondents.

Some of our reflections have been published previously (De Vries 2011; De Vries and Fraser 2012). Yet, the current story on housing development practice unearthed and made present in a new way the historical legacy of racial and economic segregation since the beginning of the twentieth century (Ueland and Warf 2006). To us, the lasting impact of a racialized buyout mitigation program was based on inherent contradictions, revealed by a medical anthropology research approach. It was clear that the people involved tried to do good. All of them. But deeper social tensions emerged in conceptualizations of choice and its role in devolved governance.

4. A history of spatial discrimination

African-Americans began to settle south of the City of Kinston in the twentieth century when Lincoln Barnette purchased three acres of land. Low-income labor workers, many of whom were freed slaves, began to buy lots and build houses near Barnette's property and named the area Lincoln City (Kinston Daily Free Press 1976). The burgeoning black community of Lincoln City resided just outside of the Kinston city limits in low-lying 'bottoms' between the river and a cemetery. Noted on an early fire insurance map of 1914 as "negro tenement" south of the City line, by 1925 the now judicially incorporated area was shown as part of the City, yet was still singled out as separate (Figure 1).

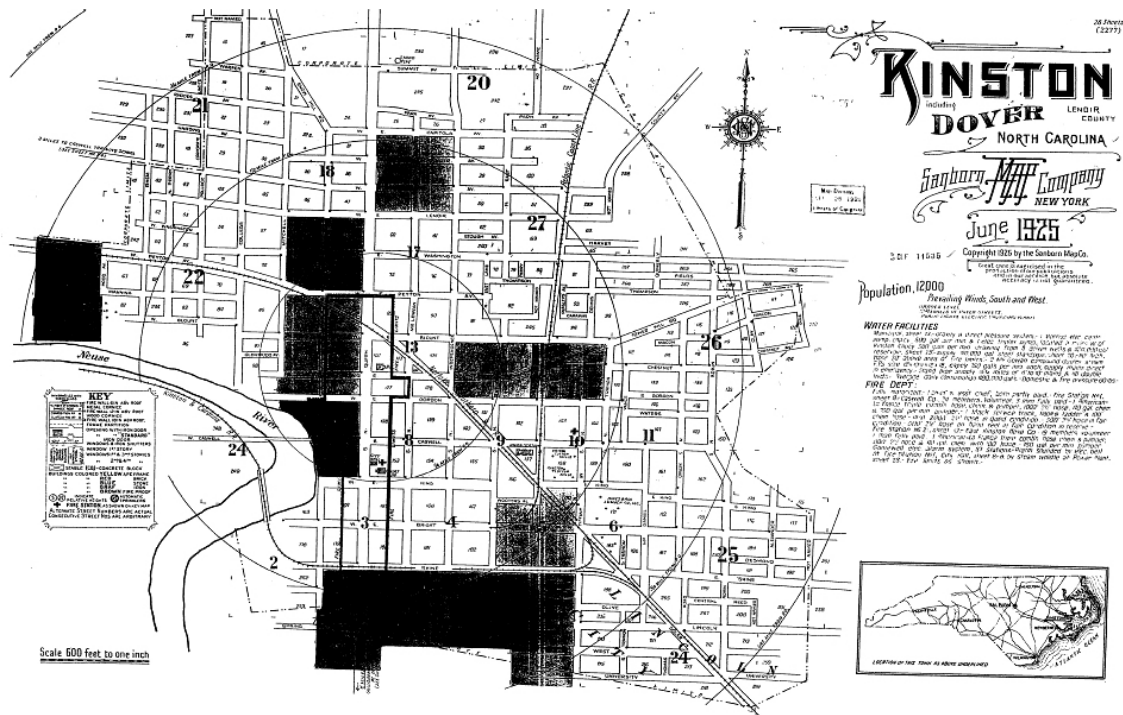


Figure 1: 1925 Sanford Fire Insurance Index Maps for Kinston. On the bottom right, in panel #24, the black neighborhood of "Lincoln City" stretching into the Neuse River floodplain. Today, most of the area has reverted to forest and the roads are closed. Source: U.S. Library of Congress.

In the early twentieth century locals directly experienced the spatial segregation visible on these maps. One elderly Lincoln City resident mentioned:

Where J.D.'s supermarket is, was all white folks. The nearest black folks was on Reed Street. A hill up on Adkin Street leading to J.D.'s. You couldn't go there this time of evening. The white folks would throw at you, chunk at you, call you "nigger." It was called *Crackertown*.

Lincoln City offered a rare opportunity for African-American home ownership, even though it suffered repetitive flooding (*Kinston Free Press* 1996). A long-time resident noted how this affected the local's relationship to water:

We weren't offered better land. Naturally, when the floods came we had to live with it. Because when you are living in a segregated society you know you have whites in one area and blacks in another, and where we was living, this was the only place that we could live. Cause you couldn't go to a white area and buy a house. That was a no-no.

Despite racial apartheid and flooding, Lincoln City was a place of pride to many of the African-Americans who lived there, and it included a dairy farm and one of the only schools for blacks (Kinston College) - attracting many black outsiders to the neighborhood. As one of its former residents, an 87 year-old woman noted "The people loved each other, they fed each other, clothed each other, and they took care of each other's children; it was a nurturing kind of community, and a very religious community." Residents developed routines to respond to hydrological events, including placing items inside their homes on bricks, having boats nearby, and relocating during high water events.

The US civil rights movement started to develop in the 1960s, but segregation remained part of this waterscape until its end. During the 1960s the municipal government of Kinston built the Peachtree landfill and wastewater treatment plant adjacent to Lincoln City. After the flooding from Hurricanes Hazel in 1954 and Hilda in 1962, the City began lobbying the state legislature of North Carolina to dam the Neuse River in efforts to reduce flooding and protect the City's infrastructure. Only one of four planned dams was eventually built—in fact only marginally protecting the neighborhood—and residents lacked political capacity to demand other defensive structures. One respondent blamed herself for this, noting that people simply did not ask questions: "I really never understood why they did, because they come back, you know, they never did follow-up on what they said they were gonna do." In 1978, despite Lincoln City's cultural and economic significance to African-American residents, Kinston officials applied for and received a United States Department of Housing and Urban Development (HUD) grant to finance a floodplain home acquisition and relocation project to move Lincoln City residents. This move was consistent with the way in which City officials conceived the space of Lincoln City as a "floodplain." Relocation was supported by flood insurance rate maps, and low-income housing was seen as unwanted "blight."

While the relocation strategy failed to relocate many residents, it created a new spatial representation of the neighborhood as a hazardscape. A federally supported Hazard Mitigation Grant Program was used by City officials to pursue a buyout strategy after Hurricane Fran in 1996, but again this program received only a lukewarm response with many Lincoln City residents uninterested in participating, preferring to stay in their homes once repaired. When in 1999 severe flooding associated with Hurricane Floyd ravaged the City of Kinston once more and wrecked the Peachtree wastewater treatment plant, it released fecal contamination into Lincoln City homes.⁴ This event seriously challenged attempts by local residents to stay in Lincoln City, as many homes sat for a week in contaminated floodwaters. As a result, most of the buildings were condemned by the City of Kinston. During the buyout negotiations, Kinston officials told the flood victims that as part of the buyout process their homes would be demolished, which was in accordance with general FEMA buyout practice (De Vries and Fraser 2012). In this context, City officials were able to sell their program, with ninety percent of flooded property owners choosing to participate. City officials had plans for the area, and state and FEMA officials supported the effort to move people out of the hazardscape.

⁴ The plant was later dubbed an "environmental embarrassment that should never have been built" by FEMA director James Witt while visiting Kinston (NC-DPPS 2007).

5. Exporting the flood

Despite the promise to destroy the bought-out homes, the City refurbished a number of them and moved them into its other African-American neighborhoods without informing the previous inhabitants. William Johnson told us about his surprise when one of these homes was placed on the empty lot next to his home in the summer of 2001:

When they put these flood houses down it was so quick that nobody knew. I mow the lawn. Usually I kept the lot next door. I mowed the front. I mowed the sides. And, when I came to the back to mow, the house was there!

Figure 2 shows a photo of the home taken by the Johnsons the right after they learned about it.



shows a home taken by the Johnsons the right after they learned about it.

Figure 2: State of one of the two flooded homes that ended up next to the Johnsons house, before refurbishing, summer 2001. Source: William Johnson.

Speaking about the lot, his wife Gladys Johnson said:

It was just underbrush so we kept it up. We just asked them if we could. But later on we got interested in the property so we inquired about buying it. So my husband had spoken to some City officials and they said they would give us further options. But we knew that nobody in the neighborhood had a clue that this was going on. There was no kind of meeting or anything to let us know.

Soon after the first home was placed, a second home was positioned on the adjacent back side of the Johnsons' house. Frustrated and concerned, the Johnsons retraced the owners of this house and found out that other homes had now been placed in East Ridge (4 homes) and on Shaw Lane (6 homes). Further inquiry

made clear that it was a nonprofit organization called the *Greater Kinston Community Development Corporation* (GKCDC), a spin-off of the Greater Kinston Credit Union, which was managing this process. After the Johnsons contacted the GKCDC for clarification, a Project Manager met with concerned community members and according to the Johnsons stated that the GKCDC was required in the future to wash the walls with a chlorine solution and tear out all affected walls and floors. It was explained that the GKCDC had received a land grant from the North Carolina Community Development Initiative to move 21 vacant homes out of the flood area onto empty lots. The dataset from the buyout study conducted by the Center for Urban and Regional Studies had some details on five of these properties, shown in Table 1 (Fraser *et al.* 2004).

Flooded address	106 Bynum	302 Jay St.	304 Jay St.	408 Jay St.	500 Jay St.
Before the flooding, how many years had you lived in your neighborhood?	19	22	19	25	17
Prior to the flood, how satisfied were you with the house you lived in?	Satisfied	Very Satisfied	Very Satisfied	Very Satisfied	Very Satisfied
Before the flood how attached were you to your neighborhood?	Very Attached	Very Attached	Very Attached	Very Attached	Very Attached
How extensive was the damage to your home due to the flooding?	Very Extensive	Very Extensive	Very Extensive	Very Extensive	Very Extensive
Had your home been flooded before?	Yes	No	No	No	No
How many inches of water did you have in your home?	120	No data	36	60	60
Were you able to live in your home after the flood?	No	No	Yes	Yes	No
Was your home condemned after the flood?	Yes	Yes	No	No	Yes
Did you make any repairs to your home after the flood?	No	No	Yes	Yes	No
Did you feel that participation in the buyout program was voluntary?	No	Yes	Yes	No	Yes
In your opinion, how fair was the price offered for your home?	Not very fair	Very Fair	Somewhat Fair	Somewhat Fair	Very Fair
In what category would you classify yourself?	African-American	African-American	African-American	African-American	African-American

Table 1: Survey details on 5 refurbished homes. Source: Fraser *et al.* 2004.

As can be seen, all of the previous homeowners involved had lived approximately twenty years in these homes, were very satisfied with them, very attached to their neighborhood, and all had experienced extensive flooding ranging from 26 to 120 inches (660-3,048mm). Three of these homes had been condemned, while owners had been making repairs in others before deciding to participate in the buyout. In two cases, the homeowners had experienced the buyout operation as involuntary; they would have rather stayed put but saw no alternative. Further inquiry into the current status of these refurbished homes in their new neighborhoods indicates that at first most of them were difficult to rent or sell, as local people did not want them. At the date of publication, all these properties had owners who did not reside at the property. Furthermore, they are all listed in the public domain without any traceable record of previous flood damage. The only advisory listed is typically a standard lead paint alert.

The project was part of the City's "Call Kinston Home" program, focused on keeping flood victims within its tax boundaries and intended to attract first-time buyers to a small community setting (*Kinston Free Press* 2001a). A number of vacant lots had been identified and by the GKCDC from the City at an average of US\$7,000 per lot, and question were flooded during Hurricane Fran in 1996 and had (however exposed to toxic impact in 1999). After the houses were moved, they would be sold for US\$45,000 to \$55,000, and at least half of them *had* to be sold to people who lost their homes during Hurricane Floyd in 1999. A summary of the budget for the project is shown in Figure 3.

Call Kinston Home	
HOUSING INSTITUTE/ HELPS PROPOSED BUDGET	
REVENUE	\$851,000
HUD/DRI	
APPROPRIATIONS	
ADMINISTRATION/PROJECT COORDINATION	\$102,000
WAREHOUSE OPERATIONS	\$220,000
DECONSTRUCTION/REHABILITATION	\$319,000
RELOCATION 12 Buy-Out Housing Units @ 5,000 per unit	\$ 60,000
ACQUISITION Replacement Housing @ 20,000 per acre X 4 acres	\$ 80,000
INFRASTRUCTURE \$3500 X 20 Lots	\$70,000
TOTAL APPROPRIATIONS	\$851,000

boundaries and intended buyers to a small community setting (*Kinston Free Press* 2001a). A number of vacant lots had been identified and by the GKCDC from the City at an average of US\$7,000 per lot, and question were flooded during Hurricane Fran in 1996 and had (however exposed to toxic impact in 1999). After the houses were moved, they would be sold for US\$45,000 to \$55,000, and at least half of them *had* to be sold to people who lost their homes during Hurricane Floyd in 1999. A summary of the budget for the project is shown in Figure 3.

Figure 3: Summary of the proposed budget for the initiative. Source: William Johnson.

In a letter retrieved by the Johnsons from the City to the GKCDC dated June 16, 1999—three months before Hurricane Floyd—it was confirmed by the City Mayor that both the GKCDC as well as Habitat for Humanity had an interest in placing a "bid" on the FEMA homes. These homes had been acquired by the city after the buyout process that had been flooded after Hurricane Fran in 1996 (City of Kinston 1999). After these bids, GKCDC would find additional funds elsewhere for relocation, rehabbing, and marketing the structures. The City Mayor wrote:

We feel that with the number of structures we are going to be dealing with, that it is reasonable to assume that the number of houses that your firm initially desires (20) would at some point and time be placed on a list for demolition by the City. We would like to work with you to keep these homes within the general area of our Call Kinston Home initiative, for it is within these boundaries that we feel we can achieve the maximum reinvestment opportunities made to help restore and revitalize these vital neighborhoods that surround our central business district. (City of Kinston 1999)

When the GKCDC finally received the additional funds from the North Carolina Community Development Corporation Initiative (NCCDI) after Hurricane Floyd, the plan was set in motion to refurbish and sell 7 houses during each year of the grant, totaling twenty-one. In the local newspaper, the then interim planning director was quoted: "the project is an attempt to re-establish a tax-base in a declining neighborhood through home-ownership" (*Kinston Free Press* 2001b). The Johnsons disagreed with this objective. **First**, they noted that the homes had come straight out of the floodplain where they had sat for two years after contaminated water had flooded them first in 1996, and then again in 1999 for up to 12 days including with raw sewage from Peachtree. To the Johnsons, the houses were lifted straight out of the flood areas and appeared contaminated. While County officials had determined that any home which had had flood waters up to the floor joists had to be demolished, according to the Johnsons the home next door to theirs showed watermarks above the windows. Their **second** objection was the argument that the project would help increase the tax base. As it appeared, the homes had been moved to one of the nicer black neighborhoods where the lower valued and controversial flood-homes were a frontal assault on the property values of the houses surrounding them. Without input from neighborhood residents on the appropriateness of the move, it was difficult to see this relocation as a decision that had the support of the neighborhood. Furthermore, *none* of the homes appeared to have been relocated to non-black areas. Data from the Johnsons tracing ten refurbished locations is shown in Figure 4, mapping both flooded and relocated locations overlaid on the relative proportion of African-American (indicated by the brownness of the color).

The Johnsons' **third** issue was that neither the previous pre-buyout owner, nor those affected by the move, had been notified that this was happening. As the houses had been part of a buyout program, the owners were given the impression that their homes would be demolished. As Gladys said:

A lot of them who were told their house would be demolished, they took the funds and went on. And when we found out, we knew the houses, we knew where they came from, knew where the people came from, and we asked them and they told us 'we thought our house was going to be demolished.'

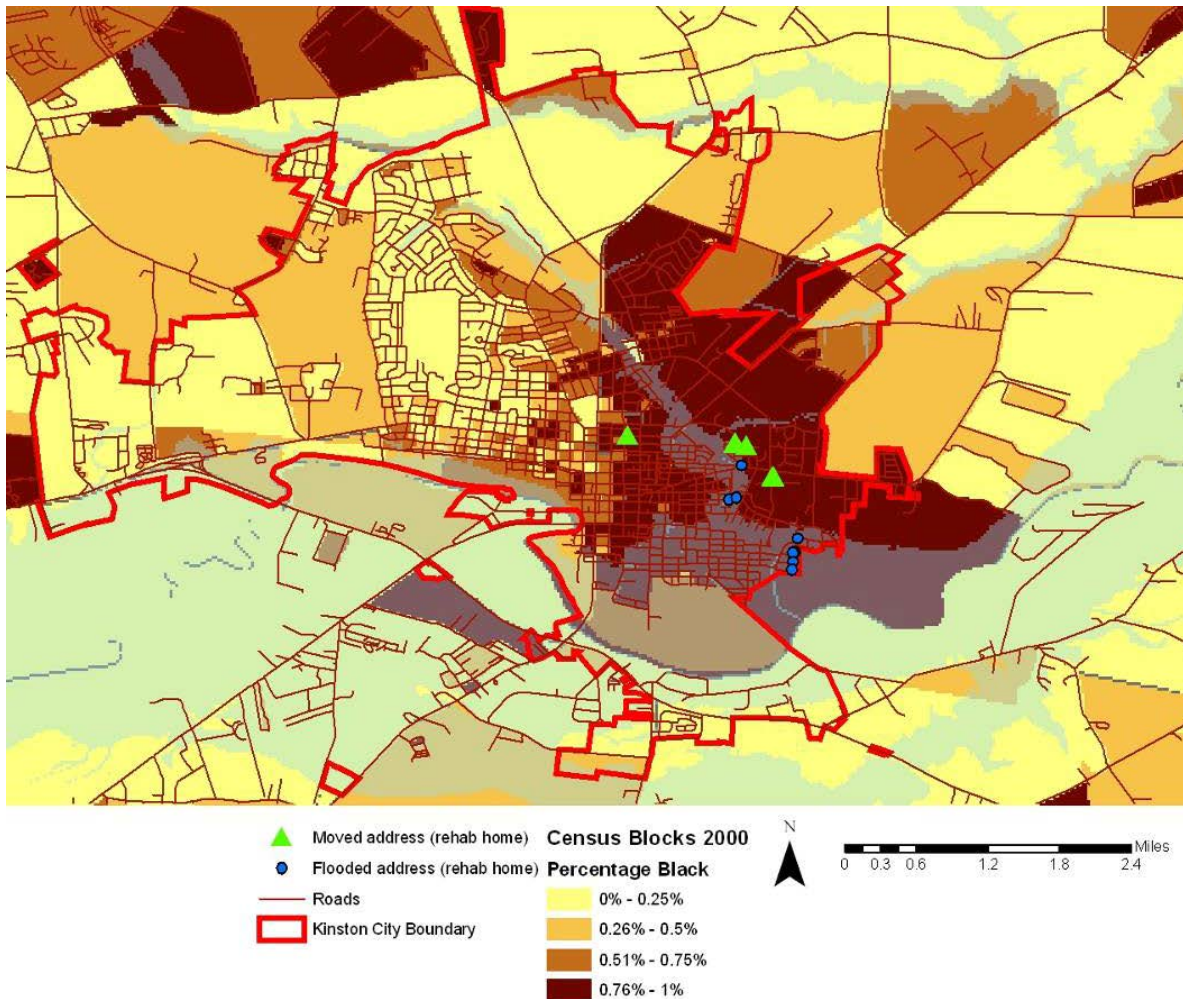


Figure 4: Map of homes participating in the refurbishment scheme, based on the CURS buyout study dataset (Fraser *et al.* 2004). Darker brown colors indicate a higher percentage of black homeownership. The blue dots are the flooded addresses, and the green triangles are the new addresses of the relocated homes.

6. The symbolism of contamination

For many city residents, memories of Lenoir County's Health Department warnings regarding contamination during floods from hog lagoons⁵, septic systems, the wastewater treatment plant and flooded cars were still vivid in their minds. The *Kinston Free Press* had reported that residents returning after flood recession should watch for snakes, fire ants and raw sewage that may have entered their house along with the floodwater, and that any water remaining was probably contaminated (*Kinston Free Press* 1999a; 1999b). In the same article (1999a), Johana Reese of the North Carolina Division of Environmental Health was quoted as saying that sewage and mold would be health hazards facing returning residents, a sentiment echoed by many others (*Kinston Free Press* 1999c).

Concerned about contamination remaining in houses moved to their neighborhood, the Johnsons asked the Health Department in Raleigh to send someone for a health inspection. On October 3, 2001 they received a letter stating that an Industrial Hygiene Consultant Supervisor and Lenoir County Environmental Health Department Health Supervisor had visited the two properties close to them and "could not find any evidence that the homes were flooded" (NCDHHS 2001a). The Johnsons then traveled to Raleigh to speak to one of the inspectors, but waited in vain to see him in person and received notice by phone later that he did not know about the case.

Eventually, a second inspection was done, and the NC Department of Health and Human Services sent another letter from the state inspector on November 7, 2001 stating that while indeed the homes appeared to have been flooded, as evidenced by watermarks, "no evidence of moisture or mold growth was identified inside the wall cavities, including the front wall beneath the watermarks" (NCDHHS 2001b). This information did not appear to justify further action or concern. The Department stated that to their knowledge the proper steps had been, and would be followed. Furthermore, the letter stated the agency was not aware of circumstances where flood homes had posed a negative health impact to community health from biological or chemical agents, even improperly remodeled ones. A similar letter arrived in the City's planning Director's office from the Lenoir County Health Department on November 2, 2001 (LCHD 2001). This stated that the homes were suitable for occupation, because the Director was "...not aware of any report which quantitatively identified the presence of any specific flood water contaminant... In fact, many local businesses and homes that were flooded during Hurricanes Fran and Floyd have been re-occupied without any reported ill effects to the occupants or others." According to the Director, cleaning and repairs had been consistent with re-occupancy guidelines issued by state public health officials, and state building codes were met. Nowhere were details found about the leachate used.

7. City Council meetings

The Johnsons and their neighbors then went to the City Council to submit their grievances. It appeared from the reactions captured on video that most Council members did not know that homes that had been condemned could actually be refurbished for human habitation. As a discussion unfolded about the meaning of "condemnation", the City's building inspector replied that some properties had been "substantially damaged", but that they were not necessarily condemned under the building code. After being checked for mold, these homes had received a demolition permit, but instead had been stripped, dried out and sanitized. The inspector noted that they were "not physical or health experts" and it was therefore not possible for him to address the health concerns/issues specifically. He further commented that there had been "thousands of houses in eastern North Carolina that are renovated the same way." In response, the Council members noted that if they had agreed to sell lots to the GKCDC for refurbishment, this had never been with the purpose of moving homes with flood waters up to the windows. Agitated, one Council member expressed concern that by allowing GKCDC to obtain property for free paid for through FEMA, and then selling it, that the City had been "double dipping." The Council members argued further about the decision to give homes to the GKCDC and whether or not the Council officially decided to do this. When Council

⁵ An earthen basin filled with animal waste from intensive pig farming. Sludge and liquid manure is left to settle and dry in the basin, emitting ammonia, hydrogen sulfide, CO₂ and methane. Overflow during flooding releases bacteria, estrogens, heavy metals, protozoa and various compounds.

members suggested a moratorium on moving any more homes, the Mayor responded, "No, we don't need a moratorium."

The next meeting, held on October 22, 2001, began with a Council decision to pass a moratorium on relocating any properties where floodwaters reached the building's floor joists. These requirements halted the move of buyout homes, but it did *not* do so retroactively, leaving the already moved houses in place. The City Attorney noted in defense of the City that while any property acquired through the FEMA buyout program would be turned over for demolition, exemptions could be made if building inspectors certified suitability for rehabilitation for the purpose of relocating housing for flood victims of Hurricanes Fran and Floyd. He enlisted House Bill 1783 of the 1999 General Assembly of North Carolina (Section 2.2) to support his claim. The City Attorney further requested "a letter to free the City from any liability that might come from families living in some of these houses now." One Councilman added, "The risk of liability is there, and it is high."

These steps did not halt local resentment. During the next Council meeting on November 5, 2001, one East Ridge resident expressed frustration that prior to the housing relocation, residents had not been informed that these properties were going to be moved into their neighborhood. She also complained that when it rained or was windy a strong odor came from them, and raised concern about the effect of these homes on the neighborhood's property values. Another resident asked why low-income homes were being moved to areas that were not low income. He also questioned the reasoning for concentrating them in East Kinston, which is a predominantly African-American area, rather than spreading them throughout Kinston. Finally, he told the Council that in spite of the moratorium passed in the previous weeks, homes had still been moved to his neighborhood. Responding to the latter point only, the Council questioned the building inspector who explained that recent relocations hadn't "stopped in Kinston", but instead had also taken place in the nearby City of Goldsboro and Town of Beulaville. The Council responded that there had been some confusion over which houses were affected by the moratorium and that it was not retroactive, but they appeared not to want to engage in further action. The Johnsons later learned that the City Mayor was a stockholder in the GKCDC.

8. Diffusion of responsibilities

Before the final taped meeting on November 19, 2001, the community involved had gathered 79 neighborhood signatures for a petition. While the Council passed another moratorium on the relocation of any homes purchased by FEMA from the flood plain until it has the chance to consider the health and environmental effects of the relocation, residents stated dismay for having received little response from the City since they began attending meetings. According to the Johnsons, the Council's activities were a statement against the black community and they argued that GKCDC was moving at high speed to brick in the foundations of the houses, after which their removal would become impossible.

This led to great frustration among residents. While City management defended the relocation efforts as providing flood victims with affordable housing within taxable city boundaries, it appeared that its full set of responsibilities were not being well tended. "I don't know why you're here as much as you should be confronting those who are selling those houses", the City Attorney had told the angry citizens at the October Council meeting (*Kinston Free Press* 2001b). According to the Johnsons, the City Attorney had made clear that "they didn't have a dog in that fight." But if not the City, who should the neighborhood have turned to? The lack of response from the City Council to their concerns was met with a similar silence because the CEO of the GKCDC never showed up to any of the meetings to answer any of the residents' questions. This despite its mandate of "promotion of social welfare by lessening neighborhood tensions" (GKCDC 1994). To the Johnsons, the response from the City was fitting an historical trend of top-down governance. As William said: "Everything they plan goes through regardless of who goes up there, you know, it's going to happen. The City is going to do what it wants to do, regardless."

Stuck with two homes alongside their own and unsatisfied with the City's response, the Johnsons appealed to higher political levels. First, they approached FEMA, who had funded the acquisition of the very homes being sold at local levels to development corporations. On January 21, 2001, they received a letter from FEMA in Washington D.C., stating that "they were looking into their concerns" (FEMA 2001). Next,

on October 23, 2001, Gladys Johnson called the Division of Emergency Management in Raleigh and spoke with the Kinston FEMA project manager who according to her stated that all houses had to be demolished in the flood plain, except the ones under the *new* FEMA program. This new program was for homeowners who wanted their house moved out of harm's way, refurbished and made livable. Importantly, these residents would be allowed to "buy their house back." Finally, and with the help of Congresswoman Eva Clayton of the first district, the Johnsons were forwarded a letter received from the City officials on December 17, 2001 noting to Ms. Clayton that homes eligible for relocation had either 1) no flooding; 2) minimal flooding, or 3) had been designated as eligible by State standards and the City's Building Inspections Department. Clarifying the latter, stakeholders responsible for the evaluation of houses suitable for relocation were listed (City of Kinston 2001). The local partners included the City's planning contractor (house mover and general contractor, Benchmark Inc.), the GKCDC, and the Lenoir County Health Department. According to the City, "homes selected for relocation must fit with the value and character of existing homes in the neighborhood or subdivisions into which they are to be moved." With all the steps and stakeholders identified, the City wrote to Congresswoman Clayton that they had "great confidence" in their procedure. The letter closed by noting that the City Attorney had met with the Johnsons and explained all steps and procedures, including the City's statutory authority to carry them out. With this answer, all possible doors were now closed to the Johnsons.

William and Gladys differed in opinion to the extent to which FEMA was ultimately responsible for this course of events. Following a logic of municipal choice, William felt that FEMA adhered to its contractual agreement, "which is what they did." Asked how he felt now, after FEMA did not act to stop the refurbishment process, William said:

Well, to me I feel like FEMA did their part. They was required to do is buy the house. That is all FEMA could do. To go in and buy the houses and pay the people their money. You know. You can't do anything about the city council allocating so much money for the demolition of these houses. FEMA did their part. Bought the houses and everything. Now it is up to them [the local government] to get a demolition contractor and tear them down. I think they need to make sure that the money they are spending is used for the proper procedures. What more can FEMA do?

Gladys, on the other hand, argued for a more caring perspective:

And my thing is that if FEMA gave the money for the houses, they have to come back in, because they [the City] did not do what I assume what FEMA would understand they would do... which is that they would demolish these houses and take the money to get these people on higher ground. Clear these properties.

9. Discussion

After we were given a video-tape by FEMA officials in Washington D.C. on an issue deemed outside their jurisdiction, we grew interested in the consequences of programmatic devolution for the local residents. While our method has been exploratory and qualitative—limited by the voices of our key informants, their correspondence with institutional actors, and limited external documentation available to retrace this situation—the analysis illustrate how a controversial case in which unintended consequences linked to a massive buyout mitigation program led to communal tensions. While this article does not question the intentions of the officials developing the "Call Kinston Home" program to provide a practical answer to the need for affordable housing, this case illustrates how a logic of choice by FEMA within devolved buyout mitigation played out in a waterscape that had long been characterized by racialized power dynamics.

The case shows how devolution of mitigation choices enabled local stakeholders to move refurbished flood homes out of sewage-ridden areas into middle-class African-American neighborhoods, without any possibility of appeal by affected residents. The Johnsons' attempt to find justice ended up in a quibble about

rules, regulations, definitions of condemnation, and lack of accountability. Importantly, this devolved outcome was no surprise to the community members involved, as they argued it to be illustrative of the long-standing discriminatory relationship with the City of Kinston that characterized this waterscape. These past injustices had been largely concealed until the flooding associated with Hurricane Floyd literally unmoored the wastewater treatment plant and sent sewage water flowing through houses. The re-use of homes without recognizable care for the health and well-being of previous or future owners illustrates the way in which the waterscape continued to reproduce an "historical" ideology of discrimination, actively re-constructed through technologies of risk.

Placed in the context of programmatic devolution, the failed response to the discriminatory trajectory in this waterscape translates to an observable and pervasive lack of care from higher levels. The Johnsons' assessment of the extent to which FEMA ultimately was responsible here is illustrative. William Johnson noted to us that FEMA essentially did what it contractually was obliged to do and could not be further held accountable for the failure to protect them from molded homes in the plots next door. This view can be seen as a theory of consumerist rational choice that opposes a logic of care (Mol 2008). It suggests that it is the contractual relationship that determines the boundaries of an exchange, and attached moral obligations.

This fits with the philosophy that devolution localizes participatory democracy. In this case, after cost-benefit calculations, FEMA is left out of the equation other than from a financial accountability perspective, leaving further decision-making responsibility—or choice, as argued by Mol (2008)—up to the local and state levels. Supporting the success of this logic of choice is the observation that local democratic empowerment did succeed in putting a moratorium on the relocation of refurbished homes. However, when expanding the time horizon in our analysis, mitigation agendas followed environmentally racist practices that led to the demise of the entire neighborhood. The retrospective exclusion of the Johnsons' plight from the moratorium is the mere tip of a much larger iceberg of systematic and continued environmental discrimination within the waterscape. In other words, what is learned from the Johnsons' unsuccessful struggle to get their case heard is how in the context of devolved federal responsibility, historically unjust patterns hidden within the waterscape's mnemonic structures remain unchecked when no one in the higher levels of bureaucracy appeared to make a commitment to *take care*.

Following this line, the case illustrates that "taking care" was a long-term process that continued beyond former resident's participation in buyouts of property. Gladys Johnson's view of the responsibility of the federal authorities is illustrative here. Her opinion differed from that of her husband William, as she did not argue for *choice*, but instead for a logic of *care*. In her opinion, FEMA should have stepped back in to correct what the local authorities had been unable to undo. After all, to Gladys it was against the intention of FEMA to have homes that were supposed to be demolished appear back in the public domain without community input, or without a chance for their previous owners to buy them back. And while certain regulations and exclusions may have permitted this course of action, federal involvement could have allowed some readjustment. "Taking care" in this context would have meant taking into account the historical political ecology of the waterscape. It would have meant focusing on the fluid circulation of care as it developed in real practices, as opposed to calculated reciprocity that is implied by demarcated (contractual) exchange. Ironically, FEMA "took care" for the community in just a small way when an official handed us the videotape—even though as researchers with a limited mandate, we have no direct policy influence. This obligated *us* to "take care" through our work. As FEMA had devolved its responsibilities, when the direction of this local program turned counter to the needs of the community, there was no place to go for concerns to be addressed. Having completed their mitigation program, FEMA departed the scene, and under the framework of devolution the traces of local politics in the landscapes were left uncared for.

With FEMA out of the picture, City officials acted from a "logic of choice" that deployed a discourse of danger and neighborhood decline to legitimate their efforts at labeling Lincoln City as a hazardscape that should not be inhabited. This took on a discriminatory momentum embedded in the waterscape, and their rendering of the neighborhood as "different" was deeply historical, as we have shown with reference to historical City maps and later in floodplain insurance risk maps. Arguably, their preoccupation with risk may

actually be a display of care for local citizens, and the refurbishment of homes could be seen as one of many moral efforts to get a struggling population into safe and affordable housing. But while the City of Kinston is not a wealthy place, it is doubtful that much of this revenue actually benefited the population impacted by the flood through the generation of more taxes that could be spent to benefit them. Furthermore, it seems rather naïve for those involved to not have wondered how the reuse of homes may have affected the feelings and health of previous and future users, let alone the surrounding community. While there was no scientific evidence that the homes were actually hazardous to human health, most of them were initially difficult to rent or sell as local people did not want them. Reflecting the same logic of choice that William Johnson observed regarding the responsibility of FEMA to have cared, city government contractually and symbolically separated the flood from the homes, ignoring in the process how *the homes themselves continued to carry the cultural stigma of contamination and memory of racial injustice*. It is ironic that to be able to obtain a moratorium, residents had to side with the same discourse of risk—the toxics and molds, sewage and flooding—which had made Lincoln City a hazardscape in the first place. When a public health discourse was introduced to frame the export of the refurbished homes as a health danger, residents finally succeeded in stopping the program. But while the health matters ended the project, the underlying environmental discrimination was never fully revealed or engaged.

10. Conclusion

The arrival of refurbished homes illustrates how discriminatory practices from a period of racial segregation later became channeled through devolved (and curious) flood mitigation practices. The Peachtree Wastewater Treatment plant was placed next to a middle-class African American community without adequate environmental and community impact assessments, and contaminated buildings appeared later in the backyards of the black middle-class, with no local participation in decision-making. While racial bias might have been at play openly in the early days of segregation, the waterscape's historical trajectory was later replaced by technologies of mitigation, given unchecked power through a logic of choice that led to a complex diffusion of devolved responsibilities. City officials, in collaboration with other private stakeholders, were empowered to move homes because of the same water that had threatened this community from the beginning. Driven by a logic of choice, the racial dynamics operating around housing and segregated neighborhoods continued unabated.

As a cultural landscape, the Lincoln City waterscape contains the archive and story of continued marginalization of the black lower- and middle-class. It is this ability of the waterscape to archive and direct certain historical paths that could also have been utilized as a knowledge resource at the start of the mitigation buyout program. Even cursory historical ecological assessment of Lincoln City would have sufficed to raise early warning signs regarding the situation of Lincoln City residents and their homes. "Taking care" would have meant more than guiding residents through their buyout mitigation process using local counselors. In the context of devolution, it would have meant sticking with them afterwards as well, and being responsive to needs that arose down the line. In the context of devolved governance, historical political ecology may have much more to offer than critique alone. If the continuity and relevance of historical processes is recognized, *care* is a more appropriate organizational approach for flood mitigation practice.

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