

# Chapter 3

## Connecting the Dots: The Origins, Evolutions, and Implications of the Map that Changed Post-Katrina Recovery Planning in New Orleans



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### 3.1 Introduction

On January 11, 2006, a little more than 4 months after the Hurricane Katrina-induced levee failures flooded New Orleans, the city’s major newspaper, the *Times-Picayune*, published a front-page story with the arresting headline, “4 MONTHS TO DECIDE”. Sub-headlines announced that the “City’s Footprint May Shrink” and that “full buyouts proposed for those forced to move if the ‘hardest hit areas’ could not ‘prove viability’” (Donze and Russel 2006). Directly beneath these words lay a map (Fig. 3.1) showing a sea of yellow over much of the city indicating the flood-damaged neighborhoods that would be subject to a proposed building permit moratorium and therefore temporarily off-limits to rebuilding. The map showed six areas of the city overlaid with solid bright green circles indicating areas designated for “future parkland” and 12 red-outlined zones identified for prioritized reconstruction. In text and in words, the map laid out a classification system for the reconstruction of New Orleans and the radical restructuring of land use in the city.

For thousands of displaced New Orleanians, scattered across the country, these headlines and this map represented a graphic manifestation of their worst fears of losing their homes and the right to return to their neighborhoods. In both the popular press and among the urban planning academy, the “green dot map,” as the newspaper’s map came to be known, occupies a near-mythical status for the role that it played in changing the political landscape of post-Katrina planning in New Orleans. The popularly understood story is that “with the publication of this map, entire neighborhoods were instantly mobilized to protect their homes and communities from environmental expropriation” (Fields 2009). The map was identified as a pivotal moment when “recovery planning power shifted decisively to neighborhood”-based planning and away from a “heavy-handed” technocratic approach (Wooten

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# 4 MONTHS TO DECIDE

## NAGIN PANEL SAYS HARDEST-HIT AREAS MUST PROVE VIABILITY

### CITY'S FOOTPRINT MAY SHRINK; FULL BUYOUTS PROPOSED FOR THOSE FORCED TO MOVE

*New housing to be developed in vast swaths of New Orleans' higher ground*

### PLAN FOR THE FUTURE

The Bring New Orleans Back Commission will unveil a sweeping \$17 billion plan today that calls for a vast reworking of the city's neighborhoods and housing patterns. But in the four-month period when the fine print is hashed out over who can build where, all renovation will be halted in the flooded zone.

- Areas where rebuilding allowed now
- Building moratorium until neighborhoods prove viability
- Approximate areas of expected to become parks and greenspace
- Areas to be redeveloped, some with new housing for relocated homeowners

### Q&A

**Does this plan shrink the footprint of the city or allow rebuilding everywhere?**

The plan, if adopted, would not mandate which areas should be rebuilt and which should not. It simply starts a four-month process. First off, for those neighborhoods that suffered little or minimal damage, the plan has little impact on development. But for heavily damaged areas, it puts the onus on residents to show that enough people will return to make the neighborhood sustainable. The plan calls for a four-month study period — during which there would be a moratorium on building permits — so that planners can hold neighborhood meetings and gather information on who plans to return. Those neighborhoods that prove sustainability would be allowed to rebuild, while those that do not would be subject to a buyout program designed to help residents relocate to areas offering greater safety from flooding, higher population density and full city services.

**I live in an area that looks unlikely to be rebuilt, as it may be targeted to be park land. What's in store for me?**

If the neighborhood planning group recommends a park where your home is located, a buyout program would provide homeowners no less than 60 percent of their pre-Katrina equity — as long as proposed federal legislation sponsored by U.S. Rep. Richard Baker, R-Baton Rouge, is adopted. The Nagin commission's plan further recommends that homeowners who are forced to sell be made 100 percent whole through a second federal program. The second payment would come from the proposed Crescent City Redevelopment Authority, which would use federal Community Development Block Grants to pay homeowners the remaining 40 percent of their equity. Both programs would deduct homeowners' insurance settlements from the buyout amount. Residents not forced to sell also may be made 100 percent whole with block grants, but only they if buy another property in New Orleans.

Source: Bring New Orleans Back Commission      STAFF GRAPHIC

**By Frank Donze and Gordon Russell**  
Staff writers

Residents of New Orleans areas hardest-hit by Hurricane Katrina's floodwaters would have four months to prove they can bring their neighborhoods back to life or face the prospect of having to sell out to a new and powerful redevelopment authority under a plan to be released today by a key panel of Mayor Ray Nagin's rebuilding commission.

In perhaps its boldest recommendation, the panel says Nagin should impose a moratorium on building permits in shattered areas covering most of the city, while residents there must craft plans to rebirth their neighborhoods. The proposals are spelled out in the final report of the land-use committee of Nagin's Bring New Orleans Back commission, which was obtained by The Times-Picayune.

Addressing the debate about whether planners and politicians should declare areas off limits or allow market forces to determine the city's future, Nagin's panel clearly sought a compromise by instead proposing a process to gauge residents' intentions to return to their neighborhoods. But ultimately, commissioners say, not every neighborhood will be sustainable and there will be a need to use eminent domain to seize some property. The panel proposes the creation of a new public agency, tentatively called the Crescent City Redevelopment Corp., to use that power, but only as a "last resort."

While debate has focused heavily on the hot-button footprint issue, the report also proposes a number of lofty ideas

See REPORT, A-8

See Q & A, A-8

Fig. 3.1 "The Green Dot Map" as published in the *Times-Picayune*, January 11, 2006. (© 2006 NOLA Media Group, L.L.C. All rights reserved. Used with permission of The Times-Picayune & NOLA.com)

2012). In the months and years after its publication, the map provided a unifying enemy around which devastated neighborhoods could organize their resistance. People spoke of their houses and neighborhoods being “green dotted,” wore green dots made of paper plates around their necks at neighborhood rallies, and adopted the color of the map’s dots in the logos of new community organizations (Wooten 2012; Nelson et al. 2007; Olshansky et al. 2010). Seven years after the map’s publication, the symbol retained such potency for the Broadmoor neighborhood (one of the neighborhoods marked for “future parkland”) that, when the neighborhood’s public library branch reopened in 2012, the coffee shop inside was defiantly christened the “The Green Dot Café.” While the intergovernmental power struggles and politics of early post-Katrina planning efforts have been well researched and reported (Olshansky et al. 2010; Nelson et al. 2007; Olshansky 2006), there has been relatively little attention paid to the origins, evolution, and implications of the map that is seen as playing such a pivotal role in this history.

The now infamous green dot map is widely regarded as having been the product of the Urban Planning Committee of the Bring New Orleans Back Commission (BNOBC), a group convened by then Mayor C. Ray Nagin in the fall of 2005 to set the agenda for the city’s recovery. In fact, the map that appeared in the *Times-Picayune* that day in January 2006 was the newspaper staff’s synthesis and reinterpretation of maps and texts that the BNOBC presented in a press conference earlier that same day. The maps and plans produced for the BNOBC by the landscape and planning firm of Wallace, Roberts, and Todd were, in turn, substantially based on an earlier report produced by a panel of national experts convened in November 2005 by the Urban Land Institute (ULI), a national research and advocacy organization that is closely associated with the real estate development industry. Though the green dot map did become a powerful symbol, most discussions treat the map in the abstract and take its catalytic power for granted. To better understand the role of the map in reshaping the contours of post-Katrina decision-making, this chapter investigates where it came from, what power relations underlay its creation, what values are expressed in its spatial classifications, and, finally, how the map and its reception have shaped planning for water management in New Orleans in the years since.

### 3.2 Literature and Theoretical Context

Though the three primary documents of interest in the story of the green dot map include only a single indirect reference to climate change (a reference to “relative sea level rise” in the ULI report (Urban Land Institute 2005)), this chapter treats the episode as an attempt at de facto climate adaptation. The Intergovernmental Panel on Climate Change (IPCC) defines climate adaptation as “The process of adjustment to actual or expected climate and its effects” by seeking “to moderate or avoid harm” (IPCC 2014). As such, the early planning efforts to restructure New Orleans’ post-Katrina urban land uses to reduce flood vulnerability clearly meet the IPCC’s definition of adaptation. Viewed as an attempt at climate adaptation, the

development and dissemination of the green dot map provide insights into challenges facing more and more cities around the world as they attempt to adapt their historically evolved urban patterns in the face of mounting flood hazards. To develop a fuller understanding of how the green dot map episode might inform future urban climate adaptation, this paper draws from a broad body of literature including work on climate change adaptation, natural hazards research, and critical cartography.

### ***3.2.1 Land Use Planning for Hazard Mitigation***

Following pioneering work by geographer Gilbert White, natural hazards scholars from a range of disciplines have produced research on the social and political components of vulnerability to flooding and other natural hazards (White 1945; Wisner et al. 2004; Cutter et al. 2003; Adger 2006). Planning scholars have contributed significantly to exploring how various tools for land use planning and regulation can play a role in reducing hazard exposure (Burby 1998; Burby et al. 2000; Godschalk et al. 1998). Much of this work has advocated for more hazard-informed land use patterns to reduce exposure through a range of federal, state, and municipal policy and planning tools (Olshansky and Kartez 1998; Burby et al. 1999; Beatley 2012). Using Burby et al.'s (1999) schema, the green dot proposal represented a shift in New Orleans' flood hazard mitigation strategy, away from the previous model combining "risk reduction" via levees and building elevation and "risk sharing" via insurance and toward a new model emphasizing "risk elimination," through targeted buyouts and green space preservation in some of the city's most low-lying neighborhoods.

While the natural hazards literature does consider the ways in which planning for natural hazard mitigation can facilitate consensus building (Burby et al. 2000), it largely does not focus on the politics of disaster or land use change or on the distributive implications of such processes. The uneven production and distribution of vulnerability are at the core of much research in human ecology and political ecology (Collins 2008; Pelling 1999, 2003; Gustafson 2015; Hewitt 1983; Wisner et al. 2004). Vale and Campanella's *The Resilient City* explicitly assesses the political and distributive issues that shape how cities recover from disasters (Vale and Campanella 2005).

Of particular interest in this case, authors from a number of different perspectives have addressed the question of to what extent substantial changes in land use are possible or desirable during post-disaster "windows of opportunity"? Much of the early natural hazards planning literature regarded such "windows" as ideal times for "targeting households and business firms to retrofit or relocate" (Olshansky and Kartez 1998). Vale and Campanella, with their emphasis on the politics of resilience, are skeptical of the possibility of substantial change after disasters, observing that it is very rare for post-disaster cities to adopt "visionary new city plans aimed

at correcting long-enduring deficiencies or limiting the risk of future destruction” (Vale and Campanella 2005). Like Naomi Klein, who warns against “disaster capitalism” (Klein 2008), Vale and Campanella go further, questioning the desirability of dramatic post-disaster change given the track record of public and private interests “using devastation as a cover for more opportunistic agendas yielding less obvious public benefit” (Vale and Campanella 2005). Writing in the wake of the post-Katrina levee failures, Berke and Campanella (2006) suggest something of a middle ground, arguing that “Hurricane Katrina opened a window of opportunity for creating more resilient communities” but pointing out that taking advantage of such windows may require pre-disaster planning that actively seeks out the viewpoints of often marginalized communities (Berke and Campanella 2006). This tension – between viewing post-disaster planning as a “window of opportunity” for urban restructuring and concerns over post-disaster opportunism and land grabbing – is central to understanding the political conflict arising from the divergent readings of the green dot map.

### ***3.2.2 Climate Change Adaptation Through Land Use Planning***

The recent increase in critical attention to climate adaptation has invited renewed attention to the relationship between flood hazards and land use planning. Whereas many previous efforts to reduce flood vulnerability through land use planning were seen as “fighting the last war” by reacting to the most recent disaster event (Godschalk et al. 1998), climate adaptation planning holds promise in inviting approaches to land use planning that are more holistic, forward-looking, and cross-scalar (Adger et al. 2005; Hallegatte and Corfee-Morlot 2011). With little substantial progress from higher levels of government, public and private entities acting at the local and regional levels have taken the lead in local adaptation planning in many areas around the world (Measham et al. 2011; Rosenzweig 2010). Land use planning and regulation are central to many climate adaptation efforts, and they are primarily the responsibility of local government entities in most jurisdictions (Measham et al. 2011). Research on climate adaptation planning has also focused considerable attention on the equity implications of hazard mitigation and other forms of adaptation (Wilson 2006; Hamlin and Gurran 2009; Paavola and Adger 2006; Bulkeley et al. 2013). The concerns of poor and marginalized populations of cities are too often underrepresented in climate adaptation planning given the disproportionate vulnerability of such groups to the impacts of climate change (Measham et al. 2011; Bulkeley 2006). Researchers have found that socially and economically vulnerable groups are often directly and indirectly harmed by adaptation efforts (Anguelovski et al. 2016; Sovacool et al. 2015). A range of efforts, including those labeled community-based adaptation, have sought to increase

participation and inclusion in climate planning and adaptation (Aylett et al. 2010; Archer et al. 2014; Paavola and Adger 2006).

Adger et al. (2005) proposed four key normative criteria for assessing climate adaptation efforts: *effectiveness*, *efficiency*, *equity*, and *legitimacy* (Adger et al. 2005). These four criteria provide a useful lens through which to understand the conflict which developed surrounding the green dot map, in which different actors placed radically different levels of importance on each of the four criteria.

### 3.2.3 *Planning Representation, Maps, and the Shaping of Social and Spatial Reality*

This paper takes as a starting assumption that “maps are knowledge claims that are inherently political” (Kim 2015). This is also the premise at the heart of emerging studies of “critical cartography.” Critical cartography includes both analytical and projective tools for questioning the underlying assumptions and power relations behind cartography and developing new ways of using those tools to support alternative claims to knowledge and power (Crampton and Krygier 2005). Arthur Robinson focused early attention on how maps function as *communication* devices that operated through three distinct but related phenomena: sender (mapmaker), medium (map), and receiver (map user) (Robinson and Petchenik 1976; Pickles 2003; Crampton 2001). In “Deconstructing the Map” (1989), J.B. Harley applies the tools of social critique (Foucault and Derrida principally) to cartography (Harley 1989). Harley’s work primarily focused on exposing the socially constructed nature of maps and their embeddedness in the power relations of their place and time. While Harley’s analysis was largely historical and principally focused on the use of maps as tools of domination, subsequent scholars have gone beyond identifying where maps come from to examine and critique how maps operate to shape social life and power relations (Pickles 2003; Turnbull et al. 1993; Wood and Fels 2009; Crampton and Krygier 2005). This second generation of scholars developed a more complex view of power as “multivocal” and in a constant state of contestation (Pickles 2003). Much of this later critique draws heavily on the critical tools developed by Derrida, Habermas, and Barthes and tends to see maps as narratives or texts that must be read (Crampton 2001). Wood and Fels widened the frame of analysis to consider what they labeled the “paramap,” or “everything that surrounds and extends a map” (Wood and Fels 2009). This paramap material includes what they call “perimap,” the titles, labels, charts, and borders that frame and situate a map. It also includes “epimap” materials such as any texts or articles to which maps are appended (Wood and Fels 2009).

To date, there has been relatively little attention paid to critical assessment of maps, like the green dot map, which are intended as projective tools for reshaping land use according to changing hazard conditions. While Wood and Fels (2009) do address what they call maps of “threatening nature,” they focus more on popular

cartography of hazards than on hazard assessment maps or maps for land use planning. In several books, Mark Monmonier has analyzed how the representational tools used in mapping floodplains and coastlines shape perceptions of hazard vulnerability (Monmonier 1997, 2014; Monmonier 2008). However, compared to other critical cartographers, Monmonier tends to deemphasize the political implications of mapping and representation.

Maps are among the most important tools of analysis and communication used by planners and urban designers. John Forester's *Planning in the Face of Power* (Forester 1988) and subsequent work on "communicative planning" (Healey 2012; Innes 1995) highlight the ways in which planners control communication and information to shape power relations. Scholars have long recognized that visual representation used in planning can powerfully shape how practitioners, policy-makers, and the public perceive of planning challenges and proposals. Lisa Peattie analyzed and critiqued the "representations of reality" deployed by planners and other professionals in planning Ciudad Guayana in Venezuela (Peattie 1987). Like Peattie, Raphael Fischler recognized that planners "understand and represent the world in certain ways" that are "necessarily selective and partial" (Fischler 1995). Annette Kim has used the interpretive strategies of critical cartography to analyze how maps and other visual representations created by planners and designer reflected and shaped changing conceptualizations of property in Ho Chi Minh City (Kim 2012, 2015). These and other analyses of visual representation in planning provide useful precedents for interpreting the production and popular reception of the green dot map.

While much of the literature treats critical cartography as an interpretive activity undertaken by scholars to decode the hidden social meaning and politics of maps, some recent work has articulated a variant labeled "lay critical cartography" (Cidell 2008) that shifts the locus of critical analysis to consider explicitly the "social life of maps, the political responses they elicit, and the political possibilities they enable and disable" (Gustafson 2015). Seth Gustafson, a geographer rooted in urban political ecology, has considered the lay critical cartography of landslide hazard maps in North Carolina which ignited intense political opposition from pro-development forces (Gustafson 2015). Such analysis of how a map "provokes new political activities and environmental changes" is a useful precedent in making sense of the response to green dot map.

### 3.3 Methods

The green dot map came to hold tremendous symbolic power because of the immediate context of its production, the chain of interpretation and reinterpretation from which it emerged, and the broader social and historical conditions into which it was projected. In seeking to make sense of this broader context, this chapter traces the creation of the map through three different generations, each of which took different approaches to classifying space and communicating through text and graphics. This

chapter uses critical cartography and lay critical cartography to analyze the green dot map and its precedents. It seeks to unearth the “design politics” of the maps to reveal how “social and political preferences are expressed and manipulated” (Vale 2013). As such, it considers how the maps’ graphics as well as the “paramap” materials, such as the texts within and surrounding the maps, convey the values of the makers. The analysis of each iteration of the map will address what Bowker and Star call the “practical politics of classifying,” by which the maps “arriv(e) at categories” of redevelopment land use and “what (is) visible or invisible” within the categorizations and abstractions of each map (Bowker and Star 1999). The chapter also draws on contemporary media accounts and secondary literature to analyze how the maps were received, both among planners and the public at large. Finally, the chapter includes a brief discussion of the implications and impacts of the green dot map on land use planning and water management in New Orleans. This section is based on interviews with planners, designers, and decision-makers involved in recent and ongoing planning activity in the city.

### 3.4 Analysis

Each of the three generations of plans and maps that lead to the green dot map assumed that New Orleans’ post-Katrina population would be significantly reduced and that some degree of “shrinking the footprint” or “neighborhood consolidation” would be necessary to reduce the city’s exposure to future flooding (Olshansky et al. 2010). These policies were seen as necessary to ensuring that urban densities in the city would be high enough to allow for efficient and safe delivery of municipal services. While all three presentations called for a smaller New Orleans, they differed in crucial ways, including the composition of the drafting bodies and their claims to authority, their intended audiences, and the graphical and text language deployed to communicate their classification schemes for future land use. The following sections analyze the evolutions and changes through which the green dot map developed.

#### 3.4.1 *The ULI Plan: “New Orleans, Louisiana: A Strategy for Rebuilding”*

The ULI plan that was released in November of 2005 was the product of a convening of national experts on urban development and planning (Urban Land Institute 2005). Reflecting the professional positioning of the members of the panel and the ULI more generally, the report tends to frame the task of rebuilding in the language of urban real estate development, finance, and administrative efficiency. The report holds that “the city should be rebuilt in a strategic manner” in which the “feasibility of investment” in damaged neighborhoods will be evaluated before public or private



funds will be used to rebuild. While the report recognizes that such a strategic reinvestment approach will inevitably impinge on some residents' property rights, they propose a market-based remedy, stating that where property is deemed "unusable," people "should be given fair compensation for their property." Expressing the importance of "government effectiveness," the report calls for the creation of a new body, the Crescent City Rebuilding Corporation (CCRC) that would "provide expeditious compensation for those unable to build."

While the overriding theme of the ULI report is a call for efficient redevelopment that would avoid "scattered, uncoordinated, dysfunctional redevelopment," the report connects these notions of efficient redevelopment to values of security, aesthetic beauty, and environmental balance. The plan calls for reducing the urban footprint of New Orleans in order to "ensure the health and safety of the residents of each neighborhood," to create "functional and aesthetically pleasing neighborhoods," and ultimately to create a city that is "in harmony with the natural environment," particularly with respect to the relationship between urban space and the surrounding waters.

Though the ULI report calls for a radical reconfiguration of the city to accommodate a smaller population on more flood-safe territory, the report does go to great lengths to emphasize the importance of conducting inclusive planning processes to ensure equitable results. Among the report's "Key Findings" are a number of items related to the importance of retaining the city's unique culture. The report goes further to say that "planning for the rebuilding of each neighborhood must involve the citizens from that neighborhood."

Although the panel emphasizes the importance of equity and inclusive planning, they also make clear that, in the cause of reconstruction, diversity and pluralism may have to give way to functional demands. The panel uses the language of equity and security to justify the realignment of residents in saying, "every citizen has a right to return to a *safe* neighborhood" [emphasis added]. Implied in this formulation is that if a neighborhood is deemed unsafe, it may not be rebuilt. Similarly, the report deemphasizes critical conversations about racial justice, an issue of deep resonance in a city and region where planning has long been seen as a tool for enforcing racial hierarchy and systematic prejudice. Though it states that "diversity, equity, and cooperation are of critical importance," the panel's report holds that "the recovery must not be held back by the racial issues that have slowed progress in the past." In this phrase, the panel vaguely blames the contentious history of "racial issues" for impeding progress, ignoring the enormous racial inequities in previous planning actions and arguing for a recovery process freed from the impediments of racial politics.

The only image in the ULI report that puts forward any form of spatial proposal is a single map outlining a "proposed rebuilding framework."<sup>1</sup> The graphics and text of the map, like the larger report, is characterized by a focus on finance and development. The map places the tourist-oriented French Quarter and central busi-

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<sup>1</sup> It has not been possible to include the ULI map in this manuscript. It is available at <http://uli.org/wp-content/uploads/ULI-Documents/2005NewOrleansPPT.pdf>

ness district at its center and is cropped to exclude a sizeable portion of New Orleans East, a primarily African-American suburban neighborhood that sustained heavy flood damages. The map includes very few streets or other landmarks by which one might locate a specific site within the city to see how it might be affected by the proposal. The territory that is included in the map is divided into three “investment zones,” zones A, B, and C. The text that accompanies the map states that the investment zone classification should be done according to a broad suite of criteria including the extent of flooding damage, physical vulnerability, infrastructure capacity, historical significance, and housing occupancy and vacancy. In spite of the holistic intention, the ULI map appears to define zones primarily on the basis of flooding depths or topography, ignoring all of the other issues of existing adaptation, infrastructure, and vulnerability that they previously defined as critical. Even if one were to accept topography as a suitable single criterion on which to define investment zones, it is unclear how the panel determined what elevations or depths of flooding constituted logical thresholds for zone classifications.

The panel makes strategic use of the passive voice and technocratic language of urban hydrology to de-emphasize the impacts of their zone classification scheme on residents and neighborhoods. The report indicates that, in Zone A, the most heavily damaged areas, “open space (will) be programmed to reach its greatest capacity to manage storm water retention, treatment, and flow.” Though such a statement suggests the replacement of residential areas with functional green space, the panel emphasizes that:

In these areas, great care must be taken to work closely with residents to determine the exact patterns of reinvestment necessary to restore and create a functional and aesthetically pleasing neighborhood.

Again employing vague, passive, and functionalist language, the report states that, in Zone B, the areas that are moderately damaged and presumably moderately vulnerable to repeated flooding:

some reprogramming of open space probably will be needed to mitigate the impact of flooding and account for space that may not be rebuilt for any number of reasons.

According to the panel’s recommendations, only in Zone C areas, those areas with little or no damage, would building be allowed on a “parcel-by-parcel” basis.

In both text and graphics, the panel employs strategic imprecision to make clear the preliminary nature of their recommendations. The fuzziness and low contrast with which the three zones are rendered in the map are appropriate to the provisional nature of the plan. The accompanying text also expresses uncertainty regarding the spatial classification in saying,

The precise edges of the respective zones and their transitions cannot be established without detailed on-the-ground surveys, which have yet to occur.

While it is wholly appropriate that such a preliminary report should leave room for revision and refinement, this statement suggests that the missing data necessary to solidify the investment zone classification could be gleaned by a physical survey,

without consideration of the range of social, political, and economic factors that would be invisible to such a survey.

In addition to the designation of investment zones, the ULI map indicates “Development Sites” and a network of new proposed “Open Spaces.” The map designates sites for “economic development” and “mixed use housing,” using red and orange ovoid shapes. While neither the map nor the accompanying report provides insights into how these zones were selected or what their designation would mean for future development, they were intended to be what Monmonier calls “green-lined” zones in which the government would target investment and deploy special incentives for development (Monmonier 2010). The network of designated open space includes new greenways located along the city’s canals as well as a major linear green space following the path of Interstate-10. Though the accompanying text provides no clues as to the rationale for the configuration of the open space network, indications elsewhere in the report suggest that the panel advocates the expansion of open space in the city for functional, recreational, and aesthetic purposes.

Though the ULI map and the report in which it is embedded lay out an agenda that would have sweeping implications for reorganizing the city, they also maintain a tone of strategic imprecision and deference to equitable and inclusive planning processes. The plan takes for granted that a radical spatial reorganization of the city will be necessary for reasons of efficiency and security. It uses the language of development, finance, and investment and treats the city as an abstract administrative and financial institution first and foremost. The preliminary map categorizes urban space according to development and investment potential with a mix of appropriate fuzziness and unexplained precision.

### ***3.4.2 The BNOBC Plan: “Action Plan for New Orleans: The New American City”***

Building on the recommendations made in the ULI report, the Urban Planning Committee of the BNOBC issued their proposed plan and maps in a presentation delivered in January 2006. If the ULI map and plan showed a degree of imprecision and deference to inclusive planning processes yet to come, the BNOBC plan and maps were less constrained by such signs of professional humility. From the very name of the presentation, with its emphasis on “action” and “new”-ness, the commission’s report took on many of the ULI report’s recommendation and stripped away the layers of uncertainty and deference to process. Where the ULI panel was composed of national technical experts, the BNOBC was made up of “knowledgeable community members and professionals” (Ehrenfeucht and Nelson 2011) with a strong bias toward “business and developers”(Allen 2013). The New York Times referred to Joseph Canizaro, the local developer and financier appointed to head the group, as “the mogul who would rebuild New Orleans” (Rivlin 2005a). Both Canizaro himself and many commentators emphasized his ties to both President

George W. Bush and Mayor Nagin (Olshansky et al. 2010; Rivlin 2005a). Where the ULI panel drew its authority from academic and technical credentials, the BNOBC's claim to legitimacy was rooted in financial and political resources.

From early in the formation of the commission, BNOBC members demonstrated the more problematic side of the post-disaster "windows of opportunity," issuing public comments that emphasized the view that the devastation and mass evacuation of New Orleans was an opportunity to reshape the city. Less than a month after Hurricane Katrina made landfall, Mr. Canizaro told the *New York Times*, "I think we have a clean sheet to start again...And with that clean sheet we have some very big opportunities" (Rivlin 2005a). Another commission member, James Reiss, the chairman of the Business Council of New Orleans, went further, explicitly linking the spatial restructuring of the city to the creation of a new social order, telling the *Wall Street Journal* that the rebuilding effort was an opportunity to rebuild the city "in a completely different way: demographically, geographically, and politically" (Wooten 2012). While the ULI report appealed to a sense of unity, smoothing over New Orleans' history of racial divisions and distrust, the final BNOBC presentation makes no mention of race at all. To the extent that issues of racial justice or inclusion were discussed at all, they appear to have taken the form of pragmatic business concern. Canizaro was quoted as expressing the need for the "business community" to work with "our African-American associates" to develop the plan, a phrase that suggests that African-Americans were not a part of the business community (Rivlin 2005a).

Drawing on the ULI plan that had been issued 2 months before, the BNOBC plan frames the reconstruction of the city as, first and foremost, a problem of real estate development and finance. Where the ULI map and report uses the language of investment, the BNOBC presentation focuses on property ownership, site control, and acquisition. The report again assumes that the reconstruction of the city will require a massive reshuffling of land use patterns and establishes categories of redevelopment according to levels of damage, vulnerability, and development potential. Echoing the language of efficiency and equity used in the ULI discussion of planned shrinkage, the BNOBC presentation emphasizes the need to "consolidate neighborhoods with insufficient population to support equitable and efficient service delivery" (Bring New Orleans Back Commission, Urban Planning Committee 2006). Thus, in the BNOBC plan, equity is redefined as a matter of service delivery after a spatial reconfiguration of the city that may or may not be equitable.

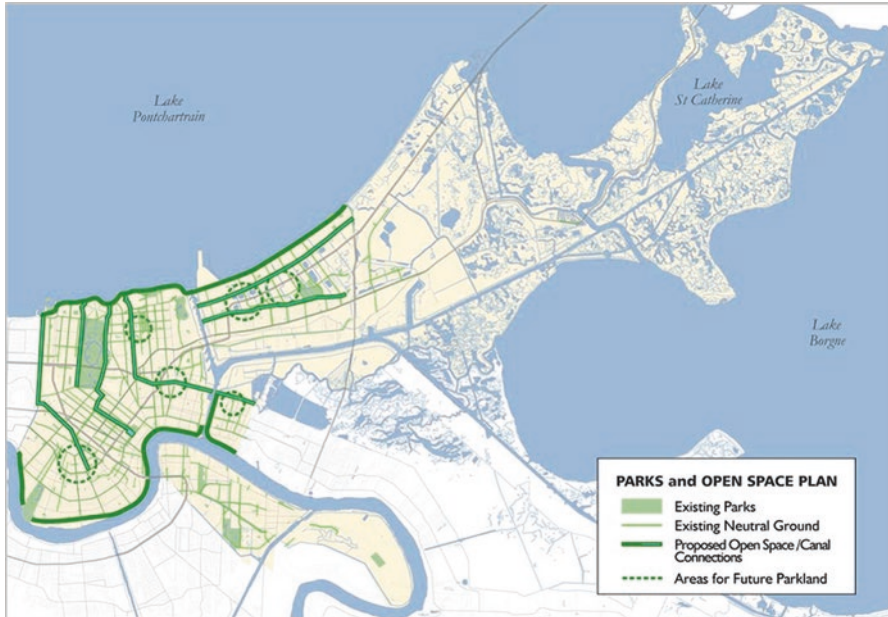
The presentation given by the BNOBC on January 11, 2006, included several maps along with accompanying text slides that lay out a four-part categorization of the city's lands. Though the scheme is based on the ULI report's categorization of investment and development zones, it differs in ways that came to be important both substantively and symbolically. Where the ULI panel identified and categorized spaces according to the level of "investment" and "development" that should be targeted for them, the BNOBC presentation added explicit consideration of property acquisition and administrative authority in the form of the city's authority to issue building permits.

The commission identifies “Immediate Opportunity Areas” as those areas with “little or no flood damage.” These areas, which roughly correspond to the ULI report’s Zone C, are to have “expedite(d) permits for repairs and construction of new housing.” The maps call for the “areas contain(ing) deeply flooded and heavily damaged properties,” roughly corresponding to the ULI’s Zones A and B, to be collapsed into a single category known as “Neighborhood Planning Areas.” The name of these zones emphasizes the “neighborhood planning process” that the commission urged be started immediately to “determine the future of the areas.” In spite of this emphasis on planning, the recommendation repeated elsewhere in the presentation that the city should “not issue building permits in heavily flooded/damaged areas” led to fear of land grabs and redlining (Olshansky et al. 2010). The BNOBC’s focus on *properties* rather than *households* or *people* as the most important unit of analysis for the determination of a neighborhood’s fate reinforced the impression that the Commission was primarily concerned with urban land as a legal and financial phenomenon substantially devoid of social importance. When the presentation later gives recommendations for who should be involved in the neighborhood planning processes, “neighborhood residents” constitute only one of the eight named groups identified for participation, with the other seven slots occupied by technical experts of various kinds. Treating people who lived in impacted neighborhoods as just one among several relevant constituencies fits with the broader perception that the planning process was insufficiently attentive to the wishes of residents.

Again emphasizing the commission’s focus on development, the BNOBC identified both “Infill Development Areas” and “Targeted Development Areas.” The former are defined as those “underutilized sites on high ground” or areas “requiring demolition and clearance that can be developed with houses, commercial, and institutional uses” to accommodate uses relocated from more flood-prone areas. On these sites, marked by bright pink shapes on the maps, the commission recommends an expedited course of development including “consolidat(ion) (of) public and private ownership,” “prepar(ation) (of) development plans,” and “issu(ing) (of) developer requests for proposals.”

Similarly, for the “Targeted Development Areas,” the commission recommends that the city, “identify and facilitate financially responsible developers to develop large numbers of houses quickly,” suggesting that financial capacity was the primary criteria of importance. While these sites are marked as numbered points on the BNOBC maps, their exact location appears to be somewhat arbitrary; some lie in heavily flooded former residential zones, others in the city’s central business district, and still another in a largely industrial zone. The fact that the report does not explain any rationale for the location of these sites raises the question of whether this is a case of “the substitution of precision for validity” (Bowker and Star 1999) or if members of the commission had specific, unstated reasons to target these particular sites.

As in the case of the inexplicably precise locations of the “Targeted Development Areas,” the BNOBC employed unexplained spatial and graphical specificity in what would become the group’s most infamous map. The “Parks and Open Space” map (Fig. 3.2) drew from the ULI map the idea that the city should develop a network of



**Fig. 3.2** The “Parks & Open Space Plan” as presented in *Action Plan for New Orleans: The New American City* by the Bring New Orleans Back Commission, Urban Planning Committee in January 2006. (Used with permission of the Bring New Orleans Back Commission)

green spaces that roughly corresponded to the city’s drainage canals. In addition to these linear green spaces, the map indicates, with six green dashed, but unfilled, circles, “Areas for Future Parkland.”<sup>2</sup> Text elsewhere in the presentation describes the “Parks and Open Space Plan” employing the same functionalist language of systems and real estate acquisition that is favored throughout the document in directing the city to “identify properties that can become part of the system and begin assembly.”

To facilitate the assembly of the land necessary for the BNOBC’s ambitious green space plan, as in the other development activities included in the plan, the commission recommended the immediate creation of the CCRC. Like the ULI panel, the BNOBC’s consideration of homeowners in areas slated for depopulation was largely restricted to the administration of financial transactions. The presentation calls for the city to “aggressively support” legislation to “accommodate buyout of homeowners in heavily flooded and damaged areas” including through the use of eminent domain.

The BNOBC plan, like the ULI plan before it, presumed a radical realignment of the city’s population and land use. This plan deemphasized the role of inclusive

<sup>2</sup>Perhaps on account of the furor that this map later generated, the word “potential” was amended to the designation for these circled areas on a later version of the map that appeared in *Architect Magazine* in 2007.

planning processes and called for the immediate enactment of aggressive redlining and greenlining to halt reconstruction in some areas and jumpstart development in others. While the categorization schemes in both plans allude to the need to account for a wide range of criteria, both defaulted to “elevational determinism,” wherein topography is the dominant driver of rebuilding decision-making (Wagner and Frisch 2009). The green space map that would become the commission’s most recognizable artifact combines the language of systems and functionalism with highly diagrammatic abstract geometries. In all of these classifications, the BNOBC treats the project of urban disaster recovery as a problem of efficiently maximizing real estate finance and public administration virtually devoid of considerations of public consensus or pre-Katrina cultural, social, and economic conditions.

### 3.4.3 *The Times-Picayune Map: The Green Dots*

On the same day that the BNOBC presented their plan, the city’s largest newspaper ran extensive coverage of the plan along with their own interpretation of the accompanying graphics. The *Times-Picayune*’s coverage, like the BNOBC plan itself, emphasized the plan’s sweep and ambition, but it also took several critical steps to reframe the plan in order to address the concerns of readers and residents. The main story’s writers, Frank Donze and Gordon Russell, characterize the plan as a “vast reworking of the city’s neighborhoods and housing patterns.” Rather than presenting this process through the lens of real estate opportunity or civic administration as the previous framings had, the reporters recast the plan as victimizing a traumatized population through powerful new bureaucracy. The story begins:

Residents of New Orleans areas hardest-hit by Hurricane Katrina’s floodwaters would have four months to prove they can bring their neighborhoods back to life or face the prospect of having to sell out to a new and powerful redevelopment authority. (Donze and Russel 2006)

The map that occupied the majority of the front page that morning included several critical reinterpretations of the BNOBC’s graphics and text, which shaped the reception of the plan in powerful ways (Fig. 3.1; see the “Introduction” of this chapter). First, the map cropped some of the furthest reaches of the eastern portion of the city in order to zoom in on the more densely populated areas. It also included and labeled major streets, allowing readers to more readily locate specific sites in the city. Though the map includes most of the categorization scheme indicated in the BNOBC maps, it does make some significant changes. Most importantly, the tentatively dash-outlined circles indicating future parkland on the BNOBC map here appear as solid green dots, lending them more graphical prominence and visually associating these areas with the existing parks indicated on the map. The linear green spaces indicated in the ULI and BNOBC maps are omitted in the newspaper’s version. Divorced from the “system” of functional greenways, the green dots appear to be arbitrarily sited around the city. Presented in this more solidified form, among the red outlined areas for intensified redevelopment, the green dots came to be seen

as a harsh form of “prohibitive cartography” demarking spaces that would be off limits for return and reconstruction (Monmonier 2010).

While the graphical form of the newspaper’s map accentuated its prohibitive character, the text that appeared in the map’s key and the accompanying story reinforced the conflicting values embedded in the map. With the labeling of each of the plan’s land use categories, the writers recast the BNOBC’s language of real estate opportunity in terms of the impact on individual homeowners and residents. The BNOBC’s “Immediate Opportunity Areas” are rendered as “areas where rebuilding allowed now.” “Neighborhood Planning Areas” are labeled as zones where the city will enact a “building moratorium until neighborhoods prove viability,” accentuating the prohibition and the proposed process of administrative viability testing. The BNOBC’s “Infill Development Areas” are recast as “areas to be redeveloped, some with new housing for relocated homeowners,” raising the specter of social reshuffling and intensive infill development.

The story that accompanied the map further reframes the plan, viewing its proposals from the point of view of homeowners. It includes a “Q&A” format that poses and answers such questions as: “I live in an area that looks unlikely to be rebuilt as it may be targeted to be park land. What’s in store for me?” In its direct address and use of first-person pronouns, the story lifts the veil of abstraction and technical language that had characterized both the ULI and BNOBC plans to make concrete the impacts of this sweeping proposal for neighborhoods and residents.

### 3.5 Discussion

Proto-critical cartographer Arthur Robinson proposed that maps operate as communication devices through the interaction of three distinct, but related, phenomena: the mapmaker (sender), the map (medium), and the map viewer (receiver) (Pickles 2003). To the extent that the story of the green dot map has been told in the years since its release, it has largely been a story about how the map was received, the transformative impact that it had on the post-Katrina planning process, and, to a lesser extent, the realities and perceptions of who was responsible for the maps. The preceding analysis has clearly shown that, rather than viewing the *Times-Picayune* map as a singular medium of communication that passed from sender to receiver, it is critical to understand the map’s creation as an iterative, stepwise process shaped by at least three sets of institutional actors, each with their own vision, values, and priorities for the reconstruction of the city. In the successive reinterpretation of the green dot map, first from the ULI plan to the BNOBC and then from the BNOBC to the *Times-Picayune*, Robinson’s three-part schema becomes elongated and shifts from a relatively simple, unidirectional linearity to a series of interpretive tangents. To better understand the impact of the maps, it is important to consider all three of these components: the power structures and institutions that lay behind the creation of the maps, how each set of actors reinterpreted the ideas and images produced by



the preceding mapmakers, and finally, the social and political conditions in which the process and products were ultimately received.

### 3.5.1 *The Mapmakers*

Crampton and Krygier's premise that maps "actively construct knowledge," "exercise power," and "can be a powerful means of promoting social change" highlights the need to interrogate the identities and interests of the people and institutions responsible for mapmaking (Crampton and Krygier 2005). In the case of the green dot map, there are at least three sets of relevant mapmaking actors: the ULI expert panel, the Mayor's BNOB Commission and their consultants, and the reporters and staff of the *Times-Picayune*.

According to the ULI report, in the autumn after Hurricane Katrina:

ULI assembled expert teams and an advisory panel of economic development, financial, design, redevelopment, land use, and urban planning professionals to work with Mayor C. Ray Nagin's Bring New Orleans Back Commission. (Urban Land Institute 2005)

As this statement indicates, the ULI report and the BNOBC plan lean on one another for their authority and legitimacy. The ULI draws its claims of authority largely from the technical expertise of the assembled panel and then grounds its local legitimacy in the group's political connection to the Mayor of New Orleans and the BNOBC. The 41 experts listed as contributing to the ULI report include a range of respected public and private sector leaders in real estate finance, law, development, construction, and planning, but none of the ULI experts listed New Orleans as their base of operations. While the outsider status of the assembled panel might be seen as beneficial in some settings, in the context of New Orleans, a city whose residents guard their distinctiveness with near-religious zeal, it made the panel and their recommendations immediately suspect.

Where the ULI report and maps drew their authority from the urban real estate, planning, and redevelopment expertise of the assembled group of national experts, the BNOB Commission appointed by the mayor was firmly rooted in New Orleans. The composition of the central committee of the BNOBC was clearly intended to address the city's long-standing racial tensions; it was composed of 17 people, 8 white, 8 black, and 1 Latino. In spite of this superficial diversity, before the group's work had substantially begun, Barbara Major, an African-American activist and the Commission's co-chair expressed skepticism, saying "I think some people don't understand that an equal number of black and white isn't the same as equity" (Rivlin 2005b).

Reflecting Mayor Nagin's long focus on improving the city's business climate, the group's membership was skewed toward business and development interests. The prevalence of business interests on the Commission served as a signal that the city was pursuing a largely privatized reconstruction that would be in line with the neoliberal policy preferences of the federal administration at the time. J. Stephen

Perry, president of the New Orleans Convention and Visitors Bureau at the time, told reporters, “I think the importance of this group is that it will give the federal government the confidence that the city is harnessing the private sector to do a lot of its work” (Rivlin 2005b). Though the group’s business affiliations were seen as a strength by some, among many displaced residents and activists, they fueled suspicion that the Commission’s recommendations for recovery would not adequately address the concerns of the city’s poor citizens (Nelson et al. 2007; Olshansky et al. 2010). Over the course of the fall of 2005, as the Commission undertook its work, quotes from members alluding to the opportunity of the city’s post-Katrina “clean sheet” and their desire for demographic restructuring only reinforced these suspicions (Rivlin 2005a; Wooten 2012; Gotham and Greenberg 2014).

While the ULI panel spoke from a position of technical expertise and outside detachment and the BNOBC drew its authority from the wealth, political connections, and business acumen of its members, the *Times-Picayune* maps and accompanying text drew their legitimacy from the position of the newspaper and its reporters as embedded members of the local community. With its urgent headlines and personal tone, the paramap text surrounding the published green dot map reinterpreted the optimism and technical language of the earlier plans to reflect the fears and suspicions of readers. In spite of the technical expertise and superficial diversity of the ULI and BNOBC, the fact that the two groups were widely perceived as not representing the viewpoint of the majority of displaced New Orleanians meant that their plans failed to establish their legitimacy in the eyes of the city’s residents.

### 3.5.2 *Reinterpretations*

The preceding analysis of the three maps considers how each successive generation of maps and plans leading up to the green dot map communicated the values and interests of its makers through graphics and text. The final map reflects a process that began with a deliberately imprecise and highly qualified preliminary planning map produced by the ULI panel. While the ULI plan included recommendations for a planning process that would take account of equity and inclusion, their map and accompanying texts categorized space primarily according to *investment potential*. The ULI recommendations were then reinterpreted by the BNOBC as a real estate development proposal, largely stripped of the ULI’s language on race, equity, and participation. The graphics and texts of the BNOBC plan presented a reconstruction process guided by a classification of *real estate acquisition activities*. The BNOBC’s plans and maps were then finally recast by journalists and graphic designers at the *Times-Picayune* to focus on the *impacts on people and neighborhoods*.

While the BNOBC proposal draws heavily on the ULI policy and design recommendations, the proposal does not reference the ULI directly anywhere in the text or graphics. The omission of any reference to the ULI panel may have been an attempt by the Mayor’s Commission to distance itself from the earlier report, which had drawn local suspicion and resistance (Olshansky et al. 2010). On the other hand,

though the map that appeared on the front page of the *Times-Picayune* on January 11, 2006, was substantially different in text and graphics from the BNOBC's maps, it includes a citation in the lower left below the map that reads, "Source: Bring New Orleans Back Commission." By presenting their editorially manipulated map as the product of the Commission, the paper blurred the line between re-presentation and commentary, exacerbating the already widespread distrust of the planning process.

### 3.5.3 Map Receivers

While the reception of and reaction to the green dot map have been by far the most discussed aspects of the entire episode, it is nonetheless worth considering these reactions systematically through the lenses of lay critical cartography. The map and the categorization system that it represented were roundly rejected and attacked on a number of different fronts. The negative public reactions to the green dot map included critiques of the plan on the basis of all four of the normative criteria for climate adaptation laid out by Adger et al. (2005): *efficiency*, *effectiveness*, *equity*, and *legitimacy*.

Though the BNOBC maps and plan were presented as "a rational path to recovery," they were widely critiqued as both rigid and arbitrary, attacking their claims to *efficiency* and *effectiveness* (Nelson et al. 2007). Many regarded the BNOBC map and plans as overly rigid and formulaic in their use of a logic of "elevational determinism" to condemn low-lying neighborhoods (Wagner and Frisch 2009). Others criticized the BNOBC proposals for arbitrarily condemning some neighborhoods and not others even though virtually the entire metropolitan area is at risk of flooding (Nelson et al. 2007). Calling into question the factual basis on which the plans were based, one Gentilly resident told reporters:

Unless they could prove to us unequivocally that we were placing ourselves and our children in danger – and they couldn't – then we were not going to allow anyone to unilaterally dictate where we couldn't live. (Krupa 2010)

With its combination of schematic abstraction and unexplained precision, the graphics and paramap text of the *Times-Picayune* map played a significant role in shaping the perception of the plan as both rigid and arbitrary.

While some critiques focused on issues of efficiency and effectiveness, most of the critiques of the green dot map centered on issues of equity and legitimacy. The ULI and BNOBC plans were widely seen as having been the product of "top-down process[es]" (Nelson et al. 2007; Wooten 2012) by "closed-door" committees with "little input from communities" (Irazábal and Neville 2007). Wade Rathke, a leading local activist and founder of ACORN, directly impugned the legitimacy of the process, decrying the "arrogance" of the recommendations and labeling the ULI and BNOBC "unelected and unaccountable" (Rathke 2006). One Ninth Ward resident voiced a distrust of the municipal authorities more broadly in attacking the legitimacy of the city's planning process, saying "I was not going to let a corrupt city government deny my right to return" (Gotham and Greenberg 2014).

Charitable critiques of the green dot map and the plans behind it regarded the plans as naïve to the political realities of the city and inadequate in addressing the interests of the historically victimized low-income and African-American populations of the city. Less charitably minded critiques saw the plans as deliberately hostile to those vulnerable populations. For many critics, the perceived lack of *legitimacy* of the plans went hand in hand with their failure on the *equity* criteria. Political distrust and social division between white and black populations in New Orleans are deeply rooted, and they significantly shaped the response to the early post-Katrina planning processes (Olshansky et al. 2010; Gotham and Greenberg 2014). As in many disasters, the flooding of New Orleans disproportionately harmed African-American and low-income populations in the city due to the heightened physical and social vulnerability of some areas (Tierney 2006).

These same populations and neighborhoods had also suffered disproportionately during previous infrastructure and urban renewal projects in the city (Breunlin and Regis 2006; Nelson et al. 2007). This history of displacement and victimization at the hands of planners and developers led many in New Orleans to harbor a deep distrust of both public and private sector powers seeking to remake the city after the flooding. Given the city's history of racial animus and the racially tinged opportunism of statements from members of the BNOBC, the plan's calls for targeted prohibitions on building permits and buyouts in heavily flooded neighborhoods raised fears that the plan was an elaborate attempt to "keep many African Americans from returning" to the city (Nelson et al. 2007). So charged was the discussion of racial inequality in the proposed land use restructuring that activists labeled it an attempt at "ethnic cleansing" (Nelson et al. 2007) and "class and racial redlining" (Gotham and Greenberg 2014).

### 3.6 The Lasting Impacts of the Green Dot Map

More than a decade after the initial controversy surrounding the green dot map, the episode still looms large in discussions about water management in New Orleans. The swift and overwhelmingly negative response to the proposals presented in the *Times-Picayune* in January 2006 decisively ended official discussions of large-scale reshuffling of land uses to make way for stormwater-absorbing green space. Nonetheless, city leaders and planning and design professionals in New Orleans have continued to pursue "green infrastructure" strategies as one component in the "multiple lines of defense" against urban flooding (City of New Orleans 2015). A series of convenings, plans, and pilot projects have sought to demonstrate the utility of landscape-based stormwater retention and infiltration strategies. Key projects include the Dutch Dialogues series (2006–2009), The Greater New Orleans Water Plan (2013), the New Orleans Resilience Strategy (2015), and the Gentilly Resilience District pilot projects supported by funds from the US Department of Housing and Urban Development's National Disaster Resilience Competition (NDRC) (ongoing). While these projects have made progress in bringing green infrastructure into

the mainstream of flood mitigation discussions, many observers cite the green dot map episode as having created an atmosphere of suspicion and distrust, against post-Katrina planning generally and against green infrastructure specifically. This section recounts common themes regarding the lasting implications of the green dot map episode as they emerged from interviews with government officials and planning and design practitioners who have been active in the city's recent green infrastructure efforts. The interviews took place in 2016 and 2017.

While some responded to questions about the ongoing impacts of the green dot map by saying that the city has moved "past it" (New Orleans-based landscape architect 2017) or that "you don't hear much about it as much now" (Senior city official 2017), even those who minimized the ongoing importance of the episode regarded it as having substantially shaped planning over the last decade in New Orleans. One New Orleans-based planning practitioner reported that the episode confirmed the preexisting suspicions that New Orleanians had regarding heavy-handed planning, saying:

The green dots really just cemented people's skepticism about planning. It was that way before, but it really just cemented it in people's minds. (New Orleans-based planner 2017)

While the episode may have heightened preexisting suspicions of planning generally, it had an especially pronounced impact on efforts to advance green infrastructure flood mitigation strategies. One local designer involved in these efforts reported that "everyone is super conscious of the green dot fiasco" (New Orleans-based designer 2017). A planner working with the city said that when their agency recently initiated several green infrastructure pilot projects, residents asked suspiciously "If you are doing this (green infrastructure), does that mean that you are not going to build more houses in the neighborhood?" (City official 2017). After the early post-Katrina conflicts over green infrastructure, Dutch urban designers who have been involved in water planning in New Orleans reported a wariness of proposals that might get entangled in "local politics" (Dutch water planner 2017). Another Dutch designer said that they avoided becoming involved in discussions of projects that would involve substantial displacement since, "As a Dutch firm, for us to be involved in these society issues ... didn't feel safe... or appropriate" (Dutch urban designer 2017).

While there was widespread agreement that the green dot map episode had negatively colored the public perception of post-Katrina planning generally and green infrastructure specifically, interviewees reported a range of different ways that they perceived the episode as having shaped planning processes and projects in the years since. Some described the failures of the green dot map as failures of communication and translation. One urban designer pointed to the episode as "a good example of the danger of visualizations" and said that the major problem was that a map that "was intended as a discussion... was interpreted as against the lower economic status people" (Dutch water planner 2017). Recognizing that the green dot map emerged from a process of translation as described above, a senior city official pointed out that the harsh reaction was to the map that "the *Times-Picayune* showed in the paper, which was not what the ULI actually showed" (Senior city official 2017).

Reflecting this understanding, that the problems with the green dot map were attributable to failures of communication and representation, one urban designer reported that in their subsequent work, they have “tried to be more specific than dashed circles” in their representation of new green infrastructure. They went on to say that, to avoid the appearance of bias or arbitrariness, they base their recommendations on the “fundamentals of how soil and water interact” so as “to be more defensible” (New Orleans-based designer 2017). Another city planner reported that, in making the case for more green infrastructure investment in a neighborhood, they make a great effort in “connecting [the projects] to economic development and neighborhood revitalization,” “forefronting those goals with flood protection subsequent to that” to make the point that these new projects are “very different from the green dot scenario” (City official 2017).

In addition to the ways that the green dot map episode has changed how planners and designers communicate green infrastructure proposals, the experience has also substantively informed planning processes and projects in the years since. A senior city official reported that the BNOBC plan “was done in isolation, with no one in the city.” From that experience, they reported that “everyone learned... how to engage with people” and that, “the engagement has gotten much better... partially because of the green dot debacle” (Senior city official 2017).

Several practitioners and officials reported that, after the green dot episode, green infrastructure projects have been more opportunistic and smaller in scale. Designers and planners said that the efforts to institute landscape-based stormwater management have focused on using existing open space rather than advocating for large-scale projects that would require displacement of houses and neighborhoods. A senior planner with the city remarked that:

Many of the places where we are prioritizing these kinds of projects are in areas that were under the green dots. Without displacing people and without all of the negative connotations of the green dots.

They explained that, “where there is vacancy, you can use that [space]” for green infrastructure. They went on to say, “This is not about taking something away. This is about adding to. We aren’t taking houses away, we are adding parks.” (Senior city official 2017) These sentiments reflect both the strategic shift to an opportunistic approach to green infrastructure that has characterized recent efforts in New Orleans and the recognition that the legacy of the green dot map has required a reframing of the communication surrounding these projects to address not only their effectiveness and efficiency but also their equity and legitimacy. It is important to note that, in some cases, the open space for this opportunistic green infrastructure approach was made available for those purposes by leaving empty lots on which flooded homes were purchased and demolished by the New Orleans Redevelopment Authority with the decline and movements of New Orleans’ population following Hurricane Katrina.

### 3.7 Conclusions

The catalytic impact of the green dot map in shaping post-Katrina planning in New Orleans has been widely recognized. However, scholars and other commentators have paid little attention to where the map came from and how it communicated through graphics and text. With analysis of the maps' makers, the text-based and graphical reinterpretations they employed, and the political and social context of the community they meant to restructure, the story of the green dot map yields deeper insights for future planning and adaptation research and practice. The map was a product of multiple reinterpretations, each undertaken by different groups with distinct values and interests. Each of these iterations reflects a particular design politics colored by the values and interests of its makers. The version of the map presented to the public in the *Times-Picayune* in January of 2006 contains a confounding combination of deliberate abstraction and misplaced precision that, when paired with radical policy prescriptions for reorganizing property and land use, became highly inflammatory.

While public and scholarly critiques of the green dot proposal included concerns related to all four of Adger et al.'s (2005) criteria for successful climate adaptation, issues of the legitimacy and equity were especially central. These equity and legitimacy critiques were rooted in decades of well-earned racialized suspicion and distrust of top-down planning intervention in New Orleans. These suspicions were reinforced by the composition of the planning bodies responsible for the ULI and BNOBC proposals: outsider technocrats and representatives of the city's white-dominated business elite, respectively.

Apologists tend to describe the failure of the BNOBC as a problem of communication. Such a reading of the episode overlooks the fact that the reception of the maps as communication media was deeply shaped by the sociopolitical context into which the maps were released. The communication failings of the green dot map are tightly intertwined with the substantive critiques of the proposals and the preceding process. John Forester points out that the "technical problem-solving" functions of planning are inextricably linked to "planning as a means of processing information and feedback" (Forester 1988). While the ULI and BNOBC experts regarded their plans as reasonable attempts at effective and efficient technical problem-solving, for critics steeped in the history of problematic planning interventions in New Orleans, the green dot map was visual confirmation of their suspicions that the planning process was illegitimate and inequitable. For suspicious residents and critics, the map, with its bewildering combination of hard-edged geometric precision and high levels of abstraction, reflected a top-down process that appeared at once arbitrary and inequitable.

Though the problems with the green dot map run deeper than a benign failure of communication, the particular form of the graphics and text of the map and paramap materials presented in the *Times-Picayune* do matter. In the case of the explosive "green spacing" proposals, the ULI map's fuzzy shapes, the BNOBC's open dotted circles, and the *Times-Picayune*'s solid green dots each communicate different lev-

els of resolution and finality to the plans. Similarly, the shift from the ULI and BNOBC's language of administrative and financial efficiency to the *Times-Picayune's* resident-eye view of radical urban restructuring substantially colored the reception of the proposal. The green dot map episode makes clear that advocates of such urban adaptation projects must be attentive to how their graphics and texts will be reinterpreted, represented, and consumed. These processes are deeply place-specific and historically contingent and, thus, frequently may not be immediately comprehensible to outside technical experts.

Perhaps more than any other episode in the recent history of planning in America, the development and response to the green dot map demonstrate the need for greater sensitivity to the design politics of maps and planning representations among scholars, practitioners, and decision-makers. Skillful graphic communication cannot overcome deep substantive flaws in a planning process or proposal. However, by understanding how planning graphics and texts relate to the specific historically imbedded contexts of a place, planners can communicate with the public and decision-makers in ways that facilitate rather than destroy the potential for effective, efficient, equitable, and legitimate adaptation.

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