
Is Liverpool (UK) ready to embrace green infrastructure and greenway practices? Rethinking the funding, management and spatial distribution of city's greenspace network in an era of austerity.

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Introduction

Changes in government in 2010 placed additional economic pressures on the funding of urban greenspaces. These changes have led Local Planning Authorities (LPAs) to make difficult choices over what services they are legally required to provide. Potentially the biggest loser in this process has been the funding for *greenspaces*. Although many cities have felt the impacts of fiscal austerity, Liverpool has been one of the city's hardest hit. As a consequence, Liverpool City Council (LCC) is being forced to make decisions over how it will maintain the city's landscape post 2016/17. Partially this reflects the *fragmented nature* and *historical distribution* of greenspaces in Liverpool but also its development context. Moreover, disparity in the distribution of the quality/quantity of green space is evident with a clear north-south divide (Sykes et al., 2013). The growing rhetoric presented by LCC relating to funding discretionary service, including landscape planning, has been presented as further evidence of its lack of foresight in how it manages its environment.

To address this a series of greenways², labelled as '*green corridors*' throughout the paper, are proposed as a financially viable and spatially diverse mechanism to improve the spatial distribution of green infrastructure (GI) across the city. Using a city-wide analysis of existing green spaces, the proposed green corridors aim to link Liverpool's Victorian parks (hubs) with linear green spaces (links) to form a city-scale network. However, despite local support for the protection of green spaces, as observed in the Liverpool City Council Green & Open Space Review (LG&OSR), there is a reticence in some political circles to support such a programme of investment. Moreover, by assessing existing barriers to funding investment in Liverpool's green corridors it is possible to identify broader institutional problems with the financing, management and long-term development of green space. However, within

² Throughout this paper greenways, green corridors, green spaces and GI are used interchangeably, as the principles of connectivity, access, promoting multi-functionality, and diverse spatial distribution are common to all (Hostetler, Allen, & Meurk, 2011; Little, 1990). This paper uses GI as an overarching concept that includes greenways/green corridors supporting the notion that green spaces can be thought of as a network (Benedict & McMahon, 2006; Mell, 2010). Greenways are understood to act as the physical manifestation of GI providing linear/circular features link landscape features into a network (Fábos, 2004).

LCC there appears to be a lack of clarity of the socio-economic and ecological value of the city's green spaces, which is limiting discussions of how best to protect it. Green corridors are therefore proposed as a form of investment that can facilitate spatial equity of green spaces to communities in Liverpool. How LCC, and the city as a whole, approach the use of green corridors as a part of its GI network remains open to interpretation. The identification of possible locations for new corridors is the first stage in generating political/public support for investment.

Background/Literature Review

The post-2010 austerity measures instigated by the UK government have led to significant cuts in LPA funding. Within Liverpool the local government has witnessed a 58% cut in central government funding since 2010/2011 (Liverpool City Council, 2015). These cuts have forced local government leaders to take stock of the services they fund - asking which services are a legal statutory requirement, and which discretionary services can be cut. Green space provision *is* a discretionary service in the UK, meaning that LPAs have no legal requirement to manage them. Consequently, across the UK GI is often perceived as being an easier to withdraw compared to other community-centered services such as social care. LCC are thus being asked to rethink how they can move away from a reliance on central government funding to more adaptive forms of financing. This situation does though provide opportunities to think innovatively about how public, private and community sources can be used to generate funding for green space management (Mell, 2016).

Alternative forms of funding

As part of the LG&OSR an extensive review of green space funding mechanisms were investigated. These included existing *central/local government* options, *community led opportunities*, as well as, *private/developer* led proposals (Liverpool City Council, 2015). Each of the options examined how existing GI resources could be utilized to attract additional funding. However, there are complex questions to be asked when attempting to raise funds from each of these options. Moreover, there are restrictions placed on LPAs in terms of their ability to set local taxes or to raise revenue funding from developer contributions. Exploring capital/revenue opportunities are also constrained by political will as officials may not want to raise costs in fear of losing political power. Similarly, developers use 'financial viability' as a key argument for limiting contributions to service provision. Alternative funding options were debated in the LG&OSRB illustrating whether they were realistic for Liverpool, whether precedent for their use had been established elsewhere, and how they could be used within the institutional mechanisms of funding of Liverpool (see Table 1; Mell, 2016).

Table 1. Funding GI investment in Liverpool (see Mell, 2016)

Financing	Benefits	Negatives
<i>SI06</i>	Existing process used by LPA to secure funding for specific investment related to obtaining development consent. Covers a range of investment options including built and green infrastructure.	Process of negotiation can be partial depending on the scale of the investment proposed, the client/developer, and the authority of the LPA to obtain the most appropriate level of funding for services.
<i>Sale</i>	Immediate financial gains from sales that can be used to fund capital and revenue services.	Short-term solution to funding as land holdings and the sale of assets can only draw on a finite level of resources.
<i>Local taxation</i>	Spatially inclusive approach to generate income from Council Tax and/or business rates. Can be used for identified infrastructure provision/services.	Unpopular with local people and the business community and can be difficult to approve in LPAs due to government restrictions. Also difficult to allocate specific taxes to identified service provision.
<i>Community Asset Transfer</i>	Provides communities with opportunities to take ownership of green spaces and decreases the financial and legal responsibilities to LPAs.	Communities are often unaware of the financial, legal and managerial responsibilities of ownership. Enthusiasm for ownership can diminish over time if the composition of a group changes.
Sponsorship	Potentially significant funding from corporate sponsors with links to location. Positive publicity for sponsors with local communities, the LPA and other businesses.	Lack of desire to provide funding and questions over the amount of funding that might be provided. Potential conflict of interests being sponsors and future development in the city.
Sale and endowment	Gain of assets that can be used for development. Improvements in long-term financial viability through ownership of high quality development sites.	Initial costs of appropriation and the negative perceptions of the public to the sale of land to private businesses.

Alternative spatial form for Green Infrastructure

The basic premise held in the GI literature, and in Liverpool, is that not all green spaces are of equal quality or quantity, however, their cumulative value can provide significant socio-economic and ecological benefits to a city (Mell, 2016). To investigate how the alternative funding mechanism could be applied in practice the LG&OSR proposed a series of ‘green corridors’ to test whether the financing of strategic projects would gain greater support than normative development. Currently financing for GI comes from a range of sources, for example Section 106 agreements, commuted sums, from community asset transfers or private sponsorship but is received piecemeal from individual development sites. The creation of the green corridors network proposes to shift the emphasis away from single sites to a more strategic approach to funding. It was argued within the LG&OSR that the strategic nature of the corridors could attract funds from a wider range of investments, similar to Community Infrastructure Levy (CIL) payments (Mell, 2012). Regional-scale investments, such as Liverpool Waters, could also assist this, as larger projects would deliver higher funding contributions compared to smaller sites.

Based on an evaluation of *where* corridors exist, *what* gaps could be identified, and *how* the current resource base could be visualized as a city-wide network, the LG&OSR created a strategic network of green corridors – the *Liverpool Green Wheel* for the city (see Fig. 1). The route of each corridor was designed to make best use of the existing of green spaces, Public Rights of Way (PRoW), and sustainable transport corridors. They were also developed to utilize *incidental* space and *brownfield* sites, as a way of re-establishing value to undervalued spaces city. Connecting such spaces was proposed as they have been considered marginal in development conversations within Liverpool. The LG&OSR saw their use as a mechanism highlighting to developers that brownfield sites are a viable development options when they are linked to the city-wide network. A central aim of this process was to ensure that the existing green spaces in Liverpool could be linked together to allow greater movement of social, ecological and economic capitals within and across the city. Currently Liverpool has a poor network of cycle lanes, one-way streets and pedestrianized routes. The green corridors were thus reported as being a 'potential investment opportunity that could promote more sustainable forms of transport. They also offer cost-effective solutions of pinch-points which currently limit safe non-motorized access to the city center (Liverpool City Council, 2015). A further benefit is that the network will addresses perceived spatial inequality within Liverpool. Many commentators identified a socio-economic north-south split in the city (cf. Sykes et al., 2013), an assumption that has been contested (cf. Liverpool City Council, 2015), one of the main aims of the green corridors was thus to link green spaces with linear routes in all wards to provide greater access to the landscape close to their homes³.

Goals and Objectives

The aim of this paper is to discuss the viability of translating the rhetoric of a green network into a series of city-wide greenways to improve the connectivity, accessibility and the functionality of Liverpool's infrastructure reflecting the ongoing debate afforded by these opportunities, as well as the political/institutional and socio-economic barriers which limit their delivery.

Method(s)

An assessment of whether green corridors are a viable investment option is currently being discussed through the LG&OSR process. The LG&OSR interim report proposed a series of corridors that could be developed to improve access and connectivity to green space. The corridors were identified

³ This reflects the view of English Nature and their Accessible Natural Greenspace Standards (ANGSt) which proposed specific radiuses and a time that people should be from sites neighbourhood, local, city and regional scale green infrastructure resources (Harrison et al., 1995).

using GIS datasets (i.e. PRow, cycle routes, and long-distance footpaths) to map existing resources, as well as identifying deficits in the network. Further evidence was integrated from a city-wide analysis of green spaces highlighting where proposed improvements in the connectivity of the green network could be made. The location of each corridor has linked Liverpool's network of Victorian parks (which circle the city center) and other GI sites in the outer wards of the city. This proposes a 'Green Wheel' spatial structure for the city three rings circling the center, the middle wards and the periphery, and spurs radiating from the center to the city's boundary.



Figure 1. Liverpool's proposed *Green Wheel* and green corridors

Discussion

The outcomes of the proposed green corridors in Liverpool are still unknown. Currently, the green corridor network is being consulted upon to assess whether local communities, developers and businesses would finance investment in these networks. The network is also being discussed as part of the draft Local Plan consultation, and it has been suggested that it will be used as part of the evidence base supporting GI investment across Liverpool. Below is an initial evaluation of these issues which will be extended over the coming years.

Identifying the benefits of Liverpool’s Green Wheel

A wide range of benefits have been identified with the proposed development of green corridors across Liverpool. These include the added social benefits of access to landscape resources, the ecological benefits of integrating habitats through linear corridors to form a supportive network, as well as the economic values of creating a more attractive, and therefore, viable development environment for investment. An initial assessment of the added-value that green corridors can provide is noted in Table 2⁴.

Table 2. Benefits of investment in green corridors in Liverpool

Social	Ecological	Economic
<ul style="list-style-type: none"> - Access and connectivity - New resources to use for local people, wildlife - Sustainable transport - Local engagement and informal management – social/civic responsibility - Improved landscape/aesthetic quality (livability) 	<ul style="list-style-type: none"> - Access and connectivity - New resources to use for local people, wildlife - Strategic corridors - Climate change 	<ul style="list-style-type: none"> - New resources to use for local people, wildlife - Sustainable transport - Climate change - Local engagement and informal management – social/civic responsibility - Improved landscape/aesthetic quality (economic uplift) - Improved/viable development in the city due to higher quality environment/landscape

Institutional barriers to development

A series of institutional barriers were also identified within the proposals for the green corridor network which may influence delivery and include: a lack of political support to invest in green spaces/corridors; weak policy frameworks limiting the inclusion of green corridors in the Local Plan; and objections from developers who are unwilling to allocate funding and/or land for the development of corridors, each of which were reported in the LG&OSR consultation. The lack of political will and a weak institutional planning framework are clear barriers to implementation, however, in Liverpool the support of the Mayor illustrates the potential for the green corridors to be delivered (Liverpool City Council, 2015). Furthermore, the indication from LCC that the green corridors will be integrated into the Local Plan is further evidence that LCC are promoting the creation of a connected, livable and (economically and socially) attractive city. The discussion of alternative funding mechanisms also offers possible solutions for LCC, as it provides a broad suite of public, private and community-based investment options that could meet the long-term management needs of Liverpool’s GI. Unfortunately, a number of pinch-points exist where land is currently in private/commercial ownership and as a consequence LCC will need to work with developers and

⁴ This is not exhaustive. For an more extensive review of the values of greenways and green corridors please refer to the following: Benedict & McMahon (2006), Hellmund & Smith (2006), Jongman & Pungetti (2004) and Little (1990).

land owners to ensure that connectivity between sections of the corridors can be delivered. Moreover, there is a need to reflect upon whether sufficient land is available in public ownership to deliver the green corridors. Furthermore, where land is not in public ownership LCC could, and potentially will, enter into negotiations with developers to ensure that all growth is subject to financial contributions, which can then be used to support investment.

Local barriers to development

In addition to institutional barriers there are more localized issues that may also impact upon the development of the green corridors. The two main issues are a lack of will within local communities to support investment if they are not economically or socially appropriate (as seen in consultation response). Within communities in Liverpool there is a history of mistrust of LCC's development objectives which may influence positive engagement with the creation of green corridors. Therefore, although the green corridors potentially offer a range of socio-economic and ecological benefits to the city's residents these may be undervalued in some areas. Secondly, there is potentially a lack of funding at a local neighborhood/ward level to facilitate landscape improvements. This reflects the difficulties LPAs have when negotiating smaller developer contributions for GI projects, and the ongoing problems of raising capital/revenue funding to deliver projects (Mell, 2016). Neither of these barriers are insurmountable. Through continued engagement LCC can work with local communities to facilitate the rationale for the green corridors network, as a more collaborative process of development. If undertaken successfully then LCC may be able to generate 'buy-in' from local communities to support the project and ensure that even with a longer-term delivery timeframe that objections to the development are minimized. Furthermore, if the green corridors are adopted as part of the Local Plan they can be identified as a strategic investment priority, which would place LCC in a stronger position financially and in legislation, as it would require contributions from developers to fund the network.

Conclusion

The reception of the LG&OSR consultation and interim report highlights a positive response from LCC officers, elected officials and sections of the public to the proposed investment in a network of green corridors. Given the strategic nature of the network the LG&OSR has also identified a series of funding mechanisms that could be used to generate financing for the Green Wheel investment. This includes the potential for LCC to work with developers and house builders to ensure that development contributes to the wider creation and management of green and open spaces. The interim report goes further to suggest a multi-faceted approach to public, private and

community-led investment, which could be used alongside existing LPA mechanisms to meet funding requirements for the green corridors network. In conclusion the rhetoric coming from LCC is positive in terms of delivering ‘*Liverpool’s Green Wheel*’ and looks set to continue despite of the difficult financial decisions being made, however, a range of financial, institutional and public-private factors must be aligned to ensure effective delivery and management.

References

- Benedict, M. A., & McMahon, E. T. (2006). *Green Infrastructure: Linking Landscapes and Communities*. *Urban Land* (Vol. June). Washington DC: Island Press.
- Fábos, J. G. (2004). Greenway planning in the United States: its origins and recent case studies. *Landscape and Urban Planning*, 68(2-3), 321–342.
- Harrison, C., Burgess, J., Milward, A., & Dawe, G. (1995). *Accessible natural greenspace in towns and cities: A review of appropriate size and distance criteria*. *English Nature Research Reports No. 153*. Peterborough.
- Hellmund, P. C., & Smith, D. (2006). *Designing Greenways: Sustainable Landscapes for Nature and People*. Washington DC: Island Press.
- Hostetler, M., Allen, W., & Meurk, C. (2011). Conserving urban biodiversity? Creating green infrastructure is only the first step. *Landscape and Urban Planning*, 100(4), 369–371.
- Jongman, R., & Pungetti, G. (2004). *Ecological Networks and greenways: concept, design and implementation*. (R. Jongman & G. Pungetti, Eds.). Cambridge: Cambridge University Press.
- Little, C. (1990). *Greenways for America*. Baltimore: The John Hopkins University Press.
- Liverpool City Council. (2015). *Strategic Green and Open Space Review Board Interim Report*. Liverpool, UK.
- Mell, I. C. (2010). *Green infrastructure: concepts , perceptions and its use in spatial planning*. University of Newcastle.
- Mell, I. C. (2012). Will CIL help to fund green infrastructure? *Town and Country Planning*, 81(4), 194–197.
- Mell, I. C. (2016). Financing Green Infrastructure in times of austerity: The case of Liverpool, UK. *Biotope City Journal*. <http://www.biotope-city.net/gallery/financing-green-infrastructure-times-austerity>
- Sykes, O., Brown, J., Cocks, M., Shaw, D., & Couch, C. (2013). A City Profile of Liverpool. *Cities*, 35, 299–318.