

From Green Dots to Greenways: Planning in the Age of Climate Change in Post-Katrina New Orleans

BILLY FIELDS

University of New Orleans, New Orleans, LA, USA

ABSTRACT This paper examines the role of density and open space as sustainable design strategies in the age of climate change. These issues are addressed through a case study of the Lafitte Greenway, a post-Katrina recovery project in New Orleans. Applying sustainability concepts within the contentious post-disaster environment has underscored tensions around the issues of green space and density. While the New Orleans case is currently an outlier, waterfront communities around the globe will begin to face similar issues as sea levels rise and climate change management becomes an increasingly important issue.

Introduction

The sustainability paradigm has been used as a central organizing framework in virtually all post-Hurricane Katrina plans in New Orleans. With the environmental, social, and economic systems in tatters following the flooding of nearly 80% of the city, the sustainability framework offered a promising avenue for organizing a comprehensible description of both the systems failures that precipitated the crisis and potential long-term solutions necessary for addressing these conditions. Urban planners and designers from around the world descended on the city to offer advice on how best to remake the city in a sustainable way.

The urban sustainable design moment that developed after Hurricane Katrina in New Orleans has, however, produced mixed results. At the core of the sustainable design moment were calls to increase density in higher ground areas of the city to produce a smarter and safer redevelopment pattern. In the face of the wide-scale flooding in lower-lying areas and immense devastation, these proposals argued for a return of large swaths of the city to green space for ecological functions and stormwater management. While building at a higher density in higher ground areas that are more resilient was a central sustainability proposal in early plans, large-scale proposals were quickly shelved in the face of intense criticism from the citizens whose neighbourhoods would be returned to green space.

While the New Orleans case is currently an outlier, waterfront communities around the globe will begin to face similar issues as sea levels rise and climate change management becomes an increasingly important issue. This paper

Correspondence Address: Billy Fields, University of New Orleans, Center for Urban and Public Affairs, 368 Milneburg Hall, 2000 Lakeshore Dr., University of New Orleans, New Orleans, LA 70148, USA. Email: wmfields@uno.edu

examines the role of density and open space as sustainable design strategies in the age of climate change. While planning scholars and climate change specialists point to the benefits of increased density and smarter development as a climate change management tool (Ewing *et al.*, 2008), creating public acceptance of the increased density necessary to achieve climate benefits is often overlooked as a necessary condition for policy implementation. As the threat of climate change pushes innovation in urban design and land use from a competitive advantage to a necessity, defining a politically acceptable urban sustainability vision on a large scale requires innovative and efficient solutions that must not only be envisioned, but also implemented. This case study of New Orleans analyses how density and open space became divisive political issues in sustainability planning after the disaster, and points to the key components for building politically acceptable urban design interventions.

Specifically, the paper examines these issues through a case study of Lafitte Greenway, one of the many sustainability projects in post-Katrina New Orleans. Unlike many other post-Katrina sustainability projects, this project has been able to generate political momentum through a focus on both the environmental and economic benefits of the greenway project to the community. By framing the design challenge in broad terms as both an economic and environmental issue that was central to the community, advocates of the project have been able to create the broad coalition necessary to move the project forward.

The 'Green' Challenge: Density and Walkable Urbanism

The energy implications of urban form are becoming increasingly important issues faced by urban planners and designers. The twin global constraints of oil depletion and climate change make the sprawling landscape of the modern American city increasingly unsustainable (Newman & Jennings, 2008). While current policy discussions have centred on efficiency improvements in the vehicle fleet and new housing stock, these changes alone will not result in the necessary reductions in greenhouse gases required to mitigate serious climate impacts (Center of Clean Air Policy (CCAP), 2007). Broader decisions about the overall structure of urban design and transportation will be necessary to meet ambitious goals for sustainability and reductions in greenhouse gases (Porta & Renne, 2005).

An important component of achieving climate change reduction goals at the urban level is to encourage quality, walkable environments linked by transit. With decreases in vehicle miles travelled between 5% and 15% at a community-wide level (Litman, 2007) and local reductions between 20% and 30% (CCAP, 2007), more compact development can play a large role in managing greenhouse gas emissions (Ewing *et al.*, 2008). This 'walkable urbanism' approach to managing the urban landscape (Leinberger, 2007) holds promise because it is both an effective tool in reducing greenhouse gas emissions from the transportation sector as well as an increasingly marketable real estate product (Levine *et al.*, 2005).

While there is increasing market demand for walkable urbanism, the political acceptance of the increased density required to facilitate walkable urbanism is often a major stumbling block (Beatley, 1999). This presents a significant policy challenge. Policy-makers, planners, and urban designers will be challenged to minimize greenhouse gas emissions while simultaneously maintaining a strong quality of life for residents to make these changes politically acceptable. They are challenged to foster a 'desired density' that is simultaneously effective

at managing greenhouse gas emissions and politically acceptable enough to implemented.

A New Challenge for Urban Design in the Era of Climate Change: Smarter and Safer

While the broad urban design challenge to address climate change in urban areas increasingly revolves around encouraging denser development patterns, the challenge for communities like New Orleans threatened by the potential impacts of sea level rise from climate change involves adding another element: encouraging safer development (Nelson *et al.*, 2007). Sustainability analyses have begun to include community resilience to natural hazards as an important policy area. Beatley (1998) lists natural hazard community resilience alongside the promotion of higher density, increased green space, and mixed-use landscapes as key components of sustainable communities (Figure 1).

While higher-density development in safer locations fits squarely within urban sustainability practice, Burby *et al.* (2006) point to a key structural condition necessary to encourage effective implementation. By intentionally limiting the supply of land to encourage less sprawling, higher-density development, containment policies can push development into higher-risk areas. Development in higher-risk areas can be minimized through simultaneous use of hazard zoning and state planning mandates designed to steer development away from hazard zones. Burby *et al.* (2006, p. 62) sum up their position by arguing that “Smart, safe growth is possible, but only if states simultaneously adopt policies to combat sprawl and reduce vulnerability to losses from natural hazards.” With the dual use of containment and growth management, communities can become smarter and safer.

Sustainable Landscape Challenges in Post-Katrina New Orleans

In New Orleans, however, the natural containment of surrounding swamps and water bodies and the lack of state planning mandates created a situation where the only readily accessible, low-density developable land was in the most hazardous, flood-prone areas (Burby *et al.*, 2006). Waves of development expanded the city’s footprint in the 1940s and 1950s to the swampy terrain being drained in the areas adjacent to Lake Pontchartrain. In the 1960s, the development spread east into the new suburban community of New Orleans East (Lewis, 2003). By the late 1960s, the “conquest of wetlands within the city limits” (Colten, 2005, p. 163) was complete.

Key Attributes of Sustainable Communities
Higher Density Development
Parkland and Green space
Use of Infill Development Strategies
Promotion of Transit and Mixed-Use Landscapes
Energy and Resource Conservation
Natural Disaster Community Resilience

Figure 1. Key attributes of sustainable communities. *Source:* Adapted from Beatley (1998).

Unfortunately, environmental changes occurring during this same period began to expose the newly developed suburban areas to greater risk. Over the last 50 years, New Orleans has become much more exposed as a coastal city as wetlands and barrier islands that had for nearly three centuries buffered hurricanes destructive storm surges eroded dramatically. At least 15–25 miles of wetlands has eroded away from areas south and east of New Orleans over the last century (Tidwell, 2006). The result has been that New Orleans has become much more exposed to the hurricane hazard. As Lopez (2006, p. 5) notes, the “ongoing catastrophic habitat loss to the state and continued reduction in buffer storm surge that coastal wetlands provide” presents a true threat to the continued survival of coastal Louisiana human populations. New Orleans has, thus, lost much of its natural buffer to storm surge and simultaneously encroached into more hazardous development zones. These dual changes have dramatically increased exposure of New Orleans to catastrophic flooding from hurricanes.

The disaster of Hurricane Katrina provided a moment to re-evaluate development patterns and reconstruct the city in a safer and more sustainable pattern that both minimized exposure to hazard and reduced the use of greenhouse gases. As Beatley (1998, p. 239) notes, “rebuilding following disasters must be viewed as an important opportunity to move society in the direction of greater sustainability”. While the time after a disaster presents obvious opportunities to reconstruct in a more sustainable pattern, the challenge is that this is also the moment where the population feels the most vulnerable and potentially distrustful of efforts to restructure communities (Hirsch & Levert, 2009). True community consensus-building is necessary to help build the trust necessary to undertake a large-scale sustainability restructuring (Burby *et al.*, 2000; Kumar & Paddison, 2000).

Within this context, sustainability planning must address core concerns of impacted communities to help rebuild homes, businesses, and a sense of place that *attracts* residents to return and encourages safer and more environmentally sound reconstruction patterns. Without the community buy-in to the post-disaster plans and structural mechanism to encourage movement to less vulnerable locations (Nelson *et al.*, 2007), efforts to push redevelopment into less hazardous, more sustainable areas can be seen as environmental expropriation. In New Orleans, the failure to build community consensus around redevelopment plans that intended to turn areas of the city into green space (as discussed below) resulted in a significant backlash that crippled large-scale sustainability planning. Green space planning became a central component in post-disaster sustainability planning.

Urban Green: Density and Greenways

Before examining the specifics of the New Orleans case, it is important to understand the evolving meanings of green urbanism. While professional urban planners and designers have increasingly become advocates of denser, mixed-use landscapes, there has been a strong bias in much of the public and environmental community favouring less-dense, ‘green’ landscapes. This impasse has been called the rural versus urban commons debate by Newman & Kenworthy (1999, p. 261). They argue that the rift between urban environmental supporters and the more traditional open-space environmentalists who favour more pastoral, green landscapes “is becoming critical in urban policy debates” as environmentalists

struggle to decide “what should be done to make urban areas more ecologically sensitive and sustainable”.

This larger debate over green urbanism (Beatley, 1999) is also taking place within the greenways movement. Greenways, “linear open spaces or parks along rivers, ridgelines, or historical infrastructure corridors” (Lindsey, 2003, p. 165), have become important urban sustainable land-use designs. Traditionally used as a buffer between ‘nature’ and urban areas, greenways can be an effective tool for integrating hazard mitigation planning with community sustainability goals. Beatley (1998, p. 252) points to efforts to use greenways as important buffering systems within floodplains as a way “to protect important ecological features, create areas of special recreational and aesthetic value, and at the same time reduce exposure of people and property to flooding”.

This view of greenways as a buffer between urban and natural systems that can be used to mitigate natural hazard has a long lineage in contemporary environmental planning. Greenways have traditionally been seen as extensions of the natural environment within the city, acting as a counterbalance to urbanization. Searns (1995), for example, argues that, “greenways are an adaptation that helps mitigate and provide counterpoint to the loss of natural landscape as a result of growing urbanization”.

This open-space, ‘natural’ view of greenways is shared by Little (1990). In his *Greenways for America*, Little describes greenways as an extension of Howard’s Garden City concept where greenways act to create “an American countryside that is neither rural nor urban but a little of both - legible, humane, accessible” (1990, p. 134). This third land-use typology between cities and the rural countryside seeks “to join the urban and the rural into a kind of normative American countryside—a land between the inner city on one side and the unpopulated hinterlands”. In this conception, greenways are designed to mitigate the urban rather than accentuate the walkable possibilities of urban neighbourhoods.

The increased use of greenways in more urban landscapes and the pressing climate challenge has, however, prompted discussion about the appropriate balance between non-motorized transportation, growth management, and landscape protection (Berke *et al.*, 2003). A broader view of the multiple ‘green’ values of trails is emerging. The green infrastructure paradigm advocated by Benedict & McMahon (2002) argues for a wider conception of environmental values that includes growth-management principles vital for encouraging walkable urbanism. Green infrastructure planning, Benedict and McMahon point out, “differs from conventional open space planning because it looks at conservation values in concert with land development, growth management and built infrastructure planning” (2002, p. 12). While this view predominantly focuses on protecting ecologically valuable lands from new development at the urban/rural interface, this integrated view of multiple environmental values provides an opening for a place-making approach that could be used to encourage infill development adjacent to trails in established urban areas (Benedict & McMahon, 2006).

This approach of incorporating the place-making benefits of trails to advance multiple sustainability goals has been called the trail-oriented development approach (Fields, 2007; Wagner *et al.*, 2008). The basic components of this approach involve utilizing greenways as community amenities that, when planned properly to mitigate environmental impact to sensitive areas, can be used as magnets for mixed-use development centres. This approach draws on the

lineage of Olmstedian urban parks where the amenity value of well-designed parks was used to spur adjacent development. The evidence of the positive impact of parks on adjacent land values became “conventional wisdom” (Crompton, 2001, p. 9) for park planners and was used to fuel the early park movement in communities around the United States.

Applying the amenity value of well-designed urban trails to spur adjacent development has been successfully used as an important sustainability tool in cities around the United States. In Minneapolis, the Midtown Greenway provides a good example of how focused planning and outreach for trail-oriented development can help to enhance the multiple goals of walkable urbanism and economic revitalization along an urban corridor (Figure 2). The first phase of the Midtown Greenway was opened in 2000, converting an abandoned rail line into a new neighbourhood amenity that provides non-motorized transportation and is being used to help spur neighbourhood revitalization. To help provide guidance for land-use decisions adjacent to the trail, planning efforts focused on the creation of The Midtown Greenway Land Use Development Plan, which was adopted by the Minneapolis City Council in February 2007. The guiding principle behind the plan is that the Greenway:

will grow as a place where the natural and built environments work together, where mixed-use development patterns of varying intensity are complemented by open space and traditional urban neighborhoods. New private development, and enhancement of the public landscape, will add to its commercial, residential and recreational assets, and strengthen its sustainability and connectedness. (City of Minneapolis, 2007, p. 25).

This approach of increased infill density in traditional urban neighbourhoods along with key open space protections appears to fit the balanced green infrastructure paradigm. The results, according to the Plan, have been changing



Figure 2. Midtown Greenway (Minneapolis, MN).

land-use patterns that reflect greater concentrated density “spurred by the new Greenway amenity” (City of Minneapolis, 2007, p. 1). This balanced approach shows how increasing density in redevelopment nodes can complement the broader open space protections traditionally favoured in greenway design.

Post-Katrina Planning in New Orleans: Setting the Agenda

The conflicting views of green urbanism (Beatley, 1999) have played out in New Orleans in a series of post-Katrina plans that have engaged the issue of sustainability from multiple angles. The basic outlines of the post-Katrina planning process have been laid out by Wagner (2006b), Nelson *et al.* (2007), and Olshansky *et al.* (2008). Each piece provides a slightly different reading of the complicated, multi-stream planning process within the city, showing how the different governmental and neighbourhood bodies helped to set the recovery agenda. Nelson *et al.* (2007) focus on the officially sanctioned planning processes in connection to risk management in rebuilding decisions. Wagner (2006b) adds a more extensive examination of the neighbourhood, grassroots planning efforts, and the politics of actual plan implementation to the ‘official’ plan analysis. Finally, Olshansky *et al.* (2008) seek to identify the lessons of the planning process through a post-disaster recovery frame.

As described in these three sources, five overarching planning processes were identified that collectively set the revitalization agenda for New Orleans:

- The Bring New Orleans Back Commission (BNOB).
- New Orleans Neighborhood Rebuilding Plan (NONRP).
- Unified New Orleans Plan (UNOP).
- Office of Recovery Management Recovery Strategy (ORM).
- Grassroots and neighborhood-based planning.

While Wagner (2006b), Nelson *et al.* (2007), and Olshansky *et al.* (2008) analyse these plans from the city-wide level, much remains to be learned from an analysis of these plans from the project-level scale. The case study of the Lafitte Greenway examines these planning documents through the lens of a single project, focusing specifically on how questions of green space and density were crafted and contested. The following section provides a brief overview of the history and land use along the corridor. This is followed by an analysis of the specific proposals articulated for the Lafitte Greenway in each planning process, analysing key planning and design components for the Greenway project as well as providing a detailed record of how a single project emerges within this complicated structure to be eligible for funding and implementation.

Lafitte Greenway Case Study: From Green Dots to Greenways

The Lafitte Greenway is a 3-mile greenway/trail system proposed for an abandoned rail corridor in the centre of New Orleans. Stretching from the edge of Congo Square at the back end of the French Quarter through MidCity and South Lakeview, the corridor traces the arc of urbanization in New Orleans from the early French and Spanish colonial settlements on the edge of the Mississippi River to mid-20th-century suburban scale of Lakeview (Figure 3).



Figure 3. Map of the Lafitte Greenway.

The vacant open space separates four historic districts from each other, but has no distinct, recognized identity of its own. This vacant corridor represents an archetypal “lost space” (Trancik, 1986) that was left as an unused remnant of former industrial activity (Wagner *et al.*, 2008).

Before Katrina, numerous proposals for transforming this corridor into a green space amenity were embedded in a series of official planning documents. While the proposals remained dormant before 2005, the post-Katrina planning process has given renewed emphasis to greenway-planning activities.

One of the primary issues faced during the planning process for the greenway has been defining the role of green space in the recovery. While the creation of green space connecting the heart of the city clearly fits within the sustainability agenda, the focus of scarce resources on an open space, ‘bike path’ in an economically challenged area has been contested. The analysis below of each of the key planning documents traces both the broader challenges of using the green space concept in post-Katrina planning and the specific issues associated with creating a politically viable greenway proposal through the strategic use of green infrastructure principles.

BNOB: Nature, Green Dots, and Viability

Starting only months after the initial disaster in November 2005, the BNOB was the first major planning initiative after Katrina. Led by a team from Wallace Roberts and Todd, the BNOB brought a cadre of national experts together to create a viable, sustainable plan for rebuilding New Orleans. The first sentence of the

vision for the entire plan states that “New Orleans will be a sustainable, environmentally safe, socially equitable community with a vibrant economy” (BNOB, 2006, p. 3).

Within months after initiating the planning process, however, efforts to promote the lofty sustainability vision of the plan suffered significant political push-back as a coalition of neighbourhoods organized to fight a central feature of the plan that called for abandoning low-lying sections of the city and returning them to green space. The green space proposal, thus, became the flash point that helped shape the outlines of sustainability planning in post-Katrina New Orleans.

The BNOB appears to fluctuate between the more rural, ‘nature’-based approach to the significance of green space and the more urban-compatible conception of green space represented by green infrastructure ideals (Newman & Kenworthy, 1999). The BNOB begins by defining the overall goal for green space as “bringing sustainable nature into every neighborhood, linking every part of the city” (BNOB, 2006, p. 3). This vision for green space appears to spring from the conventional environmental view of green space preservation as an extension of nature into the city (Colten, 2005). While the goal appears to be fairly benign and rational, the application of the environmental preservation framework into pre-existing neighbourhoods would prove to be a significant political issue.

This more traditional open space viewpoint is, however, countered with more contemporary open space concepts as the authors later in the document call for a greenway network based on ‘green infrastructure’ principles that connect “through a city-wide network that serve(s) movement, social, and habitat creation values”. This wider view of the multiple functions of open space “can address direct current needs while building a better, more sustainable city in the long term” (BNOB, 2006, pp. 3–4). This concept of functional open space fits almost precisely with the expanded green infrastructure approach. The authors conclude that parks are “not just open spaces; they can be part of a citywide system that connects neighborhoods to employment, and neighborhood to neighborhood” (BNOB, 2006, p. 9). While the level of detail of the BNOB is fairly general, the Lafitte Greenway is included in one of the maps of green space showing neighbourhood linkages.

While much of the text of the plan represents the best current thinking about how to plan for a sustainable urban landscape, the plan’s calls for shrinking of the urban footprint to provide green space in low-lying neighbourhoods produced strongly negative public feedback that overwhelmed the more nuanced discussions about urban sustainability. In January 2006, *The Times Picayune* of New Orleans published a map from the BNOB’s land-use plan (Figure 4) that showed a proposed diminished urban footprint (Donze & Russel, 2006). The risk assessment-based position taken by the ULI team was that development should be focused on higher ground along the banks of the Mississippi River, providing increased density along the traditional urban footprint of the city and increased defensibility against future floods. This process would, in the words of Olshansky *et al.* (2008, p. 275), convert “the lowest-lying, most heavily damaged neighborhoods to green space through government-sponsored buyouts of property”.

While this position seemed like a “rational path to recovery” (Nelson *et al.*, 2007, p. 39) to the planners involved, the accompanying map with ‘green dots’ representing the open space placed on top of existing neighbourhoods caused a political firestorm that effectively derailed initial efforts to promote increased

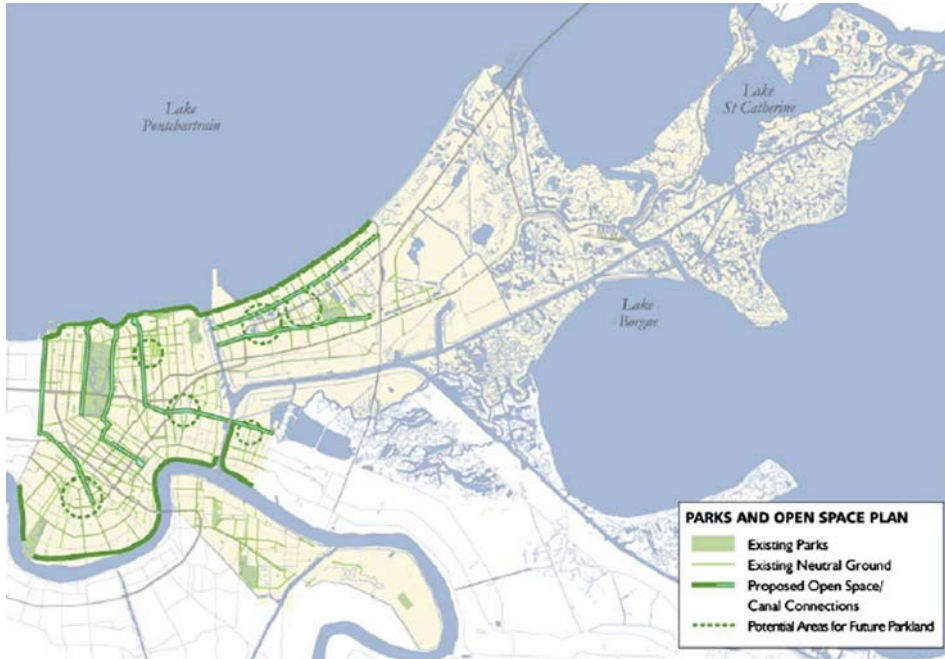


Figure 4. Bring New Orleans Back map of greenspace.

density and a more compact footprint. With publication of this map, entire neighbourhoods were instantly mobilized to protect their homes and communities from environmental expropriation.

While elevation was and is a key question in creating resilient communities in flood-prone areas, the ULI team appears to have used it as a near single-focused proxy for risk. With questions about the strength of various levee rings surrounding the city, wetland protection to buffer storm surge, and mitigation of structures still outstanding at that point at the federal level, the ULI team created a fairly simplistic risk assessment map based on elevation and a conceptual set of green dots to represent areas that should be returned to nature as green space.

Despite attempting to clarify that the maps represented only a conceptual view of where green space should be included (BNOB, 2006), residents perceived these maps as an explicit expropriation plan. Green space and 'shrinking the footprint' became equated with "efforts to make New Orleans a more White, more affluent city or as a means of 'ethnic cleansing'" (Nelson *et al.*, 2007, p. 45). Instead of inaugurating a serious, conceptual discussion of risk and redevelopment that they hoped would follow presentation of the plan, the maps made clear the battle lines for neighbourhood advocates who were mobilized to protect their neighbourhoods and did "significant damage to the public's trust in planning" (Olshansky *et al.*, 2008, p. 276). Within weeks, New Orleans Mayor Ray Nagin pulled his support for the BNOB's central element and the green dot plan was abandoned.

Assessing the risk of urban populations requires a detailed understanding of the management strategies that will be deployed to restore the multiple potential lines of defence that separate the city from the coast and the internal strategies that can be deployed to limit risk to structures such as elevating homes (Lopez, 2006).

Without the detailed risk assessment presented in coherent and strategic manner with serious public consensus building included as an integral part of the process (Hirsch & Levert, 2009; Burby *et al.*, 2000; Kumar & Paddison, 2000), the recommendations to 'green dot' neighbourhoods were viewed by many as extensions of the old urban renewal policies that decimated communities around the United States.

Breunlin & Regis (2006) note that many in the affected communities had long memories of exactly this type of urban expropriation. They argue that:

Public skepticism over current debates about reducing the urban footprint, reintroducing wetlands into the city in the form of new urban parks, or building mixed income housing in low-income neighborhoods is informed by a mindfulness of long histories of urban renewal and interstate highway and park construction, which caused their own form of devastation in mostly black residential neighborhoods: North Claiborne Avenue, Louis Armstrong Park, the Third Ward, and, more recently, the demolished public housing developments remain as scars in the landscape of the city. (Breunlin & Regis, 2006, p. 744)

The public reaction to the BNOB proposals highlights the limits of emphasizing a purely 'natural', open-space preservation conception of green space in urban landscapes, especially where green space is perceived to be pitted against the economic needs of residents. The perception of trading neighbourhoods for nature proved to be a non-starter from a political perspective.

NONRP: The First Visions of a Neighbourhood-Focused View of Sustainability

While the specifics of the 'green dots' were abandoned in future plans, the concept of encouraging increased density in more defensible locations was not. The City Council-sponsored revitalization plan for flood impacted neighbourhoods, NONRP, provided a new, formal platform for engaging in this discussion for flood impacted neighbourhoods. Returned citizens and displaced residents were engaged in envisioning the key characteristics of revitalized neighbourhoods.

During the period of the NONRP (December 2005–November 2006), there was an immense neighbourhood-based effort to prove the viability of individual neighbourhoods. The intense neighbourhood activism led to the formation of many new groups advocating for a variety of projects and neighbourhood-based initiatives. The extent of these efforts is highlighted by CityWorks (2008), which estimates that over 270 neighbourhood groups are currently active in the city, with 14% of the entire population of the city engaged in some way with these organizations.

During this period, the Friends of the Laffite Corridor (FOLC) was formed to advocate for revitalization of the greenway corridor. The FOLC group helped to bring the many area residents who had long envisioned a trail in the abandoned rail right of way together as a single voice. The author helped to organize the initial meeting of the FOLC group in June 2006 as a representative of the national Rails-to-Trails Conservancy.

In addition to conducting outreach to neighbourhood and governmental officials and writing grant proposals for funding the trail, the first key strategic action taken by the group was participation in the NONRP. Members of the group attended the many public meetings and charettes designed for visioning the

revitalized neighbourhoods. This intense focus and advocacy paid off by inclusion of the Lafitte Greenway in the portfolio of recovery projects listed in the NONRP.

Several key components of the NONRP deserve mention. First, the FOLC group and other neighbourhood organizations were able to place the greenway as one of the key revitalization projects for the 6th Ward/Treme/Lafitte area plan. The NONRP (2006, p. 15) area plan states that the Lafitte Greenway "could become one of the most important neighborhood unifying projects in the City's recent memory" acting to become "a great 'paseo' of recreation and cultural opportunity" in "what was once a dividing and forbidding stretch of central city New Orleans" (p. 12).

While the recreational and cultural attributes of the historic space are recognized, the NONRP also pointed to the importance of the greenway for revitalization purposes. In discussions about the future use of an abandoned grocery store along the corridor, the NONRP (2006) area plan points out that "residents strongly recommended a greenway component be included" to be used to create a strong linkage between the adjacent Armstrong Park and the grocery property. These two land uses could "create a synergy for both the City and the mixed use development" (p. 12). The greenway in this context was seen as revitalization component to help spur mixed-use development adjacent to the corridor.

The other major revitalization component of the greenway mentioned in the NONRP concerned the connection between the greenway and the Louisiana Institute for Film Technology (LIFT), which was to be located within the original confines of the abandoned corridor. This project, which is now on hold due to bribery charges in relation to film tax credits (Russel, 2009), engendered a great deal of controversy.

One of the underlying controversies over the construction of the LIFT facility was the extent of appropriate development within the corridor. With uncertainty swirling around the project, neighbourhood groups feared that development would overwhelm the connected public space corridor. The maintenance of the full open space within the corridor became a vital issue for some neighbourhood activists. In this tense phase, the potential LIFT facility was seen by some as a 'destruction of open space' rather than a complimentary neighbourhood economic engine. Development, from the perspective of the neighbourhood activists, should not be located within the footprint of the proposed greenway.

The outlines of this debate trace the controversy articulated by Newman & Kenworthy (1999) between the open space environmentalist position and the more urban-centred environmentalist position. In the open space environmentalist position, the broader questions about the sustainability of the neighbourhood including the environmental, social, and economic issues were lost amid the single-minded focus on open-space preservation. The new economic development for the neighbourhood became a secondary concern behind the maintenance of the open space.

There is a fine line, however, between open-space preservation and lost space maintenance. In the area in question, the open space had been preserved as a derelict, lost space for 40 years (Figure 5). New development that was balanced with maintaining connectivity of the trail corridor and financial assistance from the developer actually to build the trail could have provided improved liveability for neighbours both in terms of improved non-motorized access and in terms of neighbourhood economic activity, a truly sustainable solution. The open space



Figure 5. Lost space: Lafitte Corridor.

environmental position in this case, however, was used to fight against the new development within the open space footprint.

Despite the negative comments made by some neighbourhood activists about the LIFT development, the NONRP planning process seems to have created a balance between new development and maintenance of the connectivity of green space. To help mitigate negative impacts of LIFT, NONRP (2006, pp. 12–13) points to the “consensus that the greenway connection on the Lafitte side” be integrated in designs for LIFT “in a meaningful way” to help ensure “successful integration of the LIFT project with the neighborhood”.

Despite the distrust of neighbourhood groups about the extent of development within the corridor, proposals for harnessing LIFT as a positive, trail-oriented development progressed within the NONRP. The NONRP appears to have been focused around balancing project-based revitalization, access to green space, and neighbourhood-based business opportunities. NONRP (2006, p. 12), in discussing the LIFT proposal, argues that “This project is expected to have positive impacts on the City in general and on Treme neighborhood specifically” with “employment opportunities, spin-off businesses, and vocational training opportunities promised by the Institute”.

While the NONRP presents the Lafitte Greenway as an important revitalization project, discussions of the future of the Lafitte Housing Development immediately adjacent to the future trail corridor dominated discussions within this section of the NONRP. The question of the future of the city’s housing developments and the Lafitte Housing Development in particular have been an extremely contentious component of the rebuilding debate. The NONRP (2006, p. 23), as an early entrant into the official dialogue on the question, took a middle-ground position advocating for ‘density reduction’ of the number of overall units of public housing from 900 to 550, but advocated for the preservation of most existing buildings to encourage “a mix of income levels, retaining a significant portion of the lower income individuals, and also for persons with special needs”.

It is during these initial planning meetings that FOLC representatives and trail advocates became embroiled in a contentious discussion with public housing

activists. There was suspicion among the public housing advocates that the Friends of the Lafitte Corridor were out to take the housing development land for the trail (Guillet, 2007). While the FOLC group was careful to point out that their proposal was for the abandoned, unused adjacent land, the inclusion of 'Lafitte' in the title of the advocacy group made the distinction difficult for wary housing advocates who sought to protect the Lafitte Development from demolition.

Despite outreach by the FOLC group to public housing advocates, the discussions hardened to the point where accusations of malicious intentions were levelled at the FOLC group. Wagner (2006a), in a broadcast of the nationally syndicated radio programme *This American Life*, says that the bicycle advocates proposed:

a rails-to-trails type public bike path on a devastated and forgotten swath that cuts through the city, some of it near some projects. This prompted a different group of activists to accuse the bikers of colluding with HUD in the permanent expulsion of the community which amounted to ethnic cleansing. Really: bike paths = ethnic cleansing.

While this exchange does not appear to have resulted in any lasting damage to the greenway project with representatives from all affected neighbourhoods currently on the FOLC board, the interchange highlights the contentious nature of affordable housing and green space in the wake of the storm. It is unclear to what extent the flashpoint resulted from the previous linkage in the popular consciousness of the BNOB plan's use of green space language and housing expropriation (Nelson *et al.*, 2007).

UNOP: A Vision of Unconstrained Need

While the NONRP acted to help set the vision for rebuilding in flood-impacted areas, it did not provide guidance for the higher ground areas that did not flood. In order to start the flow of federal aid, however, a comprehensive plan for the whole city was necessary (Nelson *et al.*, 2007). This prompted the start of the final major post-flood planning process, the Unified New Orleans Plan (UNOP). The goal of this plan was to expand the scope of planning to include the entire city to bring together the details of the previous plans as part of a unified document.

UNOP was organized around district plans that linked recommendations for several neighbourhoods together. This small geographic focus for plan recommendations allowed for engaged citizenry to place important projects in the city's official recovery plan. While this approach was not directly constrained by resource availability, the resulting proposed projects show a strong inclination towards projects that can generally be described as 'sustainable.' The entire UNOP, for example, contains 85 references to proposed bicycle projects and plans.

In the District Four UNOP Subarea Plan, which covers the Lafitte Greenway area, a number of sustainability proposals were included in the list of short- and long-range needs. These range from the overarching sustainability goals of wetland protection and layered hurricane protection, to affordable housing and non-motorized transportation proposals, of which the Lafitte Greenway is the most significant.

While the range of sustainability proposals shows tremendous interest by the community, the extent of need expressed in these proposals shows the incredible strain on the neighbourhoods from the hurricane's aftermath and the long-term

disinvestment in the area that preceded the storm. The District Four UNOP (2006, p. 51) notes that:

Much of the district's rental and affordable housing has not been restored, creating limitations for lower income people who want to return. This population also needs medical services, jobs and job training, small business assistance, child care, improved bus routes and bike lanes. Concerns impacting the ability of some to return to the city include gentrification due to redevelopment ventures.

With affordable housing, child care, job training, and gentrification concerns included with non-motorized transportation needs, sustainability projects for the area needed to be multidimensional to be taken seriously, attempting to meet multiple community needs simultaneously.

The vision for the Lafitte Greenway expressed in the District Four UNOP comes close to this standard. The project description for the Greenway calls for the creation of a "mixed use urban district" that is "centered around greenspace" that would leverage the new development of the LIFT facility as a way to spur workforce housing and job training (UNOP, 2006, p. 110). With the LIFT project currently on hold, the future of this multidimensional planning approach is in question.

ORM: Visioning Implementation

While the NONRP and the UNOP provided a platform for an engaged citizenry to solidify both a vision for neighbourhood revitalization and a series of projects necessary to implement the vision, the plans did not clearly link these visions to the resources necessary to make them a reality. With federal rebuilding resources in a constant state of flux during most of the planning process, visions for revitalization were not balanced against possible resources available to make them a reality.

In order to implement the series of neighbourhood-based projects listed in the UNOP, the Office of Recovery Management (ORM) was formed with Dr Ed Blakely at the helm. Blakely, a veteran urban planner with experience in disaster response in Oakland, was tasked with creating a coherent course of action, linking resources with an overall vision and specific projects.

Blakely's team came up with a nodal approach designed to jumpstart redevelopment in designated zones within the city. Seventeen zones based on traditional neighbourhood clusters were identified to help focus limited rebuilding dollars to achieve the most impact. The idea was that targeted public resource expenditure within designated areas was designed to result in a radiating pattern of private reinvestment moving out from the core of these redevelopment nodes.

The Lafitte Greenway area was included as one of the targeted recovery zones largely due to the concerted efforts of citizens to place the project within the series of post-Katrina plans. While the current planning for the corridor is still ongoing, a basic template for future of corridor was laid out in the ORM Target Area Development Plan (ORM, 2007). The ORM Plan is centred around four community goals:

- The creation of a continuous ‘green corridor’ linking neighbourhoods and cultural institutions.
- Revitalization of the Broad Street Commercial Corridor.
- Provision of mixed- and low-income housing that is integrated in the community.
- Preservation and redevelopment of historical and cultural locations.

These four components form a fairly well-crafted vision for sustainable neighbourhoods. With a non-motorized, ‘green’ spine linking mixed-income housing and neighbourhood commercial and local cultural institutions, the vision captures the key affordability and density requirements of trail-oriented development (TrOD).

While the vision captures the TrOD framework, implementation of the vision has been slow and difficult. The ORM Plan only provided a sketch of funding linkages. At the time of the ORM Plan (September 2007), federal funding sources were still being identified and analysed for possible use in implementation of the plan. In addition, the ORM Plan was not a fully fledged plan, but instead a generalized vision document. The key details of implementation are only now beginning to be worked out. Key outstanding details include the exact framework for the Lafitte Housing Redevelopment being articulated by the non-profit Providence Community Housing that is contracted to redevelop the site, key characteristics of proposed new developments including a potential restructured LIFT project, and key infrastructure components to ensure safe trail crossings at busy intersections. Since the publication of the original ORM vision document, work has continued on moving the sketch plan to implementation with a Request for Proposals for design and construction of the greenway released in December 2008.

Grassroots Planning Efforts: The Friends of the Lafitte Corridor

While the ‘official’ planning process has generated a series of revitalization plans, neighbourhood groups have also created planning documents designed to guide redevelopment in their neighbourhoods (Wagner, 2006b; Nelson *et al.*, 2007). The FOLC group produced such a plan for the Lafitte Greenway. The Lafitte Greenway Master Plan (December 2007) is designed to provide guidance to the official plans for moving the greenway portion of the project forward. This planning process was funded through a US\$10 000 grant from the national Bikes Belong group.

The aim of the plan by the FOLC group was to “offer a vision for the transformation of the Lafitte Corridor into an urban greenway” (FOLC, 2007, p. 37). While the document provides examples of appropriate greenway redevelopment plans from around the country and provides well-crafted visual ‘maps’ of key possible connections along the corridor, the conceptual plan does not deal with the key project details such as financing, land use policy, and overall project implementation.

Interestingly, the plan does not directly engage the series of planning documents produced post-Katrina. While mentioning that “all post-Katrina recovery plans have endorsed the Lafitte Greenway as a catalyst for recovery” (FOLC, 2007, unnumbered), the FOLC plan goes on to create their own vision for the Greenway. A possible explanation for overall creation of this plan and the general lack of engagement with existing official plans is a lack of faith by area

residents in the official planning process (Nelson *et al.*, 2007; Hirsch & Levert, 2009). While actively engaging in the process to place the Lafitte Greenway within the recovery plans, area residents appear to have 'hedged their bets' by producing their own document to put pressure on local officials to follow through with the official plans. This disconnect between official plans and implementation speaks to the larger pre-existing problems of ad-hoc implementation in New Orleans where plans are only generalized guides that can be ignored for political expediency (Bureau of Governmental Research, 2003). This view that existing pre-Katrina planning problems are embedded in post-Katrina recovery is a key concept in understanding the difficulty in recovery planning (Nelson *et al.*, 2007; Whelan & Strong, 2009).

While the FOLC group attempted to create an enhanced vision for the greenway for revitalization, the plan does not squarely deal with the issue of acceptable density. The plan instead provides only a generalized goal "to preserve the open space of the Lafitte Corridor from the French Quarter to Canal Boulevard by advocating and facilitating the creation of a greenway" (FOLC, 2007, p. 1). This open space protection position will be difficult to balance with a series of development proposals that are being advanced for the greenway area.

Development within the footprint of the existing green space has been a particularly difficult issue with both the LIFT development controversy and a recent proposal for mixed-use, affordable development within the greenway footprint suggested by Providence Community Housing. While the official FOLC position of open-space preservation is tempered by a real desire to see adjacent neighborhoods revitalized, the careful balance between open-space preservation and walkable urbanism has yet to be clearly articulated by the group. As development pressures increase with the pace of recovery projects hopefully quickening, the articulation of the extent of appropriate density to foster walkable urbanism will become more acute.

Discussion: Smarter, Safer, and Politically Viable

In all of the major post-Katrina plans, urban sustainability principles were embedded as core concepts that were designed to guide rebuilding to be both smarter and safer. While the sustainability concept provided a strong framework for envisioning a desired future, implementation of key sustainability projects within these plans has, however, been slow. Defining politically acceptable avenues for redevelopment that are both smarter and safer has been the central challenge of sustainability planning in post-Katrina New Orleans.

A key component of this sustainability dialogue in New Orleans has been the struggle to define the role of green space in creating a more compact and resilient community.

Given flooding threats to low-lying areas and the importance of wetlands to storm protection, green space proposals in early plans were crafted to return low-lying areas to park space and redirect growth to higher ground areas in a denser pattern. This focus on encouraging new, high-quality development in safer places, really the pursuit of both urban density augmentation and effective hazard mitigation, has proven to be highly controversial. Without the needed consensus building and the added structural component of state mandated growth management (Burby *et al.*, 2000), local efforts to promote a more resilient community have been both extraordinarily contentious and uncoordinated.

Through the process of framing, planning, and implementation of post-Katrina plans, key fault lines within sustainability planning community have developed. The first impression of sustainability planning for many New Orleans residents came as a result of the Bring New Orleans Back Commission's 'green dot' plan for returning flood-prone neighbourhoods to open space. While this plan was much more nuanced in its overall approach, the linkage of sustainability with expropriation of land significantly hampered future efforts to achieve sustainability planning goals.

While the cumulative impact of racial mistrust (Hirsch & Levert, 2009), class divisions, and overall weak planning culture (Bureau of Governmental Research, 2003) have limited implementation of post-Katrina sustainability planning efforts, the failure of initial sustainability planning proposals to link environmental goals with the most pressing needs of impacted communities has significantly impacted the overall legitimacy of the broader sustainability planning goals. For sustainability planning principles to be taken seriously and move from planning document to implementation, the value of sustainability principles must gain broad legitimacy through addressing key issues such as housing and community revitalization. The sustainability challenge in New Orleans following the disaster, and more broadly in other communities, is to create significant linkages to the mainstream of housing and revitalization policy implementation, creating space for solutions that mediate between the multiple and sometimes conflicting recovery goals simultaneously (Nelson *et al.*, 2007; Campbell, 1996).

A key lesson drawn from the initial post-Katrina planning experience is the need for sustainability plans to build trust carefully among impacted communities as a place to begin the dialogue on sustainability planning. In many urban communities, urban renewal projects have resulted in a long-standing distrust of planning projects. The need to build trust as a key first step for encouraging smarter and safer development matches recent experience in Rust Belt communities of the upper Midwest in the United States that have experimented with right sizing techniques for greening shrinking cities (Schilling & Logan, 2008).

Creating politically acceptable solutions to long-standing problems in an intense, post-disaster environment is a monumental challenge that requires extensive reserves of patience, resourcefulness, and creative problem solving (Wagner *et al.*, 2008). Instead of creating a modicum of community consensus for risk-reduction strategies, initial planning efforts triggered a backlash to green space proposals that made future efforts to create sustainable solutions much harder.

The case of the Lafitte Greenway, on the other hand, shows both the underlying conflicts and potential mechanisms for creating a politically acceptable balance that fosters more sustainable urban places. Greenway planning in urban areas underscores the embedded conflict between the environmental goal of open-space preservation and the required density necessary to make walkable urbanism a viable alternative. Scott Campbell, in his widely read piece on sustainability planning (Campbell, 1996), argues that key sustainability conflicts need to be identified up-front to help make sustainability a useful planning concept. The development conflict articulated here shows how vital it is to have an open exchange about potential conflicts and trade-offs. It is within this frame of identifying potential trade-offs that a reasonable balance can be achieved that maintains green space and promotes walkable urbanism.

Where the neighbourhoods into nature approach to hazard mitigation proved to be politically unacceptable, the Lafitte Greenway project has been able to build a strong and broad coalition that supports the wider green infrastructure approach by working to address the development conflict more directly. While differences in the symbolic meaning of green space at points threatened the political viability of the greenway project, outreach to key leaders from multiple neighbourhoods along the greenway was able to build a solid vision that was widely supported.

By following a green infrastructure approach that emphasized the dual needs of a 'green' community amenity and economic revitalization, post-Katrina plans for the Lafitte Greenway were able to create a broad coalition to push the project forward. The design challenge in post-Katrina New Orleans involves both the technical application of smart growth and hazard mitigation techniques as well as the coalition building skills that make those changes politically acceptable.

References

- Beatley, T. (1998) The vision of sustainable communities, in: R. Burby (Ed.) *Cooperating with Nature* (Washington, DC: National Academy Press, Joseph Henry).
- Beatley, T. (1999) *Green Urbanism: Learning from European Cities* (Washington, DC: Island).
- Benedict, M. A. & McMahon, E. T. (2002) Green infrastructure: smart conservation for the 21st century, *Renewable Resources Journal*, Autumn, pp. 12–17.
- Benedict, M. A. & McMahon, E. T. (2006) *Green Infrastructure: Linking Landscapes and Communities* (Washington, DC: Island).
- Berke, P. R., MacDonald, J., White, N., Homes, M., Line, D., Oury, K. & Ryznar, R. (2003) Greening development to protect watersheds: does New Urbanism make a difference?, *Journal of the American Planning Association*, 69(4), pp. 397–413.
- Breunlin, R. & Regis, H. A. (2006) Putting the Ninth Ward on the map: race, place, and transformation in desire, New Orleans, *American Anthropologist*, 108(4), pp. 745–776.
- Bring New Orleans Back Commission (BNOB) (2006) *Action Plan for New Orleans: The New American City*. 11 January (New Orleans, LA: BNOB Urban Planning Committee).
- Burby, R. J., Deyle, R. E., Godschalk, D. R. & Olshansky, R. B. (2000) Creating hazards resilient communities through land-use planning, *Natural Hazards Review*, 1(2), pp. 99–106.
- Burby, R. J., Nelson, A. C. & Sanchez, T. W. (2006) The problems of containment and the promise of planning, in: E. L. Birch & S. M. Wachter (Eds) *Rebuilding Urban Places After Disaster* (Philadelphia, PA: University of Pennsylvania Press).
- Bureau of Governmental Research (2003) *Runaway Discretion: Land Use Decision-Making in New Orleans* (New Orleans, LA: Bureau of Governmental Research).
- Campbell, S. (1996) Green cities, growing cities, just cities? Urban planning and the contradictions of sustainable development, *Journal of the American Planning Association*, 62(3), pp. 296–312.
- Center of Clean Air Policy (CCAP) (2007) Linking Green-TEA and Climate Policy. Presentation given by Steve Winkelman of Center of Clean Air Policy, 26 February. Available at <http://www.ccap.org/transportation/documents/LinkingGreen-TEAandClimate-PolicyCCAP3-12-07.pdf/>.
- City of Minneapolis (2007) *Midtown Greenway Land Use Development Plan Community Planning and Economic Development Department*. Approved by the Minneapolis City Council, 23 February.
- CityWorks (2008) *CityWorks 2007–2008 Report*. Accessed at <http://www.city-works.org/>.
- Colten, C. E. (2005) *An Unnatural Metropolis: Wrestling New Orleans from Nature* (Baton Rouge, LA: Louisiana State University Press).
- Crompton, J. L. (2001) The impact of parks on property values: a review of the empirical evidence, *Journal of Leisure Research*, 33(1), pp. 1–31.
- Donze, F. & Russel, G. (2006) Grants to boost recovery agency, *The Times-Picayune (New Orleans)*, 11 January, p. A1.
- Ewing, R., Bartholomew, K., Winkelman, S., Walters, J. & Chen, D. (2008) *Growing Cooler: Evidence on Urban Development and Climate Change* (Washington, DC: Urban Land Institute).
- Fields, B. (2007) *From Trail Towns to TrOD: Trails and Economic Development, Rails-to-Trails Conservancy Issue Brief Series*. Available at http://www.railstotrails.org/whatwedo/trailadvocacy/issue_briefs.htm 1/.

- Friends of the Lafitte Corridor (FOLC) (2007) *Lafitte Greenway MasterPlan* (New Orleans, LA: Friends of the Lafitte Corridor and Brown and Danos landdesign, Inc.).
- Guillet, J. (2007) Target recovery: Lafitte Greenway will connect communities, N.O., *New Orleans CityBusiness*, 22 October.
- Hirsch, A. R. & Levert, A. L. (2009) The Katrina conspiracies: the problem of trust in rebuilding an American city, *Journal of Urban History*, 35(2), pp. 207–219.
- Kumar, A. & Paddison, R. (2000) Trust and collaborative planning theory: the case of the Scottish planning system, *International Planning Studies*, 5(2), pp. 205–223.
- Leinberger, C. B. (2007) *The Option of Urbanism: Investing in a New American Dream* (Washington, DC: Island).
- Levine, J., Inam, A. & Torng, G. (2005) A choice-based rationale for land-use and transportation alternatives: evidence from Boston and Atlanta, *Journal of Planning Education and Research*, 24(3), pp. 317–330.
- Lewis, P. (2003) *New Orleans: The Making of an Urban Landscape* (Charlottesville, VA: University of Virginia Press).
- Lindsey, G. (2003) Sustainability and urban greenways: indicators in Indianapolis, *Journal of the American Planning Association*, 69(2), pp. 165–180.
- Litman, T. (2007) *Win–Win Emission Reduction Strategies: Smart Transportation Strategies Can Achieve Emission Reduction Targets And Provide Other Important Economic, Social and Environmental Benefits* (Victoria, BC: Victoria Transport Policy Institute). Available at <http://www.vtpi.org/wwclimate.pdf/>.
- Little, C. E. (1990) *Greenways for America* (Baltimore, MD: John Hopkins University Press).
- Lopez, J. A. (2006) *The Multiple Lines of Defense Strategy to Sustain Coastal Louisiana* (Metairie, LA: Lake Pontchartrain Basin Foundation). Available at <http://www.SaveOurLake.org/>.
- Nelson, M., Ehrenfeucht, R. & Laska, S. (2007) Planning, plans, and people: professional expertise, local knowledge, and governmental action in post-Hurricane Katrina New Orleans, *Cityscape: A Journal of Policy Development and Research*, 9(3), pp. 23–54.
- New Orleans Neighborhood Rebuilding Plan (NONRP) (2006) *City of New Orleans: 6th Ward/Treme/Lafitte Neighborhood Neighborhoods Rebuilding Plan*.
- Newman, P. & Jennings, I. (2008) *Cities as Sustainable Ecosystems: Principles and Practice* (Washington, DC: Island).
- Newman, P. & Kenworthy, J. (1998) *Sustainability and Cities: Overcoming Automobile Dependence* (Washington, DC: Island).
- Office of Recovery Management Recovery Strategy (ORM) (2007) *Target Area Redevelopment Plan: Redevelop Broad Street and Laffite Greenway-Treme* (New Orleans, LA: City of New Orleans).
- Olshansky, R. B., Johnson, L. A., Horne, J. & Nee, B. (2008) Planning for the rebuilding of New Orleans, *Journal of the American Planning Association*, 74(3), pp. 273–287.
- Porta, S. & Renne, J. (2005) Linking urban design to sustainability: formal indicators of social urban sustainability, field research in Perth, Western Australia, *Urban Design International*, 10, pp. 51–64.
- Russel, G. (2009) Middleman in film tax-credit scheme pleads guilty, *The Times-Picayune (New Orleans)*, 5 March. Web edn.
- Schilling, J. & Logan, L. (2008) Greening the Rust Belt: a green infrastructure model for right-sizing America's shrinking cities, *Journal of the American Planning Association*, 74(4), pp. 451–466.
- Searns, R. (1995) The evolution of greenways as an adaptive urban landscape form, *Landscape and Urban Planning*, 33, pp. 65–80.
- Tidwell, M. (2006) *The Ravaging Tide: Strange Weather, Future Katrinas, and the Coming Death of America's Coastal Cities* (New York, NY: Free Press).
- Trancik, R. (1986) *Finding Lost Space: Theories of Urban Design* (New York, NY: Van Nostrand Reinhold).
- Unified New Orleans Plan (UNOP) (2006) *Disaster 4 Recovery Plan* (New Orleans, LA: Frederick Schwartz Architects).
- Wagner, C. (2006) Episode 316: Refugee Cat, *This American Life*, 18 August.
- Wagner, J. (2006) The privatization of public space and urban planning in New Orleans in the wake of Hurricane Katrina. Paper presented at the Associated Collegiate Schools of Planning Annual Conference, Ft Worth, TX, USA.
- Wagner, J., Frisch, M. & Fields, B. (2008) Building local capacity: planning for local culture and neighborhood recovery in New Orleans, *Cityscape: A Journal of Policy, Development and Research*, 10(3), pp. 39–56.
- Whelan, R. K. & Strong, D. (2009) Rebuilding lives Post-Katrina: choices and challenges in New Orleans's economic development, in: R. D. Bullard & B. Wright (Eds) *Race, Place, and Environmental Justice After Hurricane Katrina* (Boulder, CO: Westview).

Copyright of Journal of Urban Design is the property of Routledge and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.