Exploring the critical factors and forces affecting the longevity and resilience of community-scale green infrastructure

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By

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AUTHOR'S DECLARATION

This thesis is the result of my own work. The material contained in this thesis has not been presented, nor is currently being presented, either in part or wholly for any other degree qualification.

I designed this research in conjunction with my supervisors and was solely responsible for data collection, analysis and write-up.

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ABSTRACT

In an ongoing period of austerity in the UK, there is a growing assumption that communities will increasingly help deliver what have traditionally been seen as public services. This thesis seeks to explore the extent to which community groups make a significant contribution to the delivery and management of green infrastructure provision within a metropolitan context, using The Mersey Forest as the case study area. Whilst much has been made of the role of communities in managing land for food production the research identified that the range of community groups, and the differences between them in terms of their organisational structures and approaches to membership were in fact more nuanced and varied than much of the original literature suggested.

Initially it was possible to create a typology of community-scale green infrastructure from a desk-search of 244 groups active within The Mersey Forest area. This provided a framework for defining, comparing and contrasting volunteer-led groups and projects actively managing sites of ecological or educational interest within their local environment. As a result, three distinct types of group were identified - Formal Group, Informal Group, Formal Project - differentiated according to approaches to governance, membership, funding, support and overall focus. This provided a thematic structure for exploring a number of case studies in more depth.

Overall the findings of the qualitative study suggest that although community volunteers are a vital ingredient to the diversity of approaches to local greenspace management and environmental stewardship, the role of external stakeholders and professional bodies from the public and voluntary and community sector providing support and assistance is a crucial ingredient which is increasingly missing. In turn, the capacity of many groups and projects to achieve longevity and resilience in the face of unforeseen circumstance change, such as the end of a funding stream, or the discontinuation of a local authority funded environmental management role, is ultimately limited by the capacity inherent within the group; which in turn, is largely shaped around the experiential knowledge of individual members to capitalise on the skills necessary for land management and governance.

From a policy perspective it can therefore be argued that ideological position encapsulated by the rhetoric of 'The Big Society' and legislated for within the Localism Act are inherently prejudiced towards groups and projects which can draw on individuals with experience of management, such as retired professionals in more affluent communities. In contrast, communities in less affluent areas are exposed to more risk with an inherently lower capacity for resilience; plus higher demands on existing budgets within these areas due to higher levels of public expenditure within areas of multiple deprivation, exacerbate an already pressurised situation. This finding is significant for the study and for wider decision-making in light of the mounting evidence illustrating the net positive benefits for health and wellbeing through regular access to natural greenspaces, particularly for individuals living in areas with high rates of health inequalities.

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	Name of Group/Project	Group	Active (2013)	Project	Active (2013)	Food initiative / comm-unity garden	Environ-ental volunteering	Well-being	Education	Postcode	Site or Group (Activity)	One Site Focus
	Key											
	# in postcodes means more than one geographic focus											
215	Friends of Hilbre Nature Reserve	1	1	0		0	1			CH48 8BW	site	1
216	Friends of Hoylake and Meols in Bloom	1	1	0		0	1			#	site	1
217	Friends of Hoylake Golf	1	1	0		0	1			CH47 4BG	site	1
218	Friends of Leasowe Lighthouse	1	1	0		0	1			CH46 7SA	site	1
219	Friends of Mayer Park	1	1	0		0	1			CH63 7RB	site	1
220	Irby Thurstaston & Pensby Amenity Society	1	1	0		0	1			CH61 0HW	site	0
221	Friends of Meols Park	1	1	0		0	1			CH47 6AF	site	1
222	Friends of Ness Gardens	1	1	0		0	1			CH64 4AY	site	1
223	New Ferry Regeneration Action Group	1	1	0		0	1			#	group	0
224	Friends of North Wirral Coastal Park	1	1	0		0	1			CH45 8LW	site	1
225	Overchurch Residents Association	1	1	0		0	1			#	site	0
226	Friends of Rock Park	1	1	0		0	1			CH42 1PP	site	1
227	Friends of Royden Park	1	1	0		0	1			CH49 1NP	site	1
228	Thornton Hough Community Trust	1	1	0		0	1			CH63 1JB	site	1
229	Friends of Tower Grounds	1	1	0		0	1			L25 7UL	site	1
230	Friends of Tranmere Parks	1	1	0		0	1			CH42 0LF	site	1
231	Friends of Vale Park	1	1	0		0	1			CH45 1LZ	site	1
232	Friends of Warwick Park	1	1	0		0	1			CH43 4TF	group	1
234	Cheshire and Wirral Ornithological Society	1	1	0		0	1		1	#	site	0
235	Dee Estuary Conservation Group	1	1	0		0	1			#	group	0
236	Dee Estuary Voluntary Wardens	1	1	0		0	1			#	group	0
237	Mersey Estuary Conservation Group	1	1	0		0	1			#	group	0
238	Wirral Countryside Volunteers	1	1	0		0	1			#	group	0
239	Wirral Bird Club	1	1	0		0	1		1	#	group	0
240	The Wirral Society	1	1	0		0	1			#	group	0
241	Wirral Wildlife	1	1	0		0	1		1	#	group	0
242	Wirral & Cheshire Badger Group	1	1	0		0	1		1	#	group	0
243	Friends of Birkenhed Park/Park Roots CIC	1	1	0		0	1			CH41 4HY	site	1
244	Friends of Bowring Park	1	1	0		0	1			L36 4HD	site	1

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CHAPTER ONE

Policy is enunciated in rhetoric; it is realised in action. (Kaufman, 1960: 3)

1. Introduction

Policies introduced by the Coalition Government in 2010 placed greater emphasis on the roles and responsibilities of community members, acting as volunteers, to manage and maintain local greenspaces in the wake of austerity and reduced public funding. And yet, there is an underlying misunderstanding in the centre of government about the drivers for volunteering. This study therefore presents a timely and critical analysis of government policies focused on the decentralisation of planning for green and open space management; critiquing assumptions about inherent capacities – both individual and community – to adopt the role/s of environmental stewards in the place of the state. Further, the predominance towards viewing green infrastructure as a strategic approach to planning in both academic and practitioner literature serves to diminish the opportunity to redefine successful cases of environmental stewardship as community-scale green infrastructure; and in turn to better advance an argument for its continued and enhanced support as a significant scale of delivery. By creating a more nuanced picture of activity at the community-scale, it may be possible to assist decision-makers in their task of reducing public expenditure whilst protecting and enhancing access to natural green space in close proximity to where people live, in light of well-evidenced social and economic benefits to individuals and communities. Moreover, by challenging the underlying assumption that volunteer groups will have the necessary resources - time, skills and capacity - to replace professional goods and services, this chapter provides the context for the aim and objectives guiding this thesis (section 1.4).

1.1 Political context: The Big Society - an ideological myth

The Big Society was a central ideological construct of the Conservative Party in the run up to the 2010 UK general election. It provided a public-facing narrative to support the foundations of the Localism Act initiated in 2011 as one of the first legislative changes made by the coalition government. And yet, The Big Society itself was rapidly side-lined from day-to-day policy discussions, proving unpopular as 'the blueprint for public service reform' (Beresford, 2011). The core purpose of the term as a policy approach and political belief – to cut public expenditure in favour of a market-led approach to service provision – remained strong however and the Conservative-led coalition presided over significant reductions in public expenditure with up to 30% cuts in some departmental budgets from 2010-2015 (Butler, 2015), and a further 6.7% scheduled for 2016-2020 (BBC News, 2016a).

Continuing economic uncertainty following the global financial crisis of 2008 is foregrounded as the context for reductions in state-spending; although the ideological commitment in the Conservative Party for decentralisation of decision-making, including about the distribution of the public budget

spend that remains, is an additional factor reinforcing the political decisions which have led to such sweeping social and economic changes. Furthermore, claims for austerity continue to be bolstered by assertions from the current UK government that it was in the main part the willingness, extent and frequency with which the previous Labour Government (1997-2010) had elected to create state-led interventions in response to perceived deficits in social cohesion (e.g. Social Exclusion Unit, 1997-2010), that had contributed to the fiscal deficit driving policy from 2010. As a result, concerns about effect of drastic reductions in public expenditure on the poorest in society (New Economics Foundation, 2013) continue to be rejected by the Government as a misunderstanding of the scale of the economic problem in hand.

The Conservative Party, in its place, introduced the idea of the civic society as the principal driver for social policy, absorbing the Social Exclusion Unit into the new Office for Civic Society in 2010. What followed was a comprehensive redeployment of state spending, advanced by a commitment to replacing state support with voluntary action, thereby subsuming the ideology of the Big Society into government-led initiatives such as the National Citizen Service (NCS). The NCS engages 15-17 year olds across a number of regions within the UK experiencing above average levels of deprivation and emphasises the role of strengthening and diversifying social networks as a route to 'build skills for work and life' (www.ncsthechallenge.org). As such, pragmatically and politically, the central ideological notions of The Big Society, enshrined by the 'new rights and powers for communities' of The Localism Act (2011), continue to signpost the role civic society is expected to play, in place of government, in the provision of goods and services.

This thesis is primarily focused on presenting a critique of this over simplistic picture of how and why communities operate within (more or less) cohesive units to provide goods and services to society. One key concept which will be drawn on from academic theory to highlight perceived weaknesses within the predominant political narratives is social capital. Social capital describes 'the social structures, institutions and shared values making up community' (Firth et al., 2011: 557) and will be explored in more depth in Chapter 4. However, for the purposes of this chapter it is a valuable concept from which to problematize the inherent assumptions within The Big Society ideology: assumptions which rest on a predominant reading that society is a homogenous mass of communities lying dormant, yet latent with potential to take the helm and command it in a more just, fair and proper way than the 'good ship State' could ever hope to achieve. In contrast, social capital theorises the complexities of social relationships, categorising types of interaction both within and between communities, of both interest and geography, and highlighting the role of social structures, institutions and shared values in shaping these relationships (Firth et al., 2011: 557).

And in particular, this thesis is interested in exploring how social capital is observable within the particular context of environmental stewardship and volunteering at the neighbourhood scale. Through a critical analysis of how social capital shapes the experiences of groups and projects active

at this scale, it has been possible to present a case study in response to the rhetoric of The Big Society: *can voluntary groups replace state interventions in the context of local greenspace management and maintenanc*e?

1.2 Social context: Environmental stewardship as Community Action

This section positions environmental stewardship as a distinct approach to community action. By illuminating the role of environmental volunteers in creating, managing and maintaining local level sites of environmental interest, it is possible to start to build a picture of the role such voluntary groups play in delivering goods and services to society.

1.2.1 Environmental stewardship as an approach to community action

Community action may be understood as the process by which individuals self-organise in response to a perceived gap in provision for, or opportunity for enhancement of, a material (place, land, building) or immaterial (cultural practice, social structure) object of shared value. In the context of environmental volunteering and stewardship, community action describes the process by which individuals - identifying with a particular community of 'place', 'interest', or 'people' (Firth et al., 2011; Jerome, 2012) - self-organise in response to an identified gap in provision for, opportunity for enhancement of, or threat to, a site of green infrastructure. It is possible to see how community action may be regarded as a feasible alternative to state-led interventions when faced with tackling pervasive social inequalities, particularly if as the Localism agenda does, it is argued that local problems need local solutions, and ideally local business solutions. However, contracting the role of socio-spatial processes, structures and agencies of capitalism (Swyngedouw, 2010: 314), and instead expanding the possibilities of purportedly alternative, yet evidently market-led, agents of change such as Gibson-Graham and Cameron's 'social entrepreneurs' (2010), offers at most a simplistic reading of the causes of inequality.

Gibson-Graham and Cameron's (2010) critique of capitalism is useful here as an alternative reading of The Big Society ideology and what it means for environmental stewardship as an approach to community action, and specifically as an alternative to local authority-led management of neighbourhood scale green infrastructure. Adopting their analysis of the role of community enterprise within a capitalist model of economy, it is feasible to describe The Big Society and its subsequent policy framework of Localism as an iteration of 'the neo-liberal agenda of shifting responsibility to the household and community (2010: 292). In particular, the parallels between community enterprise and environmental stewardship gain traction in Gibson-Graham and Cameron's (2010: 293) evaluation of the drivers of community enterprise– 'not to maximise private benefit but to produce community well-being directly, particularly for marginalised groups.' This same socially-focused (rather than, say, environmentally focused) motivation is evident in other studies focused on evaluating the impact of environmental stewardship groups at a community level (Firth et al., 2011; Fisher et al., 2015; Dempsey et al., 2015; Jerome, 2012). In addition, there is

literature focusing on the drivers of volunteering more generally that suggests motivation can also be more economic in character, representing an 'exchange' or 'transaction'– 'time, labour or expertise in return for personal gain', as well as 'social capital, the opportunity to meet new people' (D'Souza et al., 2011: 6). *Is it relevant that this is about sport, not environmental stewardship per se?*

Another reading of environmental stewardship as a type of community action is framed by the Localism Act itself, and in particular by the focus it puts on providing communities with more power to make locally-relevant planning decisions. Ambitions for extensive decentralisation of decision-making powers in the planning sector have been manifest through a commitment to Neighbourhood Planning. However, those opponents of such wholesale transfer of planning control to the neighbourhood level have criticised a government 'out of touch' with the most vulnerable and marginalised in society. Put simply, although there is evidence that where Neighbourhood Development Plans have been implemented the response from the local community is positive, the numbers of community-generated plans created in response to changes in legislation as a result of the Localism Act (2011) are far lower than anticipated (Derounian, 2016). Plus, those that have been implemented are concentrated in areas of relatively high levels of affluence – "areas of below average affluence are less likely to enter into the neighbourhood planning process" (Turley, 2014) due in no small part to the "scale, complexity and time" needed to produce plans (Parker, 2016).

Similarly, it is possible to construct a criticism of policy decisions taken to cut 'non-essential' services at the local level, including state-supported public library provision, childcare facilities, and significant for this thesis, provision for the continued management and maintenance of publicly accessible green infrastructure, including parks, gardens and amenity spaces . In all of these examples critics may highlight the barriers to participation in voluntary community action to provide alternatives to the staffing and expertise provided by the public sector which are more likely to be of significance to community members in areas 'below average affluence'. A key focus of this thesis is therefore to consider barriers to participation in environmental stewardship, and assess the significance of any additional challenges facing individuals acting as environmental stewards of a local green space in poorer areas.

1.2.2 Addressing misunderstandings of volunteer motivation in environmental stewardship

This thesis adopts a critical stance towards policy decisions supported by theoretical positions that assume society is an amorphous mass of individuals with vaguely comparable levels of skill to be able to carry out the tasks of government and governance if appealed to do so, including decision-making, resource distribution, public service provision. In planning terms, the equivalent transfer of powers to the neighbourhood scale through the Localism Act (2010) would be an expectation, supported by a legislative gesture, that local communities were willing and able to adopt responsibility for the design, delivery, management and maintenance of the assets and features which make up section/s of the green infrastructure network within the boundary of their local

authority area. In some instances, this would extend to providing for the maintenance of features which transgress boundaries at the landscape scale. In light of evidence as to the deficit in funding and skills across the built environment sector to support the transition from grey to green infrastructure (CABE Space, 2009), it is difficult to imagine that communities themselves could perform any better. And yet, the logic of the Localism agenda is that communities can meet social need (parks and greenspaces, public libraries, childcare facilities) in the absence of state support.

In its simplest terms, there appears to be a fundamental misreading of the drivers of volunteering at the centre of government, even though it is clear that certain departments, such as the Department for Culture, Media and Sport (DCMS), exhibit sensitivities to the complex picture of volunteer motivation. In their report to DCMS on the drivers of volunteering in culture and sport, D'Souza et al. (2011) highlight how volunteering can help to 'achieve broad cross-governmental policy aims, and enable third sector organisations to make the best use of funds in increasingly challenging circumstances' and as such, 'there is an increasing need for robust evidence on what motivates those that volunteer and what deters those that do not' (2011: 6). D'Souza et al. (2011) offer a synthesis of the volunteering literature into three main areas of research focus: literature seeking a definition of volunteering, which increasingly emphasises the balance between altruism and financial reward or incentive; studies which categorise types of volunteers and identify barriers to volunteering for groups 'at risk of social exclusion', emphasising the role volunteering can play in enhancing social capital; and research which attempts 'to recognise and understand that engaging in volunteering often entails an exchange or a transaction: volunteers offer their time, labour or expertise in return for personal gain." (2011: 6)

This thesis contributes to all three areas of literature on volunteering. Firstly, by offering a redefinition of environmental stewardship as community-scale green infrastructure, it provides an argument that environmental volunteering can bridge different areas of governmental policy, and is as relevant for the Communities and Local Government department focused on planning and civic society, as it is for DCMS which evaluates the impact of volunteering in culture and sport. Secondly, it offers a categorisation of groups and projects engaged in community-scale green infrastructure, to more effectively assess the drivers and barriers to participation in different contexts. And finally, it evaluates the critical factors for success – defined in this thesis as longevity and resilience – which in turn contributes new understandings to existing literature on what constitutes an exchange or transaction between an individual and a group or project set up to deliver green infrastructure, as well as between groups and wider stakeholders who increasingly look to such voluntary actors to provide, enhance and protect small-scale green infrastructure at the local level.

Further criticism of the Government's attempts to effectively comprehend the motivations of volunteers as agents of change within the community is provided by Lindsey and Bulloch (2013). Their attention is focused on a critique of The Big Society as an expression of the framework of

initiatives and legislation underpinning the Government's assumption that 'individuals have the capacities and willingness to volunteer on behalf of their communities to address community needs' (2013: 2). Their 2013 study, comprising 100 written responses to a Mass Observation Archive directive commissioned by the Third Sector Research Centre at the University of Birmingham, explored individuals' reaction to the concept of The Big Society; and as such is a useful reference for this thesis insofar as it foregrounds the experiences of the volunteers, rather than enclosing experience as representation of policy narratives in practice.

Lindsey and Bulloch's (2013) study is significant also as it substantiates a critique of the Big Society ideology – both as a concept as an expression of the inherent assumptions about the role of volunteering within Government policies driving reductions in public expenditure. Linsey and Bulloch (2013: 9) report that a vast majority (63 out of 71) of observers - taken from a wide geographic and geo-demographic distribution - were ambivalent or negative towards the concept of The Big Society. These findings are significant for this thesis in that they propose a methodological framework for evaluating the virtues or otherwise of volunteering as an alternative to public-sector led interventions by emphasising the role of *capacity* – capacity to take part in voluntary community action – creating nuance around the differences between personal capacity and community capacity. The role of capacity as both a driver of and a measurable output from volunteering will be explored in more depth throughout this thesis and forms a substantial portion of the analytical framework.

1.3. Policy context: Green Infrastructure as a mechanism for delivering, managing and maintaining green space at a local level

The following section defines green infrastructure in the context of this thesis. By defining community-scale green infrastructure as a particular type and scale of green infrastructure delivery, it is possible to more effectively frame the role community volunteers have in managing and maintaining such sites of green infrastructure function and benefit.

1.3.1 Green infrastructure – beyond green and open space management

It may be argued that over the past fifteen years, adopting a green infrastructure approach to the planning and development of the natural environment has been advocated for at multiple scales. Across a diversity of actors and agencies, working at multiple scales from the level of policies in Local Plans within the UK planning system, through to supra-national policies at the European Union scale, green infrastructure has been adopted as an effective approach for defining and delivering the multiple-functional network of green and blue features which transfer benefits to people, wildlife and the wider landscape (Benedict & McMahon, 2006; National Research Council, 2004; Mazza *et al.,* 2011; Tzoulas et al., 2007).

So, no challenging of the GI concept? Is this reflected later on given the challenges of scale (large scale and community-scale)

As such, more recent academic (Pugh, 2014; Lui, 2012) and practitioner (The Mersey Forest, 2014: 8) literature has focused on the effectiveness of established and emergent approaches to green infrastructure. In particular, analyses attempt to measure the impact different approaches can have on the core principles of green infrastructure as distinct from traditional open and green space management: a typology of *multi-functional* (ecological, social and economic) elements, existing within a *connected network*, and delivering a range of ecosystem services *benefits* ('ecosystem services', 'social value', 'natural capital'). In light of this call for more coherent understanding of the scope of green infrastructure as a preferred approach to sustainable land management Communities and Local Government (CLG), the UK government's department responsible for planning, re-issued a whole section within the National Planning Policy Framework (2012) in February 2016 to enshrine a clear understanding in legislation. The update to English Planning Policy Guidance in 2016 was significant in planning terms as it emphasised the difference between green infrastructure and traditional approaches to open and green space, clearly listing the broader typology of green and open spaces included within its definition, including private gardens. Moreover, it gave more prominence to green infrastructure by creating a separate section, where before it was subsumed within a section on biodiversity; itself, a clear misrepresentation of the concept. *Not in references.*

The vernacular of green infrastructure is another way to differentiate it from established planning approaches to open and green space provision. The advent of green infrastructure coincided with the conceptualisation of ecosystem services, and as such terms used to define the *how* in green infrastructure – function, benefit – bear close resemblance to those used in the context of implementing ecosystem services. For example, green infrastructure *functions* may include carbon sequestration, water purification, air quality, and production of food, fibre and fuel (EC Green Infrastructure Studies, 2012); which in other studies are defined as ecosystem *services*. Alternatively, *benefits* are defined in terms of the additional value transferred to an identified beneficiary, which may be human, non-human or a process itself. For example, benefits transferred through green infrastructure may include 'increased yield attributable to soil quality', 'perception of the attractiveness of an area for workers/investors', or 'number of visitors per year' (EC, 2012; The Mersey Forest, 2012, 2014). As such, benefits describe *what* green infrastructure is doing and more normatively, *why* it is important or ought to be protected, enhanced or invested in.

An additional linguistic concept readily associated with green infrastructure is *need.* In the context of green infrastructure need is relative to both function and benefit. For example, a neighbourhood experiencing high levels of Urban Heat Island Effect, and subsequent high temperatures, can benefit from green infrastructure through the provision of higher density tree cover. The benefits to people will be a more liveable environment because of reduced temperatures, and the *need* identified here is urban cooling. Practitioner literature (CABE Space, 2009) defines need in terms of the 'quality, distance and quantity' of green infrastructure in close proximity to where people live, or in relation to another function or benefit defined as desirable. In some of the literature, *need* highlights a deficit

of green infrastructure in a certain geo-spatial and social context, identified for example by a social group/s need/s for whom the benefits of additional green infrastructure would be significant to enhancing quality of life (The Mersey Forest, 2013: 29). Consequently, when evaluating the impact of green infrastructure and specifically its contribution to a specific geo-spatial and social context, it is important to consider (and measure) *function, benefit* and *need*, or ideally a combination of all three.

1.3.2 Green infrastructure – delivering multiple-functions at multiple scales

In addition to defining green infrastructure by *what* and *how* it is delivered, and by whom, it is important to assess *where* green infrastructure is delivered. When posed as a question, we may consider at what *scale* is it appropriate and effective to sustain a planning approach to green infrastructure? Practitioner literature and policy guidance appears to emphasise the importance of the landscape-scale in green infrastructure (The Landscape Institute, 2013; Natural England and Land Use Consultants, 2009). The stress here is on the role green infrastructure plays in creating a physical network of ecological, social and economic assets, as well as a strategic framework of otherwise disconnected sites, transcending political boundaries and enabling consensual arrangements for their management and maintenance, at least in theory. In this sense, green infrastructure characterises a multi-scalar approach to planning; and arguably reflects a more spatial planning approach to land management than traditional open and green space approaches, which is ultimately constrained by its policy links to land use planning which prioritises the typology of land over function and benefit, and rarely considers connectivity between individual sites as a way to increase multi-functional benefits.

This view of green infrastructure as a multi-scalar approach to environmental planning – including small scale and strategic scale interventions - is by no means a foreclosed argument. In fact the perspective prevalent in practitioner literature and policy guidance is that green infrastructure plays a central role in delivering essential goods and services (ecosystem services, quality of life benefits, etc.), and as such ought to be factored into planning at the strategic scale. By contrast far fewer studies focus on the small scale in green infrastructure, and those that do (Firth et al, 2011; Johnson, 2012; Zoellner et al, 2012; Johnson, 2012; Kingsley and Townsend, 2006; Wakefield et al, 2007), tend not to identify community-led or voluntary community action as green infrastructure. *Any opinion on this?*

Swyngedouw's (2010) critique of the use of linguistic mechanisms to convey and standardise normative positions in planning is a useful perspective from which to ascertain why green infrastructure is primarily an approach observable at the strategic scale. It is possible to identify recurrent concepts which qualify and enshrine the status of green infrastructure as the preferred approach to delivering strategically important functions and benefits. For example, 'ecological networks' and 'green corridors' (Natural England and Land Use Consultants, 2009: 8) are cited

interchangeably as the desired outcome/s of green infrastructure (process) and as the measurable output/s of green infrastructure (thing, object).

Swyngedouw's argument hinges on an understanding of 'empty signifiers' (2010: 300-304) as a linguistic mechanism for conveying meaning in a particular context. In the context of green infrastructure, it is green infrastructure itself which is the 'empty signifier', as it is empty of meaning outside of a pre-defined list of terms, Swyngedouw's 'metonymic list' (2010: 300). As such, green infrastructure is a metaphor whose meaning is unclear outside of an understanding of a list of processes and things: trees, rivers, green roofs, strategic plans, natural capital, flood alleviation; much the same way that 'Nature' is an empty signifier whose 'content' is 'expressed through a range of diverse terms that all collapse in the name of Nature: olive tree, parrot fish, SARS virus, love, reproduction…'. Swyngedouw (2010: 300). Moreover, Swyngedouw asserts that such content lists are 'inherently slippery, and show a stubborn refusal to fixate meaning durably or provide consistency' (2010: 300). It is perhaps this linguistic ambiguity which limits the adoption of green infrastructure as a descriptor by actors and agencies more inherently focused on this 'list' of features and processes, rather than the framework in which they are delivered, and as such predisposes green infrastructure as a term used primarily by actors and agencies engaged in strategic scale planning.

As a consequence, in spite of the commitment to green infrastructure in national planning policy in the UK (NPPF, 2012, 2016), there is evidently a lack of confidence at the local and neighbourhood scale in planning to replicate this conceptual framework for delivery. This is verified by reference to the local authority (district or town council) level where green infrastructure appears in planning documents focused on strategic or landscape-scale areas (previously described as the 'regional' spatial scale) e.g. 'West of England Green Infrastructure Framework', 2011; Greater Manchester Green Infrastructure Framework, 2011; Liverpool City Region Green Infrastructure Framework, 2013), yet appears much less frequently in planning documentation relating to delivery at the district or town level, with examples of green infrastructure strategies primarily focused at the *more strategic* county level e.g. Bath and North East Somerset Green Infrastructure Strategy, 2013; Buckinghamshire Green Infrastructure Strategy, 2013; Worcestershire Green Infrastructure Strategy, 2013. Equally, there is a lack of reference to green infrastructure at the neighbourhood (parish council) level, where neighbourhood development plans tend to adopt alternative 'empty signifiers', namely 'natural environment' (Churchdown and Innsworth, 2016) or simply 'environment' (Newick, 2016) *not in references* or to name things and processes (e.g. 'green and open spaces' and 'local landscape and wildlife', Much Wenlock, 2014) to delineate policies which guide delivery and management of things and processes defined as green infrastructure at the national level.

Why is the scale such a challenge here? Surely GI works as a term at the large scale because you are you dealing with individual components at the local scale? And how does this thesis address this?

There is no consensus in the literature as to why green infrastructure appears consistently at the strategic (county and upwards) level in UK planning, and yet is rarely used as a way to describe planning activities at the *less strategic* (district, town, parish) level. Building on Swyngedouw (2010), it may be argued that it is the inherent metaphorical nature of green infrastructure, as a term to describe complex relationships between things and processes which limits its application to tangible planning contexts e.g. a street, a neighbourhood. As such, it may be inferred that it is limited in its application to the community-scale, in the context of environmental stewardship and volunteering. Without further investigation however, it remains unclear what the linguistic barriers are for actors and agencies responsible for delivering the things and processes which make up green infrastructure. And so, a 'solid foundational (ontological) basis from which we can act' (Swyngedouw, 2010: 300) is absent; a premise which constitutes a foundation for this thesis's research design explained in more detail in Chapters Five and Six.

1.3.3 Community-scale green infrastructure as community action

In the past decade there has been a concentration of academic literature focused on a particular type of green infrastructure, at a particular scale – namely initiatives focused on food-production, and in particular community gardens (Firth et al, 2011; Johnson, 2012; Zoellner et al, 2012; Jerome, 2012; Johnson, 2012; Kingsley and Townsend, 2006; Walter, 2013; Wakefield et al, 2007). In particular, studies have emphasised the capacity of small-scale and localised projects to deliver certain social services, emphasising the social *function/s* and *benefit/s* potential of green infrastructure. For example, such initiatives are depicted as being capable of meeting a whole variety of social services, including: community participation and engagement (Mayer et al., 2012; Seaman et al., 2010), notably a statutory requirement in the UK planning system; opportunities for substantial civic engagement (Healey, 2008; Fisher, Svensden and Connolly, 2015); citizen delegation (Arnstein, 1969); and co-production (Bovaird, 2007).

During the same time period, evidence has been mounting to support the perspective that access to community-scale land-based projects can deliver additional social benefits, and in turn represent community-scale interventions meeting the strategic objectives of public health bodies, as well as more nuanced objectives set by the voluntary and community sector. Examples of community-scale green infrastructure providing opportunities to enhance levels of health and wellbeing within communities with particularly high levels of health inequality are available in both public health-focused and green infrastructure-focused literature (Marmot, 2005; 2010: 30; Liverpool Green Infrastructure Strategy, 2011: 14). Equally, small-scale projects, in particular community gardens and other food-growing initiatives are mentioned in the literature in the context of goods – both social and economic goods. Feenstra (1997: 28) portrays the network of sites used by communities for growing food at a local level as 'local food systems' and highlights the role they potentially convey to an overarching policy objective for more sustainable communities. Allen et al. (2003: 61)

depict the same network as an 'agrifood landscape' (Allen *et al.*, 2003: 61), drawing more on the language of agricultural productivity to engender a sense that the outputs of voluntary community action may be measured in line with other types of economic activity.

A key objective of this thesis therefore is to establish a narrative to support or critique this position: by more effectively defining the small- or *community*-scale as a significant mechanism of green infrastructure creation, management and maintenance. From this position, it is possible to argue that when conceptualised as a collection of things and processes – or goods and services to use the vernacular of the economic status quo – community-scale green infrastructure represents a network or system of primarily self-managed (as opposed to state-supported) activities which deliver a diverse range of *functions* and *benefits*. And further, when conceptualised by its capacity to transfer additional social and economic value, the small-scale has the potential to complement the social and economic functions more readily attributed to strategic- or landscape-scale green infrastructure (*see* agriculture, marine industries, waterways as a transport network, reservoirs for water supply and power generation, management of rivers for flood alleviation) by providing opportunities for individuals and small groups of individuals to enhance their local environment and transact a mutually beneficial exchange.

Nicola query (p.18)

1.4 Research Aim and Objectives

The principal aim of the research is to establish whether community-scale green infrastructure represents a significant aspect of green infrastructure management and maintenance in light of reduced state support for local greenspace management; and if so, what factors and forces affect the longevity and resilience of groups engaged in delivering green infrastructure at this scale to build a picture of whether this activity is future-proof. The objectives of the research support this aim by expanding on existing literature relating to environmental stewardship and volunteering to contribute a richer understanding of the shape and scope of activity at the local level in green infrastructure planning and delivery. In turn, this thesis aims to influence future policy interventions intended to support or influence voluntary groups and projects who take on the responsibility of managing small-scale sites of green infrastructure. By providing a more accurate picture of activity at the community-scale, policy makers and practitioners alike may better understand what it takes for a group of volunteers to sustain their maintenance of a site, thereby reducing the need for additional and prolonged public resource – a critical focus for those tasked with reducing public budget expenditure on 'non-essential'[1] public services.

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[1] 'Essential' public services can also be thought of as statutory public services, for example the provision of child and adult health and social care services.

There are therefore two related parts to this thesis, each with a distinct focus, and four research objectives have been defined to support the principal aim:

Part I – To establish a more nuanced picture of green infrastructure at the local level, by defining community-scale green infrastructure, and categorising voluntary activity observable within The Mersey Forest area.

- *Objective 1* - To explore the political and social drivers of environmental stewardship and volunteering.
- *Objective 2* - To explore the diversity of community-scale green infrastructure within The Mersey Forest area.

Part II – To evaluate the critical factors and forces affecting longevity and resilience of community-scale green infrastructure activity.

- *Objective 3* - To compare the characteristics of different types of community-scale green infrastructure and evaluate how characteristics correspond with longevity and resilience.
- *Objective 4* - To establish the potential for future research into the capacity for longevity and resilience in different types of community-scale green infrastructure.

1.5 Research Methodology in Summary

The research methodology is constructed in two halves. The first half, which addresses objectives one and two, involves a desk-based search of current and recent green infrastructure activity managed or led by volunteers in The Mersey Forest, an area covering 500 square miles in the Northwest of England. Formal sources, including project websites and funding bodies' archives, are used; as well as informal sources, such as social media channels of communication utilised by volunteers and participants. The Mersey Forest is chosen as a sample area for data collection to reflect the role of the community organisation as an official partner of the research study, as well as an important source of support and training for voluntary groups engaged in environmental activity in the Northwest (Community Contracting Initiative, 2003).

The Mersey Forest spans urban, urban fringe and rural land use (The Mersey Forest Plan, 2014) which made it possible to record a diverse range of activities in a variety of settings such as street-scale plots, local parks and woodlands. It was necessary to limit the sample size and so only groups which were active in 2008 were recorded. The rationale for this decision emerged from initial searches for voluntary activity which showed an increase in numbers of food-focused groups and projects after 2008; suggesting the availability of grants for food-focused activities, such as Big Lottery Fund's 'Local Food' grant programme launched in 2008, may have been a significant catalyst for community members to establish groups in their local area.

The key output of this initial stage of the research process is a typology of community-scale green infrastructure. This typology identifies a suite of defining characteristics which taken together defines two key categories of activity - *groups* and *projects* - which principally differ in two key ways: their approach to governance and their activity focus. To substantiate these differences and begin to address the additional research objectives relating to longevity and resilience, a case study research strategy is created to explore four instances of community-scale green infrastructure in more depth.

The second half of the research methodology addresses objectives three and four. Building on a definition of community-scale green infrastructure and a typology of activity, four cases with contrasting approaches to governance and activity focus were selected to further explore approaches and the significance of status as a *group* or *project*. The case study methods adopted allow optimal exposure to the full range of elements and facets affecting the voluntary organisation. In each case, a range of in-depth interviews are conducted with as many internal and external stakeholders as possible to more effectively piece together a picture of the group's activities across as many subjects as possible e.g. attitude to funding, constitutional arrangements, preferred regular activities etc. In addition, data is collected in the form of official communications (e.g. website, flyers, funding applications), archives and social media related to the group/project to cross-reference information gathered directly from participants.

The key output of this secondary stage of the research process is a thematic analysis across the four cases. This enables the establishment of a series of key themes with which to measure the potential for a group or project to be resilient to change, and therefore have the capacity for longevity in its green infrastructure objectives.

1.6 Thesis Structure

The general structure of this thesis follows the logical sequence of the research objectives. This thesis consists of two distinct parts. The first part is concerned more with defining community-scale green infrastructure, as a mechanism for community engagement and community participation, and a site for expressing social capital. This part addresses objectives one and two, and tackles the questions of *what* and *how*. Within this half, Chapter One situates this thesis in the context of political, social and policy-focused activities which influenced the author, in collaboration with The Mersey Forest, to conceive of a research study to address perceived gaps in understanding about voluntary activity at the local level within green infrastructure planning within The Mersey Forest area. This substantiates the context for the research aim and objectives detailed in Section 1.4. Subsequently, a review of academic and practitioner-focused literature related to voluntary activity within green infrastructure planning and delivery is presented in the following three chapters (Chapters Two, Three and Four).

As a result, this thesis is positioned in relation to the planning literature exploring community and participation (Chapter Two); as well as environmental stewardship and volunteering, and motivating factors and barriers to engagement in volunteering more broadly (Chapter Three). In addition, Chapter Three provides a comprehensive typology of different approaches to environmental stewardship and volunteering, detailing types of group, activity and structure adopted by community members to actively participate in voluntary management and maintenance of small-scale green infrastructure. Chapter Four introduces the analytical framework for addressing the critical questions of longevity and resilience at the community-scale in green infrastructure which constitutes the focus of this thesis , highlighting the social outcomes associated with environmental stewardship and volunteering, and determining how the research within this thesis draws on and adds to the social capital literature. Thus, Chapters Two, Three and Four taken in combination introduce the critical components of effective community action, which are utilised in later empirical chapters as a framework for data analysis.

There are two distinct empirical stages within this thesis: firstly, Chapter Five presents the results of a desk-search of observable community-scale green infrastructure (CSGI) activity, and introduces a typology of 244 groups and projects within The Mersey Forest area, identifying a set of defining characteristics and thematic categorisation; and secondly, a set of four case study chapters (Chapter Seven, Eight, Nine and Ten) are presented as qualitative enquiry into the factors and forces which affect the resilience and resultant longevity of different types of CSGI. As such, the second half of the thesis, which begins with Chapter Six, a case study methodology chapter, constitutes the case study analysis and evaluates the critical factors affecting longevity and resilience in community-scale green infrastructure. This part therefore addresses objectives three and four, and tackles the question of *why* particular groups of volunteers experience more or less success in their engagement as environmental stewards and volunteers. The discussion and conclusions from these two parts are set out in the final two chapters (Figure 1.1).

1.7 ESRC CASE Award collaboration with The Mersey Forest

The research undertaken for this thesis builds on the research of England's Community Forests, and in particular, The Mersey Forest. As an ESRC CASE Award the research aim and objectives were developed in partnership with The Mersey Forest to explore the experiences of volunteers actively engaging in the delivery, management and maintenance of green infrastructure at the community-scale in The Mersey Forest area. The Mersey Forest's role in this thesis has been one of support and facilitation, providing access to historical archives of the organisation's work creating and supporting community voluntary groups for the past 25 years; and providing a space to work at their head offices in Warrington. The interaction between The Mersey Forest and the University of Liverpool provided an opportunity to strengthen the relationship between a regionally significant delivery agent of green infrastructure planning and policy in the Liverpool City Region area and an academic institution working towards increasing the impact of their research. Meetings between the

author, supervisor team and members of The Mersey Forest represented a useful arena for developing future opportunities for action research drawing on the work of The Mersey Forest in the region. As such, this thesis inherently adds to both academic and policy debates about the implementation of green infrastructure, and the most effective distribution of public funds through public institutions to secure the social, economic and environmental benefits of multi-functional green infrastructure.

CHAPTER ONE	**INTRODUCTION**
CHAPTER TWO	**DEFINING COMMUNITY-SCALE GREEN INFRASTRUCTURE**
CHAPTER THREE	**CRITICAL COMPONENTS OF EFFECTIVE COMMUNITY ACTION**
CHAPTER FOUR	**LONGEVITY AND RESILIENCE OF COMMUNITY-SCALE GREEN INFRASTRUCTURE - THE ROLE OF SOCIAL CAPITAL**
CHAPTER FIVE	**CREATING A TYPOLOGY OF COMMUNITY-SCALE GREEN INFRASTRUCTURE**
CHAPTER SIX	**CASE STUDY METHODOLOGY**
CHAPTERS SEVEN, EIGHT, NINE AND TEN	**CASE STUDY CHAPTERS: FORMAL GROUP, FORMAL GROUP (INACTIVE), INFORMAL GROUP AND FORMAL PROJECT**
CHAPTER ELEVEN	**DISCUSSION**
CHAPTER TWELVE	**CONCLUSIONS**

PART ONE / OBJECTIVES 1 & 2 (Chapters Two through Five)

PART TWO / OBJECTIVES 3 & 4 (Chapters Six through Eleven)

Figure 1.1.The Structure of the Thesis

CHAPTER TWO

2. Defining Community-scale Green Infrastructure

2.1 Introduction

This chapter builds on the socio-political and policy context of community-scale green infrastructure as set out in Chapter One. To substantiate the critique that, contrary to UK Government political ideology implicit in decisions to withdraw public funding previously designated for the management and maintenance of local level green infrastructure (*see* parks, gardens, amenity woodland), voluntary community action may struggle to reliably deliver green infrastructure at this scale in its absence; it is first necessary to explicate what is to be understood by community-scale green infrastructure (CSGI). As such this chapter offers a fuller consideration of the distinguishing characteristics of CSGI, in particular defining what is meant by *community* and *scale* in this context. By presenting a definition of CSGI, this chapter lays the foundations for Chapter Three which is concerned with evaluating the critical components for effective community action, in the context of environmental volunteering.

2.2 What is community-scale green infrastructure (CSGI)?

The following sections offer a definition of community-scale green infrastructure, situating CSGI within the broader typology of green infrastructure by drawing on academic and grey literature; and focusing on its two central components: scale (Section 2.2.2) and community (Section 2.2.3).

2.2.1 Situating CSGI in the green infrastructure literature

Green infrastructure is a term, primarily used by planners, to describe the network of green and blue space which provides valuable functions and benefits to human and non-human actors. Definitions of green infrastructure are multiple, yet there is a broad consensus in the UK that Natural England's (2009) definition, which highlights aspects of delivery, long term management and maintenance, is arguably the most useful for the range of actors and agencies involved in legislating for, implementing, and sustaining the multiple functions and benefits green infrastructure provides:

'(Green infrastructure is) a *strategically planned and delivered network* comprising the broadest range of high quality green spaces and other environmental features. It should be designed and managed as *a multifunctional resource* capable of delivering those ecological services and quality of life benefits required by the communities it serves and needed to underpin sustainability. Its *design and management* should also respect and enhance the character and distinctiveness of an area with regard to habitats and landscape types.

Green infrastructure includes established green spaces and new sites and should *thread through and surround the built environment* and connect the urban area to its wider rural hinterland. Consequently it *needs to be delivered at all spatial scales from sub-regional to local neighbourhood*

levels, accommodating both accessible natural green spaces within local communities and often much larger sites in the urban fringe and wider countryside.' (Natural England, 209) (emphasis author's own)

For the purposes of framing this thesis, the key components highlighted within this definition are the role management and maintenance play in sustaining the value of green infrastructure over time; and the need for smaller-scale green infrastructure delivery at the 'local neighbourhood scale'. As such, the multi-scalar character of green infrastructure is reinforced by Natural England's (2009) description, and therefore, adds weight to the position adopted here whereby community-scale green infrastructure is adopted as a reconceptualization of environmental volunteering and stewardship to better describe the diversity of activity observable at the 'local neighbourhood scale'.

Natural England's (2009) definition is also noteworthy as it focuses singularly on the processes encapsulated by the concept; as opposed to the constituent parts which contribute function, benefits and ultimate value to those processes. In contrast, the National Planning Policy Framework (2012) definition of green infrastructure lists a representative selection of green infrastructure features. Similarly, the Royal Town Planning Institute (RTPI) (2013) define 'component elements' and include a list of 'parks, private gardens, agricultural fields, hedges, trees, woodland, green roofs, green walls, rivers and ponds' in their Briefing Note for Green Infrastructure (2013: 1), prepared in response to the adoption of green infrastructure by the UK Government as the preferred statutory approach to delivering and managing open and green space.

Equally, green infrastructure may be thought of as a way of working; a *modus operandi*, which translates as a method of operation. It is useful to consider green infrastructure as an approach, rather than an object or subject of planning, for a number of reasons. Firstly, green infrastructure has been described as a 'contested' concept, for example the work of Wright (2011) focuses on the multiplicity of meanings attached to the concept by different interests. Secondly, to date there has been no singular encompassing definition, with some commentators likening its status and ambiguity to sustainable development (Jacobs, 1999; Wright, 2011); or further, that as a concept it is empty of meaning, without reference to other objects as processes, an 'empty signifier' (Swyngedouw, 2010).

Similarly, green infrastructure may be thought of as a concept which effectively frames the assemblage of a number of potentially disparate voices and discourses, thus forming a 'discourse coalition' (see Figure 2.1):

"A discourse coalition is the ensemble of a set of story lines, the actors that utters these story lines, and the practices that conform to these story lines, all organized around a discourse." (Hajer, 1993, in Fisher and Forester, 1993: 47)
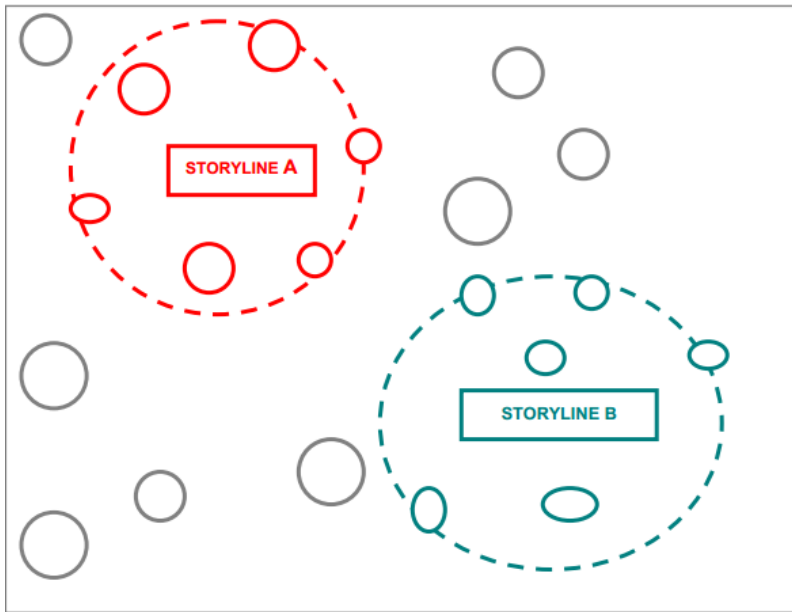
Figure 2.1 Discourse Coalitions (Hajer, 1993) Source: Fischer and Forester (1993)

In light of Hajer's description of a discourse coalition, it is possible to further substantiate the theoretical position adopted in this thesis that green infrastructure is an approach, rather than a 'thing' or list of 'things'. If there existed a consensus as to what things and how many of them added up to equal green infrastructure, we may be in a situation where green infrastructure is readily accepted as a policy priority in terms of resource allocation, and knowledge exchange would be available across different scales and contexts of planning. As it is however, the situation is one where application of green infrastructure as a policy driver is inconsistent and variable across different scales of planning; and across the UK as a whole, with some local authorities electing to frame policy interventions within the conceptual framework of green infrastructure, and others preferring to continue with established definitions of 'green space', 'open space', ecosystem services and 'sustainable land management' (The Mersey Forest, 2013).

It is possible that the policy decision to re-define green infrastructure in the National Planning Policy Framework (NPPF) (2016), emphasising the role it ought to play in policies created at the local and parish level to support the delivery of joined-up networks of multi-functional features, may have a significant impact on the creation of a consensus as to *what* and *how* green infrastructure *is* and *should be*. In the meantime, however, green infrastructure guidance is being adopted and adapted from empirical work being carried out by environmental non-governmental organisations and organisations working in the voluntary and community sector. In the North West of England, The Mersey Forest is a key exemplar of this working practice and has been to date the main source of best practice policy guidance for built environment professionals and smaller organisations working to implement actions around ideas of ecosystem services, green infrastructure and sustainable land

management. The Mersey Forest is a community forest designated in the 1990s to cover 500 square miles of Merseyside and North Cheshire, and is now a principal stakeholder working for the implementation of a strategic approach to green infrastructure planning in the North West of England, through a mixed methods approach to research and practice, including a particular strength in communicating the technical functions and benefits of specific elements of the environment at different geographical scales; and more recently commissioning and leading on research projects to develop quantitative tools to capture the 'value' of green infrastructure.

In this way, the role Geographical Information System mapping plays in the empirical work of The Mersey Forest's suggests that green infrastructure can actually be disassembled into its constituent parts to enable measurement and valuation to take place. Indeed, this is a popular occupation amongst planners engaged with green infrastructure as an alternative or 'add on' to the understanding and interpretation of ecosystem service literature. In contrast, this thesis argues that green infrastructure as an 'approach' to planning the built and natural environment (in urban areas, principally), is significantly limited in its potential to deliver benefit if this technology focussed methodology continues to dominate the political and policy realm. Instead, we are concerned with presenting an extended understanding of green infrastructure as a framework with a supplementary and under-explored potential to more effectively frame activity at the local, community-scale. Specifically, the research design herein seeks to complement the focus on objects and outputs associated with green infrastructure delivery (*functions*), with research which prioritises abstract notions of what is right (morals, ethics) and, normatively, what should be protected/enhanced/created/destroyed by way of environmental planning and management at this scale, from the perspectives of those individuals who are taking responsibility for stewardship.

As such this thesis adopts a case study approach, allowing the personal experience of community-scale green infrastructure groups engaged in voluntary community action at this scale to structure the findings. However, it is possible to counter arguments that this localised focus has any less significance for broader narratives about the role of green infrastructure in delivering strategic outcomes (*benefits*). Therefore, this thesis positions itself in a wider global context of unprecedented scientific consensus around the incidence of anthropogenic climate change (IPCC, 2013) and a more localised context of acute health deprivation in Merseyside (APHO, 2013). Likewise, it may be situated alongside literature which highlights the linkages between time spent outdoors and mental and physical health levels (Ward-Thompson et al., 2012).

Another reading of green infrastructure's status as a 'contested' concept in both theory and practice can be found in the work of Fischer and Gottweis (2012: 7). They strengthen a reading of discourse coalition theory in green infrastructure analyses by highlighting the work of Stone (2002) on the role of 'shared meanings'; the 'conceptual framing of problems'; and 'public understanding of the issues'. Fischer and Gottweis (2012: 8) focus on the role of *argument* in policy change, and in

particular, they emphasise the importance of interdisciplinarity within this approach, echoing earlier academic work by Myerson and Rydin (1996). Correspondingly, green infrastructure may be situated within interdisciplinarity in planning theory and practice, occupying the space between pre-existing understandings of planning for green and open space, and more recent interpretations of sustainable landscape management and ecosystem service delivery.

Certainly, the language of green infrastructure would suggest that it is 'at home' in the spaces between these fields and sectors and specialisms, with some shared understandings reflected in shared language, for example green infrastructure's *functions* and *benefits* (Natural England, 2013) closely reflect the language of *services* and *benefits* in the ecosystem service approach. In addition, the epistemological emphasis of each approach is creating quantitative and empirical datasets to evidence the need for action in discrete areas, which may be resourced and evaluated effectively. For example, the ecosystem service approach to policy and decision making relies on coherent and agreed definitions of different habitat types, ranging from 'woodland' to 'coastal margin' to 'urban'; as well as distinctions made between the different *services* encompassed by this approach, primarily 'supporting', 'regulating' and 'provisioning' services (UKNEA, 2011). In the same way green infrastructure planning differentiates 'functions', 'benefits', 'needs' and 'assets' observable at different spatial and governance levels.

In contrast to measurable outputs of green infrastructure, echoing Swngedouw's (2010: 300) 'metonymic list' (grass, field, canal, tonnes of carbon stored, hectares created for biodiversity gain), community-scale green infrastructure is concerned with the *messiness* of the human or social element in an ecosystem's 'cultural services' (UKNEA, 2011). Arguably, this can often present a barrier for studies focused on providing empirical evidence for the conservation or management of an existing habitat. And yet it is this *messiness* or unpredictability which often comprises the 'value' in a human scale experience of landscape and habitat. Rodwell (2013) talks about 'surprise', 'wonder', 'awe' as difficult indicators to measure, but crucial indicators to factor in to a landscape's 'value' when assessing the cultural services of a particular ecosystem or a particular element of an ecosystem. The cultural services provided by particular characteristics and attributes of a site of green infrastructure will be explored in in Chapter Three, which focuses on the motivations of environmental volunteering in more depth.

The next sections – focusing on defining *scale* and *community* – will serve to highlight how community scale green infrastructure represents a network of activity. Community scale green infrastructure is additionally co-opted, managed and/or maintained by the people who 'use' it and are therefore the primary beneficiaries of that space and its functions. We may draw on literature about networks and network theory (Latour, 2004) to gain a deeper insight into such projects and their activities and organisational capacity. As such, community scale green infrastructure projects and spaces may be conceived as 'nodes' within a predefined network centres of activity through

which resources flow, are created and consumed[2]. Through a critical reading of literature and policy, it is possible to evidence a gap in knowledge between the *formal* knowledge of policy documentation, and the *tacit* knowledge of community action and activism.

As such, one could say that current and principal discourse framing green infrastructure fails to understand with any nuance or subtlety the primary proposition of *relationship* and *co-dependency*. A current synopsis of the policy landscape within the discourse coalition of green infrastructure theory and practice is a dislocation between *what, how, who* and *where* in reference to deliverables and management going forward. The scale of power transferred through publicly funded 'environmental improvement' projects which may be encompassed by green infrastructure planning's physical and/or ecological objectives, is anecdotally over burdening voluntary groups charged with maintaining sites and associated functions and benefits.

A key objective of this thesis is to create a novel body of 'evidence' to support delineation of power and responsibility along local authority and 'community' lines, by a more nuanced and locally relevant interpretation of *capacity* (which significantly is 'live' and changes over time, and therefore needs monitoring beyond short timeframes associated with funding cycles); rather than a more arbitrary indicator such as *need* which can return such disparate results as 'green infrastructure need' referring to 'environmental deficit' as in Liverpool Green Infrastructure Strategy (2012: 34), and 'social need' as defined in output driven indices such as the index of multiple deprivation (2010) widely used in the UK to measure and compare complex and interdependent social and economic phenomena.

In conclusion, the standpoint of this paper is to critique a status quo where the predominant voices making up the narrative or 'story line' of green infrastructure are largely unaware of *what* community members and groups of community members are doing, and consequently are even further away from any credible position of 'authority' to comment on *how* things are working. And yet, these same voices are the mechanistic conduit for *how, how much* and for *how long* such groups are perceived as eligible for resources – which may be land, capital or revenue support – largely in part because of the way this eligibility is evaluated. As such, an alternative, or extended, definition of community-scale activity – community-scale green infrastructure – is proffered to fill this perceived gap in current policy and practice approaches to the delivery, management and maintenance of green infrastructure at the local level.

2.2.2 Defining scale in CSGI

Although, Benedict and McMahon (2006) define green infrastructure as '[a] strategically planned and managed network', thereby reinforcing the view that green infrastructure is an operational

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[2] On this point of production and consumption as a function of projects and spaces, epistemologically this qualitative study is concerned 'value' not 'price', and as such the measurable or unit of consumption or production, is often intangible.

framework for strategic planning; Allen (2012) suggests that green infrastructure can be 'advanced at all scales, from the largest landscape to the smallest site' (2012: 17). Moreover, as previously noted, the multi-scalar character of green infrastructure is reinforced by Natural England's (2009) description (see Section 2.1.1). Similarly, the RTPI's (2013) 'Briefing on Green Infrastructure in the UK' asserts that the term ought to cover all land containing green infrastructure features (e.g. hedges, trees, woodland, rivers, ponds) 'regardless of its ownership, condition or size' (2013: 1). And yet, as set out in Chapter 1 (Section 1.3.2), there is a persistent tendency for green infrastructure to be framed as an approach or mechanism most usefully operated at the *strategic* scale; emphasising the capacity of landscape-scale interventions to deliver the plurality of functions and benefits we have come to expect from the environment within and around our towns and cities. As this thesis is preoccupied with bringing focus to the potential for small-scale green infrastructure sites to respond to green infrastructure needs, it is worthwhile addressing the underlying assumptions that green infrastructure is most effectively delivered at the 'larger-than-site' scale.

Partly this may be explained by the underpinning notion of green infrastructure operating as a network; a concept which is more readily applied to the large-scale, as in a network of sites and features, linked by 'green corridors' (Natural England and Land Use Consultants, 2009:8). Although there is some evidence within the literature that small-scale projects could be conceptualised as nodes operational within a larger network of activity (Feenstra, 1997), the notion that community-scale green infrastructure represents a network that is both 'spatial and social in character' (Jerome, 2016) is under-represented in the literature. As such, the role of networks in the facilitation of activity at this scale – activity which is both socioeconomic and physical (spatial) in its focus' (Jerome, 2015) - will form part of the case study analysis in the second half of the thesis.

Another explanatory factor to take into account is the role played by professional bodies in shaping green infrastructure policy narratives. For example, the Landscape Institute (2013) emphasises the importance of the landscape-scale when imagining how to integrate green infrastructure within urban developments. Similarly, Natural England and Land Use Consultants (2009) iterate the role of green infrastructure in creating a framework for delivering large scale environmental improvements across urban and rural contexts, highlighting the role of 'ecological networks' and 'green corridors' which intersect local authority boundaries necessitating joined up approaches to management (2009: 8). Interestingly, 'ecological networks' and 'green corridors' are essentially abstract concepts which gain credence within the policy and practice literature, arguably because of their 'larger-than-local' significance; itself another phenomenon associated with scale. Within the same guidance document, Natural England references green infrastructure as a 'strategic, multi-scale' approach to 'land conservation and land use planning' (2009: 9). Furthermore, the strategic role of green infrastructure in creating both a conceptual and practical framework for sustainable land management is evidenced in the emergent number of green infrastructure frameworks for both urban and rural areas (Liverpool

City Region and Warrington, 2013 and 2014; North East Wales, Cheshire and Wirral, 2010; Greater Manchester, 2008; South East, 2009).

As such, it would be feasible to interpret coalescence of different stakeholder groups around a shared understanding that for maximal function/s and benefit/s, the preferred scale of green infrastructure delivery and enhancement is the landscape- or strategic-scale. This approach to green infrastructure interventions has recently been typified by large scale projects with a landscape scale or technology focus, exemplified by projects such as 'Wirral Waters' (Peel Land & Property, 2015) in Merseyside which utilises green infrastructure as the context for attracting investment to redevelop an assemblage of brownfield sites. This type of green infrastructure delivery may be thought of as the 'business case for green infrastructure' (Alker, 2015), reflecting the potential to converge green infrastructure development with significant capital investment, thereby aligning green infrastructure delivery with the primacy of economic narratives within an urban, and in this case, city region policy context.

This thesis is not concerned with constructing a critique of this preoccupation with the strategic-scale in green infrastructure, although it is significant insofar as it dominates the literature, in particular practitioner or 'grey' literature whose aim is to influence the allocation and implementation of available resources for green infrastructure creation and enhancement. Instead, this thesis is concerned with creating a parallel, or complementary, narrative which foregrounds the experiences of actors and agencies otherwise preoccupied with delivering green infrastructure at the small-scale. As such, this thesis draws on academic literature situated across a number of disciplines, which focus on the social benefits associated with small-scale projects, and in particular exemplifying food-growing initiatives such as community gardens (Firth et al, 2011; Johnson, 2012; Zoellner et al, 2012; Eizenberg, Boyle and Mitchell, 2013). In this sense, the intention of this thesis is to contribute to perspectives of green infrastructure which accentuate the different functions and benefits facilitated by green space of all sizes: 'Cities need green in sizes small, medium, large and extra-large, otherwise the human ecosystem us incomplete' (Penalosa, in Montgomery, 2013).

The concept of a 'human ecosystem' is valuable in the context of community-scale green infrastructure also as it will become clear through the empirical chapters of this thesis that the substantial majority of function/s and benefits/s conveyed at this scale are directed at improving quality of life for individuals, groups of individuals and by association, communities of interest or geography linked to the site of CSGI activity. Moreover, in the way that physical ecosystems are defined by their capacity to function optimally as a network, CSGI groups and projects can be ranked, at least in terms of propensity for longevity and resilience as defined by this thesis, by their capacity to function optimally as a network. Equally, as it is critical to measure the quality of interactions between species present in an ecosystem, in order to be able to assess the health of an ecological network; this thesis will argue that it is critical to better understand the factors and forces

influencing the 'health' (longevity, resilience) of an individual group of project engaged in CSGI, in order to assess the significance of the network within the wider scope of green infrastructure.

One way of assessing the 'health' of a group or project engaged in delivering community-scale green infrastructure is to conceptualise their activities as 'place-keeping' (Mathers, Dempsey and Burton, 2012; 2013; Dempsey, Smith and Burton, 2014) and conducting an evaluation of the extent to which devolved decision-making and economic constraint can have an impact on community actors and agencies acting as land stewards. This is exactly what Mathers, Dempsey and Burton (2012; 2013) did in their assessment of communities' roles in long-term responsibility for open space management in their case study focusing on two local authorities in the UK – Sheffield City Council and Hackney Borough Council. Their conceptualisation of place-keeping was further extended in Dempsey, Smith and Burton (2014), providing a strong conceptual framework from which to employ determining components for effective community action in green infrastructure. As such, this thesis may be regarded as an expression of the same planning *values* articulated through the concept of 'place-keeping', succinctly defined by Mathers, Dempsey and Burton (2012) as a logical development of the 'widespread, de facto focus on place-making'; emphasising the central role played by 'long term and responsive management' (2012: 515) in place-making. The ways in which communities take on further responsibilities, the types of user groups' observable at this scale, and the role of public-community partnerships in supporting the capacity of groups to continue their engagement, is discussed in more detail in Chapter Three. In this section however, Dempsey, Smith and Burton's (2014) work offers insight into the scope and scale of community-led approaches to design and management, advancing our understanding of what is possible at this scale.

Burton, Dempsey and Mathers (2014: 144-145), drawing on Mathers, Dempsey and Burton (2012), offer a concise summary of the perceived and actual role of environmental volunteers in green infrastructure management and maintenance; thereby reflecting the policy context set out in Chapter One (Section 1.3):

"An increasingly common approach taken by local authorities (partly due to budget cuts) is to involve volunteers – also known as the 'community' – in site management and maintenance. Although not without its issue, not least the requirement for resources to support volunteers, volunteer input ranges from occasional volunteering work days to wholescale devolution of management responsibility. This approach relies not only on the willingness of volunteers to take responsibility for place-keeping but also on them having the right skills, expertise and equipment to undertake the work."

The passage goes on to highlight the essential requirement in volunteer-led interventions in open and green space management to match the capacity and interests of volunteers with the 'right' scale and scope of activity. This is a critical assessment which will be used to frame the evaluation of community-scale green infrastructure as an effective mechanism for local level GI delivery in later

chapters. The case studies used by Burton, Dempsey and Mathers (2014: 145) illuminate the problems that can otherwise arise: when users groups, such as a 'Friends of' group, may experience a drop in confidence to effectively manage a site when they engage in a site which is large scale, and is therefore perceived as being an 'events space rather than a space for the local community'. In this way, scale may be understood as a condition for determining a group's capacity for 'ownership', although other studies define ownership in terms of a group's capacity for democratic control of a space (Firth, Maye and Pearson, 2011: 556); or in terms of more emotion-focused associations such as 'pride' in a place (2011: 561).This theme of ownership, and how it impacts on the propensity of a group to articulate belonging to a space, and therefore to manifest such feelings through longevity of occupation, will be explored in more depth through the case study analyses in the second half of this thesis; where different types of community-scale green infrastructure exhibit varying degrees of success in response to their perception of the scale at which their site of green infrastructure activity is being interpreted and interacted with by internal (members) and external (supporters) stakeholders.

In summary, this section highlights the critical role *scale* plays in shaping and determining a CSGI group's *capacity* for long-term management and maintenance of green infrastructure at the local level. Key studies, including Mathers, Burton and Creevey (2011) and Burton et al. (2014) have pointed to the role of public-community partnerships in provisioning for this capacity. As such, 'place-keeping' literature (Dempsey, Smith and Burton, 2014) forms a substantial foundation from which to build the narrative of the community-scale as a specific type of green infrastructure working at a particular scale. The critical components for capacity-building will form a central theme of analysis in Chapter Three, but first, the role *community* plays in differentiating CSGI will be explained in more detail in the next section.

2.2.3 Defining community in CSGI

When the community becomes conscious of its state, it moves to direct action and takes up arms for change. (De Carlo, G., in Blundell Jones, Petrescu and Till, 2005: 16)

This section defines the concept of community in the context of community-scale green infrastructure. Firth, Maye and Pearson (2011) propose that 'community is a notoriously difficult concept to define' (2011: 556). According to Nigel Taylor (2003: 93), concepts are fundamental to both planning theory and planning practice as 'they specify what, in its actions, town planning is trying to *do'* (emphasis in original) (in Hillier and Healey, 2010: 2). Conceptually, community is indisputably fundamental to planning 'for' and planning 'with' users (De Carlo, 2005: 16), with many varied and diverse applications in planning. Healey's (2006) notes on community are useful here: 'The metaphor of community is commonly asserted in the discussion of local environmental issues in Britain. Proposals are judged in terms of their impact on 'the community' (Healey, 2006: 123). Projects are resisted as likely to threaten the existing community. Communities in urban and

rural areas are offered opportunities to get involved with 'community development' activities of various kinds. Sometimes the word 'community' is used merely as a synonym for 'the people who live in an area. But the metaphor carries more meaning than this.' As such, five distinct interpretations of the concept of community are defined to situate CSGI as a particular type of planning activity – recognising implicitly that like community itself, CSGI is simultaneously process and product, or in Glover's (2004: 156) terms it is both the 'consequence' of green infrastructure planning at this scale, and the 'source'.

Community as place

Perhaps the most readily associated conceptualisation of community as signifier of a certain type of scale of activity is 'community as place' or 'the place-based community' (Healey, 2006: 123); which put in simple terms is a way of describing the phenomenon of people sharing a common space. Although Healey (2006) is acute in her disassociation between 'shared spaces' and shared values, or a 'common moral order' (2006: 124), provoking a deeper insight into drivers of 'place-based community culture' and 'integrated place-based communities' (2006: 123). As such, this thesis proposes a reconceptualization of place-based community activity in the context of green infrastructure, exploring the relative impact of different factors and forces affecting the experiences of groups engaged in this activity, including associations with 'place'.

In this way, this thesis builds on literature which appropriates signifiers for differentiating different types of activity at the local level, and orders interpretations accordingly. This approach is exemplified by Firth, Maye and Pearson's (2011) study which offers two types of community garden - "place-based" and "interest-based". They suggest that the concept of community is predominantly defined as "place-based communities" in literature examining alternative food networks (2011: 556-7), however they draw on Pudup's (2008) critique of community as mechanism for social capital, proposing that 'it is not always clear whether community gardens are run *for* the community, *by* the community, or that they just happen to be located *in* certain communities' (2011: 557) (emphasis author's own).

Garrett (2015) describes an individual's connection with a place as a 'relationship' and suggests when people are permitted, or feel able, to define a space, or place 'on their own terms, without assistance from authorities or academics' and there is a heightened sense of 'local attachment'. An alternative description of this 'attachment' is 'personal connectedness' (Kingsley and Townsend, 2006), both of which feature prominently as signifiers of social capital, which in turn is arguably a more accurate measure of an individual's experience of community than associations with place, and will be explored in more depth in Chapter Four.

The final associations with 'community as place' which this thesis is concerned with exploring are the roles of the 'citizen' and 'civic engagement'; both of which denote a geo-spatial and governance relationship between the individuals or groups signified by the term community and a delineated place. Fisher, Svensden and Connolly's (2015) in depth case study examination highlights the potential of the 'hybrid governance model' – a 'multi-scale and multi-sector approach' – observable in the MillionTreesNYC initiate, to more effectively implement and embed community-scale environmental behaviours, such as tree planting (2014: 10). By reconceptualising environmental volunteering and stewardship as civic engagement, (Fisher, Svensden and Connolly, 2015) strengthen the argument that community-scale green infrastructure is a process within green infrastructure planning, as much as it is an output of green infrastructure planning; and as such, is as relevant to discussions about *how* to plan, as *what* to plan (Healey, 2006; Hiller and Healey, 2010; Healey, 2010). Another way of conceptualising this is captured in the next two sections – 'community as user' and 'community as actor'.

Community as user

There are a number of associations with 'community' which indicate that communities are recipients, or beneficiaries of the processes and products of planning. For example, 'place-making' is described by Dempsey, Smith and Burton (2014) as a planning process which aims to create, amongst other assets, 'high-quality public spaces [argued to be] economically and socially beneficial for local communities [that] contribute positively to residents' quality of life and wellbeing' (2014: 2). Other associations with 'community as user' are described by suffixes which point to the role community plays in a broad range of interests which feed into the planning process: community as consultee; the community voice; community stakeholders; community experts; protecting community assets.

Dempsey, Smith and Burton (2014) discuss 'user-centred models' of green infrastructure governance, highlighting the community's position as a critical stakeholder in the achievement of place-keeping. 'User-centred models' are defined in relation to 'state-centred models' and 'market-centred models', and describe a situation where 'user-based organisations such as local interest and community groups, charities and other non-governmental organisations' are involved in green infrastructure management (2014: 19). The significance of who is involved in decision-making processes is apparent when different 'ideas and motivations' are prioritised or deprioritised in green infrastructure planning (2014: 20). De Carlo (2005) defines the same decision-making processes, albeit in the context of architectural planning, in terms of establishing 'concrete goals' (2005: 9); with the aim of facilitating effective and constructive working relationships between the client and the users. Moreover, De Carlo (2005) moves on to describe 'barriers' between a 'user' and an 'object of use', for example a building, or in this case a garden (2005: 13). This is a useful conceptualisation in the context of defining CSGI as it allows the possibility of different types of CSGI may prove

more or less effective in engaging and retaining community members as users. This will be explored in more detail in Chapter Three, and furthermore, will be evaluated in Chapter Eleven.

Community as actor

Perceptions of community as actor are distinct from community as user, in one key aspect. Where 'user' suggests a potentially passive role, 'actor' is necessarily active. The most common reference to 'community as actor' in green infrastructure literature is community as 'steward' or specifically, 'environmental steward' (Fisher, Svensden and Connolly, 2015; Connolly et al., 2014). Fisher, Svensden and Connolly, (2015: 10) describe the multifarious ways in which the 'human infrastructure of environmental stewardship' provides a diverse range of green infrastructure-related activities – tree planting, climate adaptation, removal of industrial pollutants from neighbourhoods, community gardening and urban agriculture, long-term management of green spaces, monitoring and management of urban waterways and local air quality; which would otherwise require 'state-led' or 'market-led' solutions (Dempsey, Smith and Burton, 2014: 19).

It could be argued that the Big Society ideology attempts to capture and replicate the capacity provided by environmental stewardship as a 'user-centred model' of public service provision. However, this thesis upholds the critique of this perspective by citing studies which provide a more nuanced understanding of devolved power to communities through multi-actor partnerships; highlighting in particular the crucial role of all partners (including public partners) in ensuring long-term management of green infrastructure (Dempsey, Smith and Burton, 2014; Mathers, Dempsey and Burton, 2012; Fisher, Svensden and Connolly, 2015). The role of governance in CSGI, including examples of groups and projects which operate within partnerships models, will be explored in more depth in Chapter Three, and subsequently in the Case Study Chapters in the second half of this thesis.

Community as network

Another widely held association with the concept of community, and building on the conceptualisation of 'community as actor', is the idea that individual actors can act collectively as a 'social network'. The idea of community as an expression of people's connections to one another is, Healey (2006: 123) suggests, integral to our notion of community as a place. The metaphor of community in this context becomes a synonym for the 'densely interconnected social networks', 'common values', 'systems of meaning', and 'ways of doing things' (Healey, 2006: 123), which Bourdieu (1990) conceptualised as 'habitus'.

'Community as network' is the fundamental building block of theories of social capital and community capacity. Healey (2006) describes the notion of a network in terms of 'relational bonds' or the '*webs* or networks in which we live our lives*' (2006: 57) (emphasis in original). Healey

(2006) goes on to illustrate this metaphor of the network, by introducing the role of *'nodes'* or points of intersections in a relational web; 'which provide the *arenas* where systems of meaning, ways of acting and ways of valuing are learned, transmitted and sometimes transformed' (2010: 58). This conceptualisation of the social network as a metaphorical site for community-building and community education is particularly relevant to this thesis, and comprises a central thread of investigation in the case study approach in the second half of the thesis, when different types of CSGI are compared in their capacity to facilitate shared knowledge and contribute positively to the operation of CSGI as a network of sites responding to locally-defined green infrastructure need.

Community as partner

In their 2011 guidance on 'Local Green Infrastructure', The Landscape Institute suggest that 'partnerships are crucial to sustainable delivery' of green infrastructure; highlighting that 'local communities and organisations can be a valuable source of knowledge, ideas and aspirations of particular relevance to green infrastructure' (2011). As the body 'responsible for protecting, conserving and enhancing the natural and built environment for the benefit of the public' (The Landscape Institute, 2011), this is a significant boost for the argument that community partners ought ideally to be at the centre of decision making processes affecting the shape and function of green infrastructure, particularly as it pertains to the local-level or community-scale.

Although established models of environmental stewardship, such as Friends and Park User Groups, illustrate the potential of community members to play an active role in the implementation and management of green infrastructure planning at the local level; emergent models of partnership working, where power is devolved to community partners through public-community partnerships, highlight the potential of partnerships to reduce risk and responsibility resting on public authorities alone. Mathers, Dempsey and Burton (2012) have conceptualised different models of 'place-keeping' to compare and contrast different approaches being adopted by different local authorities in response to reduced public expenditure on local-level, publicly accessible green infrastructure. They emphasise the variability of different capacities, highlighting the important influence 'motivation' and 'skill' have across different communities on their ability to take on a greater role in delivery; and point to the role of emergent models of partnerships with other sectors (private, voluntary) to support public and community partners (2012: 519).

2.3 Policy and funding context of CSGI

The literature describing and analyzing the impact of activity at the community-scale in green infrastructure planning extends back over a thirty year period (Dempsey, Smith and Burton, 2014; Glover, 2004; Schmelzkof, 1996; Jamieson, 1985). It is therefore essential to acknowledge that this thesis is positioned within a specific geographic and policy context to verify how it will contribute

supplementary understanding to the literature. The Mersey Forest area acts as the geographical, as well as policy and funding context for this thesis; specifically in the period directly after 2010 when the UK Government adopted policies targeted at reducing public expenditure on non-essential public goods and services, including the creation and long-term management of green infrastructure.

This section refines the focus of this thesis further by outlining the funding context for CSGI in The Mersey Forest area in the period of the research study, 2010-2015. This section links to Chapter Five (Section 5.2) which describes the process of creating a typology of community-scale green infrastructure characteristics, and sets out the necessary parameters for demarcating which groups and projects to record as part of the desk study observation of community-scale activity within the sample area. To facilitate a workable methodology, it was necessary to create a rational timeframe within which CSGI groups and projects would be counted. This section therefore establishes a rationale for recording groups and projects which were observed to be active at the time of the desk study (2014), or alternatively, could be evidenced as being active at any time during the period from 2008-2014. This timeframe overlaps with Big Lottery Fund's 'Local Food' £59.8 million grant programme which distributed grants to UK-based food-related projects over the period 2008-2014.

The 'Local Food' grant programme was particularly aimed at projects which could evidence that their environmental activities would also contribute to local communities through corresponding social impacts, in line with the environmental and social objectives of The Wildlife Trusts (2016) who were tasked with managing the programme. The primary objective of the programme was to support groups and projects to create opportunities for publicly-accessible sites for food growing; an objective which resulted in the creation of 15,000 community gardens over the course of the programme. The timeframe of the 'Local Food' programme coincides with a surge in academic literature concentrating on the social and environmental impact of community gardens and local food growing (Alaimo *et al.,* 2008; Firth, Maye and Pearson, 2011; Zoellner *et al.*, 2012; Johnson, 2012; Kingsley and Townsend, 2006; Wakefield et al, 2007; Eizenberg, Boyle and Mitchell, 2013).

In addition to the 'Local Food' grant programme, there is evidence of other Big Lottery funded initiatives benefiting CSGI projects in The Mersey Forest area during this period, supporting the implicit impression conveyed by the focus of the literature that this was a period of growth in CSGI activity at the local level. In 2008, 2009 and 2010 projects in the local districts of Warrington, Halton and St Helens respectively, received grants from Big Lottery Fund in association with Natural England, of between £210,000 and £240,000 to create opportunities for enhanced access and engagement with sites of community-scale green infrastructure. In one example, The Mersey Forest worked in partnership with The Red Rose Forest and St Helens local authority on a project titled 'Setting the Scene for Nature' with the aim of faciltating local communities to use newly developed green spaces at four separate sites.

This type of project is the focus of Natural England's Monitor of Engagement with the Natural Environment (MENE) survey which collects data about how people use the natural environment, for example recording the number of visits to a site, the proximity of sites to where visitors live, as well as motivations and barriers to visiting. The survey also collects data about how people are affected by their use of the natural environment, noting where positive effects of visiting a green space differ across different types of green space. In this way, the methodological approach of the MENE is complementary to the approach adopted in this thesis as it recognizes that different types of green infrastructure can have different and nuanced effects on participants (visitors). Rather than imagining the natural environment as an area of, albeit networked, homogenous green space; the typology of CSGI presented in Chapter Five builds on the findings of various studies which have concentrated on better understanding the associations between a person's environment, the type of environment they seek access to, and their health, wellbeing and quality of life (Ward-Thompson et al., 2011; Richardson and Mitchell, 2010; Hitchings, 2012; Unt and Bell, 2014; Martensson et al., 2014; Doick et al., 2013; Wolch, Byrne and Newell, 2014).

The scope of the narratives presented in the literature, and the nature of initiatives and grant funding programmes designed to address perceived inequalities of access to quality green space and associated health inequalities (Marmot, 2010: 12-13), point towards a consensus in both planning theory and practice that the types of activity individuals and groups engage in at the community-scale, and the types of green infrastructure that provide the setting for these activities, can be significant for the quantum and quality of engagement, and the positive impacts enabled through engagement. This is significant in two ways. Firstly, as one workshop participant remarked at the 'Beyond Greenspace' event in Liverpool in 2015, "what gets measured gets managed". Arguably, the impetus in green infrastructure planning to more effectively record and evaluate the social value and health benefits transferred by high quality green space reflects this feeling amongst actors and agencies tasked with composing an evidence base to defend green infrastructure land use and land value to an over-burdened local authority tasked with reducing public expenditure on non-essential public good and services. The latter is exemplified by the policy drivers behind the publication of the Liverpool Green Spaces Report (2015) which aims to evaluate public green spaces across the district with the aim of more effectively distributing resources to their management.

And secondly, if there is insufficient evidence for green infrastructure 'need' as perceived at the local level, as defined by 'users' of green infrastructure, it may be argued that decisions relating to the delivery of green infrastructure, including type, scale and location, will overstate the findings of other sources, such as green infrastructure strategies focused on the city region or county scale. Such strategic documents are useful insofar as they guide decision makers as to where there are gaps in the green infrastructure network; however, they are limited in their potential to reflect the nuanced 'common values', 'systems of meaning', and 'ways of doing things' (Healey, 2006: 123) of

individual communities at the street-scale and neighbourhood-scale; and therefore, fully explicate the links between access to green infrastructure, health and wellbeing.

In contrast, by creating a definition of CSGI and exploring the 'lived experience' (Glover, 2004) of green infrastructure at the local level, this thesis is building on the literature which identifies 'the community' as empowered 'actor', 'partner' and 'network' (rather than 'user') (Dempsey et al., 2014; Fisher, Svensden and Connolly, 2015; Glover, 2004; Firth, Maye and Pearson, 2011; Brownhill, 2007: 4; Kingsley and Townsend, 2006). Moreover, this thesis also builds on findings from green infrastructure-focused interventions which prioritise the work of community-led groups to create and facilitate access to green space, such as the 'Natural Choices for Health and Wellbeing' (2012) grant programme in Liverpool, coordinated jointly by The Mersey Forest and Liverpool Primary Care Trust, which focused on enabling community groups and projects to lead locally-relevant interventions which improved individual health and wellbeing through access to green space (Wood, Bragg and Barton, 2013).

2.4 Summary

Over the last fifteen years there has been an observable shift in the development and refinement of green infrastructure planning. Initial literature was preoccupied with defining green infrastructure as a distinct approach to planning and land management, extending and problematizing established practices and policies for the delivery and management of open and green space (Benedict & McMahon, 2006; National Research Council, 2004; Mazza *et al.,* 2011; Tzoulas et al., 2007; Kambites et al., 2006; Amati et al., 2010; Thomas et al., 2010; Horwood, 2011). Some academics became associated with critiquing the concept of green infrastructure as an attempt to synthesize a range of complex and values-laden processes and outputs of both policy and practice (Wright, 2011). This thesis purports that the observable shift is from a focus on *what*, to *why* and more recently, *how* we deliver green infrastructure; specifically applying these questions to the context of the community scale. The question of *how* we deliver green infrastructure is the central preoccupation with defining community-scale green infrastructure. As a reconceptualization of environmental volunteering and stewardship, CSGI extends the established advocacy in literature for acknowledging the social and environmental outcomes associated with access to locally-accessible natural green space (Glover, 2004; Dempsey et al., 2014; Fisher, Svensden and Connolly, 2015; Glover, 2004; Firth, Maye and Pearson, 2011; Brownhill, 2007: 4; Kingsley and Townsend, 2006; Ward-Thompson et al., 2011; Richardson and Mitchell, 2010; Hitchings, 2012; Unt and Bell, 2014; Martensson et al., 2014; Doick et al., 2013; Wolch, Byrne and Newell, 2014). Furthermore, by creating a more nuanced picture of activity at the local level, it is possible to address more discretely the types of activity (stewardship, health and wellbeing, education) and approach (governance, partnerships) that correspond with sustained and successful interventions and initiatives; thereby contributing new knowledge to future-facing grant programmes such as the nationally-focused 'Local Food' (2008-2011) programme and the Liverpool-based 'Natural Choices for Health and

Wellbeing' (2012). This nuanced picture of CSGI, which will be explored in Chapter Three, describes the range of groups and activities observable within community-led environmental volunteering; thus providing a thematic framework from which to evaluate the critical components for effective community action. In turn, the thematic characteristics of CSGI operates as an analytical framework for exploring the critical components for success at the community-scale; conceptualized as longevity and resilience in Chapter Four, and empirically explored in the second half of this thesis.

CHAPTER THREE

3. Critical Components of Effective Community Action

3.1 Introduction

In Chapter Two evidence from the literature was drawn together to define community-scale green infrastructure as a specific type of green infrastructure planning, operated at a particular scale. Community action at the local level reframes the work of volunteers, and so community-scale green infrastructure (CSGI) may be thought of as a reconceptualisation of environmental stewardship and volunteering. This builds on research interested in the role of active citizens engaged in community action (Fisher, Svensden and Connolly, 2015; Dempsey, Smith and Burton, 2014; Measham and Barnett, 2007; Connolly et al., 2014).

By proposing CSGI as an equivalent to environmental stewardship and volunteering, community-led management and maintenance of green space is positioned more squarely in the realm of green infrastructure planning and policy-making. Further, by contributing a fuller understanding of the critical components of effective community action, specifically in the context of environmental stewardship and volunteering, this chapter introduces a conceptual framework which can be adopted for subsequent analyses of CSGI activity.

This chapter is therefore concerned with creating a typology of environmental stewardship and volunteering, based on observable characteristics of community action in this area, including: group structure (Section 3.3.1), activity focus (Section 3.3.2.), and approaches to governance (Section 3.3.3); as well as illuminating motivating factors (Section 3.2.1) and barriers to engagement (Section 3.2.4); all of which serve to extend our understanding of CSGI as defined in Chapter One.

3.2 Community Action as Environmental Stewardship and Volunteering
3.2.1 Motivating Factors

Kreutz, Dempsey and Lindholst (2014) offer a succinct definition of volunteering as 'a form of institutionalized unpaid, helping behavior that benefits other people, groups or organisations' and estimate the economic value of formal volunteering in the UK at around £39 (+/-2.5) billion (2014: 117). D'Souza et al. (2011) find that the types of people more likely to volunteer are: 'men; younger people; white people; those with better health; and those with lower levels of deprivation' (2011: 6). And yet, Benedict and McMahon (2006) suggest 'senior citizens' may be more likely to volunteer in community-scale green infrastructure initiatives because of the time they can dedicate to volunteering (2006: 232). Time may be a defining factor in volunteer motivation, however skills and an understanding for the activities involved are also highlighted in the literature as being central to effective action (Measham and Barnett, 2007; Burton, Dempsey and Mathers, 2014: 141).

Research conducted by the Scottish Forestry Trust shows that the motivations of environmental volunteers relate to their desire to work outdoors and increase their awareness of the environment (Kreutz, Dempsey and Lindholst, 2014: 117). Fisher, Svensden and Connolly (2015) cite a body of literature on voluntarism and environmental stewardship which focuses on the role of shared values within voluntary groups, as well as the social benefits of participation (2015: 68). Shared values between volunteers may relate to environmental beliefs, such as the belief that the environment should be cared for and protected by humans (Kreutz, Dempsey and Lindholst's, 2014: 117). Or it may related to social values, such as a sense of 'civic pride' (Fisher, Svensden and Connolly, 2015: 118).

Other studies situate analyses of environmental volunteering in a broader canon of literature focused on the capacity of voluntarism to promote social capital (Measham and Barnett, 2007; Glover, 2004; Wolch, Byrne and Newell, 2014). In this sense, environmental volunteering may equally be discussed in terms of participation and influence over decision-making structures; activities more readily attributed to other, more overtly political civic engagement, such as voting. Fisher, Svensden and Connolly (2015) suggest that 'the political motivations for engaging with all types of urban environmental stewardship programmes require deeper investigation'; particularly in light of the growing evidence base for the role political motivations play in community gardens and urban park and user groups (2015: 71).

Environmental stewardship may therefore be understood as a composite of two equal and opposite feelings, simplistically conceputalised as a 'pull' factor and a 'push' factor. The 'pull' factor describes the relationship between an individual and the environment, the perceptual 'experience of nature and vegetation' (Jansson et al., 2014: 166). These types of 'psychological and spiritual benefits that stem from contact with nature' (Doick et al., 2014: 117) are often described as cultural ecosystem services and are valued for the contribution they make to improved quality of life (Niemela, 2014; Millennium Ecosystem Assessment, 2005). The 'push' factor, on the other hand, describes the sense of duty or responsibility which plays a part in dynamics of civic participation or engagement and 'civic identity' (Fisher, Svensden and Connolly, 2015: 107). Arguably, in the UK context, this 'push' factor has increased since 2011 with interest groups such as the National Federation of Parks and Green Spaces (NFPSG) encouraging the creation of more Friends groups in response to reductions in local authority resources to manage green infrastructure as a result of public sector funding cuts.

Benedict and McMahon (2006) suggest that environmental stewardship 'embodies three concepts: responsibility, care of the land, and management of the land for the benefit of future generations' (2006: 200). The notion of sustained contribution over time is echoed in Fisher, Svensden and Connolly's (2015) investigation into the motivating factors for urban environmental stewards in New York City. They differentiate the characteristics of 'novices' and 'committed stewards'; suggesting

'committed stewards' are motivated by the 'effort sustained over time to contribute positively to the relationship between the city and nature' (2015: 67). In this way, stewards are distinguished from ordinary volunteers by their efforts, over a longer time period, to develop a relationship with a piece of land. In this way, Fisher, Svensden and Connolly (2015) theorise environmental stewardship as a distinct 'civic identity' (2015: 9). Moreover, they categorise environmental volunteering within a wider typology of civic engagement ('all civic activities, including voting and religious affiliations', 2015: 104), and reflect that the volunteer stewards in the MillionTreesNYC initiative were 'statistically significantly more civically engaged than the American population as a whole' (2015: 66).

3.2.2 Value of Environmental Volunteering

This chapter serves to illustrate both the diversity of community action taking place in green infrastructure planning, as well as the vital role played by community-scale voluntary groups in providing alternative means and modes of designing, managing and maintaining of green infrastructure. These findings are significant in a number of ways. As highlighted in the literature, green infrastructure is valued by planners, policy-makers and public health professionals alike for its propensity to deliver a wide range of social benefits (Doick et al., 2013; Zoellner et al., 2011), including opportunities for physical activity (Koppen, Sang and Tevit, 2014; Nordh and Otsby, 2013) and 'opportunities for recreation, recuperation from stress and educational possibilities' (Niemela, 2014). In light of the myriad social benefits accrued from access and use of greenspace, it is a rational deduction that the 'upkeep' (Doick et al., 2013: 117) of facilities is important; hence our central concern with establishing critical components for effective community action, defined in the parameters of this thesis as CSGI groups effectively managing and maintaining local green spaces.

Further, Doick et al. (2013) highlight the central commitment of the UK's Equality Act (2010) to promote equality of access to public goods and services to everyone (2013: 122). This commitment has arguably been compromised by the reduction of public expenditure on non-essential public goods and services, including parks and greenspaces. Furthermore, this is more likely to affect areas with more reliance on the public sector to provide goods and services, such as Merseyside; thereby compounding an already pressurized situation where communities with higher levels of disadvantage and health inequality, and therefore more need for the health benefits provided by green infrastructure, are concentrated in areas with poorer access to good quality green infrastructure.

Green infrastructure is depicted as a crucial mechanism for pursuing planning and public health objectives relating to the health and wellbeing of communities (Marmot, 2010; Liverpool City Region Green Infrastructure Framework, 2013). As a strategic level objective, however, the question of how best to implement green infrastructure to optimise the positive impact on a community's physical and mental health is left unanswered. The literature goes some way to answering the question, however one key theme that emerges is the importance of removing barriers to access

green infrastructure of different types (park, woodland, school playground) and different scales (regional park, neighbourhood scale greenspace), by more effectively designing the aesthetics of a site through introduction of facilities or features which better acknowledge the desires of different user groups (Doick et al., 2013; Nordh and Otsby, 2013; Martensson et al., 2014; Koppen, Sang and Tveit, 2014; Jansson et al., 2014).

3.2.3 Barriers to Engagement

There are barriers which affect people's use of a green space. These barriers are encapsulated in the landscape planning literature as a critique of green space design and negative associations with particular design features and components (Nordh and Otsby, 2013) as well as perceived 'suitability-for use' by different user groups (Doick et al., 2013: 117). In contrast, the public health literature focuses on the unequal distribution of access to different types of green infrastructure (Marmot, 2010; Wood, Bragg and Barton, 2013).

Another consideration affecting the use of green infrastructure is distance. Koppen, Sang and Tveit (2014) focus on the role played by distance as a barrier to engagement in green infrastructure and present a critical appraisal of standard approaches to determining appropriate distances, or proximity, from residents' homes when designing and planning green infrastructure at the neighbourhood and city regional scale. Their findings highlight the importance of public health professionals, planners and policy-makers considering the 'different thresholds and critical distances' of different users groups when considering access, and desired frequency of visits, for optimal impacts on improved physical activity through outdoor recreation (2014: 71). The role proximity to buildings plays in the frequency with which green infrastructure is functional as a site beneficial for physical activity is the focus of Martensson et al.'s (2014) study, which highlights the role of design, aesthetics and proximity in the use of greenery in school grounds; 'settings with a mix of green and built elements in proximity to buildings were well-used' (2014: 103).

Martensson et al.'s (2014) findings are equally applicable to settings other than school grounds such as community gardens which is often characterised by areas for seating and social gathering as much as their space for food growing, in contrast to more traditional food initiatives such as allotment gardens. The role distance plays in determining the use of green infrastructure by different user groups is also the focus of Ward Thompson et al. (2012) who suggest that small sites of green infrastructure close to where people live and work are more important for reducing levels of stress in individuals than larger sites at a further distance.

There is evidence therefore that design, type and distance of green infrastructure can impact on an individual's use of and access to green infrastructure; and studies and policy documents address the subsequent social and health impacts of reduced access and *use*. This thesis, however, is more interested in exploring the barriers to *engagement*, specifically engagement in the management and

maintenance of green infrastructure; and in this way, is less focused on 'community as user' and more focused on 'community as actor' (see Chapter Two, Section 2.2.3).

Doick et al. (2014) suggest that 'time, motivation and mobility are important prerequisites for people to engage in outdoor recreation' (2014: 71). The extent to which these same factors are preconditions for engagement in community-scale green infrastructure activity within the area of The Mersey Forest will be explored in the second half of the thesis. However, it is possible to ascertain that participation in volunteering more generally is determined by an individual's capacity to 'afford' to spend time volunteering, to perceive the value in volunteering, and have access to suitable landscapes for (environmental) volunteering (D'Souza et al., 2011; Doick et al., 2014). We may infer therefore that an individual's experience of health inequality is integral to their capacity for engagement in green infrastructure activity.

Thus, if more can be understood about the health benefits of green infrastructure, more may be understood about the barriers to engagement. Smith et al. (2014) seem to answer this directly with their call for more understanding about the most effective methods to evaluate the physical and physiological benefits of green infrastructure. Without addressing this gap in the academic literature they suggest the rise of health and wellbeing on political agendas, and the substantial evidence citing the link between health and wellbeing and access to open space, will not be as effective as it could be in meeting the potential for application to policy-related evaluation (2014: 169).

Another theme framing barriers to engagement in green infrastructure can be termed as 'the skills gap'. Burton, Dempsey and Mathers (2014) evidence a general lack of skills in the 'green space sector' in the UK as a key issue to meeting the demands for green infrastructure planning (2014: 140-141). This echoes CABESpace's (2009) report five years earlier which first highlighted the lack of professional green infrastructure skills in the UK. In it they suggest the situation is worsened by the insufficient resources allocated to formal green infrastructure training and education, particularly in relation to the delivery of high quality multifunctional green infrastructure.

In contrast, Smith et al. (2014) shift the focus from delivery to long-term management and maintenance. They purport that in the context of place-making, it is widely recognised 'that community involvement requires training to increase community members' capacity to engage with the often complex public sector process' (2014: 64). This is equally valid in the case of environmental stewardship and volunteering, where many groups engaged in community-scale green infrastructure activities ill-prepared for the 'participative processes' involved in managing and maintaining a site which may have complex arrangements relating to ownership and access (Castell, 2013). Additional barriers to engagement in environmental stewardship and volunteering therefore include access to knowledge and skills about decision-making structures and processes; suggesting that governance is a critical component of effective community action.

3.3 Typology of Groups, Activities and Structure

The extent to which the nature of environmental stewardship and volunteering can be surmised from the literature is essential to underpinning our understanding of what characterises community action in green infrastructure. This section is therefore concentrated on creating a more nuanced picture of activity, extending established notions of what constitutes 'user-led' or 'community-led' activity in both policy and practice. Rather than focusing on one discrete type of green infrastructure activity e.g. community gardens (Alaimo *et al.,* 2008; Firth, Maye and Pearson, 2011; Zoellner *et al.*, 2012; Johnson, 2012; Kingsley and Townsend, 2006; Wakefield et al, 2007; Eizenberg, Boyle and Mitchell, 2013), this thesis draws more widely from the full spectrum of activity at the community-scale.

The spectrum of types of group and activity included in this section encompass environmental stewardship and volunteering in community garden settings, but branches more widely to include the activities of Friends groups (woodlands, parks), urban farms, allotments, community woodlands, neighbourhood schemes, planting groups, 'incredible edible' groups, and street tree planting groups. This section will introduce the breadth of activity observable within the literature, supplemented by observations made by the author as an environmental volunteer; allowing an investigation in Chapter Five into the characteristics of CSGI in the context of The Mersey Forest area.

3.3.1. Types of Group

This section will illustrate the diverse range of groups engaged in environmental stewardship and volunteering, with the purpose of creating a more nuanced picture of community-scale green infrastructure than currently depicted within the literature. UK-based green infrastructure policy documents, such as the Liverpool City Region Green Infrastructure Framework (2013), tends to adopt the definition of green infrastructure from national planning guidance (NPPF, 2012) which offers a broad typology of green infrastructure, and therefore tend to group community-scale activities into one category of green infrastructure e.g. 'community garden, allotment and urban farm' (2013: 113).

Friends Groups (e.g. Park groups/Woodland groups)

Friends groups encompass a range of CSGI, including parks (of different scales from city-scale municipal parks to local pocket parks); open spaces (e.g. Millennium Greens, Local Green Spaces); and woodlands (including Community Woodland groups). The unifying characteristic of Friends groups is the role played by community members in designing, delivering, managing and maintaining a local-level, publicly accessible site of green infrastructure alongside public or community and voluntary sector partners, who often remain as the landowner.

Burton and Mathers (2014) depict Friends groups as an example of a 'user-centred place-keeping partnership' where local authorities work closely with community voluntary groups, charities and other non-governmental organisations to deliver and maintain publicly-accessible sites of green infrastructure (2014: 79). They emphasise the 'horizontal relationships' between community partners (environmental volunteers) and local authority partners, and the role of 'formal and informal networks' to capitalise on local knowledge, skills and enthusiasm to enhance social outcomes through community action; for example, levering additional resources to organise local events or increasing levels of perceived safety (2014: 81).

Burton and Mathers (2014) differentiate between the necessary skills for place-making and place-keeping, suggesting that there are greater challenges facing community partners, such as those engaged in a Friends group, who take on the liabilities of long-term management of a green space (2014: 81). They suggest that it is the role of the local authority in a 'user-centred partnership' to recognise a community group's inherent limitations and match their capacity with the appropriate 'type of space and management activities' (2-14: 81). This is a particularly relevant finding for the questions of longevity and resilience which are discussed in more depth in Chapter Four; and the extent to which there is evidence of this working relationship between 'user-centred partnerships' in the area of The Mersey Forest will comprise a central discussion theme in Chapter Five.

The national network of Friends groups in the UK is coordinated by the National Federation of Parks and Greenspaces (NFPGS). NFPGS was founded in 2008 and constituted in 2010, with the main purpose of setting up new Friends groups as the primary mechanism to protect and enhance access to green space (NFPGS, 2014). In their literature they stress the role 'sufficient resources (capital and revenue)' play in supporting Friends groups to manage parks and open spaces, suggesting that access to funding is a critical component of effective community action in the context of user-led partnerships. They also echo the need for 'horizontal relationships' (Burton and Mathers, 2014) suggesting that they aim for 'full involvement' (NSPGS, 2014) of groups in the management of CSGI. Greater involvement by community groups, including Friends groups, in the management and maintenance of local-level green infrastructure is a central theme of the The Big Society ideology as it applies to environmental stewardship and volunteering.

And yet, NSPGS are clearly critical of policy-decisions to reduce funding for local authority-led management, citing the difficult decision local authorities face by choosing 'between parks and other essential public and community services'. Their challenge to this policy direction is that all services 'need adequate funding' (NSPGS, 2014).

Allotment Gardens

The principle green infrastructure function of allotment gardens is the provision of space for urban food production. This is highlighted throughout the literature, including academic (Selman, 2012;

Barthel et al., 2013; Gerodetti and Foster, 2015), and practitioner and policy-focused literature (Landscape Institute, 2009; Liverpool City Region Green Infrastructure Framework, 2013: 91). Selman (2012) categorises allotment gardening as a specific approach to urban food production, describing allotments as 'small non-commercial plots clustered together in groups and leased to individuals by local authorities' (2012: 111). However the additional ecosystem services, or green infrastructure functions and benefits, presented in the literature, include: recreation (Breuste and Artmann, 2014); environmental education (Breuste and Artmann, 2014); biodiversity (Speak, Mizgajski and Borysiak, 2015; Woods et al., 2016); and a source of community cohesion and identity (Speak, Mizgajski and Borysiak, 2015). A theme running through the literature is that there has been a resurgence in the popularity of allotment gardening in recent years, as a 'grow your own' counter-culture movement in reaction to perceptions of the 'costs' of intensive food production, implying negative costs for all ecosystem services (Everard, 2011: 72-73).

Speak, Mizgajski and Borysiak (2015) bring a different focus to their evaluation of allotments, emphasising the role of structure and governance in shaping the experience for community members (2015: 2). They highlight their physical status as 'neither a private nor a public space but simultaneously both; it is partly private as is it rented by an individual and it is public because it is an exposed space and has rules and regulations imposed on it' (2015: 2). This is also the case with community gardens, where community residents can be members, or non-members. Furthermore, members can achieve differential status as 'core members' (Glover, 2004); and in the case of allotments, members can become committee members. These findings suggest that the structure and governance of a site of green infrastructure can have a significant role in determining the experience of members. In turn, a member's experience is likely to shape their decision-making about whether to continue volunteering. As such, governance, structure and membership are highlighted in this thesis as critical components of a group's effectiveness in retaining group members to effectively achieve its vision and objectives.

Barthel et al. (2013) propose that 'collectively managed gardens function as "pockets" of social-ecological memory in urban landscapes by storing the knowledge and experience required to grow food' (2013: 145). They discuss the important role this social-ecological knowledge can play in supporting communities, illustrating the historical role allotment gardens have played in providing 'food security' to local communities (2013: 145). Further, they conceptualise this function as a mechanism for enhancing 'local resilience' (2013: 145). Resilience is explored in more depth in Chapter Four (Section 4.5) when we consider how access to social capital affects a CSGI group's capacity for adaptation and transformative change; adopting 'new and different' activities or group structure to suit changing circumstance, rather than discontinuing efforts (Tidball and Krazny, 2013).

Community Gardens and Community/Urban/City Farms

Selman (2012) compares city farms and urban farms with community gardens, emphasizing their role as educational facilities for local communities, rather than significant sources of food-production, (2012: 111-112). In spite of the dramatic rise in the popularity of community gardening over recent years, Zoellner et al. (2012) suggest that there remain gaps in academic understanding as to the 'potential impacts of community gardens across numerous levels of influence' (2012: 163). Wood, Bragg and Barton (2013) offer more understanding about the social impact of community gardens, including the role they play in positively contributing to participants experiencing higher than average levels of health inequality, with their evaluation report of the 'Natural Choices for Health and Wellbeing' (2012) grant programme funded and supported by The Mersey Forest and Liverpool Primary Care Trust. Of the 38 projects which received grant funding, over half were focused on food-growing through the creation of a community garden facility.

Literature focusing on the social impact of community gardens tends to concentrate on their role in enhancing levels of social capital within the communities they serve. Kingsley and Townsend (2007) found that membership of a community garden transferred a range of benefits to members including 'social support, connections and networking' (2007: 534). Kingsley and Townsend (2007) offer the following summary of the dynamics observable in a community garden setting to explain how it contributes to social capital: 'increased social cohesion (the sharing of vales enabling identification of common aims and the sharing of codes of behavior governing relationships), social support (having people to turn to in times of crisis) and social connections (the development of social bonds and networks)' (2007: 525). In Glover's (2004) study the community garden is theorized as both a 'consequence' and 'source' of social capital; highlighting its function as a particular type of community-scale green infrastructure in creating a focal point for strengthening social connections among neighbours, as well as taking on the status of being the outwardly visible product of such networks (2004: 156).

A limitation identified in Kingsley and Townsend's (2007) study is the fact that they did not observe an extension of social exchanges associated with social capital beyond the setting of the garden (2007: 534). Glover's (2004) critique of the community garden focuses on examples of unequal access to social capital exemplified in their study. They refer to social structures being 'appropriable', suggesting that there was evidence that not everyone in the network was equally able to enjoy the same levels of social capital produced by the community garden; highlighting in particular that this differentiation accentuated, rather than corrected, existing inequalities for certain groups, such as disadvantaged social groups (2004: 156-157). The potential explanation behind this differentiation of social capital accessibility within social networks facilitated by community-scale green infrastructure will form a substantial discussion in Chapter Four. For now, it suffices to say that social capital is a strong theme in the community garden literature.

The opportunity for informal education and learning within community gardens is a key theme in the literature. Walter (2013) frames community gardens as 'pedagogical sites' facilitating 'informal adult learning' in an environmental education setting (2013: 521; 535). This finding concurs with Wood, Bragg and Barton (2013) who attribute increases in levels of wellbeing in participants the 'Natural Choices for Health and Wellbeing' (2012) grant programme partly to the provision of opportunities to 'keep learning', including through 'skill and knowledge sharing and educational sessions to learn about nature and their local environment' (2013: 5).

In this way, community gardens and community farms exemplify the 'drivers' for volunteering identified by D'Souza et al. (2011) in their report for the Department of Culture, Media and Sport. It is this reciprocal benefit experienced by volunteers, including those engaged in CSGI activities, which is significant for this thesis. The literature suggests that volunteering is experienced by individuals as an exchange (D'Souza et al., 2011), for example skills and knowledge are exchanged for time. The propensity of a group to offer an attractive exchange over time may therefore prove to be a critical component for effective community action. Whether this proves to be a significant factor within the sample area is explored further in the empirical chapters of this thesis.

Health and Wellbeing Initiatives

In recent years there has been a plethora of publications, in both academic and practitioner-focused journals, establishing associations between improved green infrastructure and improved levels of health and wellbeing. The studies range in their disciplinary focus e.g. transport planning (Fischer, 2014), environmental law (Dunn, 2010), ecology (Jorgensen and Goster, 2010; Tzoulas et al., 2007), public health (Wakefield et al., 2007; Zoellner et al., 2012; Ward Thompson et al., 2012); and in the type and scale of green infrastructure intervention they focus on, from qualitative case studies (Kingsley and Townsend), to city-scale evaluations of public-sector led funding programmes (Wood, Bragg and Barton, 2013). They also offer different methodological approaches to establishing an association: some studies adopt laboratory-based methods to establish the relationship between different types of green infrastructure and levels of stress (e.g. Annerstadt, et al., 2013), and others adopt ethnographic methods to establish the propensity for green infrastructure to improve wellbeing (e.g. Glover, 2004).

Although there is evidence of a diversity of approaches within the literature, a predominant theme that emerges is the association between gardening, food growing and health and wellbeing. For example, Wood, Bragg and Barton (2013) suggest that 43% of the projects included in their evaluation of 38 projects receiving grant funding for nature-focused health and wellbeing initiatives had as their primary objective the production of food. This may be explained by the resurgence in 'grow your own' food movements in urban communities, suggesting that the popularity of food-focused projects in this initiative and others are the 'consequence' (Glover, 2004) of a wider cultural turn (Selman, 2012; Everard, 2011). However, it could equally be argued that funding initiatives like

'Natural Choices for Health and Wellbeing' (2012) in Liverpool, and the Big Lottery Fund's 'Local Food' (2008-2014) initiative nationally, are the 'source' (Glover, 2004) of community-scale activity; and community organisations who would otherwise design interventions in response to identified social need and health inequalities, begin to focus their creative efforts on green infrastructure-related projects in response to wider cultural (food, environmental education) movements (Walter, 2013).

Another type of CSGI which may be defined as a subset of health and wellbeing initiatives is environmental art and environmental therapy. Although there is some evidence of the discrete use of art to assess the outcomes of environmental education (Flower et al., 2015); art therapy as an approach to enhance an individual's feeling of wellness through engagement in creative activities in natural settings may be categorised as discrete type of health and wellbeing approaches encompassed by public health disciplines which evidence the effect of access to green infrastructure on physical activity and resultant health and wellbeing (Ward Thompson et al., 2012; Koppen, Sang and Tevit, 2014; Nordh and Otsby, 2013).

There are discrete examples where CSGI initiatives have been designed and implemented in response to a particular user group. In 2014 Rotunda Community College, a community-led centre based in Kirkdale in Liverpool, partnered with perfumer Jo Malone London, to facilitate a calm and supportive environment for people experiencing mental illness, emotional distress and anxiety (The Mersey Forest, 2016a). Additional support and funding were provided by The Mersey Forest and Biffa Award, and the resultant CSGI asset delivers health and wellbeing benefits, as well as attracting wildlife and providing a space for informal environmental education. The Kirkdale example serves to show how CSGI sites can be valuable sites of multi-functional green infrastructure, as well as highlighting Dempsey, Smith and Burton's (2014) preferred partnership approach to long-term management of green infrastructure.

Alleyway Greening Projects

In terms of delivering small-scale green infrastructure close to where people live, alleyway greening projects are perhaps the equivalent of domestic gardens in providing green infrastructure benefits to people in an urban setting. Alleyway greening is highlighted in the as a way to 'expand green infrastructure and promote urban sustainability' (Newell et al., 2012: 1). Further, as a discrete type of environmental stewardship and volunteering, alleyway greening is a focus of organisations working within the community and voluntary sector to design and deliver green infrastructure interventions.

In 2014, Groundwork Manchester, Salford, Stockport, Tameside and Trafford (Groundwork MSSTT), a not-for-profit trust, initiated an alleyway greening project in Barton, Greater Manchester with the aim of improving community residents' access to multi-functional green infrastructure close

to where they live. Their approach included engaging community residents in the design process of nine separate alley ways, introducing the mechanism of an informal residents group to allow the project to be as community-led as possible; identifying 'core residents' to assist project coordinators in involving the wider community (Groundwork, 2016). Groundwork were responsible for organising training opportunities for community residents as part of the initiative, to allow residents to learn the basic green infrastructure skills needed to maintain the alleyway planting.

The Barton Alleyway Greening Project case study is therefore an exemplification of Dempsey, Smith and Burton's (2014) conceptualisation of 'place-keeping', in this case initiated by 'third and community sector resources' (2014: 115). Newell et al.'s (2012) echo Groundwork MSSTT's experiences suggesting that unless alley greening is initiated by the public sector (e.g. 'city departments with responsibilities for public infrastructure maintenance and enhancement') it is 'environmental nongovernmental organisations' (2014: 11) who take a leadership role.

Urban Agriculture/ Urban Horticulture Groups

Selman (2012) defines urban agriculture as 'a way of reconnecting communities with their productive landscape' (2012: 112). Furthermore, Selman (2012) suggests that urban agriculture has the potential to increase food security for communities by providing 'economic and physical access to a supply of food, sufficient in both quality and quantity, at all times, regardless of climate and harvest, social level and income' (2012: 112). Although, this is perhaps an exaggeration of the potential of urban agriculture in the scale at which it is currently being deployed in our towns and cities, the perspective is useful insofar as it highlights the need for access to suitable land or buildings to develop growing schemes close to where people live.

Examples of urban agriculture projects in the Northwest of England tend to converge green infrastructure development with significant capital investment, exemplified by 'Wirral Waters' (Wirral Waters, 2016) in Merseyside, which utilises green infrastructure as the context for attracting inward business investment to redevelop brownfield sites. Another example is the 'Biospheric Studio' (Biospheric Studio, 2015) in Salford, a £400,000 urban agriculture-led research project which attempted to combine high-technology food production (e.g. aquaculture in a converted industrial warehouse) with community education, selling produce in the ground floor of a high-rise tenement block in the surrounding social housing estate. Although the project received £300,000 in sponsorship money from Salford City Council, it was bankrupted in 2015 (Salford Star, 2015).

In theory, the 'Biospheric Studio' project matched with Selman's (2012) imaginations of urban agriculture's credentials over more 'mainstream' agriculture – highlighting the role local people can play in production, and the reduction in 'food miles' by marketing produce at local outlets. However, in practice, there was arguably a lack of sufficient understanding about the barriers to engagement facing residents from a neighbourhood with high levels of deprivation and health inequality, and

historically poor access to fresh food. As such, the initiative faced criticism about the levels of investment made in a project with relatively little community support on the ground; serving to exemplify the importance of CSGI groups being 'led' by community actors as a preference, and as a secondary alternative, being led by a community-organisation which has invested time building up trust in a particular 'place-based' or 'interest-based' community (Firth et al., 2011).

Guerrilla Gardening

Guerilla gardening is an expression of emergent approaches to activism in the alternative food movement, and describes the activities of individuals and groups who introduce plants (usually edible) to land (usually in an urban context) without approaching the landowner to establish legal rights to do so. The land is usually characterised by a lack of regular maintenance, and in terms of social benefits would be criticised as performing poorly as a site of multifunctional green infrastructure. The efforts of guerilla gardening, and other forms of 'radical gardening', have received increasing attention in recent years, including from non-academic sources such as journalism (Howard, 2014; Allen, 2014). Allen (2014) argues that the outcomes associated with guerilla gardening, in particular the aesthetic quality of planting, is poor compared to other mechanisms for more formalized community-led planting, such as the Britain in Bloom competition. However, Adams, Scott and Hardman (2013) argue that guerilla gardening is one example of community members adopting 'innovative practices' to 'deliver significant societal and environmental benefits' (2013: 375). They propose that such community-led practices offer an alternative route for individuals to design and shape their local environment, outside of the often prescriptive and constraining processes utilised in planning for ordering and managing space (2013: 375), in order to realise the 'full potential multifunctionality of land' (2013: 383).

Another example of community-led 'radical gardening' at the local level is activity of the 'Incredible Edible' network. The idea for 'Incredible Edible' started in Todmorden, Yorkshire in 2007, and the concept has been adopted by 100 community groups across the UK (Incredible Edible Network, 2016). The model offers three main focuses for activity: food production, preferably as close to where people live and work as possible, including on dis/under-used urban land; education through training, mainly informal learning opportunities as volunteer participants; and a commercial focus, which aims to improve the local economy through positively influencing the market for fresh, locally-produced food. The potential of the model to influence social networks and community capacity through people accessing land and food in a more public domain than allotments of domestic gardens is also inferred. The 'Incredible Edible Network' website, part-funded by voluntary and community sector organisation 'Locality', who work to create links between community-led organisations in the UK, offers volunteers engaged in the movement a range of resources, including a 'Resource Kit for Happy Volunteers'; suggesting that as an approach to 'place-keeping' (Dempsey, Smith and Burton, 2014), the important role played by structure and

governance is integral to the model. There are currently no academic studies focused on evaluating the social and environmental impacts of the 'Incredible Edible' movement as an organized form of guerilla gardening, although it remains a popular topic of discussion in both television and newspapers. The essence of the movement is frequently captured as an expression of civic engagement and 'civic pride' (Williams, 2013), suggesting that the community-led approach of the 'Incredible Edible' activities may represent a palatable alternative to more radical forms of guerilla gardening; for example 'Incredible Edible' groups are encourage to seek permission before planting, and work in partnership with public and private sector landowners).

Urban Foraging

McLain et al. (2014) describe the act of foraging for "wild" food in an urban setting as a 'subversive' practice which challenges perceptions about *who* and *how* urban environments are shaped by and for (2014: 220), echoing Adams, Scott and Hardman's (2013) conceptualization of guerilla gardening as an 'innovative' or 'radical' planning practice. The central theme of McLain et al.'s (2014) study is a criticism of the disjuncture between the 'vibrancy' of foraging activity observable at the community-scale, and the dissuasive tone of planning policy and regulation in response to such informal and unregulated environmental practices (2014: 220). The diversity of participation recorded by McLain et al. (2014) is useful to consider how accessible different types of CSGI activity are to different social groups. Across five case studies they recorded a balance of genders, an age range spanning from under 5 years to over 70 years, and a wide range of ethnic origins (2014: 226).

In terms of motivating factors, McLain et al. (2014) highlight the health benefits of eating fresh food; the quality of life associations with eating food which has a better flavor; desire for new recreational and leisure activities; and the opportunity to feel connected to and caring for the local environment (2014: 230-231). In this sense, McLain et al.'s (2014) findings suggest that foraging groups may be regarded as a type of environmental stewardship and volunteering (Fisher, Svensden and Connolly, 2015), as well as a mechanism for accessing the 'five ways to wellbeing' (New Economics Foundation, 2008). An additional outcome highlighted by McLain et al. (2014) is the opportunity for 'knowledge production and sharing' at the local level (2014: 231-232), reflecting Walter's (2013) theorisation of community gardens as sites for learning. Perhaps the key difference between community gardens and urban foraging groups as types of CSGI therefore is the level of formality in their structure and governance. As a site-focused activity, community gardening is associated with the structure of a group and processes of membership (Glover et al., 2004); in contrast, foraging activities can be associated with an informal group membership (McLain et al., 2014: 220) or conducted in an ad hoc manner by individuals.

The rise in popularity of urban foraging in recent years in the UK, particularly the activities conducted outside of formal 'expert-led' walks (e.g. walks led by a conservation organization such

as the Wildlife Trusts), has led to a number of local authorities seeking limitations on the amount of disturbance caused by foraging. The most widely reported example is the case of Bristol City Council who received a number of complaints in response to their decision to make legislative changes to a set of byelaws affecting the city's parks and green spaces. It was widely interpreted that part of the changes being implemented would limit or ban foraging – prompted by the wording of one new rule which would prohibit people from removing "the whole or any part of any plant, shrub or tree" (Bristol Post, 2015). The decision taken by Bristol City Council was reported as an infringement of rights for access to public goods and services provided by nature media (Brouillette, 2016; Agency, 2016; BBC News, 2016b); highlighting the social and environmental outcomes widely associated with free access to green infrastructure, as well as the potential commercial outcomes of accessing "wild" foods for those engaged in environmental education or the food industry (Agency, 2016).

Domestic Gardens, Residents Associations and Street Tree Planting

One change which characterizes the fundamental shift from open and green space planning to green infrastructure planning is the inclusion of all types of land delivering ecological value, including domestic gardens (NPPF, 2012). Domestic gardens are vital to realise the connectivity potential of a green infrastructure network, and their proximity to where people live means that they have a particularly important function in providing opportunities for recreation and relaxation, and are therefore associated with a range of green infrastructure benefits including quality of life and health and wellbeing. There is also evidence that access to green infrastructure, including a green setting for homes, is linked to higher land and property values (Forestry Commission, 2010: 20; RICS and University of Aberdeen, 2007; GLA Economics, 2003). Selman (2012) highlights the role of domestic gardens in producing fruit and vegetables at the local level (2012: 112), suggesting that domestic gardens may also contribute health benefits associated with improvements in levels of physical activity (e.g. gardening) and access to fresh food.

In CSGI terms, enhancements made to domestic gardens may contribute social and environmental outcomes if the focus of a household's efforts are on land which faces onto a neighbourhood setting, such the front gardens or alleyways of terraced housing. In the case of alleyway greening there is evidence that informal resident groups can assist with the community cohesion aspects of this type of CSGI (Groundwork MSSTT, 2014). Similarly, The Mersey Forest's 'Green Streets' street tree planting programme reported enhanced levels of community pride and cohesion where street trees were planted by facilitated groups of residents in areas with high levels of social and economic deprivation (The Mersey Forest, 2013). These findings echo CABESpace (2005), who published guidance on the design of residential interventions a decade before, suggesting that: 'even with very limited resources, in the densest terraced environment, greener streets can be viable and valuable; a community-driven process can result in very high success rates and low vandalism; enthusiastic

community engagement can increase the social life and cohesion of less popular areas; and people living on streets that have been greened have reported higher house prices than those in nearby streets that haven't been through the same process' (2005: 56-57).

In the case of formalised CSGI activities organised through a constituted residents association, outcomes and objectives are set by the group members; however there is currently little evidence as to the success CSGI groups have in making the social capital accessible to non-members (Glover, 2004). This suggests further research is needed to establish the success of such types of CSGI in contributing to social capital both within group structures, as in the case of residents associations and alleyway greening or street tree planting projects, and outside of the framework of a formal group structure, as in the case of individual residents greening the front of their house or enhancing the ecological value of their private garden through 'wildlife friendly' approaches.

3.3.2. Types of Activity

As illustrated by the types of group engaged in CSGI, there is a broad range of activities being delivered through CSGI at the local level. However, it is possible to identify a number of themes within the range of activities to suggest a more discrete list of types which therefore characterize the community-scale in green infrastructure.

The literature could be categorized by descriptions of green infrastructure as defined by *scale* e.g. site scale (Martensson, 2014); neighbourhood scale (Newell et al., 2012); and *typology* e.g. woodland (Doick et al., 2013); public parks (Heritage Lottery Fund, 2014). However, this thesis brings together both these descriptors and presents a definition of community-scale green infrastructure as a concept which integrates the scale and type of activity pursued by one particular 'user group' – voluntary groups and projects focused on the creation and enhancement of a site/s of green infrastructure within a defined community. This 'creation and enhancement' is itself a nuanced typology of activities; and it is the focus of this section to exemplify in more detail the range of activities which make up community action within CSGI.

In part, the capacity of groups to pursue certain activities is promoted or limited by the scale of environmental stewardship and volunteering characterized by CSGI. Jim and Chen (2003: 1) suggest that 'day-to-day contact with nature' is one of the most significant contributions of the 'neighbourhood scale'; a proposition which supports Ward Thompson et al.'s (2012) finding that access to green infrastructure close to where people live and work is the most significant in terms of health benefits, regardless of its size or scale. The role of 'contact with nature' is also highlighted in Doick et al. (2013), who specifically cite benefits accrued to the individual, including 'psychological and spiritual benefits' and 'improved quality of life'; suggesting social benefits, which accrue to users and non-users alike, are rarer and are possibly limited to aesthetic benefits (2013: 117). Other studies emphasise the role green infrastructure plays in creating opportunities for communities to

take collective action to connect with and enhance a shared environment, such as Glover (2004) who investigates the influence of a community garden on levels of social capital within a community.

Throughout the literature there is evidence that environmental stewardship and volunteering can enhance an individual's connection with their local environment and with their community, through knowledge sharing and learning activities (Walter, 2013; Wood, Bragg and Barton, 2013; Niemela, 2014; Breuste and Artman, 2014). Learning is often tailored to suit the requirements of a particular CSGI group; and can reflect the level of formality by which a group approaches its activities. For example, a Friends group may benefit from formal training to undertake specific green infrastructure management tasks initiated by a local authority within a 'user-centred model' of delivery (Burton and Mathers, 2014: 79); whereas a foraging group (McLain, 2014) or a guerilla gardening group (Adams, Scott and Hardman, 2013) may adopt a less formal, ad hoc, approach to knowledge sharing, dependent on the particular participants present on the day.

One type of learning and informal education activity, arguably taking centre stage as a key driver of activity at the community-scale in recent years, is access to land for food growing. In particular, community gardens are a predominant type of CSGI highlighted in the literature for their potential to transfer both individual health and wellbeing outcomes (e.g. physical activity, reduction of social isolation) and social outcomes (social capital, community cohesion, perceptions of safety). Food growing initiatives can be place-based or interest-based in their focus (Firth et al., 2011); and Jerome (2012) argues that an additional category shaping the nature of activity within local level food growing initiatives is the impact of individual personalities (i.e. 'people-based'). These exploratory themes will be expanded in more detail in the empirical chapters; however, in the context of establishing critical components for community action, the literature focusing on food growing at the local level provides additional evidence that governance, membership, and group structure have an important role to play in the experiences of environmental volunteers within CSGI groups.

As previously discussed (Section 3.3.1), there is a clear focus in the literature on activities which deliver benefits for health and wellbeing though green infrastructure. This reflects Marmot's (2010) policy guidance on the social determinants of health; including the recommendation to reduce health inequalities by 'improving' and 'making available' quality open and green space available 'across the social gradient' (2010: 12-13). It further reflects the shift in planning to more effectively deliver the health outcomes identified in strategic policy documents focusing on the local level, including the joint strategic needs assessment (Morphet, 2011). As such, there is evidence that CSGI groups have shaped their activities to meet the demands of both policy guidance, and moreover, to reflect the drivers identified in funding initiatives such as the 'Natural Choices for Health and Wellbeing' (2012) grant programme in Liverpool. The range of activities which can be described as supporting health and wellbeing include those focused on engaging volunteers in physical activity, such as walking in nature, as well as those engaging volunteers in creative activity, such as writing in nature.

The range of activities observable arguably reflects the consensus across the literature that 'being active' in a natural setting, and relaxing in a natural setting, can enhance the outcomes for levels of physical health and mental wellbeing, as compared to activities pursued in less natural settings (Breuste and Artman, 2014).

The 'Five Ways to Wellbeing' public health framework (New Economics Foundation, 2008), suggests that there are five key themes to include in the design of public health interventions: 'Connect' e.g. connecting to your local community through the sharing of knowledge and skills; 'Be Active' e.g. increasing fitness by becoming more physically active; 'Take Notice' e.g. improving mental wellbeing through finding ways to have contact with nature; 'Keep Learning' e.g. learning more about the local environment by sharing knowledge and skills; 'Give' e.g. reducing isolation and increasing cooperation through environmental volunteering (Wood, Bragg and Barton, 2013: 5).

In 2011 the UK Government decided that public health considerations and outcomes would become mainstream objectives for all planning processes with the publication of their white paper on public health 'Healthy Lives, Healthy People' (Morphet, 2011). As such, in planning terms, there is arguably more opportunity to influence public health objectives as they relate to the built environment. The mechanism for ensuring collaboration between planning and public health was secured through the introduction of an enhanced local joint strategic needs assessment (JSNA), which 'identified the key issues affecting the health and wellbeing of local people, both now and in the future' (Liverpool City Council, 2016).

In Liverpool the findings from the JSNA have provided an evidence base for the creation of a 'Health and Wellbeing Strategy 2014-2019' (Liverpool City Council, 2014b). The document is partly framed by the 'five ways to wellbeing' (New Economics Foundation, 2008), but significantly, there is no reference in the document to green infrastructure, nature, or spending time outdoors. There is reference to 'being active' and the benefit/s this can provide for physical and mental health (2014: 19), but the link is not made to enhancing the benefits of physical activity by exercising outdoors; an association evidenced in the literature (Annerstadt et al., 2013; Tzoulas et al., 2007; Wood, Bragg and Barton, 2013; Forestry Commission, 2010). In Liverpool, where 70% of the adult population are part of the 10% of adults experiencing the poorest health in England (Liverpool JSNA, 2008), it is important to note that the benefits of physical activity outdoors are even more significant for individuals in areas of higher levels of disadvantage (Ward Thompson et al., 2012; Mitchell and Popham, 2008; Mitchell and Popham, 2007). The link between the quality the of the built environment and health inequalities is highlighted in literature exploring the role CSGI activity can have on amenity provision and neighbourhood improvement, for example through alleyway greening (Newell et al., 2012; Groundwork MSTFF, 2014) and street tree planting (CABESpace, 2005; The Mersey Forest, 2013). Additional activities can be attributed to the same types of CSGI, such as levering improved levels of community cohesion and social capital (CABESpace, 2005: 57;

Glover, 2004; Firth et al., 2011) which may be the focus for a group in an area with high levels of anti-social behavior and vandalism.

It is noteworthy that opportunities to enhance learning, social connection and pursue environmental opportunities are not discussed in the Health and Wellbeing Strategy (2014b: 24); thereby potentially limiting the effectiveness of the JSNA in identifying opportunities to enhance levels of health and wellbeing through the design, implementation, or long-term management of green infrastructure at the local level

3.3.3. Types of Structure

The final theme characterising the typology of CSGI is 'structure'. This section therefore describes the range of approaches taken by groups take to coordinate the delivery and management of local-level green infrastructure. The broad differentiation between groups is between formal and informal approaches to structure. For example, Friends/User groups (including the categories of Friends of Park groups, Friends of Woodland groups, and Community Woodlands) adopt a formal constitution and elect officers to lead a group through processes of decision-making and fund-raising, and to remain accountable to external stakeholders, such as local authorities (who often act as landowner) and community organisations, invested in the activity of the group. In contrast, guerilla gardening groups are characterised by non-hierarchical and 'subversive' practices (McLain, 2014), which sit outside of normal planning practices and typologies of open and green space management, and to some extent, outside of the broadened typology of green infrastructure planning (NPPF, 2016).

To some extent, it is arguable, that groups and projects engaged in environmental volunteering shape their structure in response to external drivers, rather than an implicit social or moral code set by the members. For instance, there are examples of charities and not-for-profit community organisations - whose core mission is social or health-focused, but unrelated to green infrastructure - creating the structure for a CSGI group. There are potentially two drivers for this phenomenon: the mounting body of evidence highlighting the health benefits of green infrastructure; or a funding opportunity such as the Big Lottery Fund's 'Local Food' programme (2008-2014). In these cases, it may be argued, that the resultant CSGI is characterised by 'project-based' activity, rather than 'group-based' activity; where a 'group' is understood to be the group of volunteers who initiate a CSGI intervention, rather than the body or organisation who are responsible for gathering a group of volunteers to lead on an intervention.

Another key type of structure is a 'user-led partnerships' model, most clearly defined by Dempsey, Smith and Burton (2014). As a direct response to the growing challenge to allocate sufficient resources to the management of green infrastructure (NFPGS, 2014), Dempsey, Smith and Burton (2014) evaluate different approaches to 'place-keeping' – long term open space management – identifying good practice case studies from the UK and globally. Their findings suggest that

'inclusive partnerships' are essential to achieving the objectives of high quality green infrastructure, as set by all interest-groups including landowners and community members. Drawing on Dempsey, Smith and Burton's (2014) findings, and comparing with other examples from the literature, it is possible to suggest an extensive range of potential models for securing the sustainable management of green infrastructure: local authority-community partnerships (Burton and Mathers, 2014: 80), private-community partnerships (The Mersey Forest, 2016); public-private partnerships built on existing community organisations to establish community representatives (Smith et al., 2014: 73); social enterprises (Burton, Dempsey and Mathers, 2014: 142). Each model is distinctive in the mechanisms it adopts to facilitate community-involvement in decision-making, or in the case of 'user-led partnerships', to ensure that groups receive the support they need.

Smith et al. (2014) suggest that there is still 'considerable uncertainty in the expectations around responsibilities that can be undertaken by communities' in the context of long-term green infrastructure management (2014: 65); in spite of efforts by interest groups such as NFPGS promoting the capacity of all communities to set up a Friends/User group in response to reduced funding to manage open and green space at the local level. Smith et al. (2014) also highlight the need for more training to 'increase community members' capacity to engage with…complex public sector processes' (2014: 64), further weakening the NSPGS's (2014) aim for all of the UK's parks and greenspaces to be represented by a Friends group. Put simply, *who* will provide the training for these groups? And without such training, what is the likelihood a CSGI group will meet the capacity it needs to be effective, and achieve longevity and resilience?

As such, the role social capital plays in enhancing or diminishing a group's capacity for effective community action, and longevity and resilience, forms the focus of the next chapter. However, in the different structures adopted by CSGI groups, this section has illustrated that approaches to 'governance' and mechanisms for 'support' are central to our understanding of what constitute the critical components for effective community action within different types of CSGI.

3.4 Summary

Benedict and McMahon (2006) suggest that there are critical components to address if a group tasked with leading a green infrastructure initiative is likely to succeed in its objectives (2006: 90-91). It is interesting to reflect on their selection, partly to ascertain whether there is support for similar interpretations of leadership qualities in other literature relating to green infrastructure planning; and partly to utilise these critical components at a later point in our analysis of what constitute as critical factors for longevity and resilience in community-scale green infrastructure. The components identified by Benedict and McMahon (2006) relate to the following five areas: *representation* (a group should be representative of all interests of the community or affected area); *size* (a group should be 'large enough to represent all stakeholders but small enough so that everyone can play a role'; *clear expectations* ('a written vision and/or mission statement and work plan are essential in keeping the group on track'); *regular meetings* (to enable a group to 'keep up

momentum' and 'established checkpoints for assessing progress, reevaluating strategies and changing plans and priorities as needed'); *motivation* (commitment is essential to achieve the mission and vision; celebrating milestones and accomplishments along the way can help continue momentum') (2014: 90).

Benedict and McMahon's (2006) five components for effective leadership in green infrastructure planning represents a valuable framework for further analysis and provides insight into potentially transferable findings for evaluating lived experiences of groups engaged in community action, with specific focus on what factors and forces contribute positively or negatively to longevity and resilience of activity at this scale. The four components relating to structure and governance of groups engaged in community action - 'representation', 'size', clear expectations' and 'regular meetings' - are broadly explored in this chapter in Section 3.3.1 and Section 3.3.3. However, the role structure, support and approaches to governance play in contributing to a group's longevity and resilience is worthy of more in depth exploration, and so constitute analytical themes to integrate into the research design introduced in Chapters Five and Six. 'Motivation' is explored in this chapter in the context of 'motivating factors' (Section 3.2.1) for engagement in environmental volunteering as a discrete type of community action; 'types of activity' (Section 3.3.2) which groups elect to shape their organization around, reflecting the motivation of different user groups and preoccupations of actors from different geo-spatial and socio-economic groups; as well as in Section 3.2.4 describing a range of factors which are perceived as 'barriers to engagement' in community action.

In summary, this chapter illustrates the diversity of community action taking place in green infrastructure planning, as well as the vital role played by community-scale voluntary groups providing alternative means and modes of designing, managing and maintaining of green infrastructure. In other words; *who* are the actors engaged in these processes, *how* are they being engaged; and in the context of CSGI, how are community actors participating, and *to what end*? The questions of *who* and *how* have been addressed in this chapter; and the question of *to what end* comprises the focus of the next chapter. Chapter Four is concerned with constructing a narrative around the capacity of the community-scale to operate social capital, and how the critical components for effectiveness highlighted in this chapter - activity focus, governance, membership, access to funding and support – play a part in determining a group's capacity 'success', defined in this thesis as longevity and resilience.

This chapter serves to show that the picture of community-led activity at the local-level is much more nuanced, both in the type of green infrastructure being delivered and the scale of delivery. This is a significant contribution to the literature which tends to focus on the activities of 'allotments, community gardens and urban farms' (Liverpool Green Infrastructure Framework, 2013: 113; Glover, 2004; Firth et al., 2011; Zoellner et al., 2011; Kingsley and Townsend, 2007; Speak,

Mizgajski and Borysiak, 2015; Woods et al., 2016; Barthel et al., 2013; Gerodetti and Foster, 2015; Breuste and Artmann, 2014). Across the types of CSGI group and activity observable in the literature, it was also possible to identify common themes which describe the challenges facing community groups, and the mechanisms being adopted to overcome these challenges and barriers to engagement at the community-scale.

As such, five critical components for effective community action, in the context of CSGI, have been identified: *governance* (approaches to group structure and the processes of decision-making adopted by a group to create and manage CSGI); *membership* (whether a group has an open or closed approach to membership; and whether the CSGI reflects a 'place-based', 'interest-based' or 'people-based' community) (Firth et al., 2011; Jerome, 2012); *funding* (approaches to securing the necessary resource to deliver and manage CSGI; including approaches to partnerships with local authorities, community and voluntary sector, or private partners); *support* (capacity to draw on and add to local networks; access and increase social capital; approaches to engaging wider stakeholders, including non-members from the community and strategic partners such as landowners or funders); *activity focus* (whether a group is site-focused or group-focused; green infrastructure functions and benefits associated with activity).

CHAPTER FOUR

4. Longevity and Resilience of Community-Scale Green Infrastructure - The Role of Social Capital

4.1 Introduction

This chapter is relevant to both central research questions and as such has two key objectives. Firstly, in reference to *what constitutes community-scale green infrastructure*, it will explore social capital as a theory for conceptualising the strengths of social ties and connections, and the outcomes derived from these connections to individuals and communities. Secondly, in relation to *how community-scale green infrastructure achieves longevity and resilience activity,* it will outline perspectives from the literature on the potential for environmental volunteering to create social capital; and discuss how social capital is a driver for increased longevity and resilience.

The previous chapter was concerned with describing the characteristics of environmental stewardship and volunteering in detail, outlining a range of group structures and activities observable in both literature and through the author's experience of environmental volunteering. This chapter builds on these findings by looking for further clues as to the characteristics of environmental volunteering in the social capital literature. In addition, the concepts of longevity and resilience are introduced as a conceptual analytical framework for investigating further the phenomena responsible for the observable pattern, outlined in Chapters Two and Three, whereby community-scale green infrastructure projects appear to experience an initial period of intensive activity and rapid recruitment of members, followed by in many cases an equally rapid loss of members, refinement of activity focus and subsistence with a small group of committed members. In addition, this chapter provides a link to Chapter Five which will introduce the empirical work of this thesis by further explicating the five critical components of effective community action as they relate to social capital in the case study area of The Mersey Forest.

The chapter is thus divided into two halves. Firstly, Section 4.2 provides an overview of social capital literature as it relates to group activity in community engagement. The three key types of social capital will be defined, and the typologies of groups and activities introduced in Chapter Three will be used to suggest how different groups use different types of social capital, how this relates to the five critical components of effective community action, and how in turn this may contribute to resilience and longevity. Secondly, Section 4.3 situates the key concepts of resilience and longevity in the social capital literature with the purpose of providing additional insight into critical factors and forces affecting groups engaged in community action; a basis for further investigation in the second half of the thesis. In summary, this chapter draws together the key findings from the social capital literature as it relates to environmental longevity; introduces social capital as a crucial factor in a group's propensity for longevity and resilience; and highlights findings from the environmental

stewardship and volunteering literature to suggest ways in which the critical components of effective community action intersect with the three types of social capital to determine resilience at the community-scale.

4.2 The Relevance of Social Capital to Community-Scale Green Infrastructure

Across the group typologies defined in Chapter Three, social capital was highlighted as both a driver of community action and an outcome of it (Firth, Maye and Pearson, 2011; Kingsley and Townsend, 2006; Glover, 2004). There is some understanding from the preceding chapters that the role of external and internal stakeholders is important (Brownhill, 2007; Blundell Jones, Petrescu and Till, 2005), and as such the role of stakeholders is summarised as *support* in the five defined critical components of effective community action. Building on definitions of social capital as a way to describe the links between individuals, within and between communities (Marmot, 2010: 24), and extending the work of Firth, Maye and Pearson (2011) and Jerome (2012) specifically; this chapter will set out the constituent components of social capital to justify its adoption as an analytical framework. It will highlight which variable or indicators associated with social capital will be useful for analysing activity at this scale. In turn, this will facilitate a deeper insight into the factors (internal) and forces (external) impacting on the longevity and resilience at a group level in community-scale green infrastructure.

Firth, Maye and Pearson (2011) suggest that social capital is *"a concept used to refer to the social structures, institutions and shared values making up community"* (2011: 557). In these terms, social capital is instructive for both defining and exploring community-scale green infrastructure. In reference to definition, social capital theory contributes an additional layer of understanding of what constitutes community, a discussion which frames the findings of Chapter Two. In reference to further exploring community-scale green infrastructure, social capital is a useful framework for systematising connections in the context of community engagement, specifically as it relates to group activities in environmental volunteering. Firth, Maye and Pearson (2011), are concerned with illuminating the creation of social capital in the context of a community garden, and as such situate the concept in a broader framework of social cohesion; a finding in turn supported by Kingsley and Townsend (2007).

Although social cohesion is a term which is sometimes used interchangeably with social capital, it does have a particular meaning in the wider literature, and in its application in this thesis. In academic literature, social cohesion is written about most extensively in the discipline of sociology and in particular by Durkheim. The key arguments made by Durkheim in his 1893 work 'The Division of Labour in Society' (1893) relate to the relationship between cohesion, integration and homogeneity. This is particularly instrumental in this thesis as it highlights the role group character can play in a group's capacity for cohesion and integration, and therefore in its capacity for creating

and sustaining social capital. In practitioner-focused literature, social cohesion is often used interchangeably with community cohesion, and specifically in the context of race and ethnicity. In a report commissioned by the government in response to the 2001 riots in towns and cities in the north of England, Cantle (2002) captured the tone of the New Labour government by presenting community cohesion as a strategy for addressing societal segregation; drawing heavily on established conceptualisations of social cohesion. Further, according to the government-commissioned *State of the English Cities* (ODPM, 2006) report, there are five different 'dimensions' of social cohesion: material conditions, social order, relationships, inclusion and equality. In turn, these relate to: the role of employment, income, health, education and housing; safety and freedom from fear; positive interactions, exchanges and networks between individuals and communities; inclusion and integration into the mainstream institutions of civil society; and level of fairness or disparity in access to income, health or quality of life.

In terms of how this adds to our understanding community-scale green infrastructure, the five 'dimensions' of social cohesion can be overlaid on the five 'critical components' of effective community action identified in Chapter Three to create a rich picture of the dynamics involved in the production and maintenance of social capital. Firstly, 'material conditions' (employment, income, health, education and housing) may illuminate the role *membership* plays in the effectiveness of a group, determining the social groups likely to access a site of community-scale green infrastructure, or alternately, limiting the available resources within an existing group to meet their objectives through reduced access to resources. Secondly, 'social order' may relate to perceptions of a group's activity by non-members from the wider neighbourhood, as conceptualised by a 'sense of security' transferred through the presence of a CSGI group in close proximity to where people live (Glover, 2004), and as such overlays with themes of wider stakeholders within the *support* component. Thirdly, 'relationships' which could be interpreted in a number of ways as it relates to relationships and exchanges within the group and so overlays with *governance* (the modes and mechanisms adopted for decision-making) and *membership* (the role of individual personalities within a group); as well as to relationships, exchanges and networks conducted between a group and external stakeholders, which also relates to *governance* (the level of formality that a group conducts its communication with external stakeholders), and encompasses *support* and *funding* (the 'linking' social capital the group can draw on to influence people in power, such as those in political or financial positions). Fourthly, 'inclusion' echoes themes of 'active participation' (Fisher, Svensden and Connolly, 2015) and links to *support* and *governance* (engagement in community-scale green infrastructure as an expression of civic engagement, as an alternative to engaging with other civic institutions). And finally, 'equality' finds resonance with all five critical components (*governance, membership, support, funding* and *activity focus*) as access to income, health, and quality of life determine the actions and activities available to a group, and so intrinsically enhance or limit the opportunities for a group to achieve social capital via CSGI means. Here, these interactions are imagined in abstraction, but in the empirical chapters it will be possible to integrate such insights

provided by the literature into the research design (Chapters Five and Six) and data analysis (Chapter Eleven).

The final reflection on social cohesion in the literature comes from the Liverpool Green Infrastructure Strategy (LGIS) (2010) which dedicates a full section to exploring the function of green infrastructure in the creation of social cohesion, describing evidence of 'stronger ties' experienced in greener neighbourhoods, and the role design and quality plays in delivering green infrastructure's multi-functional benefits (2010: 78-79); which is also foregrounded in other studies as a barrier to use (Doick et al., 2014). The premise for the connection between use of green space and increased levels of social contact and community cohesion highlights the theme within the literature that proximity to green space results in increased trips to a green space; for the purposes of, for example, physical activity (health) or relaxation (mental wellbeing). This is a relationship borne out widely in academic (cf. Ward Thompson et al., 2012; Koppen, Sang and Tveit, 2014; Martensson et al., 2014; Jansson et al., 2014; Niemala, 2014) and practitioner literature.

Other issues highlighted within the social capital literature which are relevant to community-scale green infrastructure include: linkages between social capital and community participation and engagement (Rydin and Pennington, 2010; Blundell Jones, Petrescu and Till, 2005); uneven distribution of urban green space and subsequent impacts on health inequalities (Wolch, Byrne and Newell, 2014); 'social learning' as a mechanism for community capacity building (Selman, 2012; Schusler et al., 2010); and the role of social networks, social connections, and links within and between communities in enhancing social capital in disadvantaged communities (Firth, Maye and Pearson, 2011; Glover, 2004; Marmot, 2010; Ziller, 2004). It may be read therefore that the potential exists for environmental volunteering to create social capital through the provision of publicly accessible green space ('social connections'), shared activities ('social cohesion', 'engagement and participation', 'social networks'), and capacity building activities ('social learning').

Although these outputs and outcomes are highlighted in the literature, they are not presented as 'smooth' concepts; in fact, a more accurate sense of how social capital is framed in the literature is as a 'dilemma' or "wicked problem" (Rittel and Webber, 1973). The capacity of community-scale green infrastructure interventions to address inequalities in access to social capital, or for the social capital created through community-scale green infrastructure to change the socio-economic status of a community, is almost impossible to discover. Instead, we must adopt imperfect measures of impact which substitute the universal with the personal, and attribute meaning to interpretation of individual and collective experience. In this sense, adopting social capital as an analytical conceptual framework is an ontologically-driven decision and reflects the primacy of the practitioner's experience in this thesis. This position will be developed in more detail in Chapter Six; however it is useful in this context to highlight the direction of travel followed when exploring the literature for insights into the research questions.

For example, Putnam's (2000) reading of social capital emphasises how groups develop and maintain social capital as a collective asset. A group's activities may therefore contribute to enhanced levels of social capital within a community through the 'sense of security' (Glover, 2004: 151) which results from a derelict piece of land being developed into a garden. In Putnam's (2000) terms, this feeling will be shared equally among members of the community with access (in this case access may include having a view of the garden) to the source of social capital. However, the reality of this access may be more complicated than this. Findings from case studies which emphasise the 'voice' of actors engaged in community-scale green infrastructure suggest that access to social capital may vary, and as such, the notion that it is created and maintained as a collective asset is problematised.

Glover (2004) conceptualises the issue of access in terms of the (re)creation of social divisions within a community garden context (2004: 152-156). In particular, the role of governance and access to decision making, and therefore opportunities to influence the objectives of the project, are highlighted within Glover's (2004) study. By portraying engagement in environmental volunteering as a nuanced experience, Glover's (2004) findings show how the strength of social ties can persist; thus highlighting how access to social capital created by community-scale green infrastructure can be unequal, even within one group (2004: 152-156). Access in the example of social divisions is conceptual; however access can also be physical.

In the UK context access is defined in policy terms by the Access to Natural Greenspace Standards (ANGSt) guidance, developed in the early 1990's and subsequently reviewed by Natural England (2010). In this context, accessibility is described in terms of proximity to where people live: Natural England (2010) suggest that the 'provision of accessible greenspace within green infrastructure in and around urban areas significantly contributes to creating places where people want to live and work', drawing on the work of Benedict and McMahon (2006) to reposition greenspace from an amenity to a necessity. In this sense *access* is applied in the literature as a proxy for *proximity*, however, it may also be argued that these two terms have very different applications, moreover, contrasting implications.

Whereas physical access is purposed in the literature as relating to the social and health benefits which are made accessible to people who live and work in close proximity to green infrastructure (cf. Ward Thompson et al., 2012; Mitchell and Popham, 2008, 2010), and encompassing the types of issues an individual or group may face in their decision to create or engage with CSGI, for example access to land to develop a site of community-scale green infrastructure, or access to a site once a project is underway; access may also relate to a group's access to the support (external stakeholders) necessary to a gain access to a piece of land, which may involve seeking permission from the landowner or seeking permission from local planning authorities to change to use of land. These actions necessitate a certain type of knowledge, and access to governance and power structures,

which may exclude certain social groups from beginning a community-scale green infrastructure group. In the terms described by Firth, Maye and Pearson (2011) this can be explained as an example of access to *linking* social capital (Section 4.2.1). Another aspect of access in comparison to proximity relates to an individual's feeling that a group or activity is suitable; whether they are the 'right type' of person to engage in a project, and whether they have the necessary skills or values-system to 'fit in' with a group dynamic. In the literature this aspect of access is depicted as "capital deficit" and highlights differential access to social capital and the resultant impact on group cohesion (Lin, 2001; Glover, 2004). Field (2003) echoes the role shared values and trust play in underpinning cohesive social relations in everyday life, and positions social capital as useful matrix of variables which in their collective depiction signal the decline of social cohesion within a particular community or society. As such, the levels of cohesion within a group can determine the accessibility of social capital created for individuals within that group. This is significant insofar as the impact it may have on the levels of 'motivation for collective action' (Glover, 2004: 151) and the role cohesion can play, therefore, in comprising a barrier to engagement.

In relation to the critical components for effective community action defined in Chapter Three, Glover's (2004) 'motivations for collective action' relate to deepening our appreciation of the relationship between *activity focus* and *membership.* Essentially, Glover (2004) proposes that whilst a community group's objectives may be shared by each member, the *motivation* for collective action can vary considerably. In the example of the community garden within Glover's (2004) study, members of the group share a collective motivation to reduce levels of crime within their community; however, the drivers for change differ across the membership, ranging from motivations for enhanced security, to opportunities to preserve and celebrate the neighbourhood's heritage (2004: 151).

The findings from Glover's (2004) study are significant to this thesis in two key ways. Firstly, it is instructive to consider the role of cohesiveness within groups engaged in community-scale green infrastructure, rather than presuming the objectives which a group communicates to non-members (via formal documentation for example) are shared by all members of the group. And secondly, to consider carefully the role *governance* can play in shaping the internal and external stakeholder relationships within a community-scale green infrastructure group: hierarchies of members, *core members* and *non-members* within a group, and between a group and a neighbourhood, can be instrumental in brokering power and determining how social capital is created and to whom it is accessible (Glover, 2004). The role motivation and collective action play is also explored in the context of longevity in Section 4.4 of this chapter, reflecting on Jerome's (2012) finding that a project's ability to release social capital can engender a feeling of collective action, which in turn affects the longevity of a project. In this sense, social capital becomes relevant to questions of motivation for environmental volunteering highlighted in Chapter Three; however, as Glover (2004)

emphasises, motivations for achieving the same project objectives can vary across the group's membership.

Similarly, in the way that Chapter Three questions the tendency in the academic literature to depict the community-scale as a homogenous site of mainly food-focused green infrastructure activity, by illustrating the diversity of groups observable; this chapter highlights the lack of homogeneity in experiences of social capital at this scale. Not only do groups differ in their capacity to create social capital, but within groups, individuals are challenged in their abilities to access the social capital available. In this way, the picture of social capital as a collective asset produced and maintained by community groups (Putnam, 2000) is a more complex picture than portrayed in some of the practitioner literature. For example, the Liverpool Green Infrastructure Strategy (LGIS) (2010) identifies social cohesion as one of the five main health benefits that can be achieved through green infrastructure (alongside increasing physical activity; improving air quality; improving mental health; and reducing health inequalities): "There are a range of studies that show using green space leads to greater social contact and community cohesion"; "greener neighbourhoods create stronger social ties" (2011: 75-8).

The ways in which individuals within a group access social capital, the variations of strength in social ties within and between groups, and the success with which groups are able to transfer the benefits of increased social capital from the context of the community-scale green infrastructure project to the wider community to impact social cohesion, will therefore constitute significant lines of inquiry in the empirical stages of this thesis. However, there are insights to be drawn from the literature into the ways in which social capital is used at the community-scale. Although there is evidence in the literature that green infrastructure activities at the community-scale can increase levels of social capital, social cohesion and support networking (Firth, Maye and Pearson, 2011; Kingsley and Townsend, 2006; Glover, 2004), there is currently no consensus about how to measure or assess social capital, in part reflecting the complexities involved in measuring abstract concepts such as *trust* (Roberts and Roche, 2001).

Theories of social capital contend , however, that it is possible, at least, to identify three distinct types of social capital: *bonding, bridging, linking.* As such, social capital provides a model for categorising three distinct types of connections, approaches to creating and maintaining social networks, and accessing social structures and institutions through community action.

Bonding Social Capital

- defines strong ties between individuals in similar socio-demographic situations, such as immediate family, close friends or neighbours

Bonding social capital is perhaps the type most easily associable to community-scale green infrastructure activity as it describes the types of connections between people living in proximity to each other, who have access to and vested interests in, a piece of land with the potential for environmental stewardship and volunteering activities. A 'sense of community', collective 'ownership', and a sense of common socio-spatial knowledge can therefore prove to be a driver for community action, evidenced in literature which theorises motivations of community engagement and civic participation (Fisher, Svensden and Connolly, 2015; Glover, 2004). In this way, *bonding* social capital can be based on fairly abstract notions, encapsulated in words and phrases such as *trust, security, pride, connection* and *sense of community* (Putnam, 2000: 19; Glover, 2004: 150-151; Field, 2003; ODPM, 2006; Jerome, 2012: 42; 49). Further, Glover (2004) suggests that participants in a community garden expressed ideas about "a bonding to the neighbourhood" (2004: 150), drawing on the social capital created through networking through gardening activities to improve a feeling of resilience when "facing other issues in the neighbourhood" (2004: 151).

Bridging Social Capital

- describes more distant ties of like persons, such as loose friendships or workmates; tends to be outward looking; can bring together people from across diverse socio-demographic situations

The main way in which *bridging* social capital is portrayed in the literature on environmental stewardship and volunteering is the role shared values play in bringing people together to collaborate in the care of the landscape (Selman, 2012: 91). For example, Selman (2012) conceptualises environmental volunteering, defined as a form of 'intelligent care of landscape', as a mechanism for developing a sense of shared responsibility for the environment (2012: 91). Shared experiences, knowledge and responsibilities may be perceived as examples of the 'material conditions' (ODPM, 2006) which constitute collective engagement in community action. Schusler et al. (2003) define the outcomes of collective engagement, as an example of *bridging* social capital, as 'social learning': "social learning occurs when people engage one another, sharing diverse perspectives and experiences to develop a common framework of understanding and basis for joint action" (2003: 311). Furthermore, Schusler et al. (2003) assert that direct involvement in 'land care' and engagement in 'collaborative and participatory governance programmes' can facilitate social learning; and in these terms, could potentially be viewed as a direct route for facilitating *bridging* social capital.

Linking Social Capital

- concerns connectivity between unlike people in dissimilar situations; refers to connections with people in power, such as those in politically or financially influential positions

Putnam (2000) suggests that whilst the effectiveness of community action can depend on a group's linkages to networks of influential individuals, groups can also be a source of social capital that in turn sustains broader social structures. Schusler et al. (2003) proposes that engagement in community action can develop 'institutional thickness' (2003: 311). And Glover (2004) describes social capital as simultaneously a 'source' and a 'consequence' of environmental volunteering (2004: 156). All of these perspectives support the notion *linking* social capital describes the impact of a group's propensity to affect and influence decisions made outside of their immediate point of influence. *Linking* social capital also describes the role external stakeholders play in decisions affecting a group, whether practical (access to land), political (access to support), or financial (access to resources). An important reflection, therefore, to be taken from the literature concerned with *linking* social capital, is that influence can be, and often is, a two-way flow of ideas; that is a group engaged in community action can, in theory, influence social structures and decision-making beyond the immediate boundary of the site and its members. The variation across the different types of groups to create and utilise *linking* social capital is therefore intrinsically linked to a group's propensity for resilience, in the terms defined by Pickett et al. (2004), which emphasises the crucial role played by *open* flows of materials, ideas and relations; and *responsiveness* to external regulations and may be limited or stimulated by external factors.

4.3 Social Capital as a Driver and Outcome of Longevity and Resilience
How do different types of social capital relate to the five critical components of effective community action; and how does this illuminate the questions of longevity and resilience?

This section will establish the link between social capital and resilience in the context of community-scale green infrastructure. Building on the previous section, and discussions in Chapter Three about the capacity of different groups to create and maintain social capital, this section will draw on definitions of resilience in the literature to: frame an analysis of whether certain group characteristics contribute to longevity and resilience; explore how critical components of effective community action influence a group's propensity for longevity and resilience; and discuss whether social capital plays a role in determining longevity and resilience.

There are three main researchers associated with developing the concept of social capital: Coleman, Putnam and Bourdieu. Central to the idea of social capital is that the *connections* which gather together to form social networks and powerful relationships benefit those who identify as group members (Firth, Maye and Pearson, 2011: 558). Bourdieu & Wacquant (1992: 119) emphasise the *durability* of a network; which in turn translates to the question of *longevity* in community-scale green infrastructure. Longevity, for the purposes of this thesis may mean evidence of activity over a long and sustained period of time, or could also refer to the degree to which a group's activities have positively contributed to the creation of social capital within a community, and whose impact is expected to contribute beyond the life of the CSGI group or project. For example, Jerome (2012) suggests that the meaning of longevity can depend on the aims of the individual project and that

expectations of grant funders to evidence the longevity of a project's 'social impact' on a particular place-based or interest-based community can cause problems for CSGI groups who prefer to measure their outcomes and outputs in relation to the specific project and its participants; rather than the wider community for whom a lot of grant funding programmes aim to achieve influence through the transference of project-related benefits.

Throughout this thesis resilience provides a conceptual descriptor for the range of characteristics which denote how a community-scale green infrastructure group is able to respond to change, internally or externally, in order to continue to deliver their objectives and produce and maintain green infrastructure. The ways in which a group is able to respond to change is partly a reflection of the inherent capacity within the group to perceive appropriate adaptation, and partly a reflection of the resources available externally which a group can lever; both strategies require a degree of social capital. The degree to which a group can produce and operate social capital is therefore a useful indicator of how successful they are likely to be in surviving disturbances, absorbing shocks, and maintaining existing or new functions (Walker and Salt, 2012); evolve over time in response to change (Pickett et al., 2004); adapt and transform (Folke et al., 2010); and develop a system which is able to absorb future shocks and stresses, and therefore prove "future-proof" (Applegath, 2012): all of which describe approaches to understanding resilience within a planning context in the literature.

Whilst each of these definitions and conceptualisations of resilience is relevant to the context of community-scale green infrastructure, it is perhaps Tidball and and Krazny's (2013) definition of resilience that provides the most useful summary in relation to community action:

> "The term resilience has been around for decades and is generally used to describe how a system (from human beings to biotic communities) responds to external shocks or disturbances. Some define resilience in terms of recovery—how long it takes, what are factors that enhance recovery, and how to recover to a pre-disturbance condition…Other scholars think about resilience in terms of *the amount of disturbance that will transform the system into something new and different*. That is the type of resilience that is discussed and presented in this volume, how humans use their deep connections with nature to shape change in ways that is transformative." (2013: viii) (emphasis author's own)

The rationale for selecting this definition relates to our understandings of the nature of community-scale green infrastructure activity as a discrete form of community action. In Tidball and Krazny's (2013) terms, the CSGI group is the *system*, and the *transformative changes* are the green infrastructure-related outputs (community garden, higher levels of civic engagement), and the group- or individually-focused outcomes (improved health and wellbeing, sense of community). The key message in Tidball and Krazny's (2013) definition of resilience is the distinction made between returning to a 'pre-disturbance condition' and transforming into 'something new and different' (2013: viii). Considering the scale of 'disturbance' potentially involved in community-scale green

infrastructure – changing membership, changing land ownership, changing financial and political priorities – the concept of transformation is arguably much more encompassing of the dynamism involved in community-scale activity than 'recovery', which suggests a stable system whose predictable form, function and operation can be distorted by external forces and factors but can essentially return to its original state (Tidball and Krazny, 2013: viii).

Pickett et al. (2004) suggest that resilience emerges from two paradigms in ecology: 'equilibrium' and 'non-equilibrium' paradigms (2004: 373). The role played by stability is central to Pickett et al.'s (2004) theory about the major components of a 'non-equilibrium paradigm' of resilience; and they summarise the key difference between the two paradigms as thus: 'equilibrium' suggests that a system can and must achieve equilibrium to perform functionally, and must therefore return to a stable point after disruption; and in contrast, 'non-equilibrium' denotes a dynamic and evolutionary potential within a system, where a system has the ability to adapt and adjust to changing internal and external processes, and the emphasis, rather than being on the end point or terminal condition, is on "staying in the game" (2004: 373). Pickett et al. (2004) propose that the latter paradigm of ecological change is more useful for planning; and from what has been illustrated about green infrastructure planning at the community-scale, it may be argued that this is an equally valid assertion for a discussion of the nature of change and resilience in the context of CSGI.

The six 'major points' of a resilient ecological system identified by Pickett et al. (2004) may prove as pertinent for an exploration of the dynamics at work in the human actor focus of CSGI, as they are for the biological (non-human actor) focus of ecology; and so they are integrated here by way of reflection for the five critical components for effective community action outlined in the previous chapter. The six 'major points' of a system which proves resilient within a 'non-equilibrium' paradigm are characterised by: *open* flows of materials, ideas and relations; *responsiveness* to external regulations and may be limited or stimulated by external factors; *dynamism* and may have multiple or no stable state, or may jump from one stable state to another in response to shifting conditions; *succession* and may experience changes in composition and structure through time, in response to external events; *disturbance,* which is integral to the structure of the systems and defines major aspects of the system dynamics; *human activity*, and the influence of individuals, societies, groups and institutions.

Although the six 'major points' may appear broadly defined in abstraction, if we apply them to examples of shared experiences experienced by CSGI groups we may begin to appreciate the usefulness of a framework to anticipate and *design in* resilience. For example, Hale and Sadler (2012) suggest that 'designing for low maintenance' by locating features in areas on site with less likelihood of disturbances would improve the resilience of an ecological system (2012: 66). This could be equally applicable to a community garden, for example, where routine (non-creative) tasks such as watering and weeding can occupy a substantial proportion of volunteers' time, and could

consequently reduce levels of enthusiasm and eventually weaken retention of non-core members (Glover, 2004; Firth, Maye and Pearson, 2011; Jerome, 2012). In this example, *designing in* resilience may include installing a rain water collection system close to growing areas to reduce the effort required to water, or introducing different varieties of crops which are more drought tolerant and will produce a harvest with minimal maintenance.

Similarly, a group's approach to *governance* and *membership,* two of the critical components identified for effective community action, may determine whether a group is also *open* to flows of new materials, ideas, and relations. In Glover (2004) a hierarchical approach to decision-making facilitated the ideas of 'core members' and limited the influence of other members, and non-members. This could potentially limit the resilience of a group in the terms identified by Pickett et al. (2004) as *succession* is stifled, and the character of the system (garden) is primarily determined by a small number of actors; meaning the continual function of the system, the equilibrium of the system, is more open to disturbance in the event of 'core members' being unable to provide this stable state. Furthermore, if the source of social capital in a group is also the source of its stability, a system lacking in *openness* may also prove lacking in resilience as its capacity for *responsiveness* is limited to the condition that one or more individuals are present. For example, an individual engaged in a CSGI group may be the group's source of *linking* social capital, because they have professional skills they can draw on such as fundraising and financial management. This may introduce an element of resilience because the group is in a position to understand the requirements of new grant funding programmes and shape their objectives and activities to response accordingly; the group is thus exhibiting resilience through *responsiveness* to external factors and forces. The extent to which this social capital is transferable to another member of the group, and therefore the question as to whether a group has the propensity for *succession* in Pickett et al.'s (2004) model of resilience is less clear from analysis of the literature alone; and as such, provides additional reasoning for exploring resilience in practice through a case study research design (Chapter Five and Six).

Further, Glover (2004) suggests that in theory, the presence of social capital can help a community group to achieve its aims, even if other forms of capital such as financial capital, are not present (2004: 145). In terms of the five critical components of effective community action outlined in Chapter Three, Glover (2004) is therefore suggesting that characteristics of *membership*, which in this example could relate to the social capital accessible to members of a CSGI group, could offset the impact of *funding* and *support,* if a group were unable to access resources or support from external stakeholders. The literature therefore provides insight into how the thematic characteristics of CSGI groups can vary; and further, that rather than representing consistent variables which can be observed and measured across groups, the themes interact dynamically in the context of each particular case of CSGI. This makes it more difficult to evaluate conditions for longevity and resilience in abstraction; and highlights the importance of action research to illuminate the lived experiences of activists and third sector organisations engaged in community action at this scale in

green infrastructure. Likewise, the tendency in the literature to draw on examples of community gardens to explore the capacity of community-scale green infrastructure to produce and maintain social capital (cf. Firth, Maye, and Pearson, 2011; Kingsley and Townsend, 2006) highlights another opportunity to reflect on the relationship, in theory and practice, between a group's characteristics and its propensity for creating and distributing social capital, and for achieving a long-lasting and resilient 'system' for producing and maintaining multifunctional green infrastructure.

4.5 Summary

Across the types of community-scale green infrastructure there are common challenges facing individuals and groups active at the community-scale. As such, five critical components for effective community action are identified: *governance, membership, funding, support* and *activity focus.* These critical components describe the key characteristics of voluntary green infrastructure activity at the community-scale green infrastructure. Further, they represent analytical components for comparing groups engaged in voluntary activity, with the aim of establishing the key factors (defining characteristics of the group) and forces (pressures acting on the group from external sources) affecting the likelihood of a group being able to continue environmental engagement over time (longevity), and successfully adapt to changing circumstances (resilience). The purpose of this chapter has been to illuminate the role social capital, as both driver ('source') and outcome ('consequence') of community-scale green infrastructure.

In summary, the role social capital in the production and maintenance of community-scale green infrastructure is complicated. It can be the 'source' and the 'consequence' of effective community action (Glover, 2004). Equally, it may represent the outcome of engagement for some participants, but not others. Moreover, as there are inconsistencies within and across groups, the findings from Chapter Three which distinguish groups by their characteristics of governance structure and activity focus, may be inherently limited in their capacity to fully explicate the critical components necessary for a group to access social capital, and for this social capital in turn, to influence a groups' capacity for longevity and resilience. Alternately, a group with propensity for *longevity* (continuation over time) may prove limited in its capacity to distribute social capital evenly across its membership, due to the inherent limitations of their approaches to *governance* and *membership*. Equally, a group with propensity for *resilience* (adaptation over time) may draw on social capital within its membership to address challenges in relation to the critical components of *funding* and *support.* And in this context, access to social networks (Portes and Sensenbrenner, 1993) is particularly important - either through access to social networks of peers (*bonding* social capital) or through access to social networks with those with more power to influence change (*linking* social capital). This chapter has therefore shown that although groups can develop and maintain social capital as a collective asset (Putnam, 2000), the outcomes drawn from this asset can vary in value within and between groups.

The discussion of *resilience* and *longevity* in this chapter has provided an additional layer of analytical understanding for interpreting the impact of the community-scale in green infrastructure.

It has been possible to define resilience in terms which, though drawing on ecological approaches to the concept, more accurately represent the human dynamics within examples of groups - 'systems' or 'arenas' – engaged in community action (Selman, 2012; Hale and Sadler, 2012; Folke et al., 2010; Pickett et al., 2004; Walker et al., 2004). Tidball and Krazny's (2013) conceptualisation of resilience as 'the amount of disturbance that will transform the system into something new and different' (2013: viii) is foregrounded as a particularly useful description to apply to the context of this thesis in light of the patterns of activity which characterise community-scale green infrastructure. Furthermore, a review of the resilience literature in the context of urban planning has provided a conceptual understanding for evaluating the factors and forces affecting longevity and resilience at the community-scale. Pickett et al.'s (2004) six major points overlay with the five critical components defined in Chapter Three, to create a framework for identifying an approach to resilience which is distinct to the nature of the local-level, and to the needs of long-term management of systems which are characterised by 'non-equilibrium'. Hale and Sadler's (2012) 'future-based resilience' and Applegath's (2012) 'future-proofing' concepts are also potentially useful as ways to describe the community-led approaches to managing green infrastructure. Although, more insight is needed into the ways in which characteristics of one type of group, or one type of activity, affect resilience over time, in order to construct a response to the problematic identified in the literature where increasing the resilience of one desirable component of a system may compromise the resilience of others (Folke et al., 2010). Clues to the interplay between characteristics and longevity are provided throughout the literature, such as 'flexibility to adapt' (Hale and Sadler, 2012: 65) and 'open flows of materials, ideas and relations' (Pickett et al., 2004), however more understanding about the approaches taken across the group typologies is needed.

This chapter, therefore, represents the third stage of a three-part review whose aim is to situate this thesis in the literature relating to community action, and substantiate the argument that community-scale green infrastructure provides a useful reconceptualisation of environmental stewardship and volunteering. Chapters Two, Three and Four, when taken in sequence, establish the *characteristics* (ways of engaging), *drivers* (reasons for engaging), *barriers* (reasons for disengaging), and *outcomes* (as a result of engagement) of community-scale green infrastructure. Moreover, although it has been possible to establish the character of community-scale green infrastructure, the role and relevance of activity at this scale in terms of social and health benefits, and the parameters for investigating longevity and resilience; it is still unclear as to how different groups compare in their propensity for longevity and resilience. Therefore, Chapters Two, Three and Four represent the foundational knowledge for setting up the empirical investigation into the experiences of community-scale green infrastructure groups to better understand the factors and forces preventing and promoting effective community action at this scale. Thus, Chapter Five will extend the findings in Chapter Three by exploring characteristics of community-scale green infrastructure in sample area of The Mersey Forest to assess, beyond group structure and activity focus, what other key differences exist between different group types, and establish whether there are any patterns of approach to working at this

scale which can help suggest reasons for longevity and resilience, and address the research question framing the second half of this thesis: *what factors and forces affect the longevity and resilience of community-scale green infrastructure?*

In turn, the case study design and subsequent empirical analysis offers further insight into the outcomes associated with community-scale green infrastructure, and the factors and forces affecting the capacity of a group to achieve resilience over time. The subsequent chapters will contribute to the existing literature to suggest ways in which community-scale green infrastructure can sustain its potential to: create social capital (Firth, Maye and Pearson, 2011; Kingsley and Townsend, 2006; Glover, 2004); shape green infrastructure planning policy (Schusler et al.,2003; Jerome, 2012), contribute to democratic goals (Blundell Jones, Petrescu and Till, 2005: 92); and enhance civic engagement participation and engagement (Fisher, Svensden and Connolly, 2015).

CHAPTER FIVE

5. Creating a Typology of Community-Scale Green Infrastructure

5.1 Introduction

This chapter describes the empirical process of creating a typology of community-scale green infrastructure by analysing the characteristics of voluntary activity at the local-level in The Mersey Forest. The rationale for creating a typology is to explore the nature of community-scale green infrastructure in more depth, establishing a more nuanced understanding of the characteristics, such as types of activities and group structure, which describes the mechanisms through which environmental volunteers create and maintain green infrastructure. By categorising groups and projects recorded within the sample area utilising a selection of thematic criteria, it is possible to group characteristics and define three distinct approaches to community-scale green infrastructure within The Mersey Forest.

As such, Section 5.2 introduces the methodology for selecting the sample area (Section 5.2.1), and selecting the thematic criteria (Section 5.2.2) for the desk search. Section 5.3 explains results from the desk search in full, identifying nine thematic criteria for distinguishing the characteristics of Groups and Projects across the three main types: Formal Group, Informal Group and Formal Project. Section 5.5 explains how four case studies were selected to explore in more depth the differences between the types of community-scale green infrastructure. The case study methodology is the focus of the next chapter.

Thus, this chapter contributes to our two principle research questions of *what defines activity at the community-scale in green infrastructure*, and *what factors and forces affect the longevity and resilience of community-scale green infrastructure?* By characterising activity at the community-scale in The Mersey Forest, it is possible to assess the relevance of the five critical components of effective community action identified in Chapter Three and make any necessary adjustments to reflect the nature of activity in the sample area. By categorising the results of the desk search, and defining four types of group to explore in more depth as representative case studies, this chapter provides an empirically grounded rationale for organising the data collection and analysis around a framework of thematic criteria, which in turn, strengthens the investigation into the potential of community-scale green infrastructure as a resilient mechanism for the creation and maintenance of local-level green infrastructure.

5.2 Methodology

5.2.1 Selecting the sample area

The Mersey Forest community forest area was selected as a suitable sample area to determine the scope and nature of community-scale green infrastructure activity. The Mersey Forest is a delineated space, encompassing woodland and other natural habitats in the North West of England. It is also an environmental charity, which when established in 1991 was tasked with contributing to the regeneration of the post-industrial landscapes of Merseyside, Cheshire and West Lancashire through using urban and peri-urban forestry (Mersey Forest, 2013). Now The Mersey Forest is a prominent organisation engaged in delivering and facilitating green infrastructure planning and through green infrastructure promoting socially inclusive landscapes that add value and enhance levels of health and wellbeing within communities (Mell, 2016). The Mersey Forest area is one of the original 12 Community Forests established by the Countryside Commission (now part of Natural England), and covers 465 square miles, although this constitutes a network of sites of green infrastructure within a wider defined boundary (Mersey Forest, 2011).

In terms of habitat, The Mersey Forest includes internationally significant coastline, plains, canals, woodlands and parklands. The overarching aim of The Mersey Forest Partnership is to create 8000 acres of new community woodland and to advocate and communicate to wider audiences, professional and public, the associated environmental, social and economic benefits and value of trees (and other green infrastructure elements) (Mersey Forest, 2014). In terms of their relevance to green infrastructure planning and policy-making, The Mersey Forest team has established itself as a green infrastructure consultancy working with strategic partners at the city-regional scale. They have been a lead partner in the publication of documents advocating a shift towards investment in green infrastructure in both urban and peri-urban locations (Liverpool City Region Green Infrastructure Plan, 2013; Liverpool Green Infrastructure Framework, 2011). They also work at a more local level, advising individual landowners on the implications of policy changes or opportunities arising from sustainable models of land management in both rural and urban contexts; and providing funding and resources to community groups with ambitions to participate in the management of sites of green infrastructure within The Mersey Forest boundary. It is this latter organisational focus, defined as a 'policy' of 'community empowerment' in the organisation's strategic plan (The Mersey Forest Plan, 2014: 16) that provides the contextual background for utilising The Mersey Forest as a suitable focus for the research strategy.

Once the sample area was defined, the next step in the desk-based data collection process was to create a spreadsheet to capture the characteristics of community-scale activity. The principle objective of the search was to identify groups whose activity could be described as voluntary stewardship, environmental volunteering, or environmentally-focused community action by the terms understood within the preceding literature chapters; that is, groups whose primary focus is to

engage volunteers in activities relating to the creation, enhancement or maintenance of a site/s of multi-functional green infrastructure.

Map 5.1 Liverpool's green infrastructure (CABESpace, 2011)
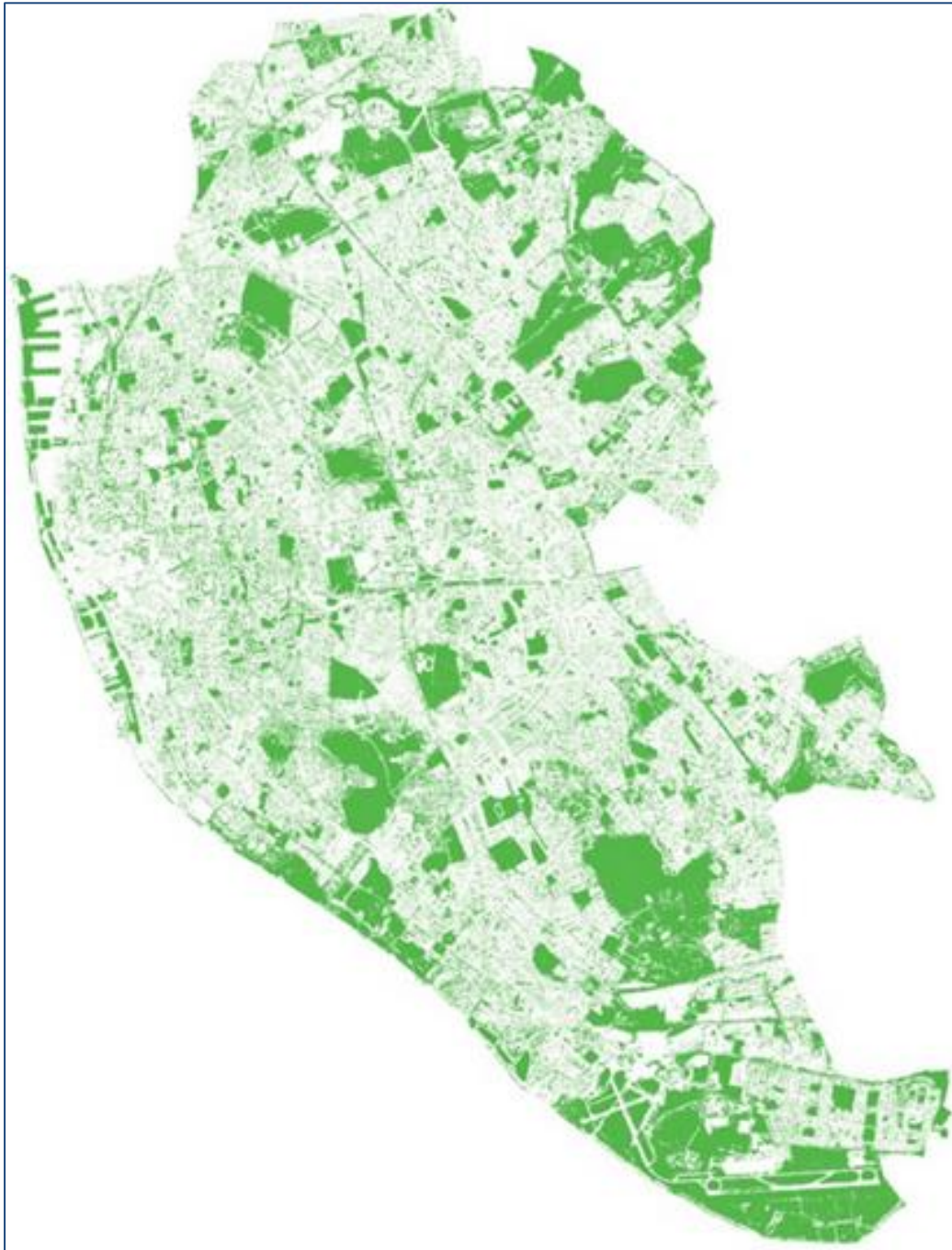
Map 5.2 Typology of green infrastructure within The Mersey Forest (The Mersey Forest, 2013)
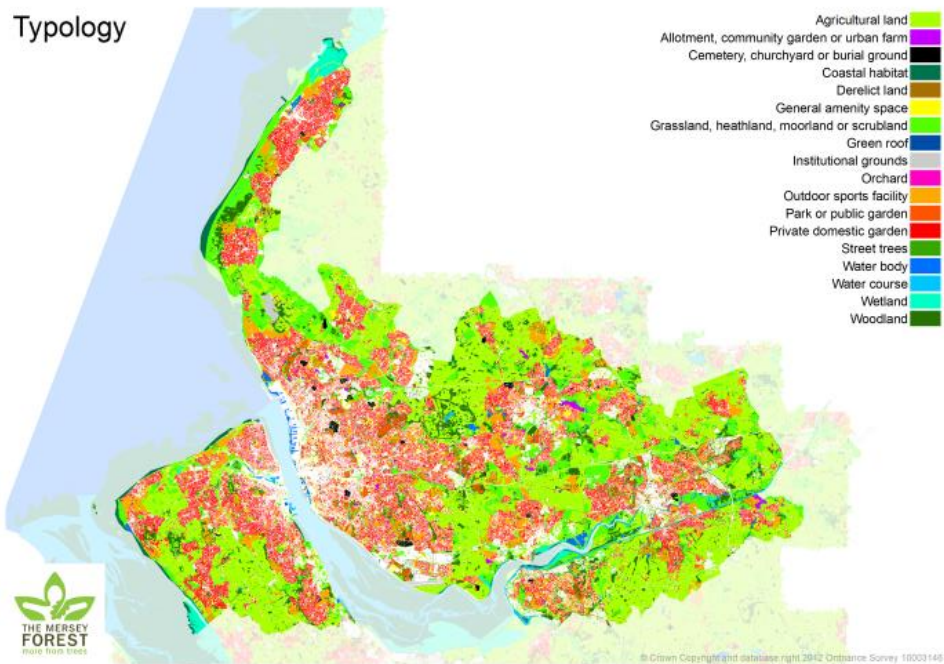
5.2.2 Data Collection

Selecting the criteria was largely an iterative process which initially involved searching for voluntary groups online to establish key information including location, type of activity and whether a group was active or inactive. It was not always possible to establish from information provided by the group on a website or a social media site whether a group was still active, or when they ceased to be active. It was possible that some groups did not have access to an internet enabled computer, or the skills and confidence to use the internet to advertise their activities. Therefore it was necessary to search for details of groups through secondary sources.

Sources included information available publicly, such as local authority websites which hold lists of constituted Friends groups (including park and woodland groups); The Mersey Forest's website which details information about Friends of woodland groups who have benefited from support and training through the organisation; 'Project Dirt', an online environmental forum for individuals and groups to advertise one-off events and regular environmental volunteering opportunities; local newspaper articles reporting achievements of voluntary environmental groups; websites of funding bodies engaged in supporting environmental volunteering, for example Big Lottery Fund's 'Local Food' (2008-2014) grant programme; local funding initiatives focused on environmental volunteering, for example the 'Natural Choices for Health and Wellbeing' programme which was jointly organised by The Mersey Forest and the Liverpool Primary Care Trust; and websites of organisations engaged in supporting and recognising voluntary environmental activity through award programmes, including the Merseyside Environment Awards and the North West in Bloom Award.

In addition, as this thesis is the result of an ESRC CASE award sponsored by The Mersey Forest, the author was in a position to view archives of the organisation which included over ten years of records of community groups which The Mersey Forest have supported, including a detailed evaluation published in 2003 to reflect on five years of working closely with a selection of Friends groups through the 'Community Contracting Initiative' model, developed by the Forest Partnership to conceptualise a standard approach to improve the resilience of Friends groups to deliver social, environmental and economic benefits over time (Carding and Sayers, 2003). In this way, the CCI Report (Carding and Sayers, 2003) is a critical source of data for this thesis, as although it does not conceptualise the contributions of voluntary groups as community-scale green infrastructure, it provides a framework for acknowledging and supporting the multi-functional benefits delivered by voluntary efforts at the local level.

Outside of availability of data through online or archived documentary material, the other key factor shaping the data collection strategy was timeframe. In terms of establishing a timeframe for data collection it was necessary to work within the time limits of the data collection period, and recognise what would be possible in the time available, and through the data sources readily available. The process of collecting data relating to constituted groups, such as Friends groups, was fairly uncomplicated as their activities involve managing land parcels (woodland, parks) which belong to local authorities, who list Friends groups active in their constituency areas; or alternatively their activities have been supported by a voluntary organisation such as The Mersey Forest and so are recorded on their website.

Other types of activity are less readily observable from one type of documentary evidence, and so it was necessary to cross-reference sources to establish the type of group structure or activity focus from multiple sources. For example, in the case of Cecil Mews alley greening project, a community-scale green infrastructure group with an informal approach to governance and an environmental stewardship and volunteering activity focus, it was necessary to cross-reference newspaper articles reviewing their activities, with records from North West in Bloom about the awards they had received for their activities. In other cases, it was possible to establish a group's activity focus or group structure from the records of funding bodies and grant programmes. The literature chapters (Chapters Two, Three and Four) suggest that one of the key motivations for voluntary groups is access to support and resources, including the availability of funding through grant programmes. It was therefore decided that the data collection strategy would acknowledge the impact of grant funding, including thematic grant awards (Big Lottery Fund's 'Local Food' programme launched in England in 2008) or geographically-focused grant awards ('Natural Choices for Health and Wellbeing' fund launched in Liverpool in 2011). As such, groups and projects were included in the dataset if they could be observed as being active in the period from 2008 onwards, or were still active in 2008; and as such, include a number of groups which have discontinued activities since 2008, such as the Friends of Furey Wood group in Cheshire who disbanded as a group in 2012.

Therefore, in terms of timeframe, the data collection strategy reflects the availability of data (constituted groups) and the critical components of effective community action identified in the earlier review of literature, through reference to grant funding records (groups established after 2008 or still active in 2008). As the data was collected over a period of six months in 2013, this provided the potential for recording groups and projects which had set up within the period 2008-2013, as well as groups and projects which had been inactive for no more than five years. An additional rationale for selecting 2008 as the cut-off point was to enhance the likelihood of members of inactive or disbanded groups such as Friends of Furey Wood being available for participation in the case study approach (Chapter Six) to investigate in more depth the critical factors and forces shaping the decision to discontinue community-scale green infrastructure activities after a period of organised effort.

5.2.3 Data analysis

Once the desk-search of group and projects was complete, the data comprised a large spreadsheet of 244 unique entries (see Master Sheet(s) 2& 3). The following fields were recorded against each entry: whether an entry related to the status of 'Group' or 'Project'; whether they had a 'Food' or 'Environmental stewardship and volunteering' activity focus, or both; whether they additionally had a 'Health and wellbeing' or 'Educational' focus; and whether the focus of the group was the site of green infrastructure ('site focus') or the group itself ('group'). In addition, a number of fields were recorded for each entry where this information was easily available through analysis of online documentary evidence, or archival material available through The Mersey Forest. These fields included: type of site for Friends groups (park or woodland); what year the group was formed; whether the group was affiliated with a residents association; any records of supporting organisations or partners; whether the group was or had been a member of the Community Contracting Initiative; and if the group were 'site' focused, whether the site of green infrastructure had any habitat designations, for example Site of Special Scientific Interest, therefore restricting the nature of activity. In addition, sources of information such as web links to group or project websites or newspaper articles referencing the group or project were also recorded.

In total, 244 unique entries were recorded during the course of the desk search (see Appendix 2 & 3). It was necessary to check the 'Master Sheet(s)' for double-counting, as the nature of the iterative data collection approach allowed for some groups or projects to be recorded more than once. In total, 113 entries were removed from the initial spreadsheet. The entries removed included groups which were recorded twice or three times because of they were picked up from two different sources, for example a number of Friends groups are recorded on local authority websites, on The Mersey Forest's website, and they have their own website. Other example included entries relating to projects where the name of the project is recorded on user-facing networks such as 'Project Dirt

Liverpool', but the name of the affiliated organisation is recorded on databases of funding bodies or award bodies.

For example, 'Homeless Hostels Food Alliance (Dutch, Farm, Liverpool) is a voluntary group advertised on 'Project Dirt Liverpool' which describes a project which engages service users from the homeless charity YMCA in food growing on a piece of brownfield in Speke in Liverpool. The same project is recorded as an entrant to the Groundwork Merseyside Environmental Awards 2008 as 'YMCA Liverpool'. It was necessary to look for additional documentary evidence to check this was the same project so as not to either double-count or fail to record a project. This reflects the nature of the data collection strategy, which in light of the limited time available for a two-stage empirical research design, adopted a 'snow-balling' approach, recording groups and projects within the 'Master Sheet' within sub-sets related to the data source. For example, 'Lister Community Green', a green infrastructure project established by Lister Residents Association, is recorded three times in the overall data search. In this example, each entry relates to a different award programme, as 'Lister Community Green' was a recipient of three awards ('Groundwork Merseyside Environmental Awards'; Merseyside Environmental Awards 2012'; and 'North West in Bloom Neighbourhood Awards 2013').

Once a 'Master Sheet' of data was ready for analysis, with double-counts removed, it was necessary to group the fields to analyse the results of the desk-based search thematically. This in turn made it possible to assess how the groups across the population compared, and ascertain the character of the sample population as a whole. For example, how many different types of group structure could be observed; how many different types of activity were each group engaged in; how many sources of funding and support are associated with this scale of activity; what are principal methods of communicating within and between groups. In this way, it is possible to start to build up a picture of community-scale infrastructure activity, represented by individual groups and projects at the local (site/street/neighbourhood) level, but constituting a significant network when viewed as a whole.

Six spreadsheets were created in total (see Appendices), each experimenting with organising the search results thematically before identifying a definitive list of thematic criteria, which in turn represent the characteristics of the groups and projects recorded in the desk search of the sample area. It was then possible to begin grouping data entries around common themes. The six spreadsheets relate to the following characteristics: *status* (Group or Project) (Appendix 5.1); *governance* (Formal Group, Informal Group, Formal Project) (Appendix 5.2); *activity focus - broad* (environmental stewardship and volunteering-focus, food-focus, or both) (Appendix 5.3); *activity focus – detailed* (environmental stewardship and volunteering; food; health and wellbeing; education; and combinations thereof) (Appendix 5.4); overlay of *activity focus* and *status* (see Appendix 5.5); and overlay of *activity focus* and *governance* (Appendix 5.6).

A number of additional spreadsheets were also created to group the projects by themes reflecting the critical components for effective community action, for example *funding* or *networks.* An example of the former is the list of 38 groups who each received a funding grant in 2012 from the 'Natural Choices for Health and Wellbeing' grant funding programme; a programme whose core aim was to support voluntary community action in the Liverpool area which contributed to increasing levels of health and wellbeing through environmental activities. An example of the latter is a spreadsheet which groups together all of the entries collected through searching the 'Project Dirt' website, an online environmental forum which allows groups to promote activities publicly and communicate to other groups participating in the forum. A total of 64 groups were counted as utilising this social network. An additional example, is the spreadsheet created to capture all of the entries describing groups who have adopted a 'Friends' group structure. This includes a total of 98 entries, which is a significant proportion of the total 244 entries recorded (40%) (Figure 5.1).

In this way it was possible to begin to establish predominant themes common across the groups as a whole, or across significant proportions of the entirety of entries that make up the 'Master Sheet(s)' of groups and projects (see Appendix 2 & 3). Interestingly, a number of the themes which appeared as common across the sample echoed the thematic findings of the literature search (Chapter Three) of environmental stewardship and volunteering, which identified five 'critical components' of effective community action. For example, *governance, membership, funding,* and *activity,* are all represented within the criteria, highlighting the common components across the different types of groups and projects, but also potentially signifying the collective experiences that serve to shape the characteristics of activity at this scale.

The data collection strategy proved effective in collecting the maximum amount of unique data entry points (groups and projects) but did therefore necessitate an additional stage of data analysis to delete multiple entries for the same project in the 'Master Sheet(s)' (see Appendix 2 & 3). It is worth noting, that in some cases, it was not immediately obvious whether an entry was a 'double count', as in the case of 'Friends of Murdishaw Valley' and 'Friends of Murdishaw Wood' which potentially appear as two separate projects, but in fact are names used interchangeably for the Friends group associated with Murdishaw Wood and Valley Local Nature Reserve in Cheshire.

In this case, and others, it was therefore necessary to conduct an additional layer of data collection and analyse documentary evidence available on line relating to individual groups and projects. It is not impossible that in the case of a small number of entries, a group or project may have been double-counted because the same group of individuals have entered two different projects, based on the same site of green infrastructure, into an awards programme; or perhaps a group have changed the name of their activities over a period of time, but represent the same group of volunteers engaged on the same time. However, the effect of these potential duplicate entries were felt to be insignificant in the overall data analysis, and the thematic criteria used to describe the characteristics and in turn

the categorisations of community-scale green infrastructure, have been selected based on significant proportions of the overall sample of 244 unique entries; and evidenced in Section 5.3 which explains the results of the data analysis in relation to each of the ten thematic criteria.

A further limitation of the data collection strategy is that the nature of Formal Groups, such as Friends groups who are constituted, and Formal Projects, who are affiliated with public bodies and voluntary organisations, means it is more likely that documentary evidence will be available in the public domain relating to their activities. This may reflect the findings of the desk-search where Formal Groups make up 50% of the total number of records from the sample, and Formal Projects make up 38%. The author recognises that the 12% of records described as Informal Group according to this typology of community-scale green infrastructure may not accurately capture the proportion of groups active in the sample area, as the nature of Informal Groups is that their activities are more informally managed, and do not necessitate formal governance structures or affiliations with established organisations. In this way Informal Groups reflect the characteristics those groups engaged in activities such as 'guerilla gardening', 'permaculture' and 'foraging', described in Chapter 3 (Section 3.3).

5.3 Results – Characteristics of Community-scale Green Infrastructure

The desk search resulted in the selection of ten thematic criteria to describe the characteristics of community-scale criteria. The following sections describe the results of the analysis of the 244 unique entries collected as part of the desk search, and explain how information recorded about each entry was organised to select and define each criterion. Taken together, the thematic criteria constitute the *characteristics of community-scale green infrastructure* in the sample area of The Mersey Forest. The full list of the 244 groups and projects recorded is included in Appendix 2.

Figure 5.1 Basic typology of community-scale green infrastructure
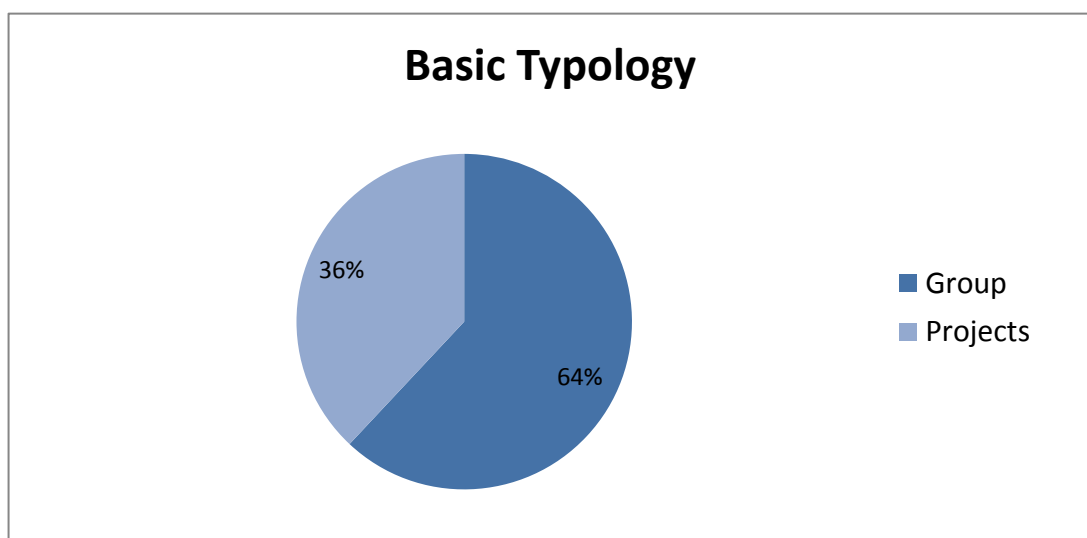
i. Group/Project

The main distinction made in the desk-search of voluntary activity in the sample area was between 'Group' and 'Project'. This represents the 'basic typology' of community-scale green infrastructure (Figure 5.1). In the context of this thesis, 'Group' describes examples of community-scale green infrastructure activity where volunteers have established a group to coordinate their activities around a particular site or a particular activity focus. 'Project' describes examples of green infrastructure activity where an established voluntary organisation whose core objectives do not focus on green infrastructure, set up a project to engage volunteers in the creation and/or maintenance of green infrastructure. The desk-search of community-scale green infrastructure in the sample area of The Mersey Forest area returned 244 unique examples of green infrastructure-focused community action. Utilising this 'basic typology' the total number represents 156 Groups and 88 Projects.

ii. Status

'Status' describes whether a group was active (at the time of data collection) or inactive (a group which has disbanded or a project which has discontinued activities). In general, it was difficult to establish the status of a group or project in these terms from the desk-search alone. Apart from a select few cases where the author had been involved in a group or project as an environmental volunteer, or as a stakeholder, participant or activist, and so could verify the status of an entry; the nature of the desk search, and the size of the sample area, necessitated a data collection strategy which relied almost exclusively on documentary analysis. This included utilising documentary evidence collected from online sources (websites, newspaper articles); and documents published and distributed by groups themselves (newsletters). It also included information from the websites of funding bodies such as Big Lottery Fund who publish records of all groups and organisations who have received grant funding, including how much, and for which project. However, in the latter example, it was not always clear whether a project had been extended beyond the initial funding period, or whether the project had facilitated the creation of a group to continue the work of the project, as in the example of 'That Bloomin Triangle', a resident-led community action project in Granby, Liverpool which initially received funding for street planting, and led to the creation of a green infrastructure Formal Group of the same name to continue the maintenance of initial planting.

Relying on documentary evidence, it was not always clear whether a group was active For example, 'Dingle Growers', a food-growing initiative set up by a group of people in the Dingle area of South Liverpool, do not have their own website. But, they do have a section on the website for 'Transition Liverpool', a network set up to share ideas about tackling peak oil and climate change through local community action. It is therefore possible to read about the aims and objectives of 'Dingle Growers', but as a static page, it is not possible to establish just from reading this page whether the group is still active. In this instance, it was possible to determine the 'status' of the project through two methods. Firstly, it was possible to cross-reference the details of the group on the online forum

'Project Dirt', and additionally, to check whether the 'Dingle Growers' profile on this forum had had any recent activity. Secondly, through environmental volunteering connections the author was able to ask if the project was still active. In this way, the role of an additional *network* was helpful in establishing the status of a group.

Another example where the role of *networks* in voluntary activity at the community-scale is evident is communications within and between groups utilising online forums and social media platforms such as Facebook. The desk search did highlight some more effective approaches being coordinated by voluntary and community sector organisations to advertise volunteering opportunities, such as 'VCF Direct', an online directory that includes contact information for all Voluntary, Community and Faith organisations/groups in and around the Sefton area, managed by Sefton Community Voluntary Services (CVS). For each entry available on the directory it is possible to search for contact details, links to web pages about the project, details of the group's legal structure, and links to any available policies and practices. 'VCF Direct' therefore represents a useful repository, however the focus of the search criteria indicates that it is mainly utilised by formally constituted groups, such as Friends groups, who have a legal structure and can reference policies and practices. For example, the Friends of Ainsdale Park are included in the directory with contact details and a link to a local newspaper article dated from 2010 about a donation of £760 made to the group from a local business to support their activities. For a potential participant using the directory to locate environmental volunteering opportunities, there is no way of establishing whether the group is still active, beyond the date of the newspaper article.

These examples serve to highlight the methodological challenge in recording an accurate status for entries to a 'Master Sheet(s)' (see Appendix 2 & 3); but further, they indicate the nature of community-scale green infrastructure itself: fluid, dynamic and responsive to internal stakeholders (including members and non-members) and external stakeholders (including local authorities and funding bodies). Although it was not possible across the sample to establish how many entries were active in 2008 and inactive at the time of data collection in 2013, how many had been established in the period from 2008 to 2013, and how many were active in 2013; it was possible to identify a range of groups and projects within each of these categories, making it possible to select a range of case studies for comparison (Section 5.4).

iii.   Site/Group Focus

Site/Group focus describes whether the activity of a group or project is focused on a particular site of green infrastructure such as a park, woodland or a community garden (Site), or on a particular activity or set of activities which meet the identified needs of a group or project (Group). Across the sample, 177 (73%) groups and projects were site-focused, and 67 (27%) were group-focused (Figure 5.2).
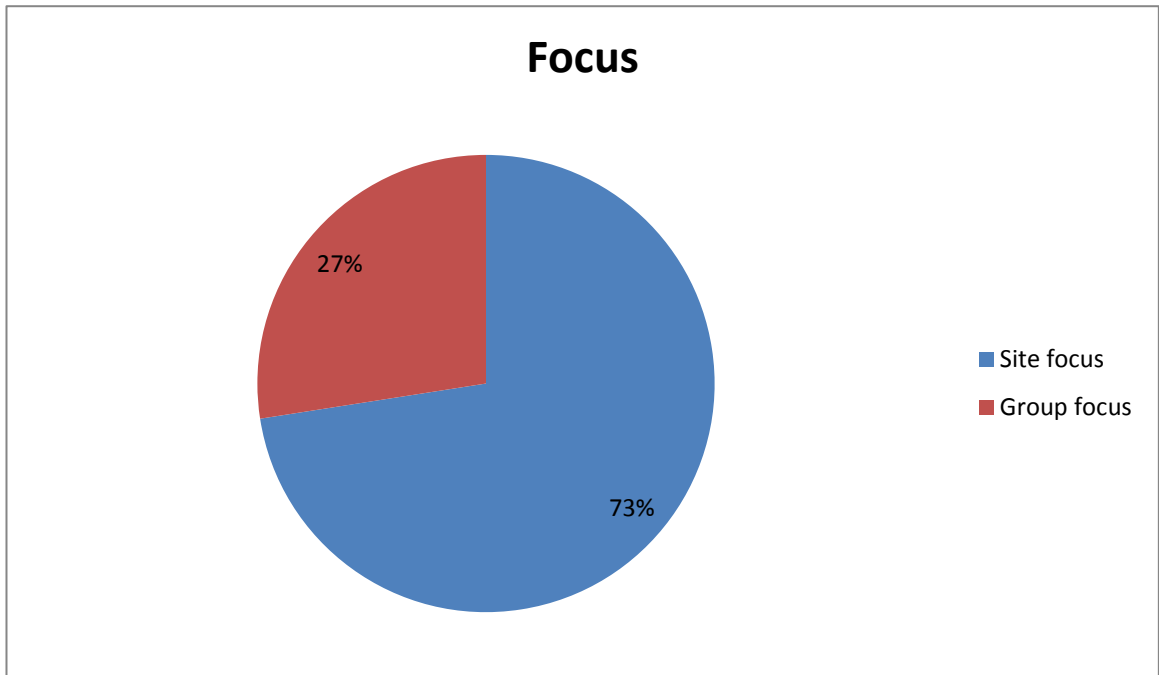
Figure 5.2 Site/Group focus of community-scale green infrastructure in sample area

In addition, the desk-search recorded whether a group or project focused their green infrastructure activities within one site, including parks and woodlands which include a number of land parcels, of which there were 158 examples (65%). The remainder sites either focused on more than one site, or it was unclear from the desk-search as volunteer opportunities were promoted in terms of the type/s of activity, rather than the type of green infrastructure being created or maintained. For example, a project whose focus was health and wellbeing may include a range of activities including food-growing, gardening, and education. Other groups were focused on a particular activity focus across a large area, such as the volunteers working with Sustrans, a cycling charity organising the conservation of green infrastructure along the 'Loopline', a linear cycling route in Liverpool.

iv.   Governance

The next layer of distinction made between the 'basic typology' of groups and projects was their approach to governance. Three distinct types were recorded across the sample area: Formal Groups, Informal Groups and Formal Projects. Formal Group describes groups who have formed to collectively organise the creation and maintenance of green infrastructure, and have adopted a formal governance structure, with constitution and committee structures. Informal Group describes groups who have formed to deliver green infrastructure, but do this outside of the framework of a formal structure, and are characterised often by the activities of one or two community activists, or by the activities of one-off or seasonal green infrastructure interventions, such as with foraging groups.

Formal Projects describes community-scale green infrastructure activities which are the result of an established voluntary organisation creating a project in response to an identified need for green infrastructure enhancement in relation to their place-based or interest-based community focus, or in response to an opportunity to deliver their core objectives, such as health and wellbeing, through green infrastructure activities. The results of the desk-search of The Mersey Forest area found that half of voluntary groups engaged in community-scale green infrastructure can be described as Formal Groups. The remainder of the 244 groups is split between Informal Groups (12%) and Formal Projects (38%) (Figure 5.3).

Governance

- Formal Group
- Informal Group
- Formal Project

50%

38%

12%
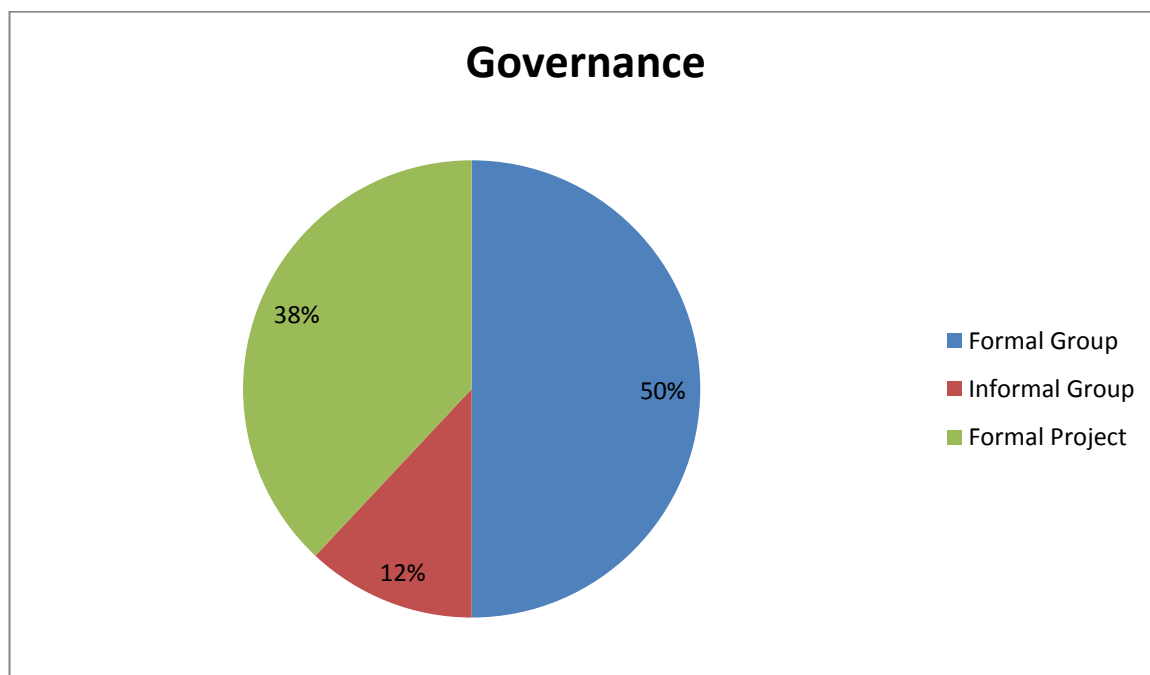
Figure 5.3 Governance of community-scale green infrastructure

It was also possible to ascertain from the desk-search that the governance approach of a group had a significant impact on what kind and how much information was available regarding a group's character from analysing documentary evidence in the public domain. CSGI groups, who were formally constituted such as Friends groups, were more likely to have an online record of their current status and available activities for interested volunteers. This correlation between a group's formality and their visibility online may be explained by the necessity of a legal entity to apply for funding grants; and in turn, the increase in likelihood that a group will be required to communicate its social or environmental impact through a funding body's website, as for example in the case of the groups who received funding through the Big Lottery Fund's 'Local Food' (2008-2014) grant programme.

Of the 121 groups recorded as Formal Groups, it was notable that 98 (80%) were constituted as Friends groups (Figure 5.4); suggesting that this is a popular model of governance structure for

volunteers engaged in environmental stewardship and volunteering. It is not clear from the desk-search what the motivations are for adoption of the Friends group model; although the evidence gleaned from the literature review suggests that there is an established network of Friends groups which volunteers may draw on, including the National Federation of Parks and Greenspaces. Furthermore, Carding and Sayers (2003) suggest that the rigidity of the structure of the Friends model provides voluntary groups with a clear framework for decision-making processes, which may otherwise be complicated by plurality of opinion. It is therefore a question which will be explored in more depth in the case study chapters.
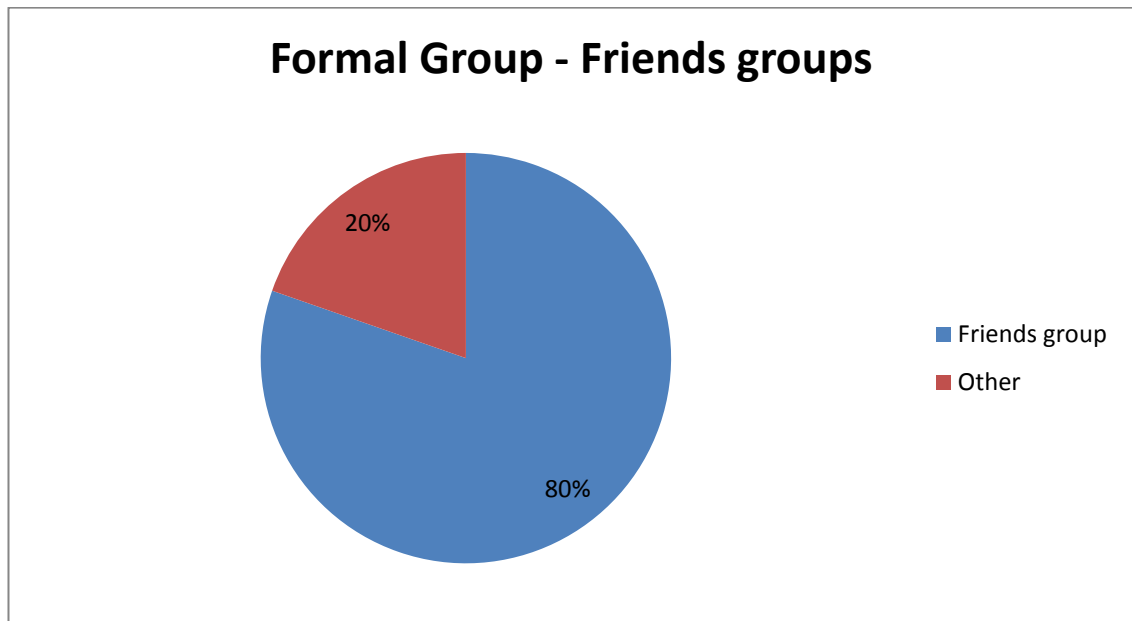
Figure 5.4 Percentage of Friends groups within Formal Group type

The significance of governance within the desk-search also contributes further understanding of the role 'soft governance' and 'informal networks' within community-scale green infrastructure (Thomas and Littlewood, 2010). The case study approach described in Chapter 5 will extend this discussion of whether further analysis of community action within green infrastructure provides the opportunity to explore the significance of governance, as defined in these terms, on the capacity a group to change and adapt in response to changing circumstances over time; and whether this resilience and longevity is more or less observable in groups with a formal approach to governance, compared to those with a more informal approach.

v.   Activity Focus

The next layer of characterisation of community-scale green infrastructure describes the activity focus of different groups and projects. The desk-search collected data relating to four principal areas of activity: environmental stewardship and volunteering; food-growing; health and wellbeing; and education. Other activities initially recorded in the 'Master Sheet(s)' (see Appendix 2& 3) were

captured within these broad categories, for example conservation and wildlife activities were subsumed within environmental stewardship and volunteering; and physical activity such as 'green gym' activities were included as health and wellbeing activities.

Three stages of data analysis were conducted. Firstly, the groups were divided into three main categories according to whether their principle objectives related to environmental stewardship and volunteering, food-growing, or both (Figure 5.5). Across the 244 records within the sample, 177 groups were described as having objectives with relate primarily to environmental stewardship and volunteering activities; 50 related to food-growing; and 8 related to both. In addition, 9 groups/projects were recorded as 'miscellaneous' as their primary objectives were related principally to health and wellbeing or education (Figure 5.6).

This initial stage data analysis was conducted in response to the findings presented in earlier in this thesis in relation to the literature which focuses on the role of food-growing initiatives in contributing social capital through green infrastructure activities at the community-scale (cf. Firth et al, 2011; Johnson, 2012; Zoellner et al, 2012; Eizenberg, Boyle and Mitchell, 2013). As such, the results of the data analysis suggest that less than a fifth of groups recorded across the sample area focused primarily on food-growing as a way to achieve their objectives and deliver social, environmental and economic benefits.
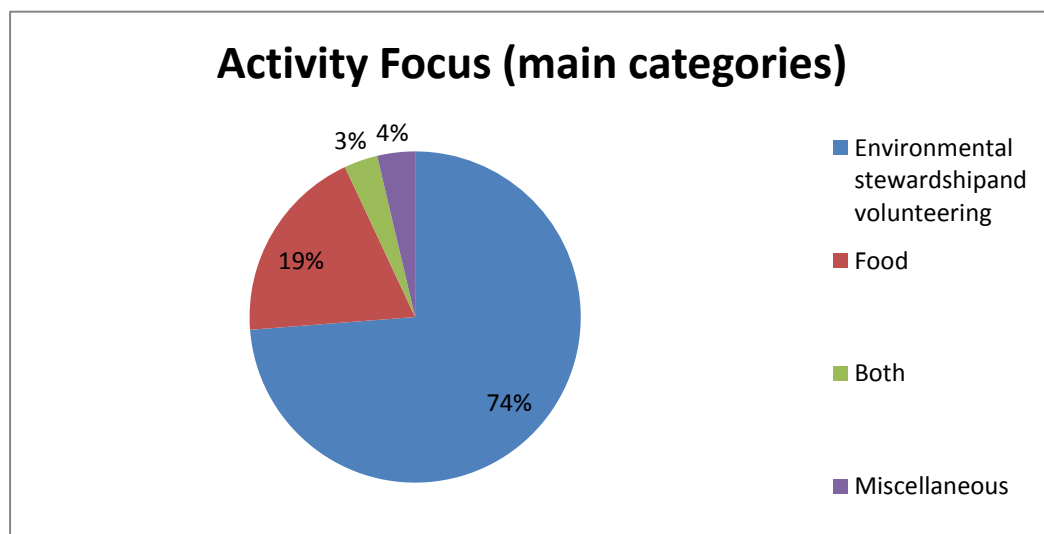
Figure 5.5 Activity Focus of CSGI in The Mersey Forest

The second stage of analysing activity focus across the sample involved a more detailed analysis of how many different groups and projects there were within each of the four main categorisations of activity focus (Figure 5.6). 'Environmental stewardship and volunteering' includes groups and projects engaged in 'traditional' activities associated with environmental volunteering such as conservation of habitats, land management, and tree planting; as well as more recent initiatives such as alleyway greening projects. 'Food' includes groups and projects which are focused on food

growing, such as allotment associations, urban agriculture projects, incredible edible initiatives, and food-growing in school grounds.

Community gardens, such as the 'Windsor Wellbeing ' project in Toxteth in Liverpool have been categorised as having a food and health and wellbeing focus to reflect the range of activities which volunteers engage with in community garden settings, such as 'stay and play' sessions for families and the creation of a sensory garden for people with additional mental health needs. Projects such as 'North End Writers' which invites people with mental health needs to participate in creative writing workshops in outdoor settings have been categorised as combining environmental stewardship and volunteering with health and wellbeing.

Groups and projects which are just environmental stewardship and volunteering focused include Friends groups, but also 'North West in Bloom' groups, such as 'Maghull in Bloom' in Maghull, Sefton, and 'Riverview Residents Association, Liverpool. Of the 244 groups recorded in the desk-search, 156 groups' activities could be described as having an environmental stewardship and volunteering focus; this represents 64% of the total sample. And of these 156 groups, 63% (98 records) were Friends groups. As highlighted earlier in this chapter, there are limitations inherent within the data collection strategy which could explain why a large majority (80%) of the Formal Groups recorded were Friends groups, however it is still significant that over half of the total sample were solely focused on environmental stewardship and volunteering activities, and not food-growing as implied by the recent focus in the academic literature.
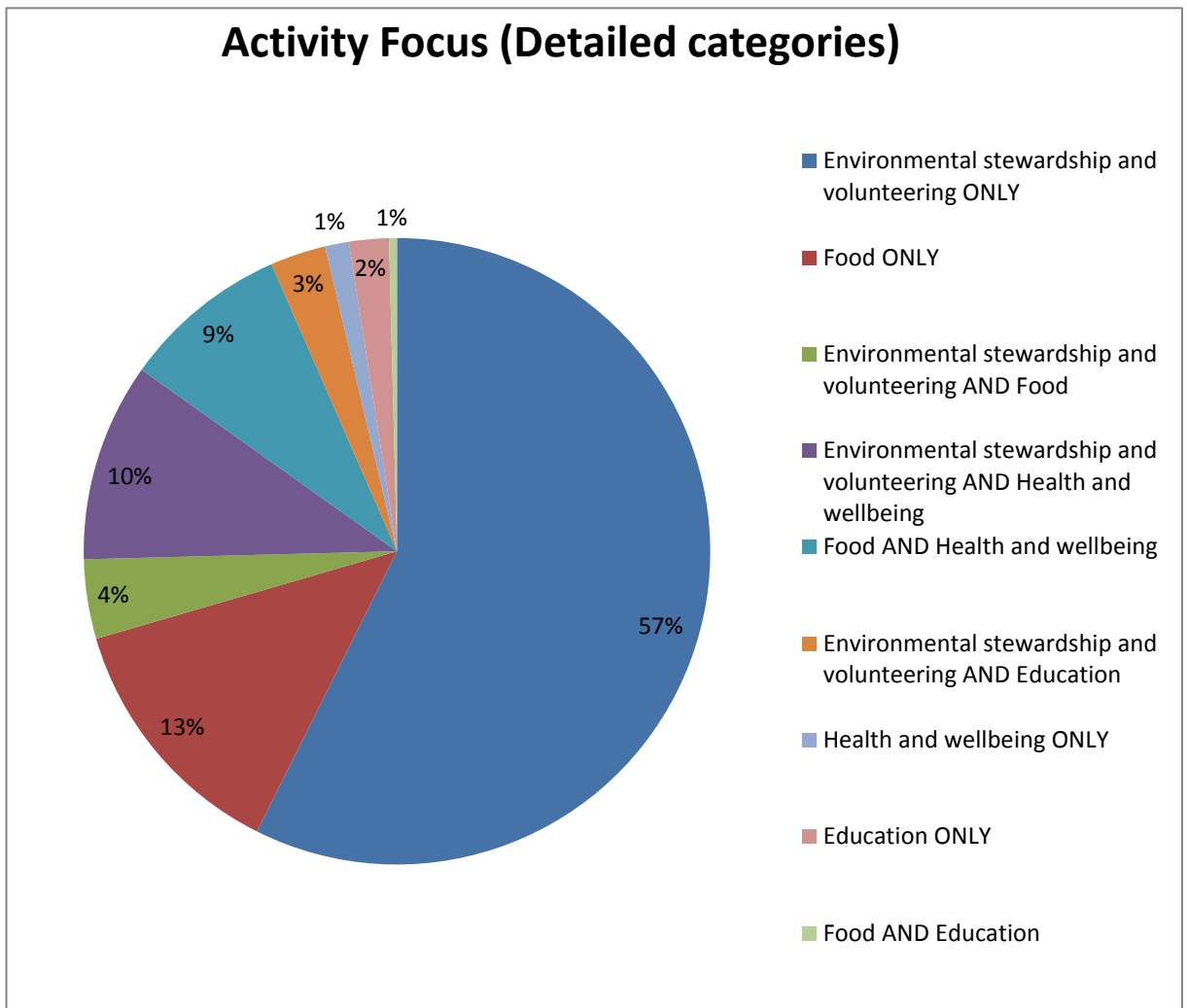
Figure 5.6 Activity focus of CSGI - Detailed categories

Groups and projects focused on environmental stewardship and volunteering and education included projects located within a school, such as 'Cherryfield Urban Garden' in Cherryfield Primary School in Knowsley; as well as, environmental pressure groups such as Liverpool Friends of the Earth who created environmental volunteering opportunities; and single interest groups, such as 'Wirral Bird Group' or 'Wirral and Cheshire Badger Group' who created environmental volunteering opportunities to advance a particular species or habitat. Other key findings from the analysis of activity focus in more depth show that 76% of the total sample of groups and projects had a singular focus (60% environmental stewardship and volunteering; 12% food; 2% health and wellbeing; 2% education).

Therefore, three quarters of community-scale green infrastructure groups in The Mersey Forest area are essentially 'single-issue' community action groups, with one key focus which they pursue through the creation and maintenance of green infrastructure. The next largest category of groups in this dataset was groups and projects which combined environmental stewardship and volunteering

with health and wellbeing objectives (10%). This is potentially linked to the policy drivers to enhance levels of health and wellbeing in the Liverpool City Region in recent years, encapsulated in strategic policy documents such as the 'Health and Wellbeing Strategy 2014-2019' (Liverpool City Council, 2014b). Equally, the findings reflect the role of funding such as the 'Natural Choices for Health and Wellbeing' (2012) grant programme funded and supported by The Mersey Forest and Liverpool Primary Care Trust.

The next largest category is groups and projects which combine food-growing activities with health and wellbeing (9%). In part, this may reflect the trend highlighted in the literature towards identifying food-growing initiatives as a principal mechanism for engaging individuals in environmental stewardship and volunteering and community-scale green infrastructure activity (Liverpool Green Infrastructure Framework, 2013: 113; Glover, 2004; Firth et al., 2011; Zoellner et al., 2011; Kingsley and Townsend, 2007; Speak, Mizgajski and Borysiak, 2015; Woods et al., 2016; Barthel et al., 2013; Gerodetti and Foster, 2015; Breuste and Artmann, 2014).

The third and final stage of analysis involved overlaying the activity focus with the 'basic typology' of Group and Project, to assess whether there was a relationship between particular types of activity and preferred approaches to group structure (Figure 5.6). The results of the analysis showed that 57% of the total sample of groups recorded were Groups with an environmental stewardship and volunteering focus. Within the 'environmental stewardship and volunteering only' category, 88% (123) of entries recorded were Groups, suggesting it was unusual for a Project to have a singular focus on environmental volunteering. The three largest categories of Project focus were 'environmental stewardship and volunteering and health and wellbeing' (25%), 'food only' (23%), and 'food and health and wellbeing' (23%); suggesting that potentially 71% of Projects recorded as part of the sample correlate to the recent trends identified in the literature of voluntary organisations whose objectives relate to addressing health inequalities creating projects which improve access to green infrastructure; and engaging people who are experiencing poor levels of health and wellbeing in activities related to food-growing, particularly through the creation of a community garden.

	Environ-mental Stewardship and Volunteering Only	Food Only	Environ-mental Stewardship And Volunteering AND Food	Environ-mental Stewardship And Volunteering AND Health And Wellbeing	Food AND Health And Well-being	Environ-mental Stewardship And Volunteering AND Education	Health And Well-being ONLY	Edu-cation ONLY	Food AND Education
Group	123	12	7	3	1	6	0	3	1
Project	17	20	3	22	20	1	3	2	0
Total	140	32	10	25	21	7	3	5	1

Table 5.1 Activity focus of CSGI by typology of Group and Project

In summary, the activity focus varied across the sample, and Projects showed greater variety of activity focus combinations than Groups, who were largely focused on environmental stewardship and volunteering. This may explained by the fact that Groups have a constituted or intentional green infrastructure focus, whereas as the Projects may be facilitating another set of objectives, such as health and wellbeing, through green infrastructure activities. However, across the Groups and Projects, it was possible to identify four key activity foci – environmental stewardship and volunteering, food-growing, health and wellbeing, and education – which were either pursued singularly or in tandem.

The most popular activity focus across the whole dataset was environmental stewardship and volunteering with 57% of all groups recorded as having this as their singular focus. If groups and projects which include environmental stewardship and volunteering alongside other foci are included in this number, the total increases to 75% of all CSGI groups within The Mersey Forest area. This suggests strongly that the 'traditional' activities associated with environmental stewardship and volunteering, such as conservation activities, and improvements to the local environment, are still an important driver for community action at the local level. For example, the majority of Friends groups recorded as active or recently active in the sample area, were engaged in practical land management within their green infrastructure setting or a park or woodland. Tasks included tree planting and tree management, site clearance and maintenance, annual planting of bulbs and flowers, food production, path and access maintenance, and pond or other water body management and maintenance. As a whole, these activities make up the large part of the role of a traditional park team, countryside ranger, or contemporary facilities management team. Plus, such tasks require a level of skill, and an understanding and proficiency in health and safety management. This in turn, may go some way to explain why such a large percentage of the sample is categorised by Friends groups (40%) as a type of Formal Group: the capital and revenue funding a group would need to train its volunteers to carry

out activities professionally is mainly accessed through central funding bodies such as big Lottery Fund, who require all applicants to show evidence that they are constituted as a legal body, with a bank account.

It may be argued that the results of the data analysis on activity focus suggest that reconceptualising environmental stewardship and volunteering as community-scale green infrastructure does not represent a significant divergence and therefore require a new definition. This argument, however, does not take into account the change in political and governance context for the majority of groups engaged in this type of activity who have witnessed a dramatic loss of funding and resource at the local level to deliver green infrastructure through traditional public sector actors and agents, such as parks teams and countryside rangers. Although the desk-search captured a small number of groups who were being supported by these types of agencies, such as Friends of Anderton and Marbury who work in close partnership with Cheshire and Cheshire West's Park Rangers; the vast majority of the groups recorded were not in receipt of regular local authority support; reflecting the position of 'non-essential' services as needing to be cut by local authorities, described in Chapter One.

vi.   Membership

The next thematic criterion included in data analysis of the sample was 'membership'. The focus of 'membership' was to ascertain whether the green infrastructure group could be distinguished or identified by its membership profile. For example, if there was evidence from the online records or archives that the group had a particular focus on providing activities to community residents from a specific street or neighbourhood, this group could be described as a 'place-based' community group (Firth *et al.,* 2011; Jerome, 2012). Other profiles to describe a group's membership profile relate to focus on a particular activity, and these groups may be described as 'interest-based' (Firth *et. al.*, 2011; Jerome, 2012). These first two types of membership profile were possible to establish from the data search by recording whether a group's name was associated with a geographic location; and whether a group was affiliated to an organisation whose core purpose is to engage people with a particular health or social need, such as a voluntary group providing activities to people experiencing additional mental health needs. It was more difficult to establish whether a membership profile can be described as 'people-based', introduced in Jerome's (2012) typology of community gardens. This third category, which builds on Firth *et al.*'s typology (2011), introduces the characteristics of *leadership, skill, connection* and *imagination* (Jerome, 2012: 40) as indicators of a community group's propensity for social capital. However, the nature of these characteristics was such that it was not possible to observe the presence or absence of such qualities from a desk-based search; and so, the impact of these characteristics on a group's membership profile would necessitate a more in depth case study approach.

'Membership' also describes the role played by volunteers within a Project; in contrast to the role played by staff members of the affiliated organisation. Initially the desk-search only recorded groups

whose membership was made up entirely of volunteers. However, during the process of identifying voluntary groups it became apparent that in the case of Formal Projects, which make up 38% of the total sample, activities are principally carried out by volunteers but the organisational capacity of the group is supported and administered by staff members from a voluntary organisation. In this way, the green infrastructure activities conducted within Formal Projects more closely resemble participation and engagement, than the activities conducted by Formal Groups, which can more closely resemble 'delegation' (Arnstein, 1969).

For example, the desk-search identified a list of 38 groups and projects who received a grant through the 'Natural Choices for Health and Wellbeing' programme, jointly-coordinated by The Mersey Forest and Liverpool Primary Care Trust in (2012). The nature of the grant programme necessitated that successful grant holders were engaged in the provision of volunteer opportunities at the community-scale (street-level, neighbourhood) with a clear focus on nature, access to natural green space, and activities associated with or set in a green setting. In this sense, this was a community-scale green infrastructure focused grant funding programme, within the boundary of the sample area, focused primarily on the health, wellbeing and social capital benefits received from interaction and engagement with green infrastructure (Wood, Bragg and Barton, 2013). By comparing online information and communications relating to the 38 projects involved before and after their participation in the 'Natural Choices for Health and Wellbeing' programme; and by considering the information provided within the evaluation of the programme prepared by Wood, Bragg and Barton (2013), it was clear that a number of organisations in receipt of grant funding had created Formal Projects in response to funding opportunities; which in turn created additional opportunities to enhance social benefits through community-scale green infrastructure activities.

vii.   Funding and Awards

'Funding and awards 'describes how a group approaches the resourcing of their green infrastructure activities, as well as recognition of their achievements through an award. Within the desk-search it was possible to record groups and projects in relation to award programmes, including initiatives focusing on physical changes a group makes to their local environment such as the North West in Bloom awards, as well as initiatives which also focus on the social and environmental contribution a green infrastructure group makes, such as the Merseyside Environmental Awards. The 'newsworthy' status of the ceremonies associated with award programmes, including publication of entrant lists, made it possible to collect additional groups and projects which may not otherwise promote their activities due to their Informal Group approach.

For example, 'Adamson Alleyway' an alley greening project in Liverpool, has won the 'Overall Best Project' category of the North West in Bloom awards over successive years; as has 'Cecil Mews', an alley greening project located less than a mile from 'Adamson Alleyway'. However, whereas 'Cecil Mews' have been successful in attracting media attention, such as a feature article in the local

newspaper 'Liverpool Echo' asking for donations of plants and materials to support their efforts of transforming the alleyway of a terraced street into a site of multi-functional green infrastructure; 'Adamson Alleyway' were not observable through documentary evidence online, except through the North West in Bloom annual awards, even though the two projects are clearly comparable in their achievement.

The presence or absence of fundraising capacity was not always observable from a group's publicly available records. If a group had been successful in receiving a grant from a large-scale funding body, such as Big Lottery Fund, the Postcode Lottery or the Heritage Lottery, for capital purchases of tools and equipment, or the creation of communication materials to support recruitment and engagement of volunteers, it was possible to view this detail through online archives of funding bodies. For example, Cohiba Productions, a voluntary organisation in Liverpool which engages with mental health service users in creative activities, is recorded within the dataset as a Formal Project. Through analysis of documentary evidence available on line, it was possible to establish that Cohiba Productions received a Big Lottery Fund grant in 2012 of £7,560 to engage service users in cooking and gardening activities. Cohiba Productions also received £9,950 in 2013 to engage women service users in employability training and skills, suggesting that Cohiba Productions are an example of a group who respond to funding opportunities to meet the needs of their beneficiaries, and are adaptable to changing political and financial priorities reflected in the distribution of funding through bodies like Big Lottery Fund.

The study has employed a rationale which recognises the role access to funding plays in relation to capacity building at the community scale. Funding, in particular grant funding, is often restricted in its use for capital or revenue project costs; and as such, can have considerable impact on the capacity of a project to do certain 'things' which in turn stabilise other 'things' and 'events' which a CSGI group may be focused on delivering. For example, the Big Lottery's 'Local Food' grant programme (2008-2014) was available to small, medium and 'beacon' level projects and stipulated minimum and maximum grant spend on capital and revenue for each scale of grant available. Furthermore, there are inherent restrictions within the framework of specific funding programmes which may act as a barrier to application, depending on the group's capacity to interpret the meaning of certain phrases used to describe CSGI activity.

For example in the Big Lottery Award's 'Local Food' grant application, a project's eligibility is assessed on a range of criteria, including adequate evidence to display 'a good level of social, economic and environmental sustainability'. Essentially, this is technical language for describing a group's capacity to deliver CSGI which: considers the role of social capital and is accessible to all; considers how activities will be resourced in the future, beyond the period of the grant funding award; and considers what impact a group's activities will have on the environment. And yet, depending on the membership profile this use of technical language may prevent a group from

applying; and may, in turn, contribute to a group's diminished longevity in the absence of funding to support activities and volunteer opportunities.

'Networks' describes the ways in which a group is linked into other groups, bodies and organisations with shared interests, whether these are place-based or interest-based. The role a group's wider network of stakeholders can have on its capacity for adaptation, and therefore longevity and resilience, can be conceptualised in a number of ways. In simple terms, a group may benefit from membership of a network by increasing opportunities for collaboration and information sharing, for example by sharing details of a new funding grant focused on green infrastructure activities in the locality, or by sharing knowledge, skills and resources.

On the one hand, these types of 'networked activity' are possible to measure and are easier to evidence, by noting which groups are signed up to green infrastructure-related mailing lists or have posted within an online forum focused on green infrastructure activity. On the other hand, in light of the limitations of a desk study approach to data collection, the different routes by which groups are networking which are observable through secondary sources such as web searches and archive collections; do not necessarily represent the entirety of a group's involvement and engagement in networks. That is, groups may be connected to each other in less formal ways, which are typically not recorded, for example by attending each other's events or sharing advice and skills. It was possible that this second category of networking may have made up a substantial amount of effort and resource, particularly considering the small-scale and localised nature of community-scale green infrastructure groups. Therefore, the 'networks' category, and the nuances it encompasses, became integral to the conceptual framework for the case study approach, which is explored in more detail in the next chapter.

Although more difficult to measure, particularly in the context of a desk study, social capital was useful as a conceptual framework for understanding the drivers and outcomes of 'networks' as a characteristic of community-scale green infrastructure. As such, Putnam's three types of social capital – bonding, bridging and linking – were considered in the desk study as an approach to record the ways in which groups were connected to other groups, as well as the types of groups they were connected to, i.e. other community-scale green infrastructure groups with broadly similar objectives to them (bonding), organisations with complementary objectives but more a strategic focus (bridging), and groups or bodies with different skills and expertise, including those operating outside of the sample area (linking) .

Building on Littlewood and Thomas' (2010) work on 'informal networks', it was possible to evidence that within the sample area CSGI groups are contributing to and benefiting from formal

networks. It was also possible to characterise the networks being used by groups at the time of the desk study in relation to rationale behind the creation of the network.

Some networks appeared to be established upon the principle of connecting groups with a similar activity focus, such as 'Liverpool Food People', a network for individuals, voluntary groups and commercial enterprises engaged in small-scale food production in the Liverpool area. Another example captured in the desk-search was 'Project Dirt Liverpool', an online forum designed to act as a virtual network of groups engaged in environmental volunteering and stewardship. Out of 244 groups recorded in the desk-search, 65 groups (representing approximately a third of the total sample) were utilising 'Project Dirt Liverpool' to share news, advertise upcoming or regular volunteering activities, and informally share knowledge and information with other CSGI groups. In both examples, membership of a network is shown to have the potential to create opportunities for creating social capital, in particular bonding and bridging social capital.

Other examples of networks observed within The Mersey Forest area were characterised more by their association with a grant funding programme. An example of a network which is characterised by its activity focus, as well as its geo-spatial character, is the network facilitated by the Natural Choices for Health and Wellbeing programme, linking 38 groups and projects across Liverpool with a green infrastructure and wellbeing focus. An example of network characterised by its activity focus, but without a geo-spatial focus, is the Big Lottery Fund aimed at groups who had been awarded funding through the 'Local Food' programme (2008-2014). A third type of network was characterised by a group's approach to governance. The National Federation of Friends Groups, is an example of a formal network providing a route for Friends groups to share knowledge and skills, within and outside of their locality.

ix.   Communications

'Communications' describes how a group uses social media, as well as printed media such as newsletters and posters, to communicate with existing and potential members, as well as the wider community. The types of communications observed can provide insight into the primary aims and objectives of a community-scale green infrastructure group as it is likely a group will advertise the activities which it feels best represents its membership profile or preferred activity focus. Communications can also provide insight into a group's governance status as some of the groups recorded had archival material relating to annual general meetings and other formal meetings, indicative of their status as a constituted group.

Very few groups had their own website dedicated to sharing information and promoting volunteer opportunities. The groups most likely to have a web presence were those whose activities or site were affiliated to another organisation, such as the Friends groups involved in The Mersey Forest's Community Contracting Initiative, or groups who had received a funding grant from a strategic scale

funding body such as the Big Lottery Fund, who create an online space for groups to report the outcomes and impact of their projects. The lack of digital communications maybe explained by the skills and technical knowledge needed to create a website or other method of communication online, such as a blog. Unless a volunteer involved in the group can provide these skills, it is unlikely that the group will prioritise finding resource to commission this kind of communication. There is an exception however, particularly in recent years, and that is the use of Facebook as a tool for communicating and engaging with existing and potential volunteers.

It was possible to find Facebook pages and profiles belonging to groups who were recorded elsewhere, for example many of the groups identified within the records for the Natural Choices for Health and Wellbeing programme were also identifiable by their use of social media, in particular Facebook. This reflects the general rise in popularity of social media as a means to engage wider audiences in a place-based or issue-based group, but also suggests that the ease of use of social media platforms compared to full websites allows more groups to access this digital technology to advance the objectives of their group. The study found that a common use for Facebook, for example, was to advertise an event or a one-off volunteering opportunity outside of the regular sessions which make up the green infrastructure activities on offer.

Other groups, although the sample was much smaller, were utilising social media as an innovative approach to fundraising, for example one group has bought a wood-burning stove to use in cooking activities by using a 'crowdsourcing' website to collect donations from the wider community. In this way, the capacity of a group to take advantage of alternative means of communication, specifically digital communications, has additional value beyond the initial purpose of amplifying the message about their current activities. In some instances, there was evidence that sophisticated use of digital communication also provided an opportunity for interacting with a wider audience, including individuals who were not connected to the site geographically, but who empathised with the ideas or objectives of the group, for example local-grown food produce in areas experiencing poor access to fresh food.

In this sense, digital communications was being used a mechanism for increasing and enhancing 'bridging' social capital for some groups; and communications were being used as a two-way beneficial experience, sitting in contrast to more traditional types of communications adopted by voluntary groups such as printed media, for example leaflets or posters, which limit two-way communications and prioritise 'telling' people what is happening rather than inviting individuals from outside the group to influence or change activities, by commenting on (for example through social media) or supporting from afar (for example through 'crowdsourcing' donations).

Although there was evidence of innovative use of digital communication, the majority of groups who were found to have content on the web or on social media relating to their green infrastructure activities were not prioritising this method of communication as much of the information found was

out of date, and in some cases did not show whether a group was still active or inactive. In this regard, groups appeared to understand the importance of having a digital identity to be findable on the web, but for reasons unclear without more in depth investigation, were unable to maintain this method of communication. In some cases, groups had a web profile with a short description of their main objectives as a green infrastructure focused group, and details of location, regular volunteering sessions and a contact name and number for enquiries. It was unclear however, whether these details were up-to-date, and in a number of instances where it was unclear whether a group was still active, an email to the advertised addressed did not result in a reply, suggesting some of the web sites for groups were effectively dormant.

There was some evidence that traditional methods of communication, including printed materials such as leaflets and posters, as well as advertisements in other publications such as local newspapers or newsletters, were being used by groups; although it was more difficult to ascertain the extent to which this was the preferred method of communication in the constraints of a desk-based study. In the case of groups who were more formal in their governance arrangements it was also possible to find evidence of formal meeting records being shared digitally. In the case of the Friends of Everton Park for example, formal meetings were advertised to their network of members through an email alert system, and copies of meeting records and seasonal newsletters advertising upcoming activities in the park were made available through the same membership list.

In this way, groups were utilising digital communications to widen their membership and encourage engagement, offering opportunities for people to be involved beyond the scope of traditional environmental stewardship activities, such as site clearance or tree planting. As such, there was evidence that digital communication is being used to enhance volunteering opportunities, by offering activities which do not necessarily involve being present on site. A good example of this was one group who were advertising for assistance in managing their membership communications through an online survey tool, with the aim of making their message more focused for each individual signed up on their mailing list, targeting events and news items based on what somebody has indicated as their interests. Potentially, as groups become more confident, the use of digital communications could increase their overall capacity by providing and organising information about their membership, and suggesting which activities should be foregrounded or backgrounded based on consultation and feedback.

Summary

The desk-search resulted in a clustering of characteristics to describe a 'basic typology' of community-scale green infrastructure: Group and Project. Groups describe green infrastructure activities which are delivered by a voluntary group whose main objectives relate to the creation and maintenance of green infrastructure at the local level. Projects describe groups who are affiliated to voluntary organisations whose objectives are not related to the delivery of green infrastructure; set

up in response to identified needs relating to the multi-functional benefits made possible through access to green infrastructure at the local level.

It was then possible to establish three main approaches to *governance:* two types of Group – Formal Group and Informal Group; and one additional type, Formal Project. Formal Groups are characterised by their formal approach to governance with a constitution, committee structure and enhanced capacity to access funding and other resources. Informal Groups are characterised by an ad hoc approach to organising activities, and may involve one-off events or seasonal events to engage community members in green infrastructure activities, such as foraging groups. Formal Projects are characterised by the support made available to the voluntary group by members from the affiliated voluntary organisation which may assist a group in terms of fundraising, and communication with external stakeholders.

The Groups and Projects range in their activity focus, but the majority of groups recorded in the sample (56%) were characterised by their Formal Group status, and their focus on 'environmental stewardship and volunteering'. The next two largest categorisations were characterised by their Formal Project status; and their focus on 'environmental stewardship and volunteering' combined with 'health and wellbeing'; and 'food' focus respectively.

The role of the other thematic criteria in contributing to the character of groups, and therefore affecting their capacity for longevity and resilience, was less clear from analysis of the documentary evidence available through the desk-search. It was therefore necessary to select a discrete number of case studies from the 'Master Sheet(s)' (see Appendix 2& 3) to explore in more detail the nuances of characterisation across the typology CSGI Groups and Projects. It is this process of case study selection which forms the next section of the chapter.

5.4 Identifying four case studies

This section explains in more depth the reasoning behind the selection of four case studies: one to represent each *type* of community-scale green infrastructure identified in the desk-search of The Mersey Forest area (Formal Group, Informal Group, Formal Project), and an additional selection of an inactive Formal Group to allow investigation of an example of a group which was active within the timeframe of the data collection strategy (2008-2013), but has since disbanded (Section 5.2.2). The population of 244 unique groups identified through the desk-search of CSGI activity in The Mersey Forest area provided a large sample from which to identify characteristics and create a typology of CSGI groups and projects. In this way, the desk-search represents the 'skeleton' of a framework for understanding the phenomena associated with the delivery and long-term management and maintenance of GI at this scale; and the in-depth case study selection represents a rich layering of experiences to animate each of the types. In addition, it is essential to test any assumptions made through the desk-search as to the characteristics utilised to categorise the three

types of CSGI. And most of all, the case study approach provides a methodology for collecting data to describe *how* the differences between the types (governance structure, activity focus, etc.) relate to their capacity for longevity and resilience.

The decision to select four case studies to explore in more depth is explained in two ways. Firstly, each of the cases has been selected to act as a representative case of a particular type of CSGI (Formal Group, Formal Group – Inactive, Informal Group, and Formal Project). Secondly, the four cases have been selected from a large sample of 244 groups in order to test any inherent assumptions within the larger sample, which is too large to allow in-depth investigation into each count, by conducting intensive observation of a smaller number drawn from the sample. The importance placed on intense observation is drawn from Flyvberg's (2006) work on case study selection and the merits of different approaches to case study research. Flyvberg (2006) asserts that the method of case study selection, and subsequent approach to data collection and analysis, should be appropriate to the problem under study (2006: 226).

As such, the approach to case study selection leads us to a broader question of *what* are the phenomena under investigation, and *what* is the unit of analysis in each of the cases selected. Although the typology presented in Chapter Five goes some way to describe the nature of CSGI as a discrete approach to green infrastructure, it does not illuminate in any depth or nuance the causal or correlative relationship between particular characteristics or 'critical components', and the phenomena of longevity and resilience. As such, the case study approach offers an established methodology for a more in-depth qualitative analysis of the interactions between defining characteristics and lived experiences of phenomena, in order to provide new knowledge from which to theorise the relationship between CSGI type and longevity and CSGI type and resilience.

There is one further consideration. Whilst, Flyvberg (2006) defends the possibility of generalising from a single case study, he also argues the counterpoint to the need for formal generalisation: 'A purely descriptive, phenomenological case study without any attempt to generalize can certainly be of value… and has often helped cut a path toward scientific innovation.' (2006: 227). This is an important distinction to make in the different, multiple reasons for selecting a research design which hinges on a case study with a small number of in-depth cases. It is possible the analysis of data collected from each of the cases provides a rich picture of activity within that particular group, without providing generalisable findings to predict or anticipate experiences of other groups with a similar set of characteristics, as defined by the typology. This does not, however, diminish the significance of the singular case to scientific enquiry; rather "the force of the example" is an underestimated as a source of scientific development (Flyvberg, 2006: 228), and may in fact provide essential understanding to advance knowledge, deepen understanding, and catalyse further research into a particular phenomenon.

5.4.1 Formal Group

The first case study is a representative example of a Formal Group. This type has two important descriptors: 'formal' and 'group'. Formal Groups are distinguished by their voluntary activity which is wholly organised and administered by a group of volunteers. This is different to Projects which are partly organised or administered by a voluntary organisation, with paid members of staff. As described in Section 5.3 (v.), 65% of all community-scale green infrastructure groups recorded within the desk-search are characterised by the type Formal Group; and 40% of Formal Groups are Friends groups. Therefore there is a strong rationale for selecting a Friends group as a representative type of Formal Group to explore how this approach to creating and maintaining green infrastructure lends itself to longevity and resilience. Furthermore, this case study represents an extension of Carding and Sayer's (2003) evaluation of the Community Contracting Initiative model which was set up to support Friends groups in their land management activities.

The second important characteristic of these groups is their approach to governance. The 'Formal' aspect of their descriptor within the typology is to distinguish them as groups who have selected to adopt a formal governance arrangement to convene their green infrastructure activities. For example, Friends of groups are constituted community groups, governed by an elected team of officers (Secretary, Chair, Treasurer) with responsibilities relating to formal structures and processes.

In addition, by agreeing constitutional arrangements the group are committed to a framework for decision-making which is transparent and a management structure which ensures accountability to all members who engage with the governance procedures in place. Potentially this is a consideration made by funding bodies who specify that applicants are constituted in order to be eligible for funding, particularly large publicly accountable bodies such as Big Lottery Fund. It will be of interest to this thesis to explore the extent to which a theoretical understanding of the benefit/s of particular approaches to governance in constituted groups translates to benefit/s practice. This will be explored within the Formal Group case study within the thematic discussion of *governance*; reflecting also the role governance plays as a 'critical component of effective community action' (Chapter Three).

Within all four case studies, five thematic areas of influence defined as 'critical components' in Chapter Three, namely *governance, membership, funding, support* and *activity focus,* will shape the discussion of how CSGI groups experience the creation and maintenance of green infrastructure within the context of their adopted group structure. It is therefore essential that the scope of groups represented by the selection of case studies represents as full a range of variables within the typology of CSGI as possible.
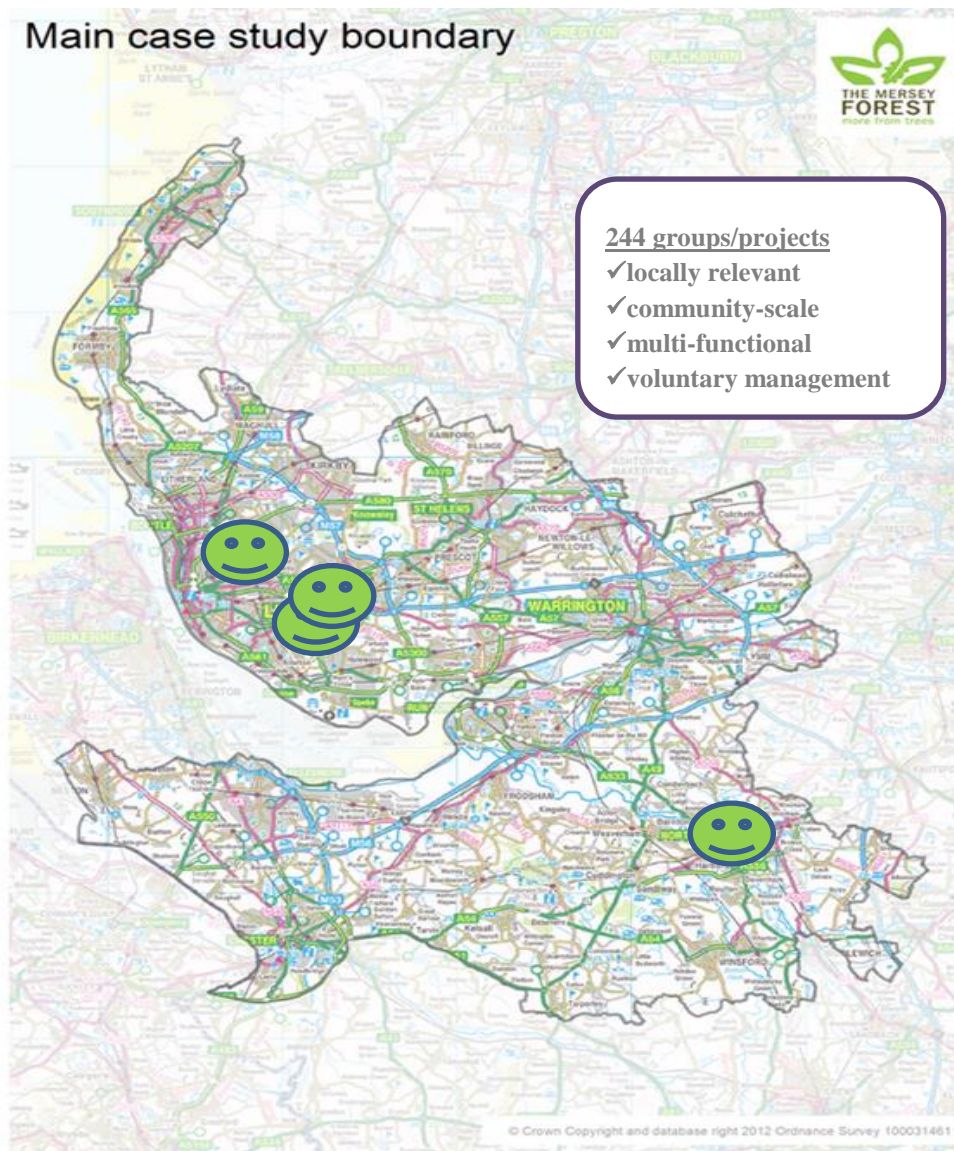
Map 5.3 The Mersey Forest boundary showing locations of four case studies Source: Author

A key consideration, therefore, for the selection of a Formal Group case study was to select a group which, as far as was possible to establish within the limitations of the desk-search data collection strategy, characterises the Formal Group type. As identified in Section 5.3, the Formal Group type is primarily characterised by its formal approach to governance, so as far as was possible to analyse from documentary evidence through the different stages of data analysis, a group was selected which typified a formal governance model. In addition, as previously identified, the case study approach presents an opportunity to revisit themes identified within the literature and reflect on research findings which suggest good practice approaches to environmental stewardship and volunteering, with the aim of achieving optimal capacity for longevity and resilience (Carding and Sayers, 2003).

In light of these objectives for the case study approach, Friends of Everton Park (FOEP), a parkland Friends group based in North Liverpool, was selected as a representative case study for exploring in

more depth the characteristics of a Formal Group. The rational of case selection was three-fold. Firstly, results from data analysis of information collected about FOEP included evidence - from the group's web site, e-newsletters, and Liverpool City Council's website - that the group were active at the time of data collection, and this activity included regular activities for 'members', drop-in sessions and events for community participants, and public meetings facilitated by the FOEP Committee to discuss the business of the group. All of which provide evidence that FOEP are conducting their CSGI activities in the manner of a Formal Group, as defined by the typology (Section 5.3).

Secondly, the desk-search results included evidence that the group had been constituted in 2002, meaning that they had been active at the point of data collection for over a decade. This was apposite for the case study selection as it meant that if it was possible to engage the group in a case study approach, there was a potential to gather data – including documentary evidence and interview participation (Chapter Six) – from a lengthy period of activity.

And finally, the case selection partly reflected the role of the author as principal investigator within this thesis. As an active and engaged environmental volunteer within The Mersey Forest sample area, the author had personal and professional connections with a number of groups, reflecting the role of *networks* within CSGI activity. Partly as a successful applicant of grant funding through the 'Natural Choices for Health and Wellbeing' (2012); and partly as a trusted partner of Squash Nutrition, a Liverpool-based voluntary organisation who create social benefit through health and wellbeing and food-focused activity; the author was able to approach 'core members' of FOEP to gauge their interest in being involved in the research study. Their positive response was a contributory factor in the case selection.

5.4.2 Formal Group (Inactive)

The second case study selection was a representative Formal Group, who could be evidenced as being Inactive (disbanded) at the time of data collection. In terms of the typology, Formal Group (Inactive) reflects the characteristics of a Formal Group (Section 3.3; Section 5.4.1) in every other way except in their status as being inactive. In this context, 'inactive' described a group which has formally discontinued the green infrastructure activities which had defined their status as a Formal group. As discussed previously in this chapter, the nature of the desk-search made it difficult to establish in every case whether a group was active or inactive. For this reason, the 'Master Sheet(s)' (see Appendix 2& 3) has a total of only seven groups whose status could be confirmed as inactive at the time of data collection, due to the limitations of data analysis through documentary analysis.

The final case selection was therefore limited to these seven groups which could be confirmed as being Active within the time period identified in the data collection strategy (2008-2013), but who were Inactive at the point of data collection. As this was a very small percentage of the total sample

of 244 projects, it was felt that an additional layer of verification would enable a more robust selection. As such, each of these seven groups was explored in more detail to contrast and compare which of them would present the fullest opportunity for gathering as much data as possible through a case study approach. As such, an extended period of data collection for each of the seven groups was conducted, and through this methodology it was possible to identify Friends of Furey Wood as the preferred case selection for the following reasons.

Firstly, Friends of Furey Wood, a woodland Friends group based in Cheshire, could be evidenced as being active for a period of thirteen years (1995-2008). Documentary analysis showed that during this period, their activities as a Friends group involved regular engagement of a group of core members; engagement in the Community Contracting initiative (1998-2001), led by The Mersey Forest; and partnership working with the local authority ranger team for Chester and Cheshire West. Therefore, there was a reliable certainty that there would be a range of archival material available for data analysis; including documentation collected by a Friends group to evidence decision-making, for example minutes of meetings and records of participants; documents collected by The Mersey Forest evaluating the CCI model; and potentially documents from local authority sources recording the types of activities the group engaged in with support from the ranger service. This represented a strong basis from which to be able to conduct additional data collection through interview methods as it was more likely that individual members and stakeholders could be identified through archival analysis.

Secondly, as a CCI participant, Friends of Furey Wood were known to members of The Mersey Forest team. As such, during the case selection process, it was possible to engage a staff member in the community team within the organisation to ask for their reflections on the suitability of FFW as a representative case of a Formal Group (Inactive). The staff member in question was in a position to provide this information as their role within the organisation involved providing on-going facilitation and governance support to a small number of community groups engaged in long-term stewardship of woodland sites; as well as helping to set up new voluntary groups keen to engage in site stewardship.

The selection of FFW therefore also reflects the findings from these conversations in which FFW was portrayed as a group with a strong track record of delivering social and environmental benefits through the creation and maintenance of multifunctional green infrastructure at the site of Furey Woodland in Northwich, Cheshire. The length of their activity as a CSGI group (13 years) echoes this opinion and in the terms of the core research aim to investigate aspects of longevity and resilience, this was felt to be an excellent opportunity to investigate the drivers behind a group's effectiveness for over a decade, and the particular factors and forces which combined to create a situation in which a group's members would disband after such a lengthy period of activity.

5.4.3 Informal Group

The third case selection was a representative example of an Informal Group. As such, it was necessary to identify a group with characteristics fitting the description of this type as defined by the typology (Section 5.3). An Informal Group is defined by: its character of being wholly managed and administered by volunteers from the community, with no input from an organisation from the community and voluntary sector; and by its informal approach to the creation and management of green infrastructure without adopting any of the formal constitutional arrangements or governance procedures associated with a constituted group.

The results of the desk-search show that there are two principle categories of Informal Group. The first category is characterised by one-off or irregular green infrastructure activities in areas of publicly accessible land with or without the permission of the landowner; and includes groups engaged in 'guerrilla' gardening, permaculture gardening, wild food foraging, and Incredible Edible groups. The second category is characterised by groups of residents working in a collaborative way to make environmental improvements through stewardship of open spaces or shared green spaces in close proximity to where they live, and includes urban street tree planting initiatives and alleyway greening initiatives.

The 'Master Sheet(s)' of groups recorded within the sample area, includes 29 unique entries categorised as Informal Groups. Out of all three types of CSGI, this was the smallest proportion, at just 12% of the total sample. As such, the case study selection was limited to these 29 groups. To enable a robust case study approach and to enable an effective comparison across the four representative case studies, it was decided that a selection from the second category would enable more opportunity to gather documentary evidence and engage willing participants in primary data collection (for more details on methods employed, see Chapter Six). It was considered that Informal Groups engaged in environmental stewardship within their local area, through street tree planting and alley way greening, potentially provided a more stable and consistent 'dataset' from which to gather evidence and make reflections on the critical components of effective community action; in contrast to an Informal Group who may only meet once or twice a year to engage in 'guerrilla' gardening.

From the selection of street tree planting and alley greening initiatives represented in the 'Master Sheet(s)' of all CSGI groups recorded in the sample area (see Appendix 2 & 3), 'Cecil Mews Project' was identified as the group with the most active engagement at the time of data collection. For example, it was possible to see that they had been nominated for an award in the 2013 North West in Bloom Neighbourhood Awards; they had won a Merseyside Environment Award in 2012; and their activities had been included in The Liverpool Echo's 'Wish Campaign' in 2012 and 2013. These examples also served to show their pro-activity in engaging external stakeholders to draw on

support for their activities; and a level of capacity for recognising the importance of *funding* and recognition through awards to promote and lever resources for continuing their activities.

And finally, although the desk-search identified 'Adamson Alleyway' - another alley greening initiative which was active at the time of data collection in the same neighbourhood in Liverpool - it was decided that the greater range of documentary evidence relating to the 'Cecil Mews Project', compared to 'Adamson Alleyway' whose activity was only evidenced by inclusion in the North West in Bloom Awards, would ease the process of data collection for a more in depth analysis of the factors and forces affecting longevity and resilience.

5.4.4 Project (Formal)

The fourth and final case selection relates to the third type of community-scale green infrastructure – Formal Project. As previously defined in this chapter, Formal Projects are characterised by their association with a voluntary organisation. Formal Project is therefore distinct in the typology as a type of CSGI activity which is not wholly managed by volunteers, but is supported by established voluntary organisations, including those who historically have not focused on offering green infrastructure activity. Across the sample, it was possible to see a range of Formal Projects, whose activity focus reflected the range of affiliated voluntary organisations (Section 5.3). As such, the 'Master Sheet(s)' of groups recorded through the desk-search included Formal Projects associated with a particular site of green infrastructure ('site' focus, Section 5.3.iii), such as 'Rotunda Sensory Garden' in Knowsley, set up to support users of the community organisation with additional mental health needs; as well as those with a 'group' focus (Section 5.3.iii), such as North End Writers who utilised different outdoor sites as the setting for their creative writing activities.

As with the other case selections, it was a priority for the selection of a Formal Project case study to consider the ease with which the author would be able to access primary data to conduct an involved and in depth case study analysis. As such, across the 92 groups identified within the Formal Project category, the data for each group was analysed to assess the potential for access based on the availability of documentary evidence. 'Lister Community Green', a project managed by Lister Residents Association in Kensington, Liverpool was identified as being a Formal Project which was both active at the time of data collection, and had been awarded a prize in the 2013 North West in Bloom Neighbourhood Awards. Across the sample, this represented a strong certainty that there would be active members currently engaged in CSGI activities through which primary data collection could be facilitated.

Compared to other examples of voluntary organisations recorded within the Formal Project typology in the desk-search, such as charities and social enterprises, it was felt that a residents association would contribute a more accurate picture of what challenges face a voluntary group engaged in community action, as it is a volunteer-run organisation itself: for example, a residents association

would potentially have less capacity for fundraising compared to a larger voluntary organisation with paid staff members engaged in a fundraising role. Therefore, although 'Lister Community Green' represents a Formal Project as defined by the 'basic typology', the voluntary nature of the residents association structure provided an additional rationalisation for selecting it as case study for exploring CSGI.

Type	Formal Group	Formal Group	Informal Group	Formal Project
Status	Active	Inactive	Active	Active
Case Selection	1. Friends of Everton Park	2. Friends of Furey Wood	3. Cecil Mews	4. Lister Green

Table 5.2 Summary of Case Study Selection

5.5 Summary

To be able to effectively frame the question of *longevity* and *resilience* it is necessary to consider multiple factors associated with a group's activities over time. This chapter served to describe the first stage of the empirical process to define and determine the characteristics of community-scale green infrastructure within the sample area of The Mersey Forest. The methodological approach is explained in detail, including the rationale for selecting the sample area, and the selection of thematic criteria to compare and contrast data entries through the creation of a 'Master Sheet(s)', and subsequent data analysis (see Appendix 2 & 3).

The primary method used was a desk-search of groups and projects observable within the sample as being actively (or recently) engaged in the delivery of community-scale green infrastructure. The desk-search resulted in the creation of a database of CSGI activity, describing 244 unique entries relating to individual groups who had been active within the time period defined by the data collection strategy (2008-2013); a time period selected in light of wider contextual factors relating to policy and practice drivers for delivery of social, environmental and economic outcomes through community-scale, community-led interventions (e.g. distribution of funds to community groups through bodies such as The Big Lottery Fund).

Through a multi-stage data analysis, the database was organised around a selection of attributes, or 'thematic criteria', and each unique record was compared along a series of observable characteristics, including: a 'basic typology' of Group or Project; approaches to *governance* (Formal, Informal); *activity focus* (environmental stewardship and volunteering; food-growing; health and wellbeing; and education); funding; and the utilisation of networks and communication. The range of attributes recorded reveals the diversity of activity constituting environmental stewardship at this scale. The result of the desk-search was the creation of a typology of community-scale green

infrastructure: Formal Group, Formal Project, Informal Group (Figure 5.4). The typology essentially creates a framework for describing *what*, *where, when,* and *how* community action is organised to create and maintain green infrastructure at the local level.

Table 5.3 summarises the proportions of each type of CSGI across the sample of 244 groups and projects, and includes the percentage total of each type: 50% of groups recorded are constituted formally (Formal Group); 12% operate without a formal governance structure (Informal Group); and 38% organise volunteer-led CSGI activities through an affiliation with an existing voluntary organisation or community group (Formal Project). It was also significant that 40% of groups defined as Formal Group are constituted as Friends groups. The popularity of this model may have significance for the questions of longevity and resilience at this scale of green infrastructure delivery, and therefore acts as an additional rationale for case study selection (Table 5.2).

Type	Total count	Percentage of total (%)	Characteristics
Formal Group	121	50	GI focus Constituted Regular meetings Regular activities 'Site' focus Activity focus: environmental stewardship and volunteering 40% of sample – Friends groups
Informal Group	29	12	Ad hoc approach to governance Can be Irregular/Seasonal a 'Site'/'Group' focused Activity focus: environmental stewardship and volunteering
Formal Project	92	38	Not always GI focus Created and managed by a voluntary organisation Regular activities 'Group' focus Activity focus: health and wellbeing; food-growing
Total	244	100	

Table 5.3 Summary of desk-search of CSGI characteristics in The Mersey Forest

Through the desk search it was possible to collect data relating to a group's status, governance structure and activity focus, and where a group has a 'one site focus' geographic location was also recorded. This makes up the data recorded in the 'Master Sheet(s)' of CSGI groups (see Appendix 2 & 3).

Additional information observable through analysis of documentary evidence, such as a group's website or profile on social network sites (e.g. Project Dirt), was recorded in a more nuanced spread sheet relating to the 244 counts of CSGI groups; however, as this data was variable across the whole

sample, this information is not included in the final 'Master Sheet(s)'. For example, for some groups it was possible to find information relating to the group's history of fundraising through publicly available records online. Or, in some cases, it was possible to establish whether a group had received regular support and training from an external organisation, such as The Mersey Forest. It was therefore possible to ascertain a pattern of characteristics relating to each type of CSGI, and this more nuanced information is recorded in Table 5.3 as the basis for a more in-depth investigation into the ways in which these characteristics influence resilience and longevity in the case study chapters.

In terms of limitations of the methodological approach, it was not possible across all entries in the desk-search to collect information about each group in relation to all search fields. This partly reflected the nature of the group, for example it was easier to locate documentary evidence for Formal Groups, who by the nature of their governance structure are required to keep records of their activities, such as minutes from formal meetings. Informal groups were less consistent in their approach to documenting activity, and in these cases the information provided by networks, such as 'Project Dirt Liverpool' was useful for ascertaining the activity focus and group structure. Information relating to Formal Projects, in contrast, was mainly gathered through secondary data sources, such as records of projects which have received grant funding compiled by funding bodies such as Big Lottery Fund; reflecting the nature of Formal Projects as characterised by a voluntary organisation creating green infrastructure in response to identified needs within a pre-existing service user group.

The desk-search, therefore, provided a foundational understanding of the characteristics of community-scale green infrastructure (Figure 5.1). However, the variability of documentary evidence available for each group recorded limits the application of these findings to answer more complicated questions such as *why* do groups adopt a certain approach to governance or funding; and *how* do these decisions impact on their capacity for longevity and resilience. As such, the chapter concludes with an explanation of the next stage of empirical analysis: a case study approach to contribute a rich layer through the adoption of a qualitative methodology which prioritises the 'lived experiences' (Glover, 2004) of CSGI groups to better understand what affects a group's propensity for longevity (Chapter Six). The rationale for the case study selection of four cases from the 'Master Sheet(s)' is explained, representing the three main types of CSGI (Formal Group – 'Friends of Everton Park'; Informal Group – 'Cecil Mews Project'; Formal Project – 'Lister Community Green'); as well as a fourth case study to represent an example of an Inactive Group ('Friends of Furey Wood') to identify key factors and forces affecting a group's decision to discontinue CSGI activity. The next chapter, Chapter Six, therefore focuses on the case study methodology employed to collect and analyse data from these four representative case studies of CSGI within the sample area.

CHAPTER SIX

6. Case Study Methodology

6.1 Introduction

This chapter is concerned with describing how the research design adopted was the most effective way of collecting and analysing primary data through a case study approach to answer the research questions relating to the longevity and resilience of individual groups engaged in environmental stewardship and volunteering. As such, it has four complementary objectives. Firstly, it provides a comprehensive overview of the research design adopted to effectively explore the gaps in knowledge highlighted in preceding literature chapters, particularly relating to the questions of resilience and subsequent longevity of community-scale green infrastructure, which are questions less easily understood through interpretation of quantitative data collected through a desk-search alone (Chapter Five). Secondly, it serves to describe the ontological and epistemological positioning of this thesis. Thirdly, it explains the reasoning behind the adoption of a corresponding methodological approach. And finally, it provides a rationale for specific methods selected to best illuminate the research problem.

The previous chapter described the process of creating a typology of the characteristics of community-scale green infrastructure (CSGI), explicating a series of categories drawn from a desk-search of activity within The Mersey Forest area. In turn, it has been possible to illustrate *what* is happening at the local level in terms of voluntary environmental stewardship of small-scale sites of green infrastructure; thus fulfilling the first two research objectives. What is less clear from the desk study is which particular characteristics, described within the thematic categories utilised within the typology, contribute towards a group's propensity for resilience and therefore longevity.

The case study methodology has therefore been designed to create a more detailed picture of the four types of CSGI. The reasoning for creating a more detailed picture of CSGI is two-fold. Firstly, by interrogating the relevance of the categories created through the desk study, the typology was refined to reflect the actual experiences of CSGI Groups and Projects. Secondly, by selecting data collection techniques designed to capture views from a range of different stakeholders, characteristics were sorted as being more or less important in terms of a group's capacity for resilience. This was particularly important in light of research objective three and four, focused on providing deeper insight into the nature of CSGI to extend understanding of what makes a group or project resilient over time. This chapter, therefore, describes the process of extending the investigation begun within the desk-search, with a more in depth qualitative approach to capture context specific observations across four different case study areas relating to each of the four types of CSGI.

Thus, this chapter is the first chapter in the second half of this thesis which is concerned with enhancing an understanding of *how* community-scale activity is being delivered within the

constraints and limitations of the four distinct types of CSGI; outlining the experiences of individual groups in relation to the questions longevity and resilience at the community-scale; and creating policy recommendations for supporting activity at this scale. Furthermore, by exploring the characteristics of community-scale green infrastructure in more depth, any assumptions contained within the typology as the output from the desk-search are tested and verified or adapted accordingly to create a more empirically rigorous framework. The case study findings presented in the following chapters (Chapters Seven-Ten) represent an original contribution to knowledge about *what* characterises community-scale green infrastructure in The Mersey Forest area; as well as providing data upon which to build new understandings about *why* groups achieve longevity relating to their green infrastructure objectives over time. As such this methodology chapter is concerned with substantiating the rationale for an exploratory case study approach, as well as describing the conceptual and analytical frameworks adopted to interpret the data collected.

6.1.1 Re-cap of Research Aim and Objectives

Research Aim

To explore the factors and forces that support and limit the capacity for resilience and subsequent longevity of community-scale green infrastructure within The Mersey Forest area

Research Objectives

Objective 1 - To explore the political and social drivers of environmental stewardship and volunteering

Objective 2 - To explore the diversity of of community-scale green infrastructure within The Mersey Forest area

Objective 3 - To compare the characteristics of different types of community-scale green infrastructure and evaluate how characteristics correspond with longevity and resilience.

Objective 4 - To establish the potential for future research into the capacity for longevity and resilience in different types of community-scale green infrastructure.

6.2 Research Philosophy – Ontology and Epistemology

This is an exploratory piece of research, adopting an interpretive methodology, and mainly utilising qualitative techniques, such as semi-structured interviews and methods which are ethnographic in character, such as site visits and participant observation. The author is motivated by the praxis of planning theory generally (Tewdwr-Jones & Allmendinger, 1997), and specifically the role of the individual and community in bridging a theory-practice gap in green infrastructure planning as a holistic approach to integrating sustainability principles into development at different scales. The author has adopted a reflexive approach to research design and execution, drawing on experiences as

an environmental practitioner working within the sample area, through reference to 'real world research' (Robson, 2011) and 'systemic action-research' (Burns, 2007). In this vein, ethics and methods relating to a reflexive research approach become central to this thesis's ontology and epistemology. This thesis will present fieldwork and its findings in as transparent a way as is possible, within an understanding that all interpretations will be framed by the author as responsibly as possible within the confines of 'inescapable ethnocentricity' (Schwandt, 2007). However, wherever possible the tensions created in the generation and analysis of qualitative data will be mediated through an analytical framework, with the intention of minimising the impact of the researcher.

The conceptual framework positions this thesis in the broader body of literature relating to voluntary community-based activity, specifically as it relates to the creation, management and maintenance of green infrastructure at very local level; and in particular as it relates to social outcomes. Even with this focus defined, however, it would be possible to justify a number of research designs aimed at answering the research questions. It is therefore necessary to supplement this framework with an explanation of the research philosophy utilised within this thesis. The case study is exploratory in focus, therefore an interpretive methodology, mainly utilising qualitative methods, is appropriate for the empirical approach required within the case study methodology. In contrast, the desk-search described in Chapter Five utilised more quantitative methodology where this strengthened the rationale. This allowed a more simplistic comparison of existing projects, based on categorisation of groups and projects, to inform the creation of a typology of community scale green infrastructure; which in turn strengthened this thesis by allowing a picture of community scale green infrastructure in The Mersey Forest boundary area, both geographically and conceptually, to emerge relatively early in the research process. Geographically as place-based initiatives, with spatial relationships to other CSGI groups and projects, as well as other sites of GI and other organisations; and conceptually by providing a clear definition of *what* this study proposes community scale green infrastructure to be (and to an extent *where*, as previously discussed). In this sense, the desk-search was an important preliminary stage to the case study methodology, as it established *what* is significant in the context of CSGI.

In contrast, the case study methodology which involves more in depth data collection and analysis was designed to establish *how* CSGI operates. Thus the design of a mixed methods approach, emphasising the relevance of participatory methods for a study which is concerned with illuminating details not currently addressed in strategic level understandings, such as those presented in policy documentation relating to this scale of project. Further, the conceptual understanding of *what* types of groups and activities make up CSGI, regarding categorisation and character, were further strengthened by the results of the qualitative stage of data collection and analysis. In effect, the two key stages of the research design – creation of a typology and case study - contributed overall robustness by way of comparing findings drawn from the desk study, with findings from the case

study, whose mixed methods approach emphasised insights from interpretive and inductive philosophies of research.

The case study methodology adopted an inductive and *exploratory* approach, and as such the case study findings become the framework through which ideas emerge in order to build a theory (Thomas, 2011: 134-135). Further, the case study methodology aligns well with an interpretative research approach; both case study and interpretative research attempt to study the social world in its complete complexity (Thomas, 2011: 126). Thomas, however, draws attention to a criticism of this *building* theory or 'theorisation' from case studies (2011: 126), referencing Whyte's (1985: 21) caution to distinguish between the 'concrete behaviour' of individuals, groups and organisations recorded through empirical data collection; and theory, which is 'removed from the real, practical world'.

This chapter is concerned with outlining a thesis which is theoretically informed and empirically grounded. It will show how the ontological and epistemological approaches adopted, combined with a set of complementary methods are appropriate to facilitate the exploratory nature of this study; suiting both the context and the subjects and objects of enquiry. By 'empirical', this thesis consists of 'that which is experienced – those events and things that are observed by humans' (Elder-Vass, 2008: 458). Notably, this understanding of empiricism is influenced by Bhaskar (1978) who divides reality into three 'domains': 'the empirical, the actual, and the real' (Elder-Vass, 2008: 458). Bhaskar's understanding of the functions of each 'domain' are helpful in this thesis as it highlights the production of reality as 'sifted and sorted' from the amalgamation of different and various stakeholder perspectives, particular highlighted in the research design's inclusion of participants from 'within' CSGI groups and projects, such as volunteers, and those 'outside' of day-to-day activity, such as decision makers and funders.

An alternative reading of Bhasker's three 'domains' (Elder-Vass, 2008: 458), is the role played by different types of data collected through different data collection techniques, and as such serves to illuminate the authors decision to adopt a mixed-methods approach – adding to a rationale which can often stop at justifying such an approach for reasons of robustness and triangulation. In simple terms, different data collection techniques serve to 'describe' a situation in different ways, for example compare visual data collection techniques such as photography, with field notes taken on a site visit. Or compare verbatim recordings of a participant interview with recollections of a discussion with a participants whilst working on a shared task like planting some seeds. The decision was taken to integrate a degree of flexibility in the research design to allow the author to respond naturally and spontaneously in a site-based scenario during data collection, to allow for participants to feel as relaxed as possible, whilst ensuring there was some replicability and comparability across the cases for later discussion and consideration of common experiences. The actual data collection techniques and their relative merits in this regard are explored in more depth in Section 6.4; but for the purposes

of the relevance to ontology, it is possible to consider the role of *human* and *non-human* entities in green infrastructure, and how observation of both during the data collection was central to the research design. *Why is it important to study both human and non-human entities in green infrastructure?*

Green infrastructure, as an approach to planning and management of land and the built and natural environment, encompasses both the actors charged with this planning and management, and the objects which are assembled as 'infrastructure' within this process of planning and management. In this way, green infrastructure actors are tasked to exist in at least two of Bhasker's three 'domains' namely; the empirical, which is 'that which is experienced - those events and things that are observed by humans'; and secondly, the actual, which is 'that which occurs - populated by events and things' (Elder-Vass, 2008: 458). In this way, a nuanced definition of empiricism was integral to designing a case study methodology which sufficiently captured evidence relating to the human – and non-human - character of CSGI. As explained in more detail later in the chapter a mix of methods including interviews, documentary analysis and participant observation; and studying observable changes in the physical infrastructure of the site (garden, woodland, allotment) during fieldwork; strengthened the empirical approach. In this way the design of the case study methodology determined *what* data was collected utilising which data collection techniques highlights the ontological assumptions of this thesis; the prioritisation of describing and interpreting phenomena, as perceived by the researcher through a case study methodology, positions this thesis within the constructivist research paradigm.

Next, it was necessary to establish *how* data collected would be understood by describing the epistemological assumptions of the research methodology. In simple terms, constructivist ontology indicates an interpretivist epistemology and therefore an inductive approach to methodology, with the application of qualitative methods of data collection and analysis; in this case semi-structured interviews, documentary analysis and participant observation. In each of the methods, which will be described in more detail later in the chapter, this thesis adopted an ethnographic approach to data collection, prioritising the words of participants and observations made. In this sense, the case study sits within the sphere of inductive research methodology, and the methods selected allow the words of the participants to 'speak for themselves'. This was particularly important to increase the robustness of the typology of CSGI by supplementing findings from the desk study, which was limited in its capacity to determine the characteristics by analysis of publicly archival data alone, with findings from the 'field'. Likewise, the interpretative role played by the researcher (as *participant observer*, Thomas, 2011, p.125) was acknowledged throughout the process of data collection and analysis. However, the potential for over-subscribing to the personal views of the researcher is ultimately constrained by reference to the conceptual framework, informed by the literature review and the desk study conducted prior to the case study. This important function of the conceptual framework has been theorised by Whyte (1985: 21).

An additional consideration is the nature of 'theory' that emerges from the data collected; and therefore the way the data is analysed is as important as the way it is collected. As an interpretive and exploratory inquiry, this thesis necessarily adopts a research design which allows new information to shape a theory which contributes new understanding to the research questions under investigation. Bourdieu's *thinking tools* (Thomas, 2011: 126; Jenkins, 1992: 67) importantly retain a level of authority at the 'ground level', maintaining abstract ideas and concepts only so as far as they can be employed to the benefit of understanding phenomena observed within the case study. Furthermore, should the 'conceptual framework' or 'thinking tool' prevent understanding the subject, in this case the community scale project, its participants, organisational behaviour and relevant things, events and actors; then it can be adapted or discarded. For example, the concept of 'capacity' is relevant to this study. Literature exploring adaptive capacity (Armitage and Puller, 2010) and resilience (Brand and Jax, 2007; Folke *et al.*, 2010; Walker and Salt, 2012) has been consulted to build up a conceptual understanding of how capacity can manifest at the community scale, and how this capacity can be understood in relation to a project's longevity. These theories of capacity have not been applied to community scale green infrastructure specifically, so an inherent flexibility to pursue these concepts as things informing the conceptual framework is necessary so as to avoid the situation where an data collected is used to prove or *test* a theory, rather than *build* a theory.

Throughout, this thesis adopts a reflexive approach to research design and execution, attempting to bridge experiences as an academic and an environmental practitioner, drawing on frameworks of 'real world research' (Robson, 2011) and 'systemic action-research' (Burns, 2007). Consequently, ethics and methods chosen reflect an ontological and epistemological approach which illuminates the role of the researcher in the research, and draws on understandings from reflexive sociology and ethnographic methodologies where these are helpful (Kaufman, 1960; Bourdieu and Wacquant, 1992; Ellis, 2004; Atkinson, 1990). The research design was constructed in accordance to this philosophical standpoint; presenting observations made in as transparent a way as is possible, within an understanding that all interpretations will be framed by the author as responsibly as possible within the confines of 'inescapable ethnocentricity' (Schwandt, 2007). However, this thesis recognises the tensions created in the generation and analysis of qualitative data, and as such the importance of an analytical framework becomes paramount to a study which aims to be theoretically sophisticated and empirically grounded. In turn, this analytical framework serves to minimise the impact of the researcher in individual interpretations of data findings.

6.2.1 Research Design
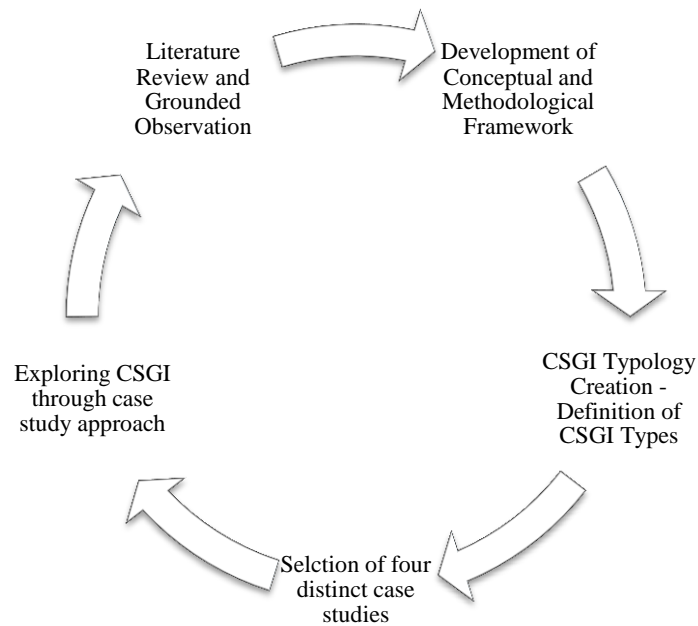
Figure 6.1 Five stage iterative research design Source: Author

The purpose of the research design is to shape and guide the collection, and eventual analysis, of data to enable research questions to be answered as persuasively as possible. However, as this is a study which draws on an interpretivist research paradigm, the outcome of the data collection and subsequent interpretation, is less concerned with revealing the 'truth', as it is interested in telling a coherent story. The research design can be schematically drawn as an iterative five stage process. Intuitively, the beginning of the cycle is to clearly define and thereby limit the focus of the research by outlining the research questions.

6.2.2 Why qualitative?

This thesis is interested in unpacking the 'particular events of significance' that are defined within green infrastructure literature and testing whether these same events are relevant in the real-world at the community scale. A qualitative approach supports and strengthens the goal of creating a 'thick description' (Lincoln and Denzin, 2003) of community scale green infrastructure – more effectively exploring empirical evidence to illustrate *what* is happening? The role of interpretive analysis of the empirical data is the focus of the *how* question which aims to illuminate the causal relationship between factors and forces bearing on a project and an interrelated evaluation of its capacity or longevity.

The role of researcher in this interpretation of empirical data is not unproblematic and is the focus of much academic commentary (Yin, 2009; Silverman, 2011; Robson, 2002; Stake, 1995; Thomas, 2011). Furthermore, within the discipline of sociology, theoreticians have created an embattled scene

where the role of researcher as ethnographer or participant observer is debated. Geertz' concept of the 'thick description' is a response to limitations highlighted in the 'thin' descriptions prevalent in certain research approaches which prioritise factual accounts (Lincoln and Denzin, 2003: 145). Geertz advances his critique by positioning the role of semiotics (symbols and meanings) at the centre of our notion and understanding of culture, thereby advancing Weber's notion of 'webs' present within cultures, to suggest that culture itself is made and remade through meanings that people give to these 'webs of significance' (Lincoln and Denzin, 2003: 145). It is these layers and 'webs' of meaning that this study is interested in when it highlights the formal and informal networks which contribute to a collective understanding of green infrastructure. By recognising the debates around what constitutes, both literally and in the abstract, an understanding of culture in theories of social science, this thesis can build on notions of hermeneutic interpretation as a 'methodological imperative' in qualitative research.

By exploring community scale green infrastructure as if it was a complex and rich picture, this thesis is able to adopt a research design which allows a theory to *build* out of the findings; rather than initializing the research with a pre-determined theory and manipulating findings to *fit* this theory of what is happening. This approach to research is also more appropriate in light of the gaps in knowledge evidenced by the review of literature in Chapters 3 and 4. The literature has shown that although there is a fair amount of research evidencing the functions and benefits of green infrastructure in the abstract, the way in which these play out at the community level, in particular through less formal networks and governance structures, is under researched within the boundary of The Mersey Forest. Considering The Mersey Forest have ambitions to support the delivery and longevity of projects working at this scale, this gap in understanding has been highlighted as worthy of primary research focus.

The rationale for a qualitative research approach builds on this understanding that we know there are projects active at this community scale, but more understanding is needed to understand the diversity. Likewise, the review of literature has highlighted that projects at this scale, broadly speaking, have a propensity towards shorter term cycles of activity; hence the rationale for conducting an explorative study into factors and forces which may be impacting on their capacity and therefore their longevity. Underpinning the rationale for a research project with this focus is an understanding that supporting the things, events and experiences which can be described broadly by green infrastructure at this level is a good thing to do. This normative position is partly a reflection of policy guidance calling for a diversity of green infrastructure delivery, including at the community place-based scale; and partly a reflection of the ambitions of The Mersey Forest who regard the community scale as an essential mode of delivery of green infrastructure functions and benefits within the wider network of spaces described as sites of green infrastructure interest.

This thesis is rooted in qualitative tradition of research, as reflected in Yin's (2010: 7-8) '*Five Features of Qualitative Research*':

1. Studying the meaning of people's lives, under real-world conditions;

2. Representing the views and perspectives of the people in a study;

3. Covering the contextual conditions within which people live;

4. Contributing insights into existing or emerging concepts that may help to *explain* human social behaviour; and

5. Striving to use *multiple sources of evidence* rather than relying on a single source alone.

Another way in which the thesis is rooted in a qualitative tradition of research is the fact it takes as its baseline the philosophical and methodological assumption that events which will be recorded will reflect 'multiple realities' (Yin, 2010: 11). Specifically, this thesis recognises that although this concept of 'community scale green infrastructure' has been identified as a framework through which to assemble projects based on their level of activity and primary influence, this thesis is also acutely aware of the need to problematize the 'local' and the 'community' unit of data collection as a homogenous unit. Drawings upon the understandings put forward by a generalized form of qualitative research (Yin, 2010: 17) this thesis will adopt a flexible research design which integrates appropriate data collection and data analysis methods to effectively show three key considerations, adapted from Yin (2010: 11):

1. Multiplicity of interpretations of events being studied

2. Potential uniqueness of events

3. Methodological variations

The problem statement presents a 'mosaic of orientations and methodological choices' (Yin, 2010: 11) with regards our interest in the role of formal and informal networks at the community scale within this thesis's sample area of The Mersey Forest community forest boundary. Currently, the typology of activities which can be described as community scale green infrastructure is limited. Although The Mersey Forest are interested in supporting the functions and benefits of green infrastructure at all scales, their capacity to explore the narrower levels of data collection units (Yin, 2010: 79) expressed by this diverse and heterogeneous level of activity and organisation is limited.

The nature of this activity is that it involves multiple actors and agents; each with their own unique version of *what* is happening at this scale, and *how* to keep things and events in a state of continuation. For example, for groups on publicly owned land, projects are sometimes required to

provide evaluation of activities and benefits to justify their tenancy and continued use of public assets. In these cases, local authority representatives and officers acting on behalf of this 'public interest' may have different interpretations of a project's impact or success than that of a participant involved in the project in an everyday capacity. Further, a participant may describe someone who has responsibility for the continuation of a project, such as an elected or employed member of a committee or board in a constituted organisation working at this scale; or it may alternatively describe someone who attends regular drop-in sessions as part of a community scale project. Similarly one may expect different interpretations across these two narrower units of data collection; as well as being distinct from interpretations collected from a similar level in a different project. In this way, this study will adopt the two distinctions of 'broad' and 'narrow' sampling units as highlighted by Yin (2010, p.88), to further strengthen the research approach by providing the opportunity for units that 'might offer contrary evidence of views, especially given the need for testing rival explanations'. As well as seeking to 'obtain the broadest range of information and perspectives on the subject of study' (Kuzel, 1992: 37), this approach to data collection also presents a strategy to avoid biasing this thesis and choosing only sources which serve to conform any preconceptions the researcher may have, for example about the importance of variables relevant to the project level, rather than the local policy level, because of experience working at this level.
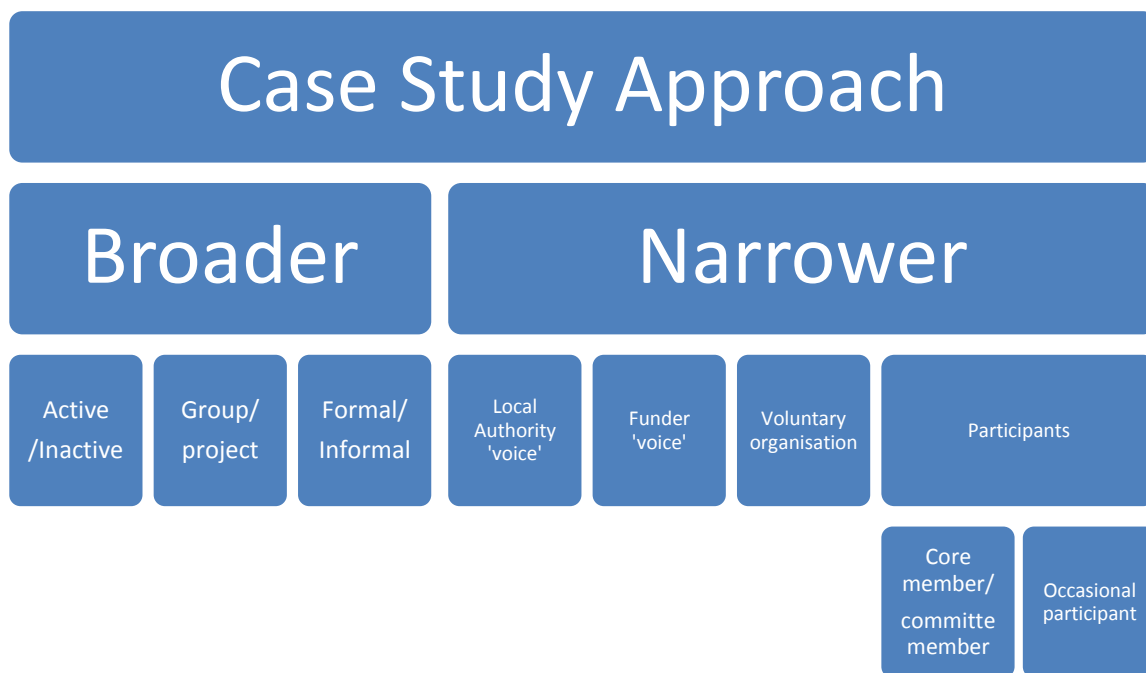
Figure 6.2 Levels of data collection units adopted within the case study (adapted from Yin, 2010: 79)

Figure 6.2 also highlights the methodological opportunity to adopt both a *purposive* sampling approach, selecting variants of narrower levels of data collection to provide the Yin's (2010: 11) 'mosaic of orientation'; as well as a *snowball* sampling approach which is useful when seeking

plurality at the participant level, utilising contact with informants to locate 'new' and 'old' members of a project. This desire for representativeness at a project level is important methodologically to optimize as large a sample as possible, to transfer a greater level of confidence in the findings derived (Yin, 2010: 92). There is also a clear need to present a multiplicity of perspectives when investigating an issue as complex and contested as land and its use. This is equally the case with community scale green infrastructure which describes a range of activities and land uses, social networks and actors, including those with conflicting interests (Armitage and Plummer, 2010: 1).

6.2.3 Why a mixed-method approach

Flick (1992) suggests that a combination of methods can add 'rigour, breadth and depth' to a research study. The methods used within this thesis were a combination of: desk based research to identify the range of community-scale green infrastructure activity, enabling the creation of a typology (see Chapter 5). The typology provided a mechanism for selecting four case studies which were suitably different in character so as to make for an interesting comparison along the same lines of enquiry. The in depth case study approach utilised a range of methods site visits and observations of group activities during regular drop-in sessions and one-off events; as well as primary data collection through semi-structured interviews with participants from each of the four case studies. This is a flexible research design (Robson, 2011); although the emphasis and priority (Denscombe, 2011: 147) is plainly on the utilisation of qualitative methods, emphasising exploration and interpretation, such as semi-structured interviews (high priority) and field observations (low priority).

The sequence and relationship (Denscombe, 2011: 147) between the different methods used is also significant. Taking advantage of observations made during voluntary and paid work in the field of environmental volunteering in Liverpool over the past ten years, the author was able to identify projects which may qualify for the major selection criteria of community-scale green infrastructure, namely a voluntary group or project whose primary activity relates to environmental stewardship, and which is located within the geographic boundary of The Mersey Forest. There then followed a period of desk based research, to capture the full sample of groups and projects broadly within this definition. This enabled an assimilation of supportive secondary data to create a more nuanced picture of activity at the community-scale in the sample area, providing a list of characteristics, which could be intuitively grouped into four main categories. These categories, and responding groups of characteristics, informed the selection criteria for the case studies. In this sense, the cases were developed using interpretive methods, optimising the potential for an 'exploratory investigation' which is more likely to 'open out' and 'unpack' any assumptions generated through literature and observation alone, particularly pertinent when this thesis is committed to a philosophical approach which prioritises experience (interpretivism).

The cases selected were a sample of CSGI groups and projects suited to the major and minor selection criteria outlined below:

Major

- Within the geographic boundary of The Mersey Forest
- Activity is led or coordinated by volunteers or a voluntary (civic society) organisation
- Green infrastructure focused activities or green infrastructure site focus

Minor

- Active at the time of data collection, or active within the period 2008-2011

6.2.4 Why a case study approach

Following the experiences of Young (2011) in community gardens in the United States, and Firth, Maye and Pearson (2011) in the UK, this thesis is interested in collecting first-hand experiences of environmental stewardship and volunteering. This thesis remains aware of the limitations levelled at case study research as a strategy (Yin, 2009: 15), including particular criticism concentrated on a lack *accuracy* and *reliability* of methods (Yin, 2009: 41), limiting its contribution to wider research. However, Yin (2003) also suggests that a case study approach is most useful when conducting research whose questions are *how* and *why*; reminiscent of Robson's 'real world research' (2011). This approach was the most appropriate research strategy for this thesis as it allowed in depth exploration of empirically 'fluid' experiences which rely on shared understandings and 'meaning making'. The case study approach is made stronger by the presence of an analytical framework to allow equivalent comparisons across the data collected from the four case studies.

By way of exploring the research questions in more depth and by way of building on what may be deemed a superficial understanding of the picture of community scale green infrastructure in the sample area facilitated by the desk-search, it is necessary to engage in more empirical research. Reflecting the researcher's interest in influence of different actors and agencies engaged at this scale, along the conceptual lines of a 'flat ontology', this thesis adopts an exploratory multiple-case study approach to research design. Further, the design is flexible, thereby allowing subsequent findings to inflect on this thesis's focus and structure when compiling empirical data to illuminate the research questions. Reflecting Yin's (2009, p.62) rationale for a multiple-case study, the four cases selected allow for a 'stronger' and 'more compelling' discussion of the findings to more effectively identify a sense of prioritisation of which variable have more or less influence of the overall capacity and subsequent longevity of a project.

This thesis adopts a case study approach to data collection, allowing a more in depth exploration into causes and factors effecting longevity at the community scale in green infrastructure, as well as

providing an opportunity to compare data across four different projects, distinguished by their characteristics as described within the typology. The case study method has been adopted to facilitate an exploratory study into real-life phenomena within community scale green infrastructure projects, whilst retaining the contextual conditions which impact on these phenomena, in situ (Yin, 2009, p.18; Yin and Davis, 2007). This approach thus strengthens this thesis which is interested in investigating place-specific phenomena described by community scale green infrastructure. A case study approach also allows a mixed methods approach, utilising a number of data collection techniques to more reliably access a range of data available from different levels of participation, for example engaging within one case study participants who can be described as green infrastructure professionals as well as people who sit outside this specialism. This thesis therefore adopts a design which includes the selection of four exploratory case studies, selected for their differences, either in status (*active, inactive*) and governance structure (*voluntary, organisational*).

In case study research it is necessary to highlight that the specific attributes of a case are the focus of research; as Thomas (2011: 3) suggests, it is difficult to validate generalisations made from case to case. It is for this reason that the four cases selected have been chosen because of their *representativeness* of three distinct types drawn from initial analysis of a wider population of cases reviewed during the desk-search (Chapter Five). This thesis is therefore a multiple-case design (Yin, 2009: 60), which has been chosen over single-case design to more effectively explore the range of characteristics described by the typology in four distinct community scale projects. Two of the cases have been selected along thematic lines to reflect the main areas of difference relating to governance at this scale, namely *voluntary* governance arrangements, which includes constituted and non-constituted projects, and *organisational* governance which describes those projects across the sample area which are constituted and have a clear structure with the rationale for which is based on the objectives set out previously relating to an exploration into the factors and forces which impact on the longevity of a project; as well as identifying the characteristics of community scale green infrastructure.

By way of exploring the research questions in more depth and refining the typology of community scale green infrastructure created through the desk study, it was deemed necessary to engage in further, more in depth, empirical research. The research design for the case study methodology was therefore partly shaped around the findings from the desk study relating to the four distinct types of CSGI; and partly around a conceptual understanding that the community scale is characterised by a plurality of actors and agents. As such, the study adopted an exploratory multiple-case study approach. Furthermore, the research design was purposively flexible, allowing subsequent findings to inflect on the study's focus and structure when compiling empirical data to illuminate the research questions. Reflecting Yin's (2009: 62) rationale for a multiple-case study, the design was structured around four discrete cases, which in turn allowed for a 'stronger' and 'more compelling' discussion

of the findings to more effectively identify a sense of prioritisation of which factors have more or less influence in the context of each type of CSGI.

Equally important to the decision to adopt a case study methodology was the objective to effectively explore real-life phenomena within CSGI groups, whilst retaining the contextual conditions which impact on these phenomena, in situ (Yin, 2009: 18). By collecting data in the context of these place-specific phenomena, arguably it was more possible to interpret the attributed meanings to phenomena relating to the categorisations of activity provided by the typology; in order to acknowledge and integrate any necessary changes to the typology as a result of data collection and analysis. A case study approach also allows a mixed methods approach, utilising a number of data collection techniques to more reliably access a range of data available from different levels of participation, for example engaging within one case study participants who can be described as green infrastructure professionals as well as people who sit outside this specialism. The research design therefore included four distinct case studies, selected for their differences in status (*active, inactive*) and governance structure (*formal, informal*).

By selecting four cases, it was possible to compare and contrast the experiences of volunteers engaged in CSGI in different situations, highlighting the specific attributes of each case in order to illuminate the research questions. However, as Thomas (2011: 3) suggests, it is difficult to validate generalisations made from case to case. It is for this reason that the four cases selected were chosen because of their *representativeness* of four distinct types based on the initial analysis of a wider population of cases reviewed described in full in chapter 4 (Typology). In addition, the multiple-case design (Yin, 2009: 60) was preferred to single-case design as it presented an opportunity to more effectively explore the range of characteristics described by the typology, i.e. four cases were selected to explore each of the four types of CSGI in more depth.

6.3 Data Collection Techniques

As described in Section 6.2, this thesis draws its ontological and epistemological position from the interpretivist research paradigm, focusing on *what* and *how* questions associated with the construction of *meaning* and *understanding* by multiple social actors engaged in activities at the community-scale in green infrastructure. Therefore a qualitative approach to methodology is adopted to best understand the data from the perspective of each of these actors as participants and co-creators of the research. In this way, the methodological approach and research design serves the research questions as authentically as possible (Punch, 2005; Silverman, 1993). Three methods have been combined to best allow the 'triangulation' of information (Yin, 2003) relating to the factors and forces shaping the delivery, management and maintenance of community-scale green infrastructure:

- Documentation analysis;
- Observation (site visits);

- Semi-structured Interviews (with a range of strategic and group-based stakeholders).

These three methods have been selected in light of their capacity for comparing and contrasting different versions of 'reality' as constructed by different social actors. The research study inherently reflects the values of reflexivity, and avoids imposition of meaning upon participants' perspectives, highlighting situations, events and concepts which carry meaning for the researcher due to experiences gained through environmental activism and practice as an environmental educator. The research study is positioned within an epistemological tradition of subjectivist theories of knowledge which recognises that "researcher and researched mutually influence and co-construct the data and as such, co-constructions, which define and describe 'reality' conceptually and contextually, are "emergent from the interaction" of research, and 'reality' rather than being "discovered" by the researcher is co-created by the process of research (Allen-Collinson, 2012). The way this impacts on the research design is that the design can emerge iteratively and change in response to data collection and analysis, which is cyclical rather than linear, with data analysis occurring throughout the data collection period rather than waiting until the end of data collection.

6.3.1 Documentary Analysis

Further to the archival material collected as part of the desk study, the case study approach prioritised the collection of additional archival material for a more in depth documentary analysis. The study was interested in a range of documents to gain a better understanding of the nature of CSGI, in particular documentation which would not be available publicly. By conducting a number of site visits over an extended time period, it was possible to identify which individuals within each group has assumed the role of 'archivist'; that is, the person/s who are primarily responsible for the safe storage of all types of documentation related to a group's activities. Across the cases, this role was variable in its formality and responsibilities, although it was possible to identify such an individual in all types of CSGI.

Although many of these documents were electronic in their original version, for example as an attachment to an email, an observable pattern across the cases was a tendency towards printing documentation for review at meetings or for sharing more widely. For example, one of the groups allocated a significant proportion of their annual marketing budget to printing hundreds of copies of their quarterly newsletter to distribute to the local area, rather than relying on the capacity of social media or a website to share information. In another case, information about the group's activities was shared through a digitally created, printed newsletter at the personal expense of the group's Chairperson. As such, it is too simplistic to suggest that a preference for printed documentation within CSGI indicates a lack of skill or confidence in using information technology. Rather, it seems that they prioritise printed versions of documents to optimise the audiences who are able to access their communications; whether to enhance recruitment of volunteers in regular sessions,

participation at one-off events, or by way of increasing a sense of general transparency about a group's activities.

The types of documents which were collected across the case studies were varied and included keeping records of meetings, storing confidential documents such as bank statements and communications from grant funding bodies, creating an archive of useful communications materials such as leaflets, posters, newsletters and associated stationary such as electronic versions of a group's logo or letter head. In addition, the data collection included documentation *about* a group, authored by an outside body or stakeholder group. For example, if a group had been the beneficiary of an award or funding grant, the article was studied as an alternative description of the group and its activities. In some cases, funding bodies had included the case study in an evaluation of their programme or initiative, and this provided additional documentary material in relation to measured outcomes from CSGI activity. Similarly, newspaper articles and other media sources were analysed as an alternative viewpoint of a group's strengths and weaknesses, and their relevance, either within the context of the local area, or in the context of a wider cultural focus, as in the case of one group who were included as a feature within a report about the role of community gardening to improve local neighbourhoods.

In addition to documents relating specifically to the activities of each of the four case studies, documentary evidence more broadly related to the context of CSGI within the sample area of The Mersey Forest was also gathered. For example, within the period of data collection, a report was published by Liverpool City Council (20130 outlining the strategic approach to improving green spaces at the neighbourhood level, specifically in light of reduced budgets for green space management.

In summary, three main types of document were collected as evidence to supplement the case study methodology: documents created and administered by the group itself were, for example meeting notes and newsletters; documents created by other bodies or stakeholder groups *about* the group, for example newspaper articles; and documents which may have impacted on the group and its activities in light of its focus on CSGI within the sample area, such as local authority reports.

Reading and interpretation of documentary data relevant to the research study was conducted within the understanding that, far from being an objective data source, documents may reflect a subtle or unknown bias of the author (Yin, 2003). The research makes use of documents however as the values inherent in all data reveal the intentions and conceptualisations of certain social actors, and help to contribute to a pluralist understanding of the research topic and research area.

Documents gathered and analysed included:

- Policy and strategic documents;

- Academic literature;
- Organisational documentation including agendas, minutes of meetings and written reports;
- Media articles including those from newspapers, on television and on the web.

6.3.2 Observation (Site Visits)

Robson (2002) suggests that 'the actions and behaviour of people are central aspects in virtually any enquiry' and as such 'a natural and obvious technique is to watch what they do, to record this in some wat and then to describe, analyse and interpret what we have observed' (20012: 309). In this particular context, it was determined that observation through site visits, including observation of the physical site of green infrastructure as well as observation of the actors engaged in green infrastructure activity, would be an essential piece within the puzzle of what constitutes CSGI activity, and moreover what combination of actions and behaviours constitutes greater or lesser propensity for resilience and longevity.

In light of the flexible research design of this thesis, observational methods adopted are qualitative in style, and may be considered ethnographic in character as they relate most closely to the 'participant observation' approach developed within the disciplines of anthropology and sociology (Robson, 2002: 310). Through participant observation it was possible to collect qualitative data which might otherwise not have been available through interview methods. As such, site observations, were conducted by the author during participation in regular volunteer sessions and, where available, one-off events. This allowed interaction with as wide a group of stakeholders as possible, including current volunteers and regular participants, volunteers who no longer attend regular volunteer sessions but enjoy attending one-off events, and individuals from a wider stakeholder network including local residents and strategic partners or supporters. The interviews, which were conducted where possible at the main site of the CSGI group, also provided opportunities for additional participant observation, for example by observing the reactions of interviewees to other group members, or to the site itself. A key advantage of this method for exploring the research questions in-depth, in particular extending a conceptualisation of the critical components of effective community action, was the opportunity provided to witness the interactions and interplay between individuals within the group, to better understand and appreciate the role of key personalities, and how different roles were distributed across the group. This in-depth appreciation of dynamics within group membership would not be observable from interview methods alone, nor would it be possible to ascertain power relations between group members from documentary analysis alone, and as such it complemented the other data collection techniques adopted within the data collection strategy.

One disadvantage of this method was the time-consuming nature of participant observation, particularly in the informal and unstructured approach adopted in this thesis. Where possible, due to the differences between cases in terms of a formal or informal approach to organising volunteering sessions, participant observation was sustained for a period of up to six months to gauge as

accurately as possible the range of activities on offer, and the consistency of approach by the CSGI group towards providing volunteering opportunities for regular and new participants. In these instances, it was possible to separate visits for making observations and recording in field notes, and visits to conduct an interview with a participant. In the cases where participant observation was limited due to the informal approach to organising volunteering sessions, the opportunity to conduct observation role of site visits was combined with invitations to conduct interviews with specific participants; reducing the opportunities to take detailed field notes. However, visual methods, namely making photographic records, also provided supplementary evidence of the physical aspects of each case.

The immersive nature of participant observation, particularly in an activity such as gardening which facilitates dialogue without necessarily expecting eye contact, was particularly useful for encouraging informal group discussion 'focused' around a particular topic introduced by the researcher; and in this way had similar methodological benefits to focus groups (Silverman, 2011: 207). In line with the technique of focus groups, the researcher was able to act as a facilitator and moderator, and where possible encouraged the participation of each individual (Silverman, 2011: 208). This method was used to supplement the findings drawn from individual interviews, and was particularly useful in the context of collecting data from participants who, when asked if they would like to engage in an interview dialogue, were reluctant. In the context of an informal group discussion however, albeit focused by the researcher, participants can feel 'empowered' to make comments, feeling more comfortable contributing to a discussion rather than a one-to-one interview; and group dynamics can provide mutual support to more reluctant members (Robson, 2002: 285). These types of focused group discussion were more possible in some cases than others, determined primarily by the nature of the CSGI volunteer sessions. For example, in the Formal Group case study, volunteer sessions were scheduled for the same time, twice a week. This enabled multiple opportunities to engage in a group discussion, and moreover, permitted the research design to delay such methods to be employed until later in the data collection period, thereby increasing the likelihood that the researcher could rely on a certain status as a trusted individual within the group. This approach is ethnographic in character and alludes to a central preoccupation and rationale of the participant observation method. In the case of the Informal Group case study, it was the role of a small number of volunteers to determine the time and schedule of activity, inherently reducing the opportunity for randomised group discussions.

Where possible, focused discussions were encouraged, as arguably the nature of group dynamics can help to focus on the most pertinent topics and the extent to which views expressed are shared views (Robson, 2002: 284); and therefore, can speed up data analysis by way of the 'natural quality controls' in operation in a group dynamic. Additionally, it was found that participant observation, and in particular informal group discussions, contributed to selection of interview participants for gleaning more in depth understandings about issues within each case study.

Other types of participant observation included joining in green infrastructure activities alongside other volunteers. This was particularly illuminating as a method for understanding in greater detail how a group operates in 'normal circumstances. For example, it was possible to observe the ways in which individuals interacted; whether particular individuals were consistently in a leadership role; which facilities were particularly valued by the group; attitudes to passers-by; the rhythm of the day, including responsibilities for opening up, making refreshments, and instructing the groups as to the priority tasks for that session. These are all observations which would otherwise we invisible or silent to the researcher; and as such provided an enriched aspect to the data collected. It was sometimes possible to represent certain dynamics or interactions through visual methods, namely photography, however often the preferred method of recording these finer details was in field notes directly after the session. These field observations encompass an additional layer of first-hand accounts to the interview data and documentary material.

Punch suggests that the major characteristic of qualitative research is that it is 'naturalistic and fundamentally depends upon watching and studying people and events in their territory and natural settings' (2005). As such, the research design draws upon phenomenological methods of inquiry, adopting a design which is ethnographic in character, observing and examining people and phenomena relating to the research topic to draw out salient points and deepen a shared understanding of the definition and characteristic of community-scale green infrastructure. Simply put, the phenomenological aspects of the research study stress the importance of interpretation in describing experiences and facts, building up a 'story' of the phenomena through the contributions of participants (Bound, 2011; Simons, 2009).

A data collection technique to support the interpretation of data collected through site visits was field notes. As a reflexive researcher, the author was aware that the categorisations one may take with them into 'the field' for the purpose of interpreting the phenomena and exchanges one witnesses may in fact prevent one from actually 'seeing' these actors and their actions in certain ways. At the very least, it is likely a researcher may prioritise certain interpretations over others. For example, if one subscribes to the meta-narrative of Marxism, one presupposes the existence of economic forces at play, prioritising the production of certain actors over others. Thus, in this study of green infrastructure at the community scale where the focus is on the phenomena and exchanges which make up the 'project' level; it was important to include in the range of participants interviewed a cross-section of different types of stakeholders to diversify the possible alternative 'readings' of the same phenomena from different perspectives.

6.3.3 Semi-structured Interviews

Semi-structured qualitative interviews were selected as the most appropriate method for illuminating the nuances of CSGI from the perspective of the plurality of actors and agents engaged in CSGI activity. Robson (2002, adapted from King, 1994: 16-17) provides a useful summary of determining

whether a qualitative interview approach is the most appropriate data collection technique for a particular study (2002: 271). In this instance, four out of five criteria identified by Robson (2002) were applicable to this thesis, which: 'focuses on the meaning of a particular phenomenon to the participants; studies 'individual perceptions of processes within a social unit – such as a work-group, department or whole organisation'; highlights 'individual historical accounts of how a particular phenomenon developed'; finds that 'qualitative data are required to validate particular measures or to clarify and illustrate the meaning of new findings created through a quantitative study' (2002: 271). In relation to the choice of semi-structured, as opposed to structured interviews, Robson (2002) and Grix (2004) were consulted to consider the most appropriate technique in light of the epistemological assumptions within this thesis. As such, in-depth interviews (Grix, 2004: 127) were determined to be the most effective way to engage interview participants in a dialogue with the author, with the aim of building a narrative about the particular storyline of the community-scale green infrastructure group/s or project/s that they have experience of and wish to contribute as an exemplification of community-scale green infrastructure activity more broadly. Methodologically, the process of conducting a semi-structured interview differs from a structured interview in the fact that a 'pro-forma' of questions is created to guide the interview, however the order of questioning and the flow of discussion will naturally vary across interviews, allowing a greater degree of flexibility (Grix, 2004: 127); and arguably, a greater degree of autonomy from the perspective of the interviewee. Importantly, Grix (2004) suggests that the findings from semi-structured interviews can still be 'compared, contrasted and even converted into statistics' (2004: 128); and should therefore not be considered as less valuable in data analysis terms.

Building on this methodological understanding of the specific applications of in-depth interviews, Grix (2004) offers an additional layer of understanding with regards to the specific merits of in-depth interviews in the context of social capital research (2004: 73). As such, in-depth interviews and documentary analysis are highlighted as the most appropriate methods (data collection techniques) for exploring a small number of in-depth cases, guided by an interpretivist epistemology. Grix (2004) distinguishes this approach, defined as an 'alternative approach' and related to an 'anti-foundationalist' ontology, from the approach more commonly adopted by researchers who build social capital theory from the foundation of the 'Putnam School' of social capital (2004: 73). The key difference identified by Grix (2004) with this second approach is the adoption of a quantitative methodology, within a positivist epistemology (2004: 73). This thesis draws from the interpretivisit epistemology as it emphasises the role of both agents (internal and external stakeholders) and structures (types of CSGI e.g. Formal Group, Formal Project). In Grix's (2004) terms, the distinction of an 'anti-foundationalist' approach is that implicit to the study and is an understanding that 'not all social phenomena are directly observable' and that 'structures exist that cannot be observed and those that can may not present the social and political world as it actually is' (2004: 72). In addition, the emphasis on engaging multiple actors, with contrasting experiences of a particular phenomenon,

allows for the possibility that different actors will inhabit a different perspective of the same phenomenon, partly in light of their access to 'specific information channels' (Grix, 2004: 72).

In terms of selecting the questions utilised within the interviews, it was necessary to design questions which would prove substantive to the line of inquiry around capacity and longevity at the community scale. Yin's (2009: 87) theoretical approach to questioning which acknowledges how questions themselves vary in their focus and audience (or 'levels') proved useful as a general 'orientation' to composing the questions in a way which would keep the direction of data collection on track. Equally, however, different 'levels' of questions were identified to provide opportunities for a wider range of data to be collected and to minimise the role of the researcher, and the role of the typology as a pre-existing framework, in 'closing down' or prioritising certain lines of enquiry over others. In this context, 'level' has been identified as both relating to the style of questioning, as well as type of questions.

Style refers to the use of specialist language in interviews, which can create a barrier to understanding. In the context of CSGI, language has the potential to be an obstacle to capacity building across different stakeholder groups. In particular, the term green infrastructure is an example of specialist language; and it was therefore necessary to build in a degree of flexibility to the research design to acknowledge that alternative descriptions of green infrastructure were acceptable in the context of questioning to enhance opportunities for engagement with different stakeholders. For example, sometimes it was more appropriate to limit the conceptualisation of green infrastructure to its constituent components – *garden, allotment, woodland, river, park, allotment* – to make the study meaningful to interview participants. Similarly, 'community-scale' which is arguably a technical term, was interpreted within interviews as a site which is 'very local' or 'micro', and is focused on providing activities for a group or people linked by affiliation to a place of a specific interest or hobby.

Type, however, relates more closely to Yin's (2009, p.87) 'levels' describing a range of questions which relate to either individuals (Type 1) or individual cases (groups) (Type 2). Questions may also emerge from initial research findings relating to 'patterns' across multiple-cases (Type 3); and furthermore, questions may relate to the entirety of the case study approach and draw on evidence from literature reviewed (Type 4). And finally, Type 5 questions are 'normative questions about policy recommendations and conclusions, going beyond the narrow scope of the study'. Considering, the ontological position of the research design was one whereby the 'gap' in knowledge primarily focuses on illustrating *what* is happening at the community scale; the interview questions were principally focused on Type1, Type 2 and Type 3 questions. However, considering the overarching research aim, which was to contribute new knowledge about capacity for longevity and resilience within CSGI groups, Type 5 questions were an important consideration in the design of the data analysis.

By selecting a semi-structured approach to conducting interviews, the study was able to retain a level of authenticity; allowing for interruptions, movement and 'active' exchange, with some of the interviews including the participant asking questions, or suggesting a 'tour' of different parts of the site. The experience of this 'subject' (participant) - 'object' (researcher) dynamic served to offer a fluid discourse between the author and the participant – justified by the flexibility allowed by an inductive research design – which resulted in a more enriched set of data as a consequence. As a result the interview methods adopted resemble semi-formal guided conversations described by Silverman (2011: 150).

One methodological weakness identified for this type of interview approach is interviewer distortion. The main issue relating to distortion in this context is the application of categories derived from the desk study to frame the findings from data collection. This was addressed by allowing the participant to actively direct the flow of conversation within the interview, allowing data collection to represent information within the 'constructs' presented by participants. By recognising *how* a narrative unfolds in an interview, and recording interviews to enable analysis of the ways in which a participant connects ideas to form a narrative, it was possible to gain a better understanding of *what* was being said, beyond the meaning of the words themselves.

All of the interviews with CSGI volunteers were conducted within the 'territory' of the CSGI groups and projects under investigation – 'on site' in many cases – in light of Brigg's (1986) theory connecting versions of 'truth' to 'social circumstance' (Silverman, 2011: 151). There was also a conscious decision by the author to retain a level of authenticity in the data collected; allowing for movement and 'active' exchange, with some of the interviews including a 'tour' of the garden. The experience of this 'participant-observation' dynamic integrated within the interviews served to offer a more dynamic discourse between the author and the participant – some of which 'strayed off topic' but nonetheless contributed a level of empathy and understanding between 'subject' and 'object' that enriches the data collected. By allowing for contextual information, not directly relevant to the interview questions asked, conclusions drawn are less likely to be oversimplified, and may be more valuable to draw lessons for practice and recommendations for policy as a result. As a result the interview methods adopted for this study may hold more resemblance to the semi-formal guided conversations described by Silverman (2011: 150).

The design of the questions utilised in the semi-structured interviews was created to reflect the critical components of effective community action established in Chapter Three. One set of questions was designed to be meaningful to the experiences of individual volunteers engaged in environmental stewardship and volunteering; and to highlight more strategic questions of the role of decision-makers in supporting and influencing community activity. It was decided that this was the most useful way of creating a comparable case study approach, across cases and within cases, creating the opportunity for volunteers and strategic stakeholders to consider the same breadth of

questions relating to the experiences of CSGI through an individual group or project. However, in the case of some of the strategic stakeholders, a flexible approach to sampling allowed an unstructured approach to interviewing to capture more general experiences of community-scale green infrastructure activity outside of the context of the case studies selected.

The range of questions included opportunities for 'fact-checking' through closed questions such as *"When did you begin as a group/project?"* as well as more discursive questions such as *"How did you begin?"* Other questions were designed to draw out information relating to the five critical components for effective community action, for example relating to 'membership', participants were asked *"Who makes up the group?"* and *"Are there any strong characters or personalities leading the group?"*; or 'governance' such as *"Do you have formal meetings to discuss what's working, what's not working, what to do next?"* and *"Do you have a constitution or an agreed way of working?"*; or 'funding' such as *"Have you ever received support, in the form of funding or in the form of training?"*.

Detailed questions were asked to verify information provided through documentary evidence about the type and range of members engaged and activities engaged in by members, as there was the possibility that published records relating to a group's activities could be out of date. Participants were asked to consider, from their perspective whether their group or project was site-focused or activity focused. And in terms of social capital as an analytical framework for measuring the social outcomes of CSGI activity, participants were also asked to summarise the range of actors and agencies involved with the group or project, including 'professionals' (local authority, funding bodies, land agencies, training organisations, mentors); 'landowners' (public, private or third sector); 'mediating organisations' (professional organisation distributing support, skills and training); 'local experts' (residents, stewards, neighbours, Friends, specialist associated groups); 'members' (regular volunteers, committee members, group leaders, administrators); 'participants' (one-off/short-term volunteers, event participants, social media contacts); and 'associations' (e.g. Land Trust, Wildlife Trust, RSPB).

In terms of refining the typology created through the desk-search, it was also possible to integrate questions into the semi-structured interviews to consider the nuances of broad categorisations such as 'governance'. As such, more distinct subsidiary groups were proposed for participants to consider in reflection on their activities, including the following: 'Formal' (Friends group, constitution, agreed principles of co-operation, bank account, AGM, regular schedule of activities and events, easily accessible and transparent e.g. minutes and accounts published); 'Formal by Association' (via residents association, housing group, established third sector); 'Quasi-formal' (regular meeting time and clear hierarchy of management in terms of schedule outlined by Founding members, but open to change via participants at each session); 'Informal' (regular meeting time/place but irregular

schedule, meetings posted via internet); and 'Ad-hoc' (no official line of communication or visible profile to group, except via Founders).

Similarly, questions relating to 'funding' were designed to highlight the potential for different models of funding, in an attempt to more accurately capture the experiences of individual case studies. As such the following options were utilised in interviews to encourage a more in-depth discussion: 'Structured' (Friends group, receive annual sum or in kind support from a professional body); 'Fundraising model' (experienced members or volunteers whose key foci includes fundraising); 'Ad hoc fundraising' (submit funding applications in response to funding streams available); 'Peppercorn/seed funding' (one-off or infrequent small amounts of funding, micro capital purchase); and 'Gift economy model' (over 90% of activity occurs through voluntary contributions of time and donations of materials and assets, from both local businesses and individuals). Finally, interviews involved questions designed to consider the future prospects of the group (in the cases which were currently active), and encouraged participants to think openly and critically about the potential of the group for resilience and longevity, utilising the following questions as possible lines of enquiry: *"What do you see as your strengths and areas for growth?"; "What do you see as weaknesses and areas of challenge?"; "What are you most likely to focus on in terms of activity in the future (the same or different as now)?"; "What are the most likely sources of funding for the project in the future (if relevant)?"; and "What is the most likely course of action in terms of structure and governance in the future (same or different)?".*

Once the questions were satisfactorily designed, it was necessary to design the strategy for engaging particular actors in semi-structured interviews. The methodology for approaching individuals followed the same process in each of the cases, and involved firstly 'gatekeepers' through analysis of documentary evidence of a group or project's activities. For example, if a group had a website or social media presence, it was possible to identify committee members in the case of Formal Groups (e.g. Secretary, Chair, or Treasurer), or in the case of the Informal Group case, it was possible to identify key personalities associated with the group's activities through an article in the media reporting the group's successes in an award initiative. In this way, therefore, the role of externally or publicly available documentation played a priority role in establishing an initial contact for a case study. This was different in two examples however: in the case of the Formal Group (Active), the 'gatekeeper' was known to the author by way of shared membership in a network of groups who were associated with the 'Natural Choices for Health and Wellbeing' (2011) funding initiative, and was subsequently contacted directly as a known example of CSGI; and in the case of the alleyway project cited as a comparator to the Informal Group, the contact details of the group's Secretary were shared with the author by an external stakeholder during an interview, as an example of a CSGI group with propensity for resilience and longevity. In all cases, the process of verifying accounts given through interviews, with information provided through internal documentation, was an iterative process and information was consistently cross-referenced across interviews relating to each

case (internal stakeholders), between interviews with external stakeholders and internal stakeholders in reference to an individual case, and across interview transcripts and documentary evidence (including external and internal documentation).

Table 6.1 summarises the outcomes of the data collection strategy, in terms of both site visits and visits to the site of a case study to conduct interviews; highlighting the variability of access to observe the physical features of different sites of community-scale green infrastructure across the cases, as well as variability of access to the same number of interview participants across the cases. This variability is in part reflected in the different approach to governance across the cases, for example the formal governance approach adopted by the Formal Group case ensured that there was a greater variety of documentary evidence to analyse, including minutes from formal meetings, as well as diversifying the range of environments within which to observe the role of key personalities within the group, for example as a Chairperson within a meeting, and as a facilitator of gardening activities in a volunteer session. The table also serves to summarise the limitations of the data collection strategy in relation to each case, highlighting potential causes such as the role of individual 'gatekeepers', the difficulty of engaging participants from an 'inactive' group, and the role played by the location of a site, for example the private alleyway in the case of the Informal Group case study.

Table 6.1 Summary of outcomes from data collection strategy, in relation to four case studies

Case Study	Documentary Analysis	Site Visits	Interviews	Limitations
Formal Group (Active)	Website E-newsletter Project Dirt Minutes from formal meetings (including AGM, Committee meetings, extraordinary meetings),	Observations made at regular volunteer sessions (Tuesday afternoon, Friday morning) (ten visits made over a six month period) and at one-off, seasonal events (e.g. harvest celebration, fundraising event) and at a public meeting Includes field notes and photographic evidence of physical features.	Semi-structured interviews conducted on site with two core members; two interviews conducted in a neighbouring community centre with two internal stakeholders (non-core members); field notes from a series of informal discussions with regular members who preferred not to be interviewed; two formal interviews with two external stakeholders affiliated to this group.	The role of key personalities within the group served to limit the feeling of other regular members to participate in formal interviews through deference to the information provided by core-members; the author conducted informal discussions with these members during volunteering sessions instead.
Formal Group (Inactive)	The Mersey Forest archives (member of CCI initiative) Carding and Sayers (2003) evaluation of CCI initiative Formal records provided by affiliated countryside ranger.	Observations made at three site visits, combined with formal interviews (on site) Includes field notes and photographic evidence of physical features.	Five formal interviews -a core member (volunteer), -three separate voluntary organisation professionals who supported the group in their CSGI activities -countryside ranger who worked with the group.	The status of the group ('inactive') made it difficult to contact and engage core members or other volunteers to build a picture of group activity from the perspective of community members; as such the majority of information interprets findings from strategic/external stakeholders.

Case Study	Documentary Analysis	Site Visits	Interviews	Limitations
Informal Group	Media reportage of group's activities (e.g. BBC News article relating to Britain in Bloom award) Individual award initiative records.	Observations made at three site visits at request of core members, in absence of regular/open volunteering sessions.	Formal interviews with two core members, on site, and one formal interview with a regular volunteer off-site Formal interview with external stakeholder (award body representative) in relation to activities of group.	The informal governance approach of the group presented limitations to the data collection strategy as there were no regular volunteer sessions, and access to the site (a private alleyway accessible only through a resident's home) was limited to occasions made with prior arrangement with two core members.
Formal Project	Individual award initiative records Public funding initiative records Internally produced evaluation report of CSGI activity, impact and funding received.	Observations made at three site visits, in absence of regular /open volunteering sessions.	Formal interview with affiliated group's Chairperson, who is also core member of CSGI Formal Project Field notes from informal meeting with other core members during site visit Formal interview with external stakeholder (award body representative) in relation to activities of group.	The nature of the site of CSGI – a locked private garden – limited site visits to occasions when the author was invited by the Chairperson to visit. After two site visits, and two formal interviews, the Chairperson did not return any communications with the author, limiting data analysis from a volunteer perspective to the transcript of one volunteer.
External Stakeholders	Formal interviews conducted with a number of external stakeholders who are engaged in the activities of one or more of the case studies, including: Liverpool City Council civil servant with responsibility for neighbourhood policy; representative of award body Northwest in Bloom; a project coordinator from an affiliated voluntary organisation; representative from sustainability team of Clinical Commissioning Group; and board member of a Liverpool-based charitable organisation invested in community-scale GI activity. In addition, formal interviews were conducted with representatives from regional or national organisations engaged in supporting CSGI activity, including two coordinators from the national 'Love Parks' initiative; and a member of IUCN Healthy Parks Healthy People Task Force; both as a result of a conference attendance.			

6.3.4 Summary

By adopting three methods of data collection it was possible to triangulate findings across the case studies, substantiating claims as to what findings were significant for answering the research questions; as well as providing a more robust interpretation of CSGI within the case studies to qualify the categories created by the desk study and refine the typology as a result. This approach is summarised in Figure 6.3. In terms of selecting individuals for interviews, triangulation describes the process of identifying distinct actors and agents engaged in environmental stewardship and volunteering within a particular site of CSGI, encapsulated in three main ways: 1) identifying 'gatekeepers' from an individual group or project through documentary analysis, 2) identifying secondary interviewees through initial interviews with 'gatekeepers', and 3) approaching internal ('members', including 'core members' or committee members, and less regular participants) and external stakeholders (including staff members of the voluntary organisation involved with a Formal Project or a local authority officer engaged with the activities of a particular group). It was determined that this diversity of research participants would ensure the most accurate picture of what was going on at the community-scale, to more effectively be in a position to suggest which factors and forces play a significant part in determining a group's propensity for resilience and therefore longevity. The next section will therefore reflect on the approach to data analysis in the second half of this thesis.

Figure 6.3 Triangulation of data collection techniques: an iterative research design

Including
-'external' (available publicly) e.g. media reportage, award initiatives shortlists, records published by funding bodies, leaflets, newsletters, websites, and;
- 'internal' (shared with author by participant) e.g. attendance records, financial accounts, applications to funding initiative

Including
-internal stakeholders (core members e.g. committee members and regular members), conducted on site where possible
-external stakeholders (strategic decision-makers e.g. civil servants with responsibility for green space /neighbourhood policy; representatives of funding bodies/award bodies; staff members of voluntary organisations working in partnership with CSGI groups)

Highlighting
-physical features of green infrastructure (design, aesthetics, proximity to buildings and residential dwellings, site facilities)
-activity focus (types of activity)
-membership (e.g. distribution of membership across different opening times, popularity of one-off events); as well as roles played by different individuals and the observable influence of key personalities

6.4 Data Analysis and Interpretation

Stake (1995) suggests that the 'two strategic ways that researchers reach new meanings about cases are through direct interpretation of the individual instance and through aggregation of instances until something can be said about them as a class' and that 'case study relies on both of these methods.' (1995: 74). Although this thesis does not employ qualitative data analysis software such as NVivo, it does aggregate data in this way, noticing and analysing ways in which ideas, things and events are assembled at the case level, as supported by findings from individual interviews and focus groups, as well as analysis of relevant texts such as promotional material. Stake's (1995: 78) conceptualisation of 'correspondence' within qualitative data analysis is understood as 'the search for meaning' and 'the search for patterns, for consistency, for consistency within certain patterns'. In the context of CSGI, the concept of 'correspondence' was applied to the data collected through the case studies as a way of interrogating the original categorisation of CSGI; which characteristics can be empirically evidenced and subsequently utilised to create a definition of CSGI.

For this process to occur an 'analytic frame' (Thomson, 2011: 127) was needed. In part the typology acted as a starting point for analysis, providing analytical categories which serve to provide information and perspectives needed to illuminate the research questions. Categorisation, in turn, was essential so as to avoid each case being viewed solely as a unique single case with no points of learning for the broader sector defined as CSGI. However, the typology is equally an end point for analysis. By this it is meant that, although qualitative methods selected permitted the case study to be explored in its entirety; in the context of this study, the data collected only proved 'interesting' in so far as findings were instructive to adapt, refine and change the typology's categories; which in turn, provided a robust framework for analysing the specific variables of longevity and resilience. This narrowing of purpose with regards to case study focus can be rationalised utilising Wieviorka's (Thomas, 2011: 20) assertion that a 'case' is not a concept in itself, and is instead understood as 'an opportunity for relating facts and concepts, reality and hypotheses'. For example, the (proto) typology created from desk based research prior to fieldwork enabled the study to adopt a series of categories, interpreted by the researcher, to identify a notional definition of CSGI based on observable characteristics from the population found within the sample area. The challenge of the study was then to adapt, modify, discard and prioritise categories in light of a more in depth exploration facilitated by a case study approach. By adopting an inductive approach to the research design, conducting this initial stage of desk based research to reveal a picture of community scale green infrastructure activity in The Mersey Forest boundary, the study allowed the cases to *emerge* rather than being prescribed at the outset for extraneous reasons (Thomas, 2011: 20).

An accepted limitation of the adoption of a case study approach is an understanding that case studies do not usually offer the clues to causation that an experiment will tell you (Thomas, 2011: 21). Instead, the study considered that the case study composes different sources of information by way of offering an enriched picture of *what is happening*. It is the role of interpretation and the analytical

framework established by the researcher which transforms this information into a narrative to tell a story about *how* our new understanding can contribute to new knowledge relating to the research questions; in this case questions surrounding the influencing factors effecting capacity and longevity of activity at the community scale. Moreover, the role of the researcher is an inherent limitation in data analysis (Robson, 2002: 455), and can be conceptualised as a challenge of how clearly the analyst can think through the data, avoiding biases and inconsistencies in how they approach analysis across the case studies in a multiple-case research design. The importance of this relates to the capacity of a study to assume comparability of findings across cases, and is as important as consistency in methodological approaches in the data collection strategy.

As such, although a particular software package has not been used in the data analysis stage of this thesis, the author was clear to adopt a strategy of coding the data. The following techniques were therefore adopted to ensure a degree of comparability across the cases, within the limitations of data collection as described in Table 6.1. Firstly, codes, or thematic criteria, drawn from the earlier empirical chapters (governance, membership, funding, support, and activity focus) were assigned to materials created from observation (field notes), interviews (interview transcripts) and documentary analysis. It was then possible to add comments and reflections to these notes, highlighting and cross-referencing across different types of document to substantiate priority themes within each individual case. This also made it possible to link together similar or contrasting observations from the field, and from documentary analyses, when constructing key findings in the discussion chapter (Chapter 11). The decision to transcribe interviews also allowed for a degree of IT-supported content analysis, searching for key terms and phrases within and across the cases; identifying repeated phrases, patterns of emergent themes, for example relating to the impact of one particular member within the group.

Organising notes from the field, as a 'first wave' of data analysis during the data collection stage, helped to focus subsequent site visits and interviews, focusing the data collection strategy over the period of field work. This was particularly useful to check the accuracy of information across different internal stakeholders, as well as focusing the discussion with external stakeholders whose information about specific cases of green infrastructure may be more broad than deep. In this way, it was possible to gradually construct a small set of generalisations that covered the consistencies discerned within the data (Robson, 2002: 459); which in turn were linked together, across the cases, and in reflection of wider knowledge from the review of literature, to construct new understandings and theories in relation to community-scale green infrastructure, as a reconceptualisation of environmental stewardship and volunteering.

In summary, therefore, the approach to data analysis adopted within this thesis follows the three-stage design interpreted by Bond (2006: 44): *description, classification* and *connection* (Figure 6.4). A systematic approach to sifting and sorting qualitative data is necessary to mitigate the inherent

complexity of finding coherent categories, which in turn allows development of constructs or theory. In the context of this model of data analysis, *description* refers simply to the stage of representing the data in a form which can be interpreted, and in this instance, refers to transcribing recorded interviews into text as an interview transcript, thus providing a verbatim record of what was said by all participants (Bond, 2006: 43). The second stage, *classification*, describes the process of organising this 'raw' data into meaningful categories as decided by the researcher. In the context of this thesis, the categories utilised in this classification of data were drawn from the literature review findings, namely the five critical components of effective community action, and any subsidiary themes within these categories, for example the 'role of key personalities' within the group, as a subsidiary set of the 'membership' category.

In turn, the final stage of analysis, described as *connection*, involved analysing interconnections between different types of data (interview transcripts, documentary evidence, field notes) (Bond, 2006: 43); and interconnections within singular categories across individual case studies. Importantly, this was not a linear process, and iterative reflections back and forth between the data and across the cases ensured that the categories drawn from creation of the typology of CSGI in earlier empirical stages were interrogated and refined through the case study approach. In this sense, the final stage of data analysis ensured a level of corroboration across the different data sources, and across the different cases; which was particularly important to substantiate emergent constructs and theory, as a consistent data collection strategy does not necessarily guarantee the same type and volume of data can be collected, and subsequently interpreted, across a multiple-case research design.

Figure 6.4 A three-stage data analysis approach (adapted from Bond, 2006: 44)
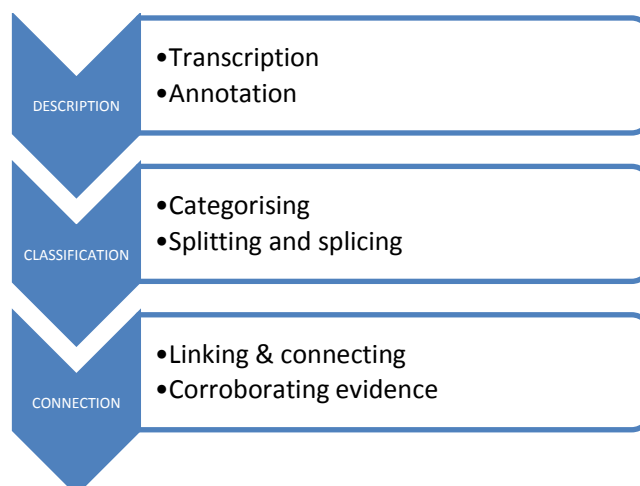
6.5 Ethical considerations

This thesis was carried out within professional and legal standards set by the Economic and Social Research Council's code of ethics and University of Liverpool's code of practice. The research design was submitted to the University of Liverpool's ethics committee, including a Participant Information Sheet and Participant Consent Form, and the research design was approved and granted ethical clearance on the understanding that the research was design did not involve any research questions which actively sought the participation of vulnerable adults or children. In the case of methods involving site visits and participant observation, secondary safeguards were put in place by the author to mitigate any unplanned contact with vulnerable adults and children, such as ensuring that contact was made only with an accompanying and responsible adult present; and where possible, safeguarding policies adopted by the responsible body, such as the constituted group or voluntary organisation associated with the CSGI project, were made available throughout the data collection period.

Participants who engaged in interviews did so with informed consent, and were invited to share information on the understanding that representations within the thesis would be anonymised. A covering letter was shared with each participant who engaged with the author in semi-structured interviews explaining the research aim and objectives in non-technical language, and opportunity was given for further questions and clarification. The interview transcripts and documentary evidence collected as a result of the data collection strategy was stored in accordance with the University of Liverpool's policy on data storage, on a secure drive only accessible through secure access. This was particularly important considering the nature of data collected, for example in some cases the author was given access to a group's financial records as part of the papers for a board meeting of the committee; or more generally, the interview transcripts relating to individual groups contained sensitive information relating to an internal or external stakeholder's critique or value judgements of particular CSGI activities, and in their 'raw' unprocessed format, quotations are attributable to individuals or certain groups and projects.

In terms of the implications of the research, ethical considerations relate to 1) the author as principal investigator; 2) The Mersey Forest as sponsor of this thesis; and 3) the participants. Perhaps the most important ethical considerations relate to the impact of the study on the participants. In relation to implications to the author as principal investigator, there are two key ethical considerations. Firstly, the role of the author in determining the research design (ontology, epistemology, methodology and methods) plays a significant part in shaping what data is collected and how the data is analysed and interpreted. Robson (2002) discusses this role of the researcher in terms of 'power' and highlights the expertise and 'voice' of the researcher in the construction of knowledge (2002: 73). However, in this thesis, which adopts a constructionist stance, the role of the researcher in interpreting the data is limited by an epistemological framework which prioritises representing the 'voice' of 'the researched' at the centre of data analysis.

Secondly, the behaviour of the author, the researcher, also impacts on the experience of individuals participating in the study, the researched; and as such, the values the researcher brings to the study can play a major role in whether the experience for the researched is a positive/negative experience, and whether the benefit, for example the learning outcomes, are one-sided or reciprocal. As an experienced volunteer, activist and community practitioner, the author was keenly aware of designing and conducting a study which would be relevant, meaningful and accessible (in terms of, for example, the use of technical language) for all potential participants. This approach is evident in the interview questions which have been created to be intelligible to internal and external stakeholders, and equally applicable to community volunteers and strategic decision-makers. Ultimately, this approach is necessitated by an ontology and epistemology which interprets all data as an equally valid representation of reality, an approach validated by interpretive sociologies, phenomenology, and ethnomethodology (Robson, 2002: 35; Atkinson, 1990).

In terms of the ethical considerations relating to The Mersey Forest as sponsor of this thesis, and as a professional body engaged in the development of public policy (e.g. Liverpool Green Infrastructure Strategy, 2011), the role of politics in social research has been of particular concern. Unlike Robson's (2002) comment that 'research findings are not a major contributor to the development of public policy, and that in general, the impact of research is weak' (2002: 73); this thesis builds on the successful work of The Mersey Forest to integrate research findings with knowledge from professional practice to create policy which is evidence-based and grounded in the experiential knowledge of actors and agencies engaged in delivering the goods and services in question. In the case of The Mersey Forest, the sustainable and effective delivery of green infrastructure shapes the core aims of their multi-faceted engagement with both decision-makers and community members; exemplified by the work of Carding and Sayers (2003), staff members of The Mersey Forest, to deduct theory from practice in the context of Friends groups as a specific mechanism of delivering social, environmental and economic benefit through environmental stewardship and volunteering. As such, this thesis builds on the precedent of drawing together established principles in existing public policy, represented by participation from external stakeholders from various government agencies; lived experiences from community-scale actors participating in the delivery and long-term management of green infrastructure; and environmental professionals engaged in supporting voluntary groups to achieve their outcomes.

And finally, the implications of the research for participants in the study have been given particular emphasis in the ethical considerations, in light of the potential risks of social research if specific precautions are not intrinsic to the research design. As a thesis within the tradition of social research, the research design has been created with sensitivity to potential risks, both from the point of view of the researcher and the researched. Craig et al (2000) define the risks posed in the following terms: 'risk of physical threat or abuse'; 'risk of psychological trauma or consequences, as a result of actual or threatened violence, or the nature of what is disclosed during the interaction'; 'risk of being in a

compromising situation, in which there might be accusations of improper behaviour'; and 'increased exposure to general risks of everyday life and social interaction: travel, infectious disease, accident'. In the context of this thesis, a number of basic precautions were taken by the author to minimise the potential of any of these risks materialising. For example, visits to sites of community-scale green infrastructure were made during advertised opening hours (e.g. regular volunteering sessions), and in the case of interviewing an individual participant, this was conducted either during a volunteering session in a separate part of the site for the purposes of privacy and confidentiality; or, in the case of external stakeholders, interviews were conducted in public places by prior arrangement. In addition, interview schedules were shared with the supervisor team to enhance safety measures. From the perspective of the participants, of the researched, the research was designed to avoid any of the 'ten questionable practices in social research' identified by Robson (2002), and as such avoided 'involving people without their knowledge or consent', by introducing the role of the author as researcher and the main research aim and methodology at the beginning of every volunteer session which involved new participants; avoided 'coercing them to participate' by only engaging interviewees with wiling participants, and conducting group discussions with freely engaging volunteers during sessions; avoided 'withholding information about the true nature of the research' by offering all participants a chance to read the Participant Information Sheet and corresponding Participation Consent Form prepared by the author in line with ethical considerations, and furthermore, offering a verbatim account of the content of these documents if requested by a participant; by avoiding any practices during the research process which may intentionally cause a negative effect on the participant including 'deceiving the participant', 'exposing participants to mental or physical stress', 'invading privacy', and 'not treating participants fairly, or with consideration, or with respect' (2003: 69). One practical way of securing this respect for participants was to allow for non-participation, a feature which is integral to a flexible research design, for example by adopting a semi-structured interview methodology, interviewees could elect to not answer certain questions; although the option of anonymising interview responses also supported participants in feeling that they could share information and personal perspective with the author more freely.

CHAPTER SEVEN

7. Case Study – Formal Group: Friends of Everton Park

7.1 Introduction

The Friends of Everton Park case study was selected as an illustrative example of a community-scale green infrastructure group which is formal in character. The study particularly focused on the activities of the Faith Plot, an allotment garden which is managed and maintained as an area of green infrastructure by members of the 'growers' sub-group of the voluntary organisation, Friends of Everton Park (FOEP). Everton is located in an inner city area to the north of Liverpool. The chapter is structured around the main themes of site and group characteristics; governance; membership; stakeholder relationships; and future-proofing. The case study methodology involved multiple site visits at different times within the growing season, semi-structured interviews with key actors involved in the organisation of activities, alongside more informal dialogue with volunteers attending drop-in sessions at The Faith Plot. It was also possible to observe an Everton Park Stakeholder event where community members were invited to comment on strategic plans for the park, including a lease transferral from the Liverpool City Council to the Land Trust, working in partnership with FOEP members.

FOEP was set up in 2010 as a constituted voluntary body with the strategic aim to be a lead partner on emerging partnerships created to improve Everton Park. Since that time, FOEP have attracted support and investment from a wide range of strategic partners and stakeholders including Liverpool City Council, Liverpool Vision, Liverpool Clinical Commissioning Group, Landlife, and Liverpool Biennial; as well as local partners, such as the West Everton Community Council (WECC) and individual volunteers from across Liverpool. FOEP has a number of sub-groups which are thematic in their focus, and include 'growers', 'heritage', 'arts', 'history', the 'out of the blue' music festival, and 'sports and recreation'. The Faith Plot does not sit within the formal boundary of Everton Park, but it is located adjacent to the main park and is managed by FOEP, providing additional volunteer activities in terms of environmental education, horticultural skills, and basic woodwork. The Faith Pot is situated on land owned by a local primary school, Faith Primary School, and pupils and teachers have access to the growing facilities at times outside of the advertised twice weekly drop-in sessions organised by Faith Plot members. This shared governance arrangement suits both sides as it opens up new funding arrangements for FOEP, and provides the school with an additional outdoor space for diversifying curriculum-based activities.

The idea for the creation of The Faith Plot came from the FOEP Secretary in response to an understanding that there is a general lack of skill and confidence around growing in Everton; as well as a need for more horticultural resourcing for the park itself:

The Faith Plot was simply one of the ideas we came up with. We didn't come with "we must do some growing". Obviously the park cries out for some colour and productivity in terms of its horticulture and landscape, which was pretty obvious to everyone. A lot of people's gardens round here are very underused! That's well known. It just sort of fell into place, it was a spare piece of land, about three quarters of an acre. We knew the school to which it belonged; we knew the people involved, the Head… I suppose three or four of us were growers, all amateur, none of us trained, some with allotments. It just looked like the next allotment, and that's exactly what happened! (Interviewee 1)

7.1.1 Interviewee Selection

Interviewees had a connection to growing activities at the Faith Plot; and included volunteer gardeners, committee members of FOEP, and stakeholders invested more widely in Everton Park. Formal interviews were generally conducted with FOEP committee members or strategic partners. Two interviews were conducted with Interviewee 1, reflecting their role as a key driver of the Faith Plot project and founding committee member of the FOEP organisation. Additional information is captured through site visits and represented as field notes in the text; this includes findings from more informal dialogue with volunteers who preferred not to take part in an interview. And finally, email communications with participants and documents shared by strategic partners and committee members were also used to inform the case study.

Table 7.1 Interviewee selection – detailing types, roles and number of participating interviewees

Faith Plot (volunteer)	Friends of Everton Park (volunteer)	Strategic (Partner/Stakeholder)
Interviewee 1 (FOEP Committee member/Faith Plot core member)	Interviewee 1 (FOEP Committee member/Faith Plot core member)	Interviewee 6 (Project Co-ordinator for Everton Park Land Trust initiative)
Interviewee 2 (Faith Plot core member)	Interviewee 4 (FOEP Committee member)	Interviewee 7 (Partner from Atlantic Gateway Parklands initiative)
Interviewee 3 (Faith Plot core member)	Interviewee 5 (FOEP Committee member)	

7.1.2 Site Character

The site itself is an area of gated land characterised by soft infrastructure associated with an allotment garden, including areas for annual and perennial production of edible plants, shrubs and trees. The plot is divided into areas for different types of food production, including two polytunnels for growing salad vegetables and providing under cover space for gardening in wet weather (Figure 7.1); raised beds for the accessibility of volunteers who are wheelchair users (Figure 7.2).; 'field' areas for seasonal crops such as potatoes, rhubarb and fruit bushes (Figure 7.3); a tree nursery for supplying the park area itself (Figure 7.4); a series of porta cabins which serves as a kitchen and

dining area for volunteers to take part in workshops focused on how to use the produce, a woodwork area for volunteers more interested in producing the infrastructure of the garden, and a secure place for tools (Figure 7.5); and a wildlife area with space for volunteers to sit and relax in a natural outdoor setting. The different aspects of the site encourages different types of engagement from volunteers with different skills and interests, for example hard landscaping requires maintenance and the site offers woodwork facilities for building site infrastructure. *Interviewee 3* for example enjoys the *"manual labour"* tasks associated with building raised beds and moving soil around the site. *Interviewee 2* prefers landscape scale tasks, such as clearing the field areas of weeds or digging large sections for planting annual crops such as potatoes; and was observed for hours at a time engaged in such tasks.

Figure 7.1 Polytunnels provide the Faith Plot with covered areas to diversify the types of crops they are able to grow and provide an area for gardening in wet weather

Figure 7.2 Raised beds built using scaffold planks donated to the Faith Plot; at one stage these raised beds were built for sale to create an income for the growing activities

Figure 7.3 The original Faith Plot site consisted of these open plan 'fields' only and FOEP were able to use their local networks to ask for the use of a tractor for an event they called the 'Big Plough. This in turn attracted engagement from staff and pupils of the Faith Primary School, landowners of the site

Figure 7.4 The Faith Plot community garden sits on the same site as the Faith Primary School, who acts as landowners of the whole site. A fence separates the school grounds from the Plot; but there is a locked entrance for the school to access the site and use it as a growing facility

Figure 7.5 In 2014, two 9 x 3 metre cabins were installed, enabling The Faith Plot to diversify their educational and training activities; and providing a space to make refreshments in wet weather

Interviewee 1 suggests that the woodwork facilities located in one of the cabins is potentially a route to getting a wider range of people involved as volunteers in the activities of the Faith Plot, particularly young people. The opportunity to spend time in the garden, without being engaged in growing activities, may act as a first step for individuals who have no experience in growing food, but may have had some experience of woodwork in a school setting. Plus, a number of interviewees talk about the lack of skilled jobs in Everton, therefore providing this facility in an easily accessible residential location may contribute towards building self-esteem and employability for young people:

"I would be ambitious to engage a couple of young people, on here, get them through the terror of getting their hands dirty and washing it off again, beginning to get into the miracle of growing some stuff And particularly getting them semi-skilled in some basic joinery…That's a clear aim for me." (Interviewee 1)

7.1.3 Site context - Everton Park

Everton Park is a large scale site of green infrastructure characterised by its steep gradient, geographically from east to west, providing panoramic views of Liverpool city centre and the river Mersey (see Map 7.1). The park spans a large area, encompassing wards in North and West Everton.

Map 7.1 Map showing Everton Park, a modern park created in the 1980s, similar in scale to Newsham Park to the east, a Victorian park opened in 1868
Source: Liverpool City Council (liverpool.gov.uk)
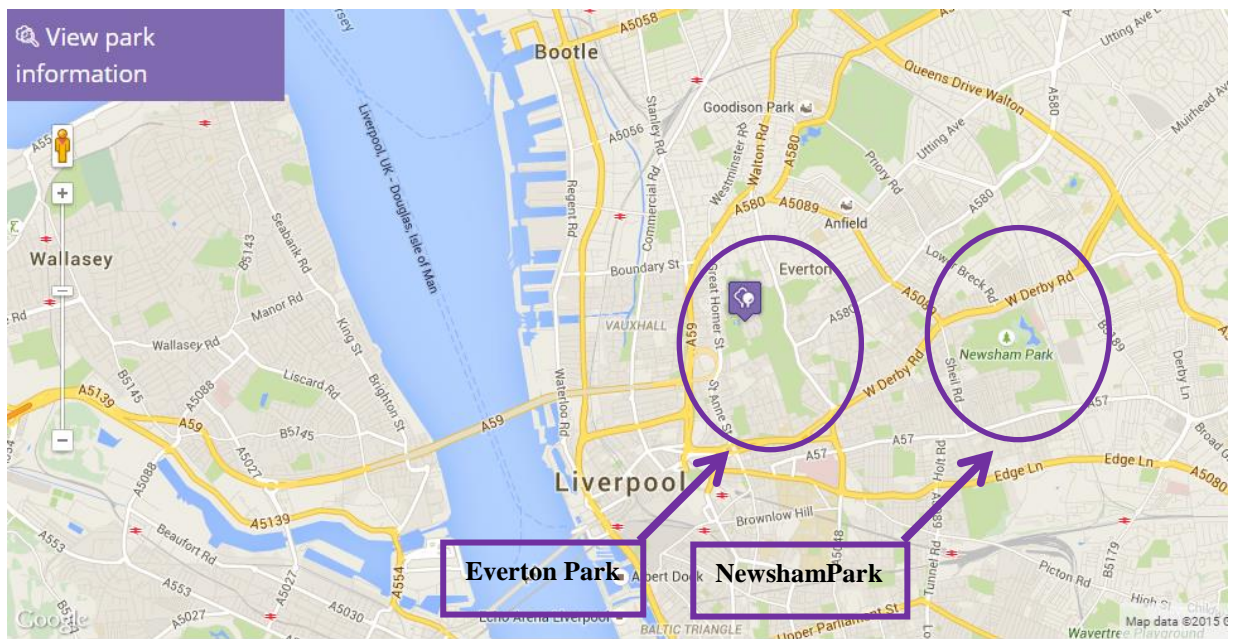
Since its creation in 1980s, Everton Park has attracted mixed responses from individuals within the community, some of whom were angry at the decision to demolish a large amount of terraced housing to make space for the park. Interviewee 1 offers a personal perspective on why for some residents the park continues to be a contested space:

"The history of the park is pretty amazing really. It was stopped in its tracks…when we squatted these houses in Langrove Street, December 1986. And that was…final option for a community that has plainly said…look you're not listening here, people do not want to just be moved out, lock stock and barrel from this area. They want houses rebuilt here. They do not want a massive scale park. And the consequence of that campaign meant that you had a park with a main road going through it, houses all over and all in it. It was never going to be a coherent piece of traditional parkland space. You could argue that if it had been it would be a better park than it could possibly be now. But there's no question that it was the community's view that that is what should happen. That is indisputable." (Interviewee 1)

This historical interest continues to be a factor in contemporary interpretations of the park and its role as a green infrastructure asset providing value to the communities of Everton, and visitors to the area. This is made clear in the language used by some of the interviewees about Everton Park having a role in a number of 'agendas':

"The partnership for Everton Park is one of the strongest partnerships I've ever been involved with because there are several vocal partners around the table, who have a different but strongly related

reason for being involved. The Friends themselves who have different strands to what they want to do; The Clinical Commissioning Group from a health agenda are interested in the benefits of such a large space within a deprived community in terms of its health and wellbeing contribution; The Liverpool Biennial which was very catalytic in getting the current initiative going, in terms of getting an agenda about changing the place which was a local space into being a city wide space that would attract visitors and become a destination in its own right; and the City Council who own the space and have been very strong and influential. This is all chaired by Liverpool Vision (who) got involved and took a lead in driving forward what could become the economic outcomes of the park, as part of the Liverpool Regeneration strategy." (Interviewee 7)

The contrasting agendas of different stakeholder groups represented in Interviewee 1's comments are visible in the different visualisations of Everton Park. For example, Figure 7.6 imagines the park as a tool for delivering the public health agenda through active living.

Figure 7.6 Artist's impression of Everton Park Source: Friends of Everton Park

Similarly, in 2012, the Liverpool Biennial commissioned two projects (see Figure 7.7 and Figure 7.8) to continue this theme of interpretation and visualisation of Everton Park; suggesting that the unfinished quality depicted in *Interviewee* 1's memories of the park's creation, have continued to dominate discussions around a park whose physical aesthetic is often the source of disagreement: *"(it's) a very, very strange park" (Interviewee 6); "It was never going to be a coherent piece of traditional parkland space" (Interviewee 1).*

Figure 7.7 Visualisation of Everton Park prepared by James Corner, landscape architect responsible for the 'Highline' in New York. His 'Five Pathways' concept echoes the idea of multiple agendas Source: pt.slideshare.net (Accessed 2 July 2015)
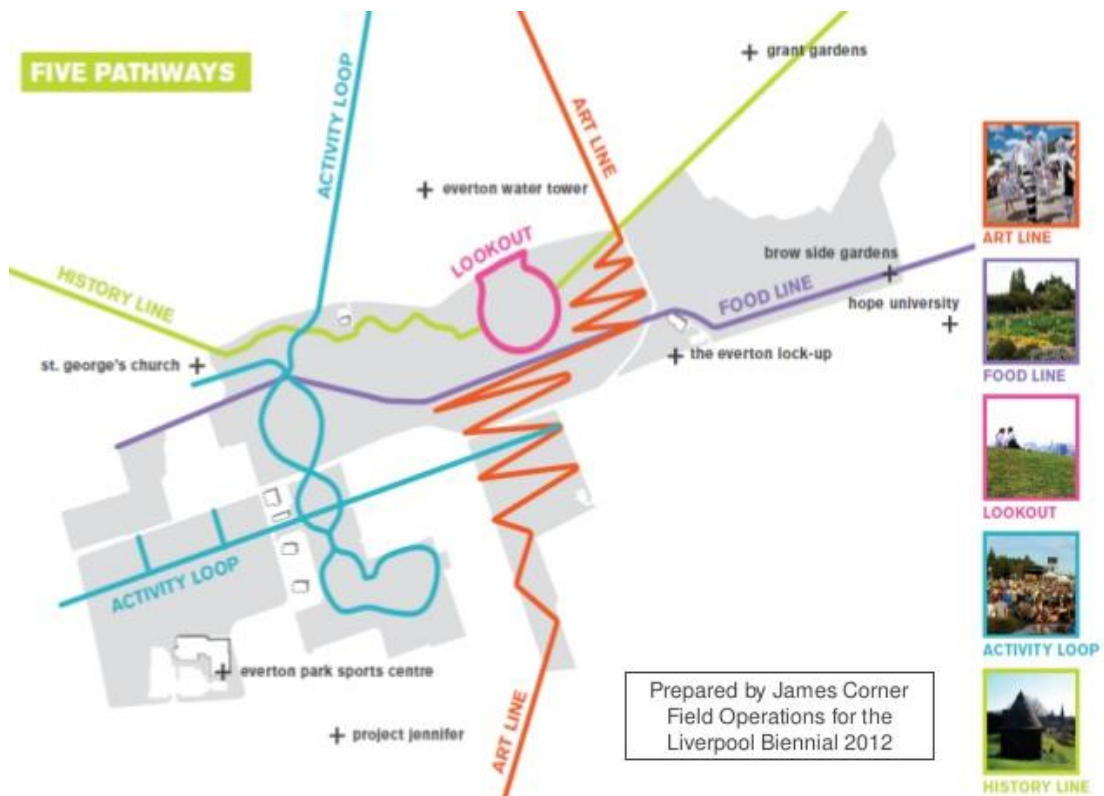
Figure 7.8 'Foraging Spiral' designed by artist Fritz Haeg, installed as part of Liverpool Biennial 2012 Source: Liverpool.gov.uk (Accessed 2 July 2015)

The Faith Plot is an open group, and their meeting times for their growing activities are advertised on their regularly updated website. This makes them relatively accessible; although *Interviewee 3* suggested they could encourage more 'off the street' participation by advertising opening times using a sign on the gates of the site. Although, this did not change throughout the period of the research study, it was clear from observations during site visits at different times of the year that members working on the Faith Plot engage in friendly conversation about their activities with passers-by. The information relating to The Faith Plot is integrated into the FOEP website within the 'Growers' strand of their wider activities.

Figure 7.9 'Friends of Everton Park Structure Diagram' Source: Everton Park 'Starter Park' [online] Available at: http://www.evertonpark.org.uk/get-involved/4571151983 Accessed 28 March 2016.
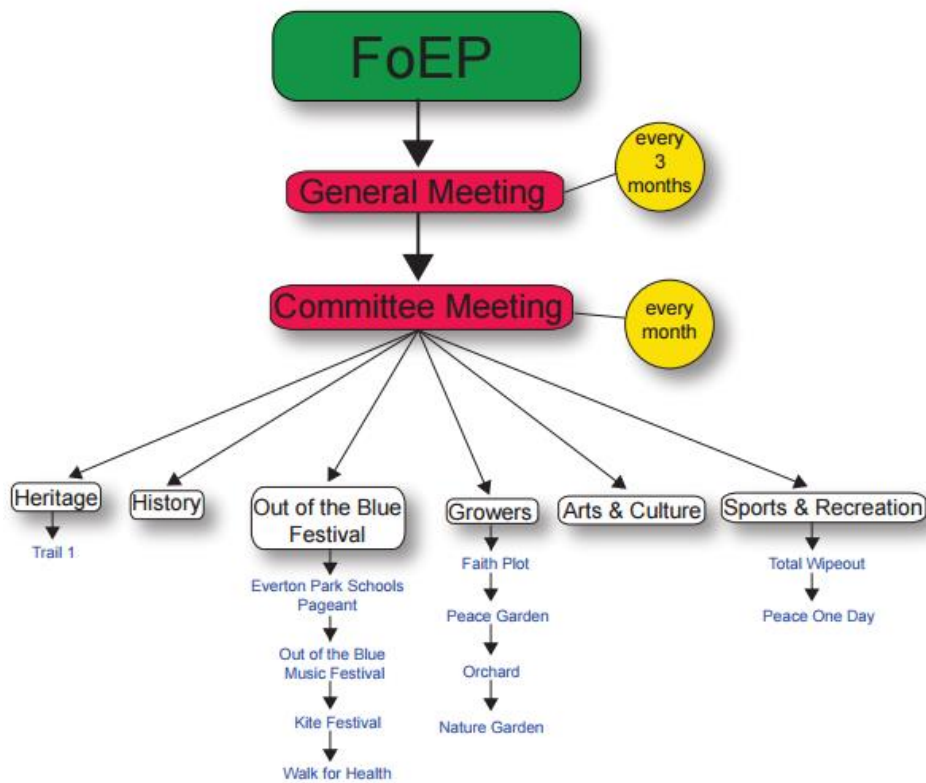
The Faith Plot group is primarily characterised by a small group of between 5 and 10 regular volunteers, drawn from a larger network of members. In addition, the group draws on the wider membership of the Friends of Everton Park, which was particularly observable during one-off or seasonal events and volunteering opportunities. The wider network of members, including Faith Plot members and Friends of Everton Park members, receive regular communications about these events and opportunities, as well as the day-to-day activities of the Faith Plot group. Until recently this has

involved a newsletter, available in both printed format and digital format distributed via a database of current and historic volunteers. More recently, the role of Interviewee 3 has been to enhance electronic communications to reach a wider audience and to make the role of communications and marketing more efficient within the group. This has included the utilisation of online survey tools to integrate more two-way communications with members and volunteers; providing a wide range of information including feedback as to the popularity of certain activities available at the Faith Plot, and feedback as to the future strategic direction of the group as a discrete part of the wider Friends of Everton Park offer (see Figure 7.9). As part of this wider strategic group committed to engaging a local and wider stakeholder group in the skills involved in improving the horticultural and biodiversity offer of Everton Park, the group involved in managing and maintaining The Faith Plot is given direction from the FOEP steering group charged with planning the planting for the park as a whole.

Currently, all communications are managed by Interviewee 1 and Interviewee 3, who were able to provide details as to the size of the membership of both the Faith Plot and Friends of Everton Park. In addition, by way of substantiating their claims, it was also possible to review the 'signing-in book' as part of the documentary analysis for the Faith Plot. This document is an archival record of all visitors to the site since its opening in 2011. This is a substantial record creating a picture of scope and shape of volunteering; highlighting the regularity of certain individuals, for periods of up to a year at a time; plus, hundreds of visitors whose name only appears once. It is difficult to ascertain by analysing this document alone whether these 'one-off' volunteers relate to participation in an event, or whether they simply wanted to experience a regular gardening session to see if they liked it; however, discussions with regular participants, including Interviewee 2, highlight the difficulties the group have experienced in influencing volunteer retention, in spite of various strategies and approaches to increase numbers:

"It's difficult to engage people round here. It's just the culture of north Liverpool. Not just in gardening, in everything." (Interviewee 2)

The overarching characteristic of the group, however, is the input of two key actors; a husband and wife team who, aside from the occasional absence due to illness, have been present at every drop-in session and every event since the opening of the Faith Plot in 2011; evidenced by the 'sign in book' and corroborated by site visits and comments from other interviewees. These two actors were also instrumental in the creation of the Faith Plot; which has had two locations in its duration. The group were forced to leave the original site due to the building of a new school; however, the group relocated their activities to the current site by invitation of the same school and by the continued advocacy of these two actors with the school in the interim period.

The group does not govern itself around an overt hierarchy, although informal conversations with volunteers during site visits convey an implicit understanding that the two individuals who started

the group are essentially the 'vision holders'. This role extends across a number of key responsibilities, including day to day tasks such as what, when and where to cultivate; and more strategic tasks such as managing opening times, siting permanent infrastructure, volunteer coordination, and stakeholder engagement, including with funders. *Interviewee 3* suggests this concentration of responsibility can appear confusing for new volunteers to understand. In light of *Interviewee 1*'s multiple roles as Faith Plot coordinator, FOEP Secretary, and key contributor to stakeholder discussions regarding the wider park, *Interviewee 3* remains unsure of the governance set up between the Faith Plot, FOEP and Everton Park. It is understood from dialogue with *Interviewee* 3, that this concentration of responsibility in one or two individuals could become problematic if these people became unable to continue their active participation.

The FOEP group is a membership organisation and in return for the £1 annual subscription, members receive regular and detailed communications about the activities and volunteering opportunities focused on the physical improvement and engagement with the park:

"I think it's interesting that technically FOEP is a subscription organisation; they ask you for £1 and they're not shy about it. I think it helps them raise a small amount of funding, and it's a symbol of commitment. And they're well organised, so you know when there's a meeting, when the Committee's around, when there's an AGM. Not a long period of time goes by until you get an email from Everton Park about something, their website changes regularly, so there's something to look at. They have been fortunate to have people to do stuff for them for period of time, very successful in gaining smaller grants funds that local authority or other organisations wouldn't have been eligible for, and they seem to have spent that money wisely as people like to do something with them a second time." (*Interviewee 7)*

Although *Interviewee 7*'s comments refer more broadly to FOEP as a membership organisation, the activities which take place on the Faith Plot are included and integrated into the wider communications, which include: a regular newsletter, printed and posted to neighbourhoods surrounding the park, and mailed electronically to various lists of stakeholders including park visitors and Faith Plot participants, as well as key partners from public organisations and funders (Figure 7.10). FOEP's branded communication is supplemented by topic-specific email communications from FOEP's Secretary about opportunities such as the Everton Park Stakeholder event in October 2014, or sharing news about an arson attack on the Faith Plot in April 2014 to a network of other food growing organisations who may be able to offer support or resource. FOEP's community communication and consultation appears to be an important part of what they do as an organisation, and Interviewee 1 suggests this is in part to offer an alternative experience for Everton residents who had a negative experience of consultation over a period of years when the area was the focus of demolition and rebuild:

"We're pretty keen on consultation round here, we understand that words initially mean asking people what they think; there's no process of presenting information, its asking. There's a long history of that, so all key activists involved in FOEP are very serious about consultation... Committee meetings are closed, but all of the working groups are open meetings, we wouldn't dream of if someone said can I come to the Growers meeting, we wouldn't dream of saying no; we'd bend over backwards and say please do, please come; and that would be true of all of the working groups." (Interviewee 1)

Figure 7.10 FOEP newsletter for public events in the park in 2015, which is available in print and as a download on the FOEP website

Source: Friends of Everton Park [online] Available at: www.evertonpark.org.uk

In relation to the role the formation of a Friends group for the park played in creating cohesion amongst different discourses relating to the creation of the park, and the history of the site, Interviewee 1 suggested that there was a general consensus of support for the Friends' activities, including those at the Faith Plot:

"I think people understand the part of the Friends, that they've been very, very, active, people see the Friends quite often here; people know most of the events in and around the parks are Friends organised, they won't know the details of the planning process, but they can all get involved if they want to." (*Interviewee 1*)

It was difficult to find alternative or contrasting views to this within the interview data from other interviewees, including strategic stakeholders. In fact, the majority of stakeholders interviewed supported Interviewee 1's perspective. However, it is possible that stakeholders with alternative views are not actively engaged with the CSGI activities of either FOEP or the Faith Plot currently; and the limitation of time and access to a wider cross-section of the membership of either group meant that contrasting opinions were not shared with the researcher. The nearest to divergence in opinion about the role FOEP have played in the evolution of the park as a strategic site of green infrastructure within the wider city region occurred at a community meeting when a community member expressed disagreement in reaction to plans to transfer the lease for the park from Liverpool City Council to The Land Trust and working in partnership with FOEP. This example serves to highlight the pluralistic nature of CSGI as a site of governance affecting actors and matters beyond the site boundary.

As an active participant in community development for many years, it may be predictable that Interviewee 1 expresses such bias towards the positive role of FOEP. However, the view that FOEP has an important role to play beyond its categorisation as a green infrastructure initiative, specifically in tasks associated with advocating the multi-functionality of the park as a green infrastructure asset for the communities in the north of Liverpool, is a view shared by other interviewees. For example, *Interviewee 3* who first joined as a volunteer on the Faith Plot in February 2015 was tasked with developing the group's communications and marketing. It was suggested in interviews with both Interviewee 1 and Interviewee 3 that this role was increasingly regarded as strategically important to ensure that opportunities for consultation and decision-making were communicated to as many different stakeholders as possible, in particular to residents within close proximity to the park.

It was therefore the case that some of the group's limited resources were still being assigned to printing materials, such as invitations to community meetings and seasonal newsletters advertising events and volunteering opportunities, to optimise the transparency of both the Faith Plot and FOEP. During the first interview with *Interview 3*, it was suggested that this function of community activism and advocacy was a strong motivational factor for his decision to join FOEP; they felt a sense of '*civic responsibility*' in the context of public funding cuts; and as it was '*their community*' they had a sense of duty to '*be involved*' in an organisation who are actively engaged in decision making processes affecting the long term vision for the park to ensure it remains "*open, accessible, and sustainable*".

It was significant to understand the prescience of the long term role of FOEP in the sustainability of the park as a multi-functional green space as a motivational factor for *Interviewee 3*. Partly in terms of understanding the character of the group as it grows and develops away from the original two actors who set it up and continue to provide steer; and partly because Interviewee 3, as one of the newest members of Faith Plot, marks a potential step change for the capacity of the group to recruit and retain different types of volunteers. Interviewee 3 is within the age bracket of 18-25; compared with the rest of the regular volunteer group who were encountered throughout the study period of three years, who are 55 or older. Interviewee 3 was unemployed at the time of data collection and had the status of job seeker; although they were hopeful that their role in leading on the development of the marketing and communications within the wider FOEP group may lead to employment opportunities; considering Interviewee 1 was paid for a proportion of their roles within FOEP, although this did not include their role within the Faith Plot. Aside from Interviewee 3, and Interviewee 1's part-time role within FOEP, the available data suggested that the other regular volunteers engaged in weekly sessions at the Faith Plot were retired from employment.

In this way, the impact of *Interviewee 3* as a regular member of the Faith Plot group and with interest in the wider group of FOEP was to expand the group's character and inevitably bring different perspectives to decisions which shape the design and delivery of green infrastructure activities. In their first interview, *Interviewee 3* suggested that the barriers for the Faith Plot and FOEP to achieve resilience over time were *"age"; "time"; "social media"* and *"money (the need for)"*. In addition, it was suggested that the group's activities were characterised by a lack of innovation: "*There's a lack of innovation and growth, (instead) only cyclical maintenance".* Within an informal discussion during a regular gardening session, another volunteer presented a contrasting viewpoint; suggesting that *"slow, incremental growth"* was the key characteristic of the group. They highlighted the efforts involved in successfully planning and securing a site within the park for growing; successfully relocating and recreating an established facility when their first site was lost to development; and continuing to offer twice weekly sessions for four years, plus seasonal events; all with a very unstable volunteer base beyond the two or three key volunteers. In short, the Faith Plot is arguably a good model of a resilient CSGI group, at least in terms of evidencing adaptive capacity in changing, and challenging, circumstances.

In later interviews, *Interviewee 3* clarifies what type of innovation they would ideally see or help to design and deliver as a member of the Faith Plot and FOEP. The majority of their ideas relate to their personal experience of using technology to order and organise daily and cyclical tasks. These ideas were wide ranging and some were focused on making the current tasks more efficient, whereas others were about expanding the reach of FOEP to engage a wider cross-section of society, specifically younger audiences. For example, they have been able to assist the Secretary of FOEP to make the distribution of communications more efficient utilising software which stores a database of

recipients, and records whether recipients have opened a message from FOEP and potentially read the information included.

In another example, *Interviewee 3* regards as the use of social media as *"vital"* to communicate, consult and engage effectively with the whole community. In turn, frustration is expressed as to the minimal use of social media within the current membership of the Faith Plot to share information and market opportunities. This opinion is particularly interesting if it is viewed alongside the views expressed by *Interviewee 1* whose experiences of community consultation focus on door-to-door dialogue and visible activism. Perhaps this highlights a difference in approach which can be explained by contrasting experiences of media and digital communications, which in turn may be rationalised as indicative of the inherently different experiences of 'community' between Interviewee 1 and Interviewee 3. *Interviewee 3* suggested that community residents may prefer to have the option to share ideas and express opinions about managing the park, indirectly, through online communities. When asked for evidence of this, Interviewee 3 simply suggested that this was a 'universal experience' and would enhance FOEP's engagement, particularly with people who had no interest in CSGI activities, but would be interested in advocating the efforts of groups like FOEP and Faith Plot virtually, online.

In terms of summarising the group character, the differences in viewpoints expressed by two very different stakeholders *Interviewee 1* and *Interviewee 3* are crucial to understanding the two opposing forces which exist as a challenge for FOEP, and specifically the Faith Plot, to achieve resilience over time. The role demography plays cannot be underplayed in this case study. On the one hand, two committed and determined community champions continue to manage and maintain the infrastructure of an allotment garden, with intermittent assistance from a wide network of supporters, members and a smaller group of dedicated volunteers. This in turn, sustains a growing resource for providing the wider park with horticultural materials and knowledge. Furthermore, it provides a space for quiet individual working; respite for those individuals experiencing poor levels of health or wellbeing; a space for team tasks which involve physical exercise and manual labour; a place to learn new skills and achieve a sense of pride in the outcomes; a focal point for community advocacy and activism; which may in turn, influence external stakeholders in their decision making.

On the other hand, in the opinions expressed by *Interviewee 3,* the work of the Friends and the Faith Plot volunteers may prove to be largely irrelevant to most people who live locally, people who could be described as stakeholders or beneficiaries of the park and its activities. *"No-one knows they exist except a few key stakeholder groups… There isn't even a sign on the Faith Plot advertising when it's open." (Interviewee 3)* There is a sense throughout Interviewee 3's comments that he is frustrated by the lack of, what he seems to regard as 'basic', marketing of the group's activities at a street level, questioning the capacity of the group to maintain its green infrastructure function as an allotment site and key node within the landscape of the park, if it could not diversify its membership and attract

new, and younger volunteers. The reliance on distributing newsletters and information to a small database of people who had already visited the project and requested to receive communications was described as an approach which lacked transparency, and potentially excluded ideas which may help to attract a different audience. In the case of *Interviewee 3*, the alternative to this approach was utilisation of social media as a more ad hoc and conversational method of communication.

In spite of these two tensions within the core group of volunteers within the Faith Plot, the group is generally characterised by a stable, if small, group of volunteers committed to managing and maintaining the growing facility as a distinct, yet integral, site within the wider Everton Park portfolio of land and activity. The nature of the site, principally characterised by its similarities with an allotment or community garden, appears to engender a sense of familial responsibility amongst those who make up the core group. Perhaps it is for this reason that *Interviewee 6,* a strategic partner engaged in work with FOEP and the Faith Plot, suggests that the Faith Plot is a distinct project within the park and exhibits characteristics of resilience which cannot easily be observed within the wider park group:

"(The Faith Plot) is a great facility. It could be a facility in its own right, it doesn't need the park. I think if for some weird reason the park went to mars or something, I think the group would survive, because of the scale of it, and the commitment, it's very human, and you can engage very well with it. In the park you've got some terrible conditions, you've got quite a lot of exposure; you've got a very, very, strange park. So in a way I think the park needs the Faith Plot, more than the Faith Plot needs the park. I could see a scenario where the Faith Plot is a much more sustainable facility than the whole thing." (Interviewee 6)

7.2   Governance
7.2.1   Legal Status

Faith Plot activities are governed by the constitutional framework provided by the Friends of Everton Park group. The Friends group is governed by a legally binding constitution and provides a formal structure for decision making with an elected committee and regular meetings where the broader issues affecting Everton Park are discussed. The most significant factor for The Faith Plot group in this regard is the fact that *Interviewee* 1, who originally helped to create the group and continues to hold an important position as 'vision holder', also occupies the position of Secretary within FOEP. In this way, there is a direct line of communication between the members of The Faith Plot group and FOEP, the body responsible for decision making affecting the broader site of the Park. However, this is also potentially a weakness for the group as it involves concentration of responsibility and decision making power in one member of the group, particularly in terms of strategic direction for the Faith Plot's position within the wider network of Everton's green infrastructure. There was no evidence from talking to volunteers during site visits that *Interviewee 1*

limited other members' input into decision-making; however, it is clear that currently the input of this individual is central to shaping the objectives and vision for Faith Plot as an FOEP initiative.

7.2.2   Group Structure

There is no documentary evidence outlining a formal structure governing decision-making within The Faith Plot group. It was only possible to ascertain the key individuals involved in decision making, at day to day level as well as a strategic level, through interviews with a range of participants involved the Faith Plot and FOEP. The most important aspect of group structure is continued involvement of the two individuals who set up The Faith Plot; *Interviewee 1* and partner. In a second interview with *Interviewee 1,* the extent of this defining input was explored. *Interviewee 1* suggests that the Faith Plot has been shaped around their skills and interests, but also by the level of social capital which he in particular enjoys in the Everton community as a long standing activist and community development worker, As such, there was evidence of both 'bridging' and 'linking' social capital, where bridging social capital describes the capacity to bring together people from diverse socio-demographic situations, and linking social capital refers to the capacity of an individual or group to make connections with people in power, such as those in politically or financially influential positions (Firth *et al.*, 2011). The role of Interviewee 1 specifically, can be highlighted throughout the interview data as an important source of the group's propensity for building social capital within the group and between the group and wider stakeholders. When questioned about his role in this regard, Interviewee 1 one suggests this way of working is more accurately defined as 'opportunism', which effectively underplays importance of his personal contribution to the resilience of the group:

"It's also been driven by complete opportunism. I'd say it's probably shaped around key individuals. Not just me and (partner), Interviewee 2 dug a huge field, (we said) what are you going to do with that? So we planted for our own personal use. We thought maybe we could grow specialist herbs for specialist cheffing. At some point we'll have to get a reality check. We've got routine costs, we don't want to beg; we're going to have to make money, be business like, not a business but business like." (Interviewee 1)

Across the interviews, and observed on site visits, *Interviewee 1* was often the source of a new idea, or the source of new connections through which the group may access funding or resources. Although FOEP is a voluntary organisation, it could be argued that this approach to management is entrepreneurial. As such, the input of one individual is having positive impact on the continued activity of the Faith Plot; however there is some emergent concern regarding the impact this may have on the longer term resilience of the organisation, particularly apparent in discussions with Interviewee 3 who recognises the difficulties which may arise in the future if responsibility is not distributed more evenly across the group. This situation is not unique to the Faith Plot or FOEP, and the role of individual drivers within voluntary organisations is acknowledged within Interviewee 7's

comments. Interviewee 7 is a board member of a strategic partnership aiming to attract funding and investment to improve Everton Park as a regionally significant site of multi-functional green infrastructure:

"I think like anywhere else, if the Secretary (Interviewee 1) and the Chair left tomorrow, I think they'd take a long time to recover. They are not a community group of two by any means. But, if those individuals left tomorrow it would be a big shock to the system, and whether they'd recover I don't know." (Interviewee 7)

In addition to concentrations of responsibility in one or two individuals, there were interviewee comments that related more to the governance consequences this transferred. *Interviewee 3* felt that the informal approach to the Faith Plot group structure meant it was more difficult to question decisions made by those acting in a leadership capacity. The crux of the problem seemed to centre on a culture of informality, with a lack of transparency or process around marketing, communications and stakeholder engagement. This was perceived as a potential barrier to suggesting ideas which were different to those being shaped by FOEP Committee members. Such individuals were referred to as *"gatekeepers"* and in general the structure of the group was depicted as centralised; *"they want new people, but everything goes through the centre. It's confusing, and I don't know who's in charge of what."* This presents an alternative reading of the situation where one or two individuals are driving a group or project, in an entrepreneurial fashion, to 'get things done'. Instead, *Interviewee 3* provokes the idea that such informal group structures, which evolve over time naturally in response to individual strengths and personalities, may in turn result in resistance to innovation and change, creating a centralised structure which inhibits the evolution of an open and transparent structure; *"It can be a nightmare and it's definitely not sustainable".* (Interviewee 3)

This conceptual understanding of the impact individuals can have on the resilience of a group is significant in two main ways. Firstly, it suggests that the influence of a strong and capable individual within a group can be simultaneously positive and negative. During the phase that they are active, they can be instrumental in the formation, growth and establishment of a group, including acting as advocate for its ambitions and activities to other stakeholders both within the volunteer community, and to wider stakeholders who may be looking to support the functions and benefits of such a group. However, if this individual(s) becomes unavailable, due to a change in circumstance or for personal reasons, such as illness or disability, and are unable to continue with this leadership role, the retraction of this level of input is likely to leave the group in a vulnerable position. This scenario can be defined as the problem of succession. Secondly, and integral to the first proposition, the dynamism of such an individual(s) may inhibit the chances of an alternative leader coming forward during the phase of their activity, and so the problem of succession is compounded.

The case study of the Faith Plot provides an example in which a community-scale green infrastructure group is being successfully led by a team of two capable individuals, Interviewee 1

and partner. As such, it was possible to explore the different ways in which this model of governance, informal as it is, is perceived by stakeholders for whom the long term resilience and longevity of such a group is of interest; mainly in light of the role they play in maintaining sites of green infrastructure in a period of reduced public sector capacity to fund the maintenance of smaller green spaces. From the perspective of a strategic partner, who perhaps looks for that "single contact point" (Interviewee 6), having an active, skilful and engaged volunteer willing to lead on decision-making on behalf of a voluntary organisation accelerates efficiency and ensures representation and advocacy of ideas. However, another reading apparent in the interview findings in this case study is that, this concentration of responsibility can appear divisive.

7.3   Membership
7.3.1   Group Profile

The Faith Plot is advertised as an allotment garden accessible to all users of Everton Park and the wider Everton area. However, interview findings with group members highlight spatial and political divisions within the community of Everton which in turn, act as barriers to participation in CSGI activities on sites which, for one individual, may be perceived as being in the 'right' part of Everton, and for another, may be perceived as being in the 'wrong' area. Although this is not strictly the subject of the research, the geographic location of site was highlighted as an important factor affecting the capacity of The Faith Plot group to attract voluntary participation from community residents who live closer to the Breckfield and North Everton Neighbourhood Council (BNENC) than the West Everton Community Council (WECC) building which is in close proximity to the site. It was necessary to explore the political history of the establishment of these two community councils to understand the significance of the cultural and geographical segmentation of Everton into discrete communities of affiliation and interest, intersecting the park in different locations and with different agendas. *Interviewee 3* suggested that cultural divisions within Everton have affected the capacity of The Faith Plot group to establish their activities in a sustainable way:

"The activities of the Faith Plot seem to be focused in West Everton, and not so much North Everton. There seems to be a community, or religious, divide. For younger generations (like me) it's irrelevant, but it affects them. The older generation (seem to be) more localised." (Interviewee 3)

In terms of volunteer motivation within The Faith Plot group, one long standing volunteer suggested that he did not have prior experience in allotment gardening or food growing; another more recently involved volunteer suggested that she did have gardening knowledge, after managing a large garden in a previous house, but that she preferred to garden communally as there was less responsibility. Another volunteer who arrived in Liverpool from Texas in the USA has a lot of gardening knowledge but described having to re-learn the best approaches to gardening in a more temperate

climate. The main source of gardening knowledge appears to come from Interviewee 1's partner who has been allotment gardeners for a number of years. In general, Faith Plot members profess to be amateur gardeners with willingness to learn and follow instructions. Through the period of site visits from 2014-2015 it was possible to observe an increase in confidence amongst the volunteers to self-direct growing activities; for example, during a visit in peak growing season in June 2015 it was possible to observe seven volunteers carrying out individual and team tasks in the absence of Interviewee 1 and partner.

A recurring theme across the interviews relates to the age profile of Faith Plot volunteers. As a person of retirement age himself, *Interviewee 1* reflects on this characteristic in an email communication:

"We do seem to be (have) a seriously "past it" average age... (We're going to) have to sort that out. Nevertheless (we're) a very happy and productive outfit, learning as we go and scoring well on the five ways to wellbeing."

Interviewee 3, who is significantly younger than any other regular volunteer, had a different perspective on this aspect of the group profile, and made repeated comments about the unexplored opportunities to utilise social media to diversify membership and promote the group's activities. There also seemed to be an underutilised resource in the neighbouring Faith Primary School, for example there was no discussion of advertising the plot to families from the school to use as a community gardening facility during the school holidays. Towards the end of the case study period however, there were examples of the group collaborating with other groups engaged in community-scale green infrastructure, to diversify the range of activities being offered on site, and within Everton Park; in particular activities directed towards children, young people and families, such as bluebell planting with a school group, and seed sowing workshops as part of the Out of the Blue music festival.

7.3.2 Personalities

Interviewee 6 suggests that the impact individuals can have on group dynamics is paramount. In particular they focus on the capacity of individuals to understand the needs of their site and the needs of the group:

"If somebody's a very keen gardener, they might have a better understanding of the ecology of a site than somebody who just loves being outside with the kids. So I think that context is very important with people, who it is and their understanding." (Interviewee 6)

The overarching theme across all of the interviews and field notes is the predominance of one group member, *Interviewee 1,* as the paternalistic force guiding the activities on site, and advocating the value of the Faith Plot as a site of green infrastructure within the wider park landscape as a

committee member of FOEP. In addition, the horticultural expertise provided by Interviewee 1's partner, guides the day to day growing tasks on site. As a small-scale site of green infrastructure, this may feasibly be a sustainable model of governance; and in many ways, resembles an allotment garden, whose activity is led by the tenant(s), but is open by invitation to other gardeners. *Interviewee 6*, a strategic partner involved in the development of Everton Park as a landscape scale site of green infrastructure of city-regional significance, suggests that, generally speaking, scale is often the biggest factor which determines the capacity of a group to, firstly accommodate a harmonious mix of personalities, and secondly, to sustain green infrastructure creation and maintenance:

"In some cases it's very feasible. One example (I can give), is a little walkway in one of our Liverpool parks, maybe 100 yards long. It's been planted with perennials and the Friends group have looked after it and made it theirs. And it's fabulous! And that is great. And it's something that's doable, and it's a great thing to be involved with. And it's been sustained, you know what I mean. I look at it, and think that's an example of success. The Friends can associate; it's very close to what they have in their own gardens." (Interviewee 6)

The scale of the Faith Plot accommodates a group structure which focuses on two strong personalities; in many instances through the interviewees and informal dialogue with volunteers, it was perceived as a catalyst for organisation and coherence. They key difference in opinion is proffered by *Interviewee 3*, whose personal ambitions for the Faith Plot involve a wider recruitment of volunteers, and therefore a more accessible and formalised decision making structure to engage with. As such, Interviewee 3 suggests that the continuation of a structure where one or two key personalities drive the group may result in preventing an alternative scenario of growth and diversification; primarily because the group currently reflects the interests and skills of these individuals.

Although *Interviewee 1* accepts that the focus of the group's activities currently reflect their personal ambitions for the site and the wider park infrastructure; there is a strong implication in interview comments that there is a lack of equivalent confidence or capability amongst the other regular volunteers to replicate or replace the consistency of his approach. The concern, therefore, is that should he relinquish a leadership role, the resources provided by the Faith Plot, for the park and the community, may discontinue. When questioned about the necessary qualities or characteristics concurrent with leadership, *Interviewee 1* suggested:

"I could list some adjectives, but I'm not sure you could band them together as common traits, that might defy your research challenge! I suppose just for example, I've got (an appointment) in my diary...I'd be absolutely mortified if I'd forgotten it... Now I don't know what you'd call that, personal organisation? There's a little bit of a skillset attached to it, more than the ability to write...Whatever you call that, quite often you do not find (it) in people round here."

Interviewee 1 goes on to explain the role learning difficulties, such as dyslexia, play in preventing volunteers who have showed a willingness to take on more responsibility, for example difficulties in using a diary to assist with time management. The context of educational barriers and health inequalities described provide important background information for considering the low rates of retention in volunteering on the Faith Plot, and reflect the wider socio-economic barriers to education and health observed more widely in Everton as an area in Liverpool with poor educational attainment and relatively high levels of long term unemployment. Furthermore, consideration of this challenging context for sustaining volunteering of any kind, points towards the skilful approach employed by *Interviewee 1* as an individual willing to acknowledge these challenges:

"The Faith Plot is entirely voluntary, so people bring what they bring." (*Interviewee 1*)

In terms of personality, *Interviewee 1* provides a distinctive combination of compassion and candour. Moreover, his status as a long standing champion with 40 years experiences working within the Everton community is impossible to replicate and replace; and although personality goes some way to describe the mechanism by which respect is engendered by volunteers and partners alike, it would be reductionist to suggest it gives a full picture. The purpose of including these ideas expressed in interviews with *Interviewee 1* is to highlight the complexity of needs being addressed, even within one individual, when a volunteer chooses to access a site of CSGI activity. In this sense, the capacity of a voluntary CSGI group to provide appropriate support and facilitation to effectively engage an individual with a complexity of needs, including needs relating to their physical and mental health, is significantly stretched. Moreover, when a group such as the Faith Plot shows adaptive capacity to sustain a range of volunteer opportunities, and diversify in response to volunteer interest in the case of providing woodworking facilities in 2015; it is only fair to evaluate this adaptive capacity in the context of a group of volunteers, working with small budgets, in areas, such as Everton, with multiply deprived neighbourhoods bordering all sides.

7.4   Funding

7.4.1   Fundraising

The fundraising activities of the Faith Plot group are characterised by the approach to funding adopted by the FOEP, who centre on their capacity to attract funding from statutory partners and grant funders. This is not unusual for a CSGI group, and may reflect the characteristics of the Faith Plot as a type of green infrastructure group whose activities are primarily led by the motivations of each individual volunteer. *Interviewee 6* suggested how this lack of strategy can be a shaping force:

"I think it depends, it depends on the group. In some parts of any locality you'll find small parks with very active friends group, but those friends groups are made up of people who have time and maybe don't have financial pressure on them or their family, maybe they're slightly older, maybe

they haven't got children, and maybe simply they have some luxury that other people don't have. Then the resource to deliver what they are doing themselves is not as pressing." (Interviewee 6)

Interviewee 6 draws connections between the theme of group profile and fundraising to explain how and why some Friends groups may choose not to exert efforts to resource their activities with grant funding, because they can finance activities privately, or avoid the need for a professional because they have more time to contribute personally:

"I think there is a difference if people have got, how can I put it, passion and purpose…and time on their hands. That's a different context than somebody in a situation who wants to change things, wants to change land, and wants to do more for the community. But that community is more pressured, has got maybe higher unemployment levels, has maybe you know young people looking for a job, the driver there is going to be financial for that involvement. (Interviewee 6)

For *Interviewee* 6, the factors of scale and site context come to the foreground when assessing different needs and motivation for volunteering within a CSGI group.

The Faith Plot is located in an area of Liverpool with complex and challenging public health indices. As a context for recruiting and retaining voluntary involvement in a small-scale growing project, this is a particularly difficult barrier to engagement, especially sustained engagement. This situation is evident in the documentary evidence for the Faith Plot, as well as interview comments. For example, the 'signing in book' shows a consistent voluntary contribution from one individual, a male of retirement age, from December 2011 until October 2012. This was checked with *Interviewee 1,* and they added to this evidence by revealing that not only did this individual come to every weekly drop-in session during this period, but they elected to lead on an additional session on a Sunday. However, the individual was unable to continue in their voluntary capacity due to ill health, and has been unable to attend the Faith Plot more recently.

In response to the context of long term health conditions, the Faith Plot made a bid, which was successful, to a funding grant in 2012 which focused on providing health and wellbeing benefits through access to a natural environment. The Faith Plot group were selected as one of 38 groups to be awarded £7.5k through the 'Natural Choices for Health and Wellbeing' funding mechanism, managed by Liverpool PCT (CCG) and The Mersey Forest, to address health challenges in their local area. *Interviewee 1* recalls how the funding supported capital purchases and revenue spend to sustain his role as coordinator of the Faith Plot:

"And then, we got the Natural Choices money and we added to that value… We bought some extra time with that… some of my time became paid time… But not actually on the allotment, there was very little time we spent digging and doing on the allotment, which was paid time. It was more about recruitment and capacity building and some other work."(Interviewee 1)

Interviewee 1's comments are interesting in so far as they contribute a deeper understanding of the ways in which grant funding can build capacity at the community-scale. In this example, the money was able to positively contribute to the role of facilitating recruitment of volunteers, which in turn has the potential to extend the period of delivery within a CSGI group.

If the Faith Plot is representative of CSGI groups, it may be argued that the most important role of funding is to support the capacity of individuals who have adopted leadership characteristics. This is by no means unproblematic and offering payment for a volunteer's time and effort may in turn affect an individual's employment status, and access to welfare. Yet there is a thematic finding throughout the case study of the Faith Plot that access to materials, which would be classified as 'capital' funding in the terms of a grant application, is rarely a barrier for the group. In fact, it is possible to find evidence of a commonality across the cases of characteristics relating to a group's capacity to re-use and re-cycle materials, removing the need for substantial capital investments*:*

"We scrounged stuff, we scrounged this, that and the other, so by the time we got to Christmas we had a bit of an old greenhouse on there, actually the old university's greenhouse and when I say old it was the university's in like the 1960's so it was seriously old! We were repairing that, we had a shed, we must have had a dozen raised beds that we'd knocked up, we had the field ploughed, so we were just rolling…" (Interviewee 1)

In contrast, access to 'revenue' funding to sustain the input of individual volunteers, such as Interviewee 1's coordinating role, or Interviewee 3's role in developing marketing materials, could quickly become a barrier to the group's longevity. Connected to this support of an individual's impact within the group, the Faith Plot case study brings focus to the role of personalities. In particular, the personality characteristics which denote one volunteer as a leader and another as a participant may be easily theorised, but created and nurtured with much more difficulty. Therefore, when an individual emerges within a community, or a CSGI group, one may argue that directing resource and support to the sustenance of this individual would be the most likely route to longevity. This may go some way to explaining why multiple stakeholders both within the Faith Plot and within the wider support network acknowledge and support *Interviewee 1's* multifarious roles within the group.

7.4.2   Stakeholder Contributions

The Faith Plot receives an in kind contribution from the Faith School, who own the site and allow the group to cultivate this land free of charge. Other in kind contributions include advice and guidance from staff members at the Mersey Forest; funding advice and bespoke invitations to tender for service contracts from public health professionals within Liverpool CCG; governance support from Liverpool City Council; and a cyclical donation of soil and compost from a municipal environmental waste management company.

It is difficult in some of the interview data to distinguish between funding associated with The Faith Plot activities, and that relating more specifically to the wider activities of the FOEP. This may be a consequence of the central role played by *Interviewee 1* in both groups. In one sense, this overlap of governance has positive benefits for the Faith Plot as they currently represent the most significant growing output within FOEP 'Growers Group' portfolio. However, it may also serve to blur the boundaries, physical and political, between the two groups; which could impact on how wider stakeholders, for example, evaluate outputs and outcomes, environmental, social or otherwise, associated with the Faith Plot.

Furthermore, the role of the Faith Plot as a discrete CSGI group in delivering social and environmental outcomes, for example social capital, is discussed by *Interviewee 6* :

"In a community with less capacity, and that might be the economy of the area, it might be the joblessness in that area, it might be the age of people, it might be the health of people. But, if all those things are on the lower level, slightly further down, people have got to fit that into their life (it's a lot to expect). Yes, it's a massive amount to expect. And I think that you know it's slightly naïve that, I mean the word Big Society I think that's all very well, I think that has a place, but I think its place, it will work in some areas, it will not work in others. That's my opinion."(Interviewee 1)

Interviewee 6 frames the inherent limitations of voluntary initiatives, specifically in the context of managing green infrastructure, as being intrinsically linked to the role of other stakeholder contributions, in this example the role of a support agency:

"Can I just say one more thing about the resources? If the intention is that Friends groups can somehow fill in a gap of resources that aren't there, in whatever way, my experience, its only mine and may be irrelevant to other people, and for some groups it probably is irrelevant because in some groups you have highly able, maybe professional green space people, but in a lot of groups that I've been involved with, there have been various stages where they've always needed some organisation support, and it needs to be organisation support that they can depend on to achieve what they want to do. If that support isn't there, then certain things won't happen. I think that's a real challenge, because in some places that support, for whatever reason, is disappearing in all sorts of different ways." (Interviewee 6)

This is a particularly important finding for the case study, as the activities of the Faith Plot, and FOEP more widely, have been supported by a diverse range of vested interests from a host of strategic initiatives whose common aspiration is for Everton Park, and its associated sites of green infrastructure, to become a valuable asset for the north of Liverpool. This value may be measured in terms of numbers of people using and visiting the park for recreational purposes, evidenced by projects such as the 'Wheels Park' creation led by Liverpool Biennial, or in terms of enhancing the

area as an attractive place for new development and inward investment by providing a green setting for growth, exemplified by the Atlantic Gateway Parklands plans.

7.4.3 Innovation

There are a number of illustrative examples to evidence the capacity of the Faith Plot to respond imaginatively to a lack of resources. The volunteers who have been responsible for creating and maintaining the growing areas, and more recently the hard landscaping area, on site have shown determination and tenacity to overcome a number of difficulties, including: soil contamination, relocation, arson and vandalism, and ill health. However the key example of innovation within the Faith Plot case study relates to the process of land transfer from Liverpool City Council to The Land Trust in partnership with FOEP. It was not possible to provide an in depth account of this experience as it would have required wider consultation with members from FOEP, and the focus of this study was the CSGI activities of the Faith Plot. However, it was possible to ascertain that albeit innovative, as a response to reduced budgetary capacity to manage and maintain green infrastructure at the local authority, it was a decision which was met with mixed reactions from the community. It is unsurprising that these types of decisions evoke mixed responses from the local community, some of whom regard the capacity of FOEP to work alongside strategic partners so fluently with suspicion; a negative opinion which was expressed by a resident from the Everton community in a stakeholder engagement event focused on sharing information about the role of The Land Trust in future park management, alongside FOEP.

7.5 Support

7.5.1 Local Networks

FOEP are members of the Liverpool-focused web forum 'Project Dirt' and have contributed to discussions with other CSGI groups and projects, utilising the opportunity to advertise one-off events and invite other CSGI volunteers to visit the Faith Plot for knowledge exchange. For example, members of FOEP and members of a voluntary organisation based in Toxteth (South Central Liverpool), Squash Nutrition, have developed a regular 'exchange' arrangement where members from each group visit each other's regular and one-off volunteer sessions.

Furthermore, the 'sign-in book' used by core members to record all volunteers who attend each drop-in session included evidence of visits from local stakeholder organisations including West Everton Community Council; Breckfield and North Everton Community Council; and a number of local schools. This substantiated data collected in interviews relating to the role of networks and strategic partners from sympathetic organisations in profiling the Faith Plot and its CSGI activities. For example, a local GP Dr Simon Abrams whose name was recorded a number of times in the 'sign-in book' as a visitor to the Faith Plot, also authored an article in The Guardian newspaper

(Ramesh, 2012) detailing the role of micro-interventions such as CSGI in providing alternative models of healthcare and health and wellbeing support, which is particularly important in areas like Everton which have high levels of health inequality.

7.5.2 Professional Involvement

The most significant change in terms of professional involvement in Faith Plot activities has occurred recently as a result of the decision to transfer landowning responsibilities of Everton Park from Liverpool City Council to the Land Trust. An Everton Park Coordinator has been appointed as an employee of The Land Trust to oversee and direct strategic decisions affecting sustainable land management practices associated within the wider park area, including the two peripheral assets of the Faith Plot and the Nature Garden.

Even prior to this decision, professional involvement was central to the activities of FOEP, which was created in response to the vision for a more sustainable approach to managing and utilising the park. The key partners were identified by *Interviewee 7* as Liverpool City Council, Liverpool Vision, Liverpool Biennial, and the Primary Care Trust, now the CCG. Other partners who have sustained input into the delivery and design of green infrastructure within the park boundary have been The Mersey Forest, who continue to offer FOEP support and assistance; the National Wildflower Centre in Liverpool and a national expert in wildflower habitat creation. Most recently, FOEP have been working in partnership with the National Wildflower centre to successfully bid for the 'Tale of Two Cities' (2015) initiative involving a grant of £120,000 to create wildflower habitats in Everton Park and in a community facility in Hulme, Manchester. This particular initiative showcases FOEP's innovative approach to improving the multi-functionality of the park; and their successful bid and consequent project has attracted the support of an impressive range of public and private organisations; most notably, Kew Gardens, a national scale site of green infrastructure excellence.

7.5.3 Internal and External Stakeholder Relationships

As outlined in other sections of the chapter, the Faith Plot is comparatively well connected in terms of external stakeholder relationships primarily due to its affiliation with FOEP, and substantiated by the involvement of *Interviewee 1*. In terms of internal, or local, stakeholder relationships the weakness of the Faith Plot group to date has been the size of its membership and the homogenous nature of its membership profile. The group are aware of this weakness and aim to address a lack of engagement through regular communications for example the seasonal newsletter. The edition from July 2014 serves to depict the ambitions of FOEP, a 'members-led' organisation, by encouraging more voluntary participation from local residents:

Figure 7.11 Excerpt from FOEP e-Newsletter (24 July 2014)

Friends of Everton Park Newsletter 24 July 2014

'Summer Update' e-newsletter

We are determined to remain a members led organisation. This is a tough challenge but one which we embrace. Please send us an email if you're keen to help on any of the following:

- *Office help on Friday mornings-packing papers, sorting and scrapbook making*
- *Gardening and growing help-shifting soil, making a growing area, managing the park's plants and flowers*
- *Leaflet distribution in the Everton park neighbourhood*
- *Helping us run events behind the scenes and stewarding them*
- *Financially-our membership fee is a generous £1 for life-please don't forget us in your legacy or if you win the lottery!*

7.6 Activity Focus

In order to test the relevance of the categorisations derived from the desk study (Chapter Five), it was necessary to evaluate the range and focus of CSGI activities which have taken place on the Faith Plot since its creation in 2011. As such a timeline (Figure 7.12) was created, utilising data from the 'sign-in book' which details the activity focus of each session; and adding in details from other documentary evidence as well as interview data; to depict chronologically the diversification of volunteer activities and events over time. Activities and events which do not take place on the Faith Plot site, but directly involve the input of the Growers group, and therefore affect the site and volunteers associated with the Faith have been underlined. Their involvement in these wider Everton Park initiatives generally involved the Faith Plot being utilised as a 'nursery bed' for the cultivation of plants, shrubs and trees.

The timeline shows that although key volunteers acting in a leadership capacity in the group are aware that volunteers may choose to engage in CSGI activities in response to personal needs relating to health and wellbeing, or personal circumstance such as long-term unemployment; the activity focus has remained consistently as green infrastructure related tasks and events. The timeline of activities is useful to establish key events in the life of the group – including the loss of their first site – and illustrates the role different strategic partners and wider stakeholders have played and continue to play in the activities of the group. In terms of evaluating the group's adaptive capacity, the timeline substantiates the role of 'support' through 'networks' as a priority driver of longevity and resilience. Furthermore, 'fixed slots for participation' have remained consistent since the group started in 2011 highlighting the role 'membership' plays in determining the character of a group; providing regular volunteer sessions may enhance the status of the site as a long-term, valuable CSGI asset accessible to all.
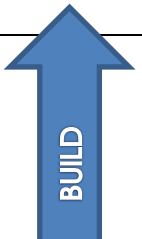
7.7   Future-Proofing
7.7.1   Key Factors Affecting Longevity

In an email exchange during an early phase of the fieldwork, *Interviewee 1* reflects on the subject of longevity as a focus of the research, and in turn verifies its central place as a substantial challenge

for groups like the Faith Plot group and FOEP. The context for *Interviewee* 1's reflections are primarily characterised by longevity itself; having invested time, effort, skill and resource in community development in Everton over the span of his career. *Interviewee 1* appears to be concerned and interested in proactively investigating the catalysts and obstacles to creativity at the community-scale:

"In our 40 odd years in Everton we have asked and pondered the "longevity " question over a wide range of activities and disciplines and I do think that there may be value in seeing if any comparisons can be brought to bear within your research. By that I mean, how is it that a cultural norm activity…let's say footy, can track its longevity so well? Well that might be obvious, but other examples: cricket, squash, cycling, reading; how do culturally rooted activities flourish compared to culturally embedded activities like gardens and growing? To what extent are the "merits" of the activity itself the determining factor?"

Year	Stage	Events
2015	MATURING	**March** Grow Wild Event in Park – Field Trip to Hulme, Mancheste**r** **June** Growers Planting Out Day **July Open Evening;** Launch of the Wildflower Walk & Grow Wild ; Wildfl event; Garden Party in Nature Garden **September** Faith Plot Harvest Evening; October Bulb planting in park
2014	SCALE-UP	**RELOCATION TO SITE TWO** **April** Arson incident on Faith Plot – two polytunnels destroyed, plus all spring planting **June** Planning permission approved for building on Plot; Open Day on Plot **July** Open day on Plot; Veolia compost delivered – nine tonnes; Site cabins arrive on site; 'Summer Update' new e-newsletter distributed **August** Garden Party in Nature Garden; Core group of new volunteers established **September** Open Evening on Faith Plot Community Garden; **October** Everton Park Stakeholder Event – announce The Land Trust partnership; *Interviewee 6* introduced as Everton Park coordinator; plans for Wheels Park unveiled
2012-13		**LOSS OF SITE ONE** Gap in archival records
2011-12	GROW	**January** Start of Natural Choices for Health and Wellbeing project **February** Meeting re. lease **March** Everton Park orchard planted; Greenhouse and shed built; Visit from Dr Simon **April** Ploughed site **June** Open Evening **September** Biennial events, including: Fritz Haeg's 'Foraging Spiral and Basecamp'
2011		**CULTIVATION OF SITE ONE**
	BUILD	

		June Faith Plot Community Garden established; First session, with group of Mums, soil testing; Ground unsuitable for growing; build raised beds; delivery of scaffold boards. **July** Big Dig event; Rain water system created **August** Scaffold boards cleaned and sold to generate income for the plot **November** Visit from Richard Scott (local wildflower expert and supporter of group; Agreed fixed slots for participation – Tuesdays (9.00) and Fridays (2.30)*

Figure 7.11 Historical timeline detailing four distinct phases of activity 2011-2015

Through this insight, *Interviewee 1* provides an alternative understanding of the role played by group profile as a characteristic affecting longevity at the community-scale. Although many of *Interviewee 3's* comments highlight the absence of volunteers who match their own demographic profile, suggesting that homogeneity within a group profile can act as the principal obstacle to longevity; here, *Interviewee 1* brings the cultural associations with individual activities to the foreground, and replaces demography as a culturally-binding force, with subscription to a set values associated with that activity. This contributes insight to established literature relating environmental volunteering and stewardship (Fisher *et al.*, 2015); and to literature relating to motivational factors affecting an individual's decision to volunteer for a certain project which highlights the role of social interaction (Measham and Barnett, 2015). One could argue that the common factor identifiable across the activities listed by *Interviewee 1* is the opportunity for a specific, and in many instances, prescribed type of social interaction; which can lead to a state of affiliation, which may also be theorised as 'belonging', a concept defined by Maslow (1943) as being an essential ingredient in a framework for understanding human motivation and categorising 'need'. In essence this may be understood as a need for interpersonal relationships, and more recently has been reimagined as a collective need and measurable 'value' in theories of social capital.

Perhaps the most interesting aspect of *Interviewee 1's* idea is the distinction made between two seemingly parallel notions; 'culturally rooted activities' and 'culturally embedded activities'. The suggestion appears to be that certain activities have a greater significance in terms of cultural identity ('rooted'), and perhaps therefore, enjoy the benefits of participation from a wide range of uncritical stakeholders. In contrast, certain activities, in this example growing and gardening, have been introduced at a later stage, chronologically, or have been categorised as less essential to the cultural identity of a population ('embedded') resulting in a more subjective, unpredictable pattern of participation. The example of football is the most coherent comparator in this duality of 'opt out' or 'opt in' cultural activity in a Liverpool context. *Interviewee 1* implicitly recognises the powerful role affiliation plays in sporting activities, particularly when team membership embodies a tribal quality as it does in Liverpool. Compared to the importance of winning and losing status through the efforts

of your team, membership of one community garden or another has relatively little cultural currency; particularly when the status of this particular activity is partial or geographically unspecific.

Based on a documentary analysis of FOEP's target audience, the beneficiaries of FOEP's volunteering activity and physical interventions to improve the green infrastructure functions and benefits which the park provides are both specific and non-specific. *Interviewee 7* talks in terms of the park developing and achieving status as a regionally significant cultural and green infrastructure node:

"The Liverpool Biennial… is very strongly interested and in my head was very catalytic in getting the current initiative going, in terms of getting an agenda which was about changing the place which was a local space into being a city wide space that would attract visitors and become a destination in its own right."

This emphasises the role of external stakeholders and strategic goals for the park to develop an identity which is not necessarily relevant or reflective of the local communities whose homes and everyday lives are situated within the setting of the park. This in turn, sits in stark contrast to the narrative generated through *Interviewee* 1's memories of the history of this parkland landscape, which for many people is characterised by conflict and disagreement about the role and function of this land; much of the work of the Faith Plot could be depicted as work with an underpinning of cultural cohesion and positive promotion of the park's status as a contentious space, which is almost exclusively meaningful for individuals who lived through this time or by association through a family member. This issue of *who* are the stakeholders of the park, and therefore who ought to be influencing strategic planning for the long-term management of the park, is being borne out in pluralism at the community-level regarding the stewardship role of The Land Trust recently.

And finally, the fluidity of the park's status and meaning to both internal and external stakeholders may have impact on a group's capacity to build new sites of CSGI within its boundary; or to use it as an asset to borrow against when negotiating support and resource from external partners. This is given further complexity in *Interviewee 3*'s comments relating to perspectives of cultural identity and the role of micro-geography within this area: it is suggested that there is a *"tribal"* quality to the relations between different areas of Everton. The evidence presented relates to the close relationship between the Faith Plot and the West Everton Community Council (WECC), a community building located one street away from the garden. Partly this is explained by proximity, and partly by the fact that *Interviewee 1* is common to both groups, as Chairperson for WECC.

However, an additional factor emerges through *Interviewee 3's* comments relating to their lack of comprehension around a seemingly historical divide across the two community centres in the area. Although, WECC is located in the south of the park, and Breckfield and North Everton Community Council (BNECC) is located to the north of the park. *Interviewee 3* suggests that there is

geographical and political segmentation within Everton which may inhibit the capacity of a group such as FOEP; and in turn the Faith Plot group. This may in turn affect wider objectives for the whole of the Everton community if individuals associate the activities of FOEP with the ambitions of WECC members alone. This is perhaps one example of a negative aspect to the 'belonging' or affiliation function of a community-scale organisation; and consequently, could contribute negatively to its longer term aim of attracting as diverse a membership group as possible to more effectively ensure longevity in the context of changing political and policy relevance, and relevance to a wide range of funders and investors.

7.7.2 Key Factors Affecting Resilience

When discussing the resilience of the Faith Plot, it is possible to talk in terms of two distinct scenarios, which emerge primarily from the contribution of *Interviewee 6. Interviewee 6* has recently been employed as a facilitator for FOEP and has been tasked with improving their sustainability as a community organisation; and as a key partner within the consortia of partners contributing to the management of Everton Park. The role of *Interviewee 6* was established through interview data from a range of individuals, including strategic partners and volunteers, as well as reviewing documentary evidence of the role description contained within the employment advert.

The first scenario is characterised by the Faith Plot continuing as a distinct but integral growing facility within the park boundary, servicing the continuing green infrastructure functions and benefits of the park landscape, and providing a meeting point and interface with volunteers for FOEP. Crucial to the sustainability of this scenario is the character of the group and in particular the key actors adopting a management role within the group. *Interviewee 6* refers to this dynamic as identifying the preoccupations of the *"leading lights"* of a community-scale initiative, and moreover establishing the impact of key personalities within the group:

"(Personalities) are very, very important is the first thing I would say, it's very important who the leading lights of that group are. Both in terms of their 'energy' and also their level of understanding of what they're dealing with. I think that's critical as well. Sometimes you might have people who are very passionate about something, but may not have a wider understanding of what they're passionate about."

Therefore, the continuing relevance of the community-scale green infrastructure group as a crucial part of the whole may depend on the approach of key personalities within the group. This idea resonates with insights offered by a strategic partner (*Interviewee 8)* interviewed in the course of the research because of their experience endorsing green infrastructure groups at a city regional level; they shared findings around the role of *"community nodes"* and *"single point of contact for…officers, stakeholders, organisations"* in relation to the integral role personality plays in sustaining a project or group.

To stay with the theme of personality, an overarching and uncontested finding across the interview and documentary data, including fieldwork notes based on site visits, is the singular importance of one individual across the activities of the Faith Plot and FOEP; the role played by *Interviewee 1*. A rudimentary reading of the study's findings shows that *Interviewee* 1is a member of the Faith Plot, Secretary of FEOP, Chairperson of WECC, member of various steering groups and stakeholder groups charged with managing and maintaining the park and its development, and generally acts as the 'face' of FOEP, internally and externally championing the day to day tasks and long term goals with similar energy and passion, in person and via email.

Amongst this impressive list of engagements, it may be argued that the role as founder member and 'site manager' of the Faith Plot is perhaps the most capacious in terms of resilience, and therefore most cost effective in terms of directing support and organisational capacity building. *Interviewee 6* frames this argument in terms of scale and context, specifically relative to the site of the Faith Plot:

"W*hen you talk about Friends groups, it seems that scale is a very important factor and the nature of the space is a crucial determinant of what the Friends group can take on. And I think that's something that may be in some way worth thinking about. You might find sites of 1ha, or less than 1hectare, or 2 or 3 hectares which are fantastic and that are much more, for want of a better word, human scale. People can understand the landscape they're in and it's more usable. And they can engage a lot with all parts of it. But when you get to much larger sites, you mentioned urban woodlands, the relationship is different. I think the scale is important.*"

This comment is further substantiated in the context of Everton Park by other comments in the same interview about the scale of the Faith Plot, described in these terms of 'human scale', allowing volunteers to establish a more meaningful engagement with it as a green infrastructure facility, compared to a park, and compared to Everton Park specifically which has challenging geographical features such as a steep gradient and high levels of exposure and limited tree cover.

This issue of scale, when combined with the factor of personality, creates a dynamic which may be defined as a variable which attempts to measure the interpretative qualities of a community-scale green infrastructure group. The role of key actors is often, as evidenced throughout the research study, to interpret the meaning and facility or function of a landscape, either in its entirety or element by element. The success of the FOEP to date, to remain relevant to a broad section of the Liverpool community, within and outside of Everton, may be partially explained by their conscious decision to tell and re-tell the story, or interpretation, of the park's landscape. This is reflected in each of FOEP's strands of activity: history (the history of the site as a site of demolition), heritage (e.g. 'The Lost Tribes of Everton', a book and walking tour created by local historian Ken Rogers), culture and music ('Out of the Blue' music festival created to exhibit local musicians in the setting of the park); but perhaps it is the strand of growing (the Faith Plot community garden and the Nature Garden facility) which holds the most meaning for understanding the future-proofing of a park which has

struggled with its identity as a green infrastructure site, and which is still making its transition from a site of historical interest to a site for environmental and social gain. In a simplistic sense, and one which is supported by the case study findings for FOEP, the individual(s) best positioned to facilitate this transition is somebody who implicitly understands, and experientially knows, the tensions implicit in a contested landscape, and is best positioned to navigate also the invisible cultural divisions which necessitate different approaches to different stakeholders to ensure a group with the ambitions and responsibility of FOEP, can remain relevant to local stakeholders, whilst providing a trustworthy and professional partner in strategic negotiations.

Another way of analysing the role of personality and resilience in the context of FOEP, and specifically *Interviewee 1,* is to consider the concept of the *"single contact point"*. As a 'contact point' a committee member of a Friends group would be useful for a local authority councillor, for example, by providing a conduit for information to and from the local level. In the example of FOEP however, the role of the committee members has evolved away from 'informant' and is more correctly conceptualised as an agent or agency for change at a local, and in this case regional, level. This is evidenced by the commitment of FOEP's Secretary (*Interviewee* 1) and Chairperson to attend and play an active part in decision making at a strategic level of governance:

"There are always two representatives from (FOEP) at partnership meetings…And they are always invited to all key meetings. And they're good at coming… and people expect them to have a view when they turn up, which is good." (Interviewee 1)

In terms of community participation, the role and function of FOEP is more relative to Arnstein's (1969) conception of 'partnership' and 'delegated power', than to 'informing' and 'consultation' implicit in the concept of 'contact point'.

Perhaps the single biggest test of the resilience of FOEP is the current transition of Everton Park into a leasehold agreement with The Land Trust as land managers of the site, in conjunction with FOEP as joint partners designing and delivering the management and maintenance as a green infrastructure asset. This creates an interesting context for considering the second possible scenario for the group. *Interviewee 6* has been working closely with FOEP and The Land Trust in this phase of transition, and offers the possibility that in terms of resilience, the Faith Plot group and site offers a more accessible opportunity for participants or volunteers interested in engaging with a green infrastructure related activity. As previously evidenced, this distinction between FOEP and Everton Park as strikingly different physical entities with contrasting visual and cultural amenity, in theory, lends certain resilience to the Faith Plot community garden which is not shared by Everton Park. This presents an interesting possibility that the resilience of the discrete and 'human scale' group, the Faith Plot, is intrinsically linked to the resilience of the 'parent' site and group, FOEP, through the common membership of one individual, *Interviewee 1*.

And so, assessing and evaluating the resilience of a group and its capacity to continue to deliver value, in green infrastructure terms, through their continued activity, is reduced to an analysis of the resilience of one key individual. For those engaged in growing at the Faith Plot, *Interviewee 1* provides hands-on knowledge relating to gardening and landscape maintenance. Plus, an additional layer of engagement, through the creation of vision and goal setting, interpreting the fundamental role of the Faith Plot within the wider context of the park and its regeneration as a community hub. This is identifiable within the interview with *Interviewee 1,* suggesting they are conscious of the role they play in this regard:

"We want people to visit this park, so what's the first thing you want to do, well you ask what might appeal to people who might visit this park? So, let's give them a completely different take, not do what you'd find in Croxteth and Calderstones etcetera; do something completely different. And it won't be unique; we understand that, but just do something very different. Soft fruit planting seemed like one of those ideas, I can't think of anywhere, not that I'm knowledgeable about the rest of the city's parks...we quite like the idea of 50 blackcurrant bushes, and we even more like the idea of self-propagating them, which is partly what's going on Faith Plot now."

Interviewee 1 does not suggest that this idea or others like it are the sole responsibility of one person, and throughout the interviews conducted within the study period, they talk in terms of collective goals and collective activities. However, the case study findings of the Faith Plot and FOEP reiterate the finding present in the other case studies in terms of capturing characteristics of resilience: the role of an individual, and the impact of a driven and committed personality, can neither be underestimated in the fortunes of a group or project, nor easily planned for. The approach of the strategic partners involved in FOEP and the Faith Plot is characterised by acknowledging this fact, and focusing support and resource to champion and show affiliation with such individuals; and moreover, encourage and facilitate the maturing of relationships to the level of partnership. Implicit in this approach, and crucial to explaining its contribution to sustaining such relationships, are trust and respect; two variables which are difficult, perhaps impossible, to measure, yet feature consistently in the interview findings.

The dynamic of trust is spoken about in most depth in the interview with *Interviewee 7*, particularly when asked to consider the importance of the resilience of the Friends group in the wider partnership working in Everton Park:

"I do actually think it is fundamental to why everybody else keeps working there. Because there's a driving force in charitable and public organisations to work in a co-operative way with people who want something to happen; that's something they are definitely not short of, they have a strong constituency of people who want something to happen. They're prepared to stand by those other authorities if it's necessary to justify why they're taking a bit longer or changed tack, or why something hasn't been good or hasn't been... because there is a very strong bond of trust in the

wider partnership. There isn't always unanimous agreement, but there is always a willingness to back a partner's view if it's expressed strongly and coherently and cooperatively. The Friends want to do this…"

Further, *Interviewee 7* introduces the concept of a *"trusted inside outsider"* to describe the capacity of FOEP to recruit and retain the support of *"experts who have a real stake in the place"*. The examples given are a local GP and a wildflower expert from a local charity. The key variable which is identified in this argument around the capacity of FOEP to appeal to these types of stakeholders, as well as individual volunteers from the neighbourhoods overlooking the park, is behaviour:

"The fact (these experts) keep going and people who do live there trust those people to manage the organisation with them, want them to be the capable voices, is because of the way that (FOEP) behave; if they were closed and doing it for their own egos, it wouldn't have survived this long. It would be seen; they're just so not that kind of people. You've worked there for 30 year people already know who you are before you start talking about something else, so clearly they have respect."

These comments provide perhaps the final significant factor or theme which is relevant to discussion of FOEP and the Faith Plot's resilience going forward. Implicit in their analysis of the relationships between committee members, strategic stakeholders and strategic partners, is the role of power. As previously discussed the historical context of planning decisions within this area divide opinion and evoke emotive memories for many residents. The role of the group has increasingly become as interpreter in political and policy decision making environments; acting simultaneously as representative and arbiter, a seemingly problematic task for a community whose divisions have already been noted. The final idea in this vein of thought is encapsulated in *Interviewee 1's* expression of concerns about the relevance of Everton Park's history being lost in strategic ambitions for the park to become a city regional 'destination':

"We're pretty nervous about building a relationship with The Land Trust, unless they take the time to understand the background and the history. And that's not to say we know better, but it is important in terms of a lot of people's experience who still live in and around here." (Interviewee 1)

7.8   Summary

The Faith Plot group is primarily characterised their affiliation with the Friends of Everton Park. Acting as a 'parent organisation', with common members, including FOEP's Secretary, ensures that their activities remain relevant to the wider aims and objectives of the park, whose scale ensures its relevance to wider strategic stakeholders invested in optimising its green infrastructure potential. This has opened up opportunities for the Faith Plot to take full advantage of local networks and existing relationships with funders and local businesses and community organisations that have

sympathy with the over-arching goal to make the park more sustainable, in light of diminishing public resource. However, this affiliation can also act as an inhibiting force as discussed by *Interviewee 3*, whose profile sits at odds with the general group profile, and finds this convergence of outputs and outcomes can diminish or block opportunities for creativity and innovation within the Faith group.

The second most important factor affecting the longevity and resilience of the Faith Plot's contribution to green infrastructure at this community-scale is the influence of *Interviewee 1*. Throughout the interviews, and corroborated in documentary analysis and field notes from site visits, *Interviewee 1* is depicted as the dynamic driving force behind the Faith Plot, the *"leading light"* *(Interviewee 6)* or *"lightening rod" (Interviewee 3)* conducting activities in an energetic way. The key question with regards to this factor, is the resilience of this one individual, and the balance of opinion about whether their concentration of responsibility is a positive or negative force. There was some disagreement about the latter evaluation within the interviews; and although there were no individuals willing to suggest that *Interviewee 1's* motivation was anything less than philanthropic, and generally successful in achieving outcomes which contributed social and environmental benefit, there was some suggestion that the ways in which these objectives were achieved may lack sustainability.

On the one hand, this question of sustainability around the longevity of input of one or two key actors is not a new line of inquiry in research interested in community or environmental volunteering. And, in this sense, the attributes of a 'community champion' are applicable to *Interviewee 1*; with evidence of their activism in the Everton area over the past forty years, most recently as Secretary of FOEP. The general weaknesses of a group structure which relies too heavily on the efforts of a small number are equally relevant to FOEP and the Faith Plot specifically; during the course of the research study there was some indication that *Interviewee 1* was vulnerable to fatigue and 'burn out' in this role. On the other hand, however, the particularities of context of the Faith Plot group and the unique historical longevity of *Interviewee 1's* role in this community, do offer research findings that are perhaps less established in the literature.

Both FOEP and the Faith Plot emerged as groups in 2010, in the wider political context of public spending cuts, and prioritisation of spending on statutory services, which do not include parks and green spaces. Some of the critical comments in the interview data surrounding the tendency for FOEP members to work closely with strategic partners, and less successfully engaging a wide demographic of volunteers, may be explained by the fact that FOEP was formed in partnership with these external stakeholders (Liverpool City Council, Liverpool Biennial, Liverpool Vision), with the purpose of *"forging ahead with plans to make the space a visitor attraction of excellence"* (Friends of Everton Park website, 2 July 2015). This, plus the fact that the Faith Plot is largely directed by two individuals, one of whom is the Secretary of FOEP, is credible reasoning as to why there exists a

strain between the objectives of individual volunteers and the objectives of committee members. The simplest explanation is those responsible for translating ambitions from the centre outwards, and from the edges inwards, may find it difficult to consistently capture these ideas as meaningfully as they might if these two roles were fulfilled by separate or multiple persons.

In conclusion, the Faith Plot can be understood as a community-scale green infrastructure group in terms of its day to day activities and group profile; however, the over-arching picture of the group character is one which encompasses the activities of the growing group as a mechanism for achieving the longer term goal of sustainability of Everton Park. In some ways this distorts the scale at which individual volunteers are working at the Faith Plot, and would go some way to explain the lack of decentralised decision making which may be otherwise observable in a community-led garden. The most succinct way of describing the Faith Plot in its current status is as a facility of FOEP; it is therefore primarily subject to factors and forces affecting the longevity and resilience of this group.

CHAPTER EIGHT

8. Case Study – Formal Group (Inactive): Friends of Furey Wood

8.1 Introduction

This chapter brings into focus a case which satisfies the description of community-scale green infrastructure according to the categories outlined in the typology; however it presents an opportunity for consideration of resilience and longevity in light of a decision to discontinue a group's activities. The Friends of Furey Wood is an *inactive* group. The members of the group have disbanded and no longer occupy the position as stewards of the Furey Wood site.

Furey Wood continues to be a publicly accessible recreational countryside site however, and is managed by a Chester and Cheshire West Ranger as part of the Northwich Woodlands, a delineated collection of woodland and reclaimed areas of wildlife interest situated within The Mersey Forest. Occasional support is given to the Ranger by a Friends group from a neighbouring Northwich Woodlands site, the Friends of Anderton and Marbury. Although their time and enthusiasm is committed primarily to the work they conduct at Marbury Country Park and Anderton Nature Park. The chapter considers the thirteen years (1995-2008) during which the group were active. By identifying and confirming categories within particular interviewee contributions, which include strategic partners and volunteer participants; and examining relationships and connections between interview data; the research is able to interpret over-arching themes that tell the story of the case.

This case study is particularly illuminating to the major findings of the research project, as it offers an opportunity to evaluate the experience of a community-scale green infrastructure intervention in its entirety; from beginning to end. By highlighting incidences of convergence between different stakeholder views about which circumstances proved too challenging for the Friends group to adapt to, insight are offered into internal characteristics and external pressures which affect a group's capacity for longevity and resilience.

8.1.1 Interviewee Selection

A range of key actors were selected from within the group's membership, and from within key agencies that supported the group throughout their period of activity. Where possible, interviews were conducted on site at Furey Wood to allow for direct observations to be made and interpretations of the group's impact on the site character to be considered in context. In total, four interviews were conducted with strategic partners and only one interview was possible with a group volunteer. The imbalance of strategic to voluntary participants reflects the challenges implicit in the task of locating individuals who have moved away from the locality in which they contributed to green infrastructure.

Friends of Furey Wood (volunteer)	Voluntary Organisation/Local authority (support)	Friends of Anderton and Marbury (volunteer/)
Interviewee 1 (Committee member)	Interviewee 2 (Mersey Forest project officer)	Discussion group (Three FOAM committee members)
	Interviewee 3 (Chester and Cheshire West Countryside Ranger)	
	Interviewee 4 (Wildlife Watch Group coordinator)	
	Interviewee 5 (Action Weaver Valley Initiative Project Co-ordinator)	

Table 8.1 Interviewee selection – detailing types, roles and number of participating interviewees

8.1.2 Site Character

Furey woodland is a reclaimed site of approximately 6 hectares, whose history dates back to the late 1800's and the Victorian chemical industry, taking its name and from a collapsed mine. The site sits adjacent to the River Weaver, and is characterised by a steep wooded gradient from the river, accessible by steps leading to an area of amenity grassland, a meadow area and mixed broad-leafed woodland. The geography of the site illuminates its history as a disposal site for industrial waste and the sunken mine from which the site takes its name was gradually filled in; this history of waste disposal was continued through the 1990's when then site took on the purpose as a municipal tip. As a result the site is characterised by a degree of soil contamination, specifically high concentrations of clinker and lime, and therefore has an inherent propensity for instability and erosion and unsuitability for future residential or commercial development. Vale Royal Borough Council took on the lease of the site in 1982 and woodland was formed and opened as a countryside site in 1987 (Vale Royal Borough Council, The Mersey Forest and Action Weaver Valley, 2008).

8.1.3 Site Context – Northwich Woodlands

Map 8.1 illustrates Furey Wood's situation in the larger strategic area of 350 hectares of woodland described as the Northwich Woodlands, a network of recreational and habitat areas which are managed as part of The Mersey Forest. The nine countryside sites which make up the Woodlands each have a different character, and Furey Wood is characterised by its small size and relatively low levels of biodiversity and ecological interest compared to sites such as Marbury Country Park and Ashton and Neuman's Flashes. The Northwich Woodlands is characterised by sites which have been formed from land which was largely derelict, and in this sense Furey is typical.

Map 8.1 Northwich Woodlands Map showing Furey Wood (site of FFW) and Anderton Nature Park (site of FOAM)

Source: Vale Royal Environment Network

However, the proximity of Furey woodland from Northwich town centre makes it unique within the Northwich Woodlands as a site with competitive interests. For example, interviewees remarked on the issue of anti-social behaviour, ranging from litter dropping to arson and vandalism. A strategic partner commented that this could be explained by the site's location, and a propensity by some visitors to see the site as an extension of the town centre rather than a destination point for specific recreational activities. Another strategic partner highlighted the historic influence of periodic development pressures, an inherent possibility in light of the site's position in relation to an urban centre and existing residential settlements, and an ambiguous context for sustained stewardship from the local community.

Current planting reflects the original landscape plan initiated by landowners ICI who own the site including the woodland, to cap the mound of lime waste which forms the site's topography with clay and top soil, plant a mixture of nursery trees and main crop species, and develop two grassland areas for amenity use. The site is now characterised by two main areas of grassland, an informal recreational resource and a meadow area; a circular path through the plantation area with steps leading down to a riverside pathway; and a car park. In terms of landscape design, *Interviewee 2* suggested that Furey Wood is '*very typical of the plantings that took place in the late 1980's, early 1990's. There is a mix of species and two distinct groups including poplars which are rapid growing to act as a nursery crop, in theory to be succeeded by oak, ash and others in the mix. What should*

have happened is somebody should have come in and felled those trees and thinned them out to let the oak and ash succeed. It should have happened in the first five to ten years."

However, the original nursery crop was not felled and so the succession of species has not been appropriately managed, meaning trees on site are more susceptible to damage and falling; this was evident from the field visits. Despite the presence of technical support via local authority ranger services and affiliated environmental organisation partners for most of the time a Friends group was associated with this site, the majority of interventions facilitated over that period did not relate to landscape management, and when asked about specifically about the ecological deficit attributable to intermittent and inconsistent woodland management, one interviewee suggested that the site has been "*badly neglected right from the beginning" (Interviewee 2).*

8.1.4 Group Character

The Friends of Furey Wood (FFW) was set up in 1995 by a Vale Royal Borough Council (VRBC) officer, eight years after adopting the woodland as a countryside site for recreation. It was felt that the site would benefit from local stewardship, being in close proximity to a residential settlement (Mersey Forest Report, 1999). In spite of an extensive consultation and leafleting campaign, eventually the group comprised almost exclusively of female residents and their children from the adjacent Beswicks Road settlement. *Interviewee 3* suggested in an interview that the decision to nurture a Friends group to lead on the coordination of various onsite activities reflects a recognition from the local authority leaseholders that "*it needed ownership"* and "*the Vale Royal Borough Council were keen on community involvement and participation. That was the way that the Council thought, it was how they worked. It was a Labour council and that was the culture at the time."*

There was a convergence in interpretation amongst interviewees, both strategic and voluntary, that the FFW were primarily consultative in their purpose and interest, regarding the woodland as an appealing environment for outdoor play and concentrating efforts on creative and artistic interventions. *Interviewee 3* added that FFW seemed to be "*a type of group who doesn't want the physical task, but more artistic input, to design or imagine things".* As a group of working women, the Friends of Furey Wood had professional skills that they brought to their activities in the woodland, including graphic art skills used to design flyers and posters to promote the work of the group and also to design and commission the construction of information boards (Figure 8.1) to enhance accessibility and appreciation of the diversity of the site's geography. One interviewee suggested that the understanding within the group for assigning tasks to capable individuals was one of their key strengths: "*(they) could see how their skills fitted in with what the group wanted to do. And groups that struggle and therefore benefit most from support are those where they don't have those professional skills within the group".* This sentiment is echoed in the details of a report collated by The Mersey Forest in 2006: "*Friends of Furey Wood have played an active and positive role in shaping the public's experience of Furey Wood with creative imaginative suggestions."*

FFW have now disbanded as a formally constituted group. *Interviewee 3* and *Interviewee 4* suggested that the key changes affecting the longevity of the original group membership was a number of core members moving away from the area; and "*because the children who were key to Friends of Furey Wood grew up. So the need the group had for providing family activities at Furey Wood just disappeared. As the children grew older and became teenagers and weren't interested, the parents lost interest in making this a very nice children's area.*" This is verified by *Interviewee 1*'s reflections on her sons' involvement:

"*My youngest son grew up around the woods, going for walk. I'm quite an outdoor person so having that on your doorstep is really useful. They are used to going down there. (However) the last time he came down was for the litter pick. He's in Altrincham today, ice skating*", exemplifying another interviewee's reflection that "*It's quite usual for teenagers to not want to do things with their parents, so this was unavoidable for the group.*"
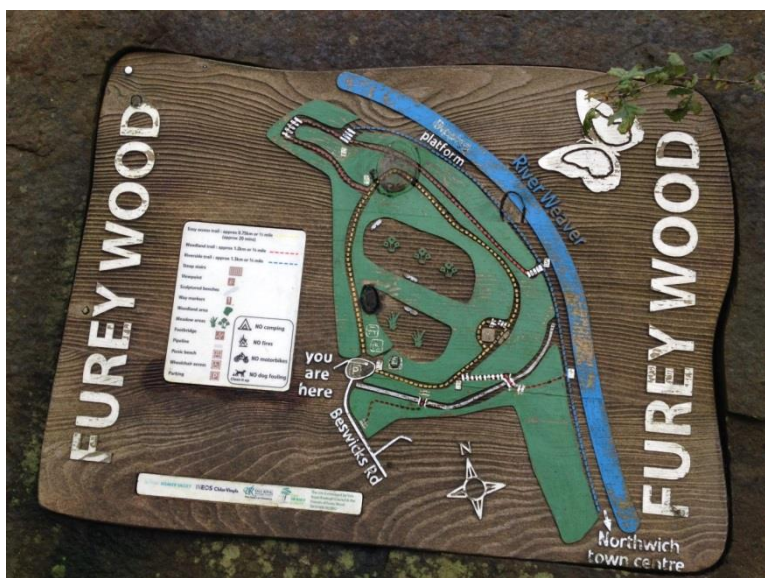
Figure 8.1 Furey Wood information board, located on site Source: Author

There is a general understanding within and across the interviews, and identifiable from other sources of data including records of what activities by the group were supported in each year, that the culture of the Friends participation was centred around this desire to provide interesting and alternative recreational pursuits for their family, and families in the area. In addition, a key member of the group during its most active time was the wife of the head teacher from the local primary school. A strategic partner remembers that "*when the group was very active, they used to use the primary school to draw people to their events.*"

Interviewee 1 who was a core member of the Friends group throughout its duration still uses the site for dog walking, and it is evident that a level of stewardship and association with the ranger now responsible for Furey Wood continues, primarily through informal interventions such as litter

picking. They have also become a member of the Friends of Anderton and Marbury (FOAM), who now have an association with Furey Wood, however there is no evidence across the data to suggest that FOAM have refocused their efforts or resources to reinvigorating stewardship opportunities at Furey.

8.2 Governance

8.2.1 Legal Status

Friends of Furey Wood was legally constituted as a Friends group for the entirety of its activity as a community-scale green infrastructure group. *Interviewee 1* acted as a Committee member for a period of time and verified during her interview contributions that the group held annual general meetings, and regular meetings; but these meetings were informal in character. The legal status of FFW as a Friends group proved beneficial with regards their capacity to attract funding and support, through fundraising, and most significantly as a member of the Community Contracting Initiative led by The Mersey Forest (2001-2006).

8.2.2 Group Structure

As a constituted Friends group it was necessary for the group to elect a Chairperson, a Secretary and a Treasurer. It is apparent from the data that this duty was fulfilled, but it clear from personal reflections in the interviews that this was a procedural necessity for the group rather than an act of conscious intention to utilise an organisational structure to shape and steer decision making. There is a consensus across the interview data about the resistance of FFW to formalities. There are also, however, clear pattern across the interview data that certain individuals were regarded as leaders of the group, driving forward specific activities or coordinating creative direction for funding opportunities. It is suggested that there was a culture of equity across the members of the group, reflected in their status as friends, that simultaneously allowed for an acceptance that capable individuals would step up to take on tasks and responsibilities; and that this was attributable to their personality and personal ambitions for pursuing locally relevant creative endeavours rather than fulfilling a role assigned to them within a predetermined group structure or constitution.

The informal structure and organising principles of the group was the first key insight into the significant part played by social capital in the longevity of the group's activities, in light of minimal formal green infrastructure delivery. The data suggests that the group relied more on the social capital between group members than any support provided by formalised governance procedures; and this in spite of the best intentions of assigned intermediaries. *Interviewee 4* remembers with clarity the group's unwillingness to act in a hierarchical procedural way:

"(they were) very resistant to any structure imposed on them by external agencies in order to function. They agreed to have someone who was nominally a treasurer and secretary. I understood it as they felt their group worked without that, they wanted to be informal. They didn't act like a Friend's group, formally. They were independent, that was one of their strengths, despite the best efforts of authorities. When they wanted to do something they just got on with it."

The Mersey Forest selected the FFW to receive dedicated and bespoke support as one of twelve community groups making up the portfolio of the Community Contracting Initiative (CCI). This involved a package of professional support and funding to continue and enhance their role as long term stewards for the sustainable management of their local woodland. Affiliation to the CCI network also provided FFW with a formal social network of like-minded individuals undertaking activity and management in a woodland setting. The confluence of an integral social capital between FFW's members with access to a formal social network through CCI resulted in a period of relative stability in FFW's history; with evidence of community-focused events attracting up to 60 participants and FFW organising inter-CCI activities attracting in one case 50 people. The data supports a reading of the narrative around FFW's rise and fall as having two significant peaks. Both peaks coincide with the period of intensive support offered through the CCI (2001-2006), and the apparent dip in activity intersecting this curve of enthusiasm is explained by the loss of two key members, including the acting Chairperson, in 2003.

8.3 Membership

8.3.1 Group Profile

Social Capital

There is an accepted idealisation of long term group stability through a constitution or regular meetings, highlighted within the criteria for community groups wishing to join the Community Contracting Initiative (CCI, 2003), and evidence that this mode of formal governance can secure a group's longevity as in the case of the Friends of Anderton and Marbury (FOAM), who appear frequently in the case study interviews as an exemplar of an active and successful Friends group. In addition, the presence of people who have been in a position of authority and seniority in their chosen profession, is regarded as a source of guaranteed success; partly due to the familiarity with taking responsibility for decision making and the strategic direction of an organisation or team. However, the source of stability over the period of activity in Friends of Furey Wood appears to be the presence of social capital, specifically 'bonding', over and above any commitment to formalities

Therefore, in spite of there being evidence that Friends of Furey Wood accepted their status as a group with 'formal social capital' responsibilities, such as holding regular meetings and taking minutes; it is moreover evident in the reflections of both internal and external stakeholders, that the

'informal social capital' elements of being neighbours and making decisions during everyday interactions and recreational visits to the site provided the impetus to continue. *Interviewee 2* remembered that *"the Friends of Furey Wood would never agree to have regular meetings. They just had them as and when they wanted to have them. But that worked for them."*

This had the effect of focusing the task of The Mersey Forest officer to providing secretarial support when required, in light of the group's dislike of this formal element of their work. However, the most important task of the supporting officer was to liaise with partnership organisations in order to manage *"the group's ideas into reality",* primarily because the group all had full time jobs. The practical reality of delivering green infrastructure is that it involves a lot of daytime work, such as making phone calls and arranging deliveries of materials and organisation of land management tasks. For example, in the case of the construction of the viewpoint at Furey Wood, which was a significant landscape intervention, The Mersey Forest officer was essential in the process of delivery. Their input involved liaising with partners at Action Weaver Valley Initiative who sourced the project's capital funding; assisting in the appointment of civil engineer contractors; and balancing the design ideas of the Friends group who initiated the project, with the requirements of the funding partners. In the case of the Viewpoint project, *Interviewee 5* suggested that these needs eventually converged:

"It had become bigger and was in the hands of the professionals. The Friends group felt they had to shrug their shoulders and let it go. They were pleased with it when it came but there were certain things in the project which they had particularly wanted (which weren't delivered), and I remember that being an issue at the time."

Interviewee 2 offers a slightly different perspective on the experience of FFW's role in the partnership delivery of the viewpoint, highlighting the confident steer the group gave in protecting their original intentions for part of the site, including this new development, to be accessible to all users. FFW consulted widely on the design for the viewpoint commission, and predominantly in an informal manner, highlighting the wider social capital they were able to activate through neighbours and wider community stakeholders. Their commitment to ensuring DDA compliance may be held up as an example of the group's tactical and strategic ambitions for the site, contrary to other findings which partially reduce their contributions to mainly aesthetic functionality.

Homogeneity

Friends of Furey Wood present a non-diverse membership profile. The group was made up almost exclusively of women who resided in Beswicks Road, along with their children who were primary school age during the peak years of the group's activity. Apart from male children and male partners who contributed to one-off or seasonal events, and assisted in maintaining the security of the site by opening and closing the site entrance twice daily, the group was female in character. *Interviewee 1* recalls a new male resident joining the group temporarily:

"I remember a chap from Beswicks Road wanting to join the group and he came along to a couple of meetings, but he felt really uncomfortable and didn't really fit in, even though he was one of their neighbours."

The incidence of homogeneity in the group's profile contributed significantly to a perception that the group were friends first and members of a Friends group second. There is a recurrent theme across the interviews of social capital, specifically bonding social capital, as a force affecting longevity (Woolcock, 1998; Putnam, 2000; ONS, 2001). Bonding social capital describes the strength of social bonds, trust and 'norms of reciprocity' (Woolcock, 1998) between individuals from the same or similar community of interest. In the case of FFW members shared an inherent prioritisation of woodland activity in close proximity to their homes which focused on opportunities for play and creativity for their children and families. In addition, a number of the core members had professional employment in the art and design industries, strengthening this focus on creative activities.

Interviewee 1 conceded that there was a high probability their informal approach to performing the functions of a Friends group may have discouraged new or 'other' types of members:

"It probably did because we were all friendly, probably friends first, then Furey Wood second. And I imagine, because people would have little parties and things and invite each other so you could say it was a bit cliquey. Yes, we ran meetings in a very informal way which could be seen as a social gathering."

However, the social capital experienced internally had a positive and strengthening effect on the original members of the group. This can be understood in terms of a clustering effect within a social network, and in the case of FFW this was a clustering around gender and parenting.

8.3.2 Personalities

The thematic enquiry into how individual personalities affect the outcomes of a community group, as well as the experience of being a member of the group, is emphasised as a defining characteristic of the group across all of the FFW interview data. Both strategic partners and group volunteers agree on the importance of the creative input and leadership style of two members who both left the area to pursue work in other parts of the country and abroad in 2003-04; and recall the impact their loss had on the remainder members of the Friends group. The period following this loss of leadership and skill was, on reflection, a key chapter in the history of FFW. Although the data suggests the group were able to adapt to the loss of two dynamic members, with evidence of FFW led activities on site in the period 2004-2006, including the opening of the viewpoint in 2006; a broader reading of the interview data suggests that the loss of these two personalities in particular was an insurmountable change in direction for the group. It appears that although the group continued to co-create and act as stewards of the Furey site, no-one remaining was situated to act in the same dynamic way that the

outgoing members had. *Interviewee 1* recalls a conversation about the Group's Chairperson (M) with a strategic partner (V) at an event:

"I remember being in the car park when there was an event going on, and M came up and started bossing everyone around, and we just sort of looked at her and she went off again. And V went "Oh you do need a driving force like M for things like this don't you?" And I just went "You do." …We were as enthusiastic, but…"

This denotes a key finding about the style of group leadership that particularly proactive personalities can bring, acting as a driving force for others' confidence and willingness to contribute time and energy to achieve the group's objectives. A group such as FFW may be made up of creative personalities, and individuals with an inherent sense of social cohesion, yet may lack an individual willing to take on the role of group leader or spokesperson. This role is universally agreed across the interview data to be a key factor in determining a group's resilience: with application ranging from perfunctory duties such as providing a contact point for formal partners, including the landowner; to more dynamic tasks such as motivating and inspiring interest, within the group and within a wider network of stakeholders and funders. Therefore, there is significant convergence to interpret the hiatus of leadership within the FFW as a turning point in their capacity for longevity.

One of the recurrent themes across the interview data was a comparison between FFW and neighbouring Friends group, FOAM. *Interviewee 3* suggested that the key characteristic which distinguishes the approach of FOAM in contrast to FFW is capacity:

"Everybody on the FOAM committee is retired, so they've got the time and energy"; *"they're actually very good at fundraising, and a few people in the group are incredibly active and very successful. The jobs that they had in their working life meant they could retire at fifty, they're the 'movers and shakers' if you like and just what you need in a good active Friends group."*

There is an implicit understanding in *Interviewee 3*'s comments that the Committee members of FOAM have an abundance of confidence to meet the demands of the tasks, both practical and strategic, that they set themselves. Although there is a thematic of professional capacity, the membership profile is arguably more diverse than FFW, with a mix of genders and ages. In contrast, FFW is homogenous and cohesive, with members choosing to spend social time together outside of their woodland activities, but remaining reluctant to 'be organised' and commit additional time required to fulfil quotas of regular meetings, as well as move beyond their desired areas of influence to formulate an Action Plan for practical land management.

In this sense, the presence of dynamic individuals within the group did not contribute to longevity and resilience as their desired focus, principally community arts, reflected that of the other members and attracted new similar members. To avoid singular personalities dominating the group and its

focus, FOAM have written into their constitution a condition that committee members cannot be in post for more than three years, and *Interviewee 3* suggested that

"It makes it more dynamic. It means people are actually more willing to volunteer and stand for that position of Chair or Secretary as they know it's only for a limited timespan...Everyone agreed to that because I think it's a problem that's very well recognised among community groups. You end up with one or two or three people dominating. If they only bring their own issues to the table, it actually spoils the group."

A holistic interpretation of the data relating to FFW suggests that any dominance of key individuals within the group was a positive one, relating more to personality and consensus than power and authority, in the absence of formal structure. However, it is more possible that the dominance of one individual as a dynamic force within a group may prove to be tiring for that individual(s) and ultimately will affect the longevity of their input.

It is unclear from the range of data sources whether the experience of coordinating the design of the Viewpoint project, and contributing to the process throughout its delivery as key stakeholders, strengthened or weakened the group dynamic. Chronologically, the project represents the most significant infrastructure output during the group's period of activity, bringing together an impressive range of supporting organisations including United Utilities. Although the project benefited from professional support from the Action Weaver Valley initiative and The Mersey Forest, it can be intuited from interview data that the role of the Friends group as community advocates for the project was a significant investment of time and human resource. One interviewee particularly commented on the confidence of group members in their professionalism conducting liaisons with industry partners. Therefore, the impact of losing key personalities may have had a lasting effect on the dynamism of the group, but it cannot be held up as the singular reason for explaining the cessation of activities from 2008 onwards. In addition, the busyness of activities and positive feedback for the group and its work after their efforts of 2006, plus local authority investment in site infrastructure after installation of the Viewpoint, suggest that there is more to the narrative of FFW's resilience than the impact of personality. And further, that the sustained efforts of FFW's remaining members may have been hindered by other factors and forces coming into sharper focus in the period after 2008.

8.4 Funding

8.4.1 Fundraising

Over the period of their activity the group benefited from successive interventions by strategic partners with professional skills in fundraising, and knowledge about relevant funding networks. For example, the project officer from Action Weaver valley successfully attracted Landfill Tax

money for the site; and took a leading role in the development of the Viewpoint project. The capacity of a professional project coordinator with fundraising skills cannot be underestimated in the capacity building of a voluntary group. For example, the Action Weaver Valley officer was able to make FFW aware of funding mechanisms which are not obvious to actors at the community level. One such example is the successful application to Section 106 monies associated with the Winnington Urban Village development, to support the construction of the Viewpoint at Furey Wood. Liaising with private sector partners is also a skilful role that requires sustained and consistent communication, sometimes out of reach for voluntary groups, particularly those who work full time like FFW. In this case, funding was provided for the Viewpoint project by a local chemical company INEOS ChlorVinyls. It is often the case that attracting significant levels of funding from the private sector can encourage match-funding opportunities from the public sector; and in the case of the Viewpoint, VRBC initiated further physical infrastructure improvements to the site in recognition of growing interest in the site as a destination point and contributor to Northwich's visitor economy. An additional and important source of funding is in kind support from dedicated strategic partners, in particular the intensive support facilitated by The Mersey Forest project officer, without whom many of FFW's creative endeavours would not have come to fruition.

8.4.2 Stakeholder Contributions

Apart from regular contributions made by external stakeholder in terms of green infrastructure management and maintenance support (*Interviewee* 3), governance (*Interviewee 2*) and fundraising support (*Interviewee 5)*, as described in Section 8.4.1; the most significant stakeholder contribution evidenced in interview transcripts was made by *Interviewee 4,* a 'Wildlife Watch' group coordinator, who reported contributing time and knowledge to environmental educational sessions organised by the core members of FFW, and whose contributions were verified by *Interviewees 1* and *2*. It is noteworthy that if it had been possible to engage more volunteers (internal stakeholders) of the group, it may have been possible to develop a more nuanced picture of regular stakeholder contributions.

8.4.3 Innovation

The group itself managed small amounts of funding to deliver community events, such as their Forest Fever activities which were annually funded by The Mersey Forest. The most significant funding initiative undertaken by the Friends group was the design, consultation and delivery of a viewing point on site; a proposal conceptualised by the Friends group and brought to fruition through a partnership approach between the Friends group, The Mersey Forest, Action Weaver Valley and key funders United Utilities. The Viewpoint project is significant in the narrative of Furey Wood as it highlights the maturity of the group to be able to comfortably work within team of strategic partners to guide and co-create a landscape intervention with costs in the region of £20, 000.

One aspect of the group's strengths is exemplified in the telling of The Viewpoint story. A strategic partner recalls the inception of the initiative; *"The mound of earth came about as the result of lots of consultation and conversations with the local community, with project officers from other projects."* The Friends of Furey Wood are described as having an extraordinary degree of bonding social capital at the local level, explained partly by the homogeneity of the Friends group profile, but also by the wider demographic homogeneity within the immediate neighbours on Beswicks Road, many of whom had a sympathetic attitude towards the core environmental and artistic objectives of the Friends group. With a level of excitement around the group's activities during their most creative phase (2001-2006), it was possible for strategic partners and funding bodies to harness the ambitions of the group to bring money on site and actualise physical improvements and creative ideas, as identified by *Interviewee 2*:

"It just so happened that at the same time as me being in the area, there was the project coordinator from the Action Weaver Valley initiative and this project happened to fit in really well into their remit which was to develop projects in the Weaver Valley. They had access to quite large sums of money; for example they could access Landfill money from the Borough council."

8.5 Support

8.5.1 Local Networks

This most significant finding in terms of FFW contributing to or engaging with local networks is the understanding conveyed by all interviewees that the members of group preferred to concentrate on the creative aspirations of the internal stakeholders; and as such, the opportunity to co-ordinate voluntary activities or collaborate through peer-to-peer networks, for example Friends of Anderton and Marbury, were not explored; perhaps to the detriment of the group in terms of longevity.

8.5.2 Professional Involvement

Over the life of the group, the character and structure of the group was arguably characterised by regular involvement by a small number of key professionals: *Interviewee 2* provided regular governance support as the official community group of support officer from The Mersey Forest; *Interviewee 3* provided professional expertise in the management and maintenance of physical green infrastructure assets on site as a member of the Countryside Ranger team for the area covering Furey Wood; and *Interviewees 4* and *5* provided project-specific professional facilitation for creative and educational activities. The most significant changes therefore affecting the group during its period of active engagement in CSGI activity was the increasing pressure on the regularly attending strategic partners, *Interviewees 2* and *3*, whose positions within public institutions were inevitably affected by reducing public sector budgets. In simple terms, over the same period of time FFW were active, individuals responsible for distributing available resources for such CSGI groups were challenged to

provide a similar level of support over a larger area, and in some cases, with less budget. This had a adverse impact on FFW as *Interviewee 1* reported that members perceived withdrawal of support as indication that the responsibilities resting on voluntary groups were now greater; and for a group such as FFW whose emphasis was on creative interventions rather than regular maintenance and conservation activities (unlike FOAM), this constituted a significant shift with negative connotations.

8.5.3 Internal and External Stakeholders Relationships

The pattern of voluntary activity by FFW can be characterised by three distinct periods. An initial energetic period was substantiated by a high level of bonding social capital between core group members (1995-2001), and technical support was provided by a VRBC and a BTCV Special Landscapes Project Officer, known informally as the site's ranger. During this early period, FFW also received the support of a VRBC Vale Royal Environment Network officer. The middle period of sustained activity focused primarily on the creative ideas of a core membership and wider stakeholder impact was delivered through seasonal events drawing on an informal network of individuals and families from the immediate area, including a local primary school and a social housing settlement network (2001-2006).

FFW engaged with the Community Contracting Initiative (CCI) (1998-2001) model and as such were connected with other community forest projects through the formal CCI network. During this period, FFW were continually supported by the local authority via the technical support of the ranger. In addition, they received personalised governance and funding support to deliver regular and one-off activities and events, as well as the 'viewpoint project', through a Mersey Forest officer and the project coordinator for Mersey Basin Campaign's Action Weaver Valley initiative. The final period of activity was characterised by efforts and energy to attract new and different stakeholders (2006-2008). However, energy was often dispersed across a reduced size of group and strategic partners recall a reduction in morale as individual members refocused their leisure time away from the Furey site, towards activities more suitable for a more mature family profile.

The Furey Wood site is currently owned by NPL estates, who lease the site to Chester and Cheshire West Council (CCW). NPL, a Scottish company purchased many sites in the areas from the chemical company ICI who are responsible for the current planting scheme at Furey woodland, largely unchanged since completion at the end of the 1980's.There is no record from the data collected that either landowner contributed funds to the ongoing maintenance of the site and this has been the responsibility of the local authority leaseholder, CCW and formerly VRBC. Planning permission was granted to Powergen to lay an overland steam pipeline through the only mature woodland on site in 1999, and a second pipeline followed in 2002. There is a suggestion in the documents collated as part of the CCI Action and Management Plan for FFW that members of the group were disheartened by VRBC's decision to allow this development on site. Other planning

decisions which affected FFW included highway changes to the road entering Northwich town centre, which raised uncertainty as to the accessibility of site from the town centre. Although the site has less ecological diversity than other sites in the Northwich Woodlands, its location in close proximity to the town centre and its riverside location did encourage a number of wildlife focused activities, and support was contributed from a voluntary member of the Vale Royal Wildlife Watch. This turn provided a heightened incentive for the two local schools to participate in the activities of FFW, offering support through attendance and facilitating promotion of opportunities.

8.6 Activity Focus

Documentary evidence and data analysis from interview transcripts was used to create a timeline of Friends of Furey Wood's activities over their period of activity 1995-2009 which has been created to illustrate the over-arching focus of the group which was to provide environmental educational and recreational opportunities for internal stakeholders associated with the group; in particular, reflecting the interests and skills of the core members, but also reflecting the perceived interests of immediate stakeholders from the neighbourhood in proximity to the woodland. Compared to FOAM, there is little evidence of an emphasis on maintenance and management of physical green infrastructure assets on site as a focus for regular volunteering activities.

Figure 8.2 Historical timeline detailing chronology of active period of FFW as a CSGI Formal Group

1987	Site lease acquired by VRBC Site character: previously trees planted and grasslands established by landowners ICI for recreational use
1993	VRBC leafleting campaign to establish a stewardship group
1995	Friends Group established via VRBC project officer 10 members recruited from Beswicks Road Group have no written constitution, but appoint Secretary, Chairperson and Treasurer; open bank account Technical advice for nature conservation focused management of site provided from VRBC and BTCV Special Landscapes Project Officer
1998	Furey Wood selected as a CCI project for The Mersey Forest
1999	Furey Wood Action & Management Plan published by FFW and The Mersey Forest
2001	The Mersey Forest community group support officer appointed to FFW Summer organic picnic organised – 60 people attend Other community activities include: BBQ and Fun day; Lantern festival through Northwich town centre; winter tree dressing day
2002	Display boards designed and installed by FFW Community activities include: litter pick; treasure hunt; Queens Jubilee family picnic day Inter-CCI rounders match hosted at Furey Wood
2003	Two members of FFW leave, including one founding member who has acted as Chairperson and contact point for the local authority and other organisations until now.

Group Formation (arrow spanning 1995–1998)

Key Change (arrow spanning 2001–2002)

	A quiet and inactive period for the group. Community event: Guided walk (support from Wildlife Watch)
2004	New members join (similar profile to existing members). Community activities include: willow coppicing; River Fun Day with the Mersey Basin Trust; Mersey Forest Forest Fever event; wood carving and lantern making; tai chi session; BBQ Inter-CCI rounders match Artistic commission: sculpted wooden benches for the meadow area, wood provided by Friends group from CCI network, artist commissioned using funds via Mersey Forest December – public consultation on Viewpoint project. Consultation created opportunity for new members to express an interest in joining. Although some response, no members join
2005	Creation of viewing point, FFW led on design and concept. Grand Opening September: attended by wide range of stakeholders, includes a boat trip, music and evening BBQ. Further investment in physical infrastructure improvements made on site by CCW. Viewpoint project reported in Daily Post as a project *"organised by Friends of Furey Wood, a local environment action group"* Community activities: tree felling and provision of firewood logs to local residents; water- themed Mersey Forest Forest Fever event with pond dipping and storytelling December - tree planting event, attended by two members only
2006	Spring: two wildflower planting events, well attended. Mersey Forest Forest Fever event – Rounders match and BBQ
2007	No activities reported
2008	Advert on INEOS ChlorVinyls website inviting volunteers FFW members disband as collective stewards of Furey Wood
2009	Local Government Reorganisation in England: Cheshire County Council abolished and VRBC absorbed into Chester and Cheshire West (CCW) unitary authority Furey Wood is adopted as a CCW site; two Rangers now manage the Northwich Woodlands

8.7 Future-proofing

8.7.1 Key Factors Affecting Longevity

Site Character

An unexpected finding emerged from the interview data relating to the significance of site character
and propensity for biological diversity in relation to the capacity for diverse and long lasting
membership interaction and impact. The intrinsic ecological value of a green space, recognised
formally through a designation such as SSSI or a Green Flag Award or informally through
conservation management, has an impact on sustained levels of positive perception and commitment
within a group of community volunteers. Compared to other sites in the Northwich Woodlands,
Furey Wood has minimal biological interest, and therefore the Ranger service is not able to draw
down any funds relating to management of sites of special scientific interest; unlike neighbouring
sites at Ashton's and Newman's Flashes. Neither is Furey Wood a site with significant heritage
value, such as Anderton Nature Park which is a regional tourist destination due to the Anderton boat

lift, or Marbury Country Park which attracts many visitors to walk through ancient woodland and the remains of Victorian landscaping.

Marbury Country Park attracts up to 20 volunteers twice a week to assist with conservation management alongside the Rangers based there; this is in addition to the 180 members on the FOAM register. Capital works are currently supported by High Level Stewardship funds from the European Union; specialist conservation funds which would be near impossible to designate to a site with as little ecological value as Furey Wood. In addition, the presence of mature standings at Marbury Country Park facilitates alternative sources of income for the FOAM group; *Interviewee 1* highlights the limitations placed on members of FFW to explore creative solutions to raising funds:

 "There's some men who do woodwork in the shed somewhere, and they sell stuff and they make stuff and its part of FOAM, but I think because (Furey) woodland is a small woodland, the trees do not grow big enough to be able to fell and make something into it, I think that wouldn't have been anything that could happen. You're quite limited when your roots only go down a small amount, and then they just fall over because they can't keep themselves upright."

Essentially, the nature of the site at Furey Wood presents additional challenges for a Friends group to nurture stewardship from the local community. *Interviewee 2* suggested that as a reclaimed site, the options for integrating a diversity of species were limited:

"Back in the 1980s it wasn't fashionable to consider the whole ecology of the site, it was just a question of getting the trees in. The kind of trees that were selected here were ones that could do well on such a contaminated site; they're not necessarily native species... It was almost pragmatic."

In this sense, the capacity for long term stewardship was inherently restricted by attitudes towards land restoration and landscape management prevalent at the time of creation. The factor of ecological value is one that, in retrospect has proven very important for the site's capacity to attract associated funding and professional time, and yet is one that the Friends group could not hope to have significant influence over, even in the instance that they were motivated by conservation management, which they were not. Instances of ecological intervention, such as FFW's wildflower planting, were essentially thwarted by a lack of strategic landscape management on site as dense woodland, left unmanaged without periodic thinning, and steep slopes make it a very challenging habitat for a diversity of flora to grow. *Interviewee 3* summarised the poor ecological value of the site: *"For me you're looking at something which is not particularly of good value as regards wildlife"*.

Ultimately, in a time of extreme pressure within local authorities to cut public spending, and particularly to cut spending on lower priority areas such as parks and green spaces, it is very difficult to direct funding towards the management of areas with a perceived lack of ecological return on

investment and stakeholder input. It is easy to see how a site with a challenging mix of minimal stewardship and minimal conservation value can become a site susceptible to development pressures. The current landowners of Furey Wood, NPL Estates, have submitted plans to build on a section of the site. If this development goes ahead, a proportion of the profit may be reinvested to pay for the everyday maintenance of the site, something which historically the local authority has done as leaseholder, however, *Interviewee 3* suggested that there are still uncertainties:

"Things have changed in local council services and they're not prepared to do anything for nothing anymore. So if we're going to manage a recreational site on behalf of another company then they're going to need to pay us."

Further, if Chester and Cheshire West Council decide not to renew their lease of Furey Wood, which is a possibility that emerged in the interview data in light of the minimal site value, economically and socially, as perceived presently; it is not clear what mechanism would be in place for managing the site as a privately owned recreational site.

Personalities [Membership]

Confidence within a group is highlighted across the interview data as crucial to longevity; confidence of individual members may result in a strong driving force for the period which this member is available, however it is rare that individual members can sustain commitment to a voluntary activity over a number of years. In the case of FFW, there is evidence of confidence at the group level exemplified by a high level of bonding social capital and trust between members; as well as evidence of particularly important individual contributions from members with dynamic ambitions for the group's creative interventions in the areas of art and environmental play.

However, in terms of sustaining this confidence over the long term, there appeared to be a missing factor for FFW. This factor is difficult to define, but it can be interpreted within the data as being most apparent when FFW are being directly compared to FOAM. The key difference in terms of membership and personalities between the two Friends groups is propensity for organising in a formal structure, reflected by the experiences of individual members in their professional careers. The members of FFW were predominantly self-employed within the arts sector, whereas members from the FOAM committee belonged by and large to institutions with formal hierarchical structures including the education sector, engineering, the nuclear industry and an ex-employee of the Environment Agency. *Interviewee 3* reflected on the similarities in group profile between FFW and FOAM: *"In both groups, people are used to managing money and projects and delivering within timescale."*

However there is a suggestion within the data that members of FOAM, considering the demographic of the current committee, are comfortable with formalised governance structures; and FFW felt

inhibited and uncomfortable with any interventions to formalise the group into a committee structure.

The major finding here is not that there is a correlation between confidence and demographic, but rather that there is an interrelationship between skills of members in a group, preferred style of governance, and the level of support required by an intermediary in the absence of a clear hierarchical structure. For example, FFW appointed a Chairperson, however when this member departed the group, there was resistance to replace her and this proved problematic in terms of ensuring consistent and efficient communications between the group and wider stakeholders. This can in turn create a myriad of negative perceptions around a group's lack of transparency and accountability, in both strategic and peer to peer relations, and may result in a group receiving less support or attracting and retaining new members outside of the established core group. This appears to have been a key factor in FFW's longevity.

Professional Involvement [Support]

The role professional support played in facilitating the creative ambitions of FFW, and completing roles which were undesired by members of the group, or the wider community; for example, an evaluation report from 1999 suggested that *"the local population, although concerned about the site do not want to be actively involved in the practical management of the site."* As a result, practical management support was provided by a combination of contributions from BTCV, CCW (formerly VRBC), the Mersey Basin Campaign and The Mersey Forest. The tasks supported by these strategic partners included the day to day site maintenance and safety issues, led by a dedicated Ranger service, and longer term woodland management planning, facilitated by the support package through the CCI.

The scale and diversity of professional support available to FFW during the span of their activities is indicative of the policy context within which the group was established and nurtured. The culture of supporting environmental voluntary groups, particularly prior to the change in local government under the VRBC, was vital to sustaining the activities of a group who in other regards had weak attributes for longevity; and beyond a small number of seasonal events attracting between 50-100 participants, had a poor record in attracting and sustaining a wider membership profile to aggregate stewardship support for the site.

The pattern of activity of FFW appears to follow the established understanding amongst green infrastructure professionals, encapsulated in *Interviewee 2*'s suggestion that: *"often groups are very good in the initial phases. They have particular projects and they're very focused and they can get things done quite effectively. But then groups have phases of inactivity where they struggle and that's where professional support can really help them to keep going, help them over the bad patches, because inevitably groups have phases where they don't function so well, depending on the*

personalities within the group really. But if you've got a support officer that can tide them over those difficult phases… In the long term it is better."

This opinion expressed *Interviewee 2*, a strategic partner of FFW is echoed by other interviewees, including *Interviewee 3: "When we inherited Furey Wood (during the local authority merger), it seemed very obvious to me that we didn't need two Friends groups operating in the same area (of Northwich Woodlands). Especially with Furey Wood being such a small site. They take a lot of effort to actually support, especially if they are not particularly active."*

Interviewee 1 reflected on the role played by *Interviewees 2, 4* and *5*, and described these strategic partners as "*middle women",* highlighting the role these intermediary supporters, from support agencies associated with the site, played in achieving the practical realities of delivering green infrastructure through the voluntary community-scale activity of groups such as FFW. The work of intermediaries is often skilled work, requiring access to a wide range of stakeholders; and takes place in the day time when many volunteers are working themselves. There is consensus across the interview data that FFW would not have continued for 13 years without support.

8.7.2 Key Factors Affecting Resilience

Funding

A report published in 1999 suggested that the Furey woodland was *"valued highly by the local community and is used for informal recreation, such as dog walking, play areas for children, picnics and other forms of recreation."* This list of activities reflects the core objectives for stewardship of FFW as a group of interested residents, willing to participate in a partnership approach with strategic partners to maintain an environment which was accessible to families for recreation. The membership profile of the group determined that the focus of this activity would be artistic and creative, rather than conservation focused as with FOAM; and the availability of funding for environmental arts during the 1990's ensured a degree of sustained funding success over this period of activity.

The Action Weaver Valley initiative in particular facilitated environmental improvement projects through community arts, and the project officer assigned to this section of the Weaver is remembered in an interview as being *"instrumental in pulling funds together and managing project, usually using artists, and involving the local community. She was dedicated to working in this area."* The availability of funds for such bespoke support from place-based projects is characteristic of this political context when economic improvement through environmental improvement was more popular; in contrast, if working now, this project officer may have a much broader area of concern, thereby limiting the one-to-one support available. Similarly, FFW benefited from a support officer

via the Vale Royal Environment Network pre-2001, and between 2001-2008 the same individual supported the group via the CCI at The Mersey Forest.

Access to funding is expedited when a community scale green infrastructure group has access to personalised support from an environmental non-governmental organisation (ENGO) such as The Mersey Forest or The Mersey Basin Campaign. The volume and strength of these links can be described as linking social capital, and in the case of the FFW there is a correlation between their most active period (1999-2008) and the time period during which a dynamic group of strategic actors were able to access multiple sources of funding and in kind support to achieve their objectives.

The *"golden era of funding for the environment"*, referred to by one interviewee, has undoubtedly come to an end and funding and support available for green infrastructure has a very different delivery focus with headline strategies shifting from recreation and biodiversity, to economy, climate change and health. Some of the original organisations providing support to FFW no longer exist, and those that do have necessarily shifted some of their investment in intensive, small-scale support initiative such as CCI, towards less intensive strategic projects which reach a wider stakeholder group. Although certain green infrastructure objectives are achievable through large consultation projects, such as targeted tree planting via The Mersey Forest's 'Big Tree Plant'; the lack of funding to support individual community groups through intermediaries which site between Friends groups and the local authority creates three distinct disadvantages for the resilience of these groups and projects.

Firstly, an ENGO has fewer constraints when accessing certain funding streams than a local authority; therefore the ideal partnership contains all three parties to ensure the widest coverage of funding potential, particularly important in a time of increased competitiveness for constrained funding sources. Secondly, ENGO's are significantly more flexible in their capacity to provide what one interviewee called the 'personal touch'. They are more able to spend time building relationships with a group, listening to their ambitions and offering practical support where a local authority officer could not. Thirdly, with the input of an environmental professional working at the community level, intermediaries provide access to formal networks which a Friends group would not have knowledge of. For example, they would be able to explain the relevance of organisations including the Trust for Conservation Volunteers (TCV), United Utilities and other organisations operating within the group's sphere of influence. One interviewee refuted that more strategic environmental professionals would be able to satisfy this need for capacity building at the community level, suggesting that *"the Environment Agency are notoriously poor at working at the community level"*, for example.

Internal and External Stakeholder relationships [Support]

All of the strategic partners interviewed made reference to a culture of pro-environmental policy making within the VRBC. The volume of literature linking green infrastructure objectives with those of economic development has increased in recent years (cf. Mell et al., 2013; Payne & Barker, 2016) and yet the understanding that investing in the environmental, social and economic benefits of green spaces, particularly in areas which are characterised by post-industrial landscapes, arguably appeared with force during the conception of the community forest programme in the early 1990's. The reimagining of Furey Wood as a countryside site by VRBC in 1987 was therefore due in part to a regional policy commitment to transforming post-industrial landscapes into more attractive and multi-functional areas for biodiversity and recreation through community forests. In short, the political context for FFW was favourable for the majority of its period of activity.

Unlike most of the factors which have been explored, the political factor is one which a community group has little if any influence over; and therefore capacity to adapt to changes in the political context may be the ultimate test of a group's resilience. In the case of FFW, the local government structure changes in 2009 marked the point at which the group disbanded its remaining membership. In anticipation of the reorganisation, the existing Ranger left his post at Furey Wood, and although the CCW Ranger team based at Marbury Country Park adopted the Furey Wood site, this marked a drastic reduction in hours available for the technical management of Furey woodland whose ecological needs were significantly less than the other sites in the Northwich Woodlands. In addition, and perhaps more significantly in light of the theme of professional support within FFW, the reorganisation heralded the discontinuation of two other strategic partners associated with the group; the 'middle women' who have been highlighted as dynamic intermediaries for FFW. Ultimately, changes in the political landscape locally and regionally left the FFW in a weak position in terms of accessing technical and project management support; and with a diminishing membership, in spite of a number of attempts to recruit new members in 2006-2008, the decision was taken by remaining members to disband and discontinue their collective stewardship of the Furey Wood site.

CHAPTER NINE

9. Case Study – Informal Group: Cecil Mews Project

9.1 Introduction

The Cecil Mews Project (CMP) in Wavertree, Liverpool provides an illustration of the characteristics of an informal group. An informal group describes a community-scale green infrastructure group which is informal in its approach to governance and recruitment, as well as in its attitude to organising activities. The chapter initially provides contextual information with regards the site character and group structure and membership. Further discussion is organised around the main themes of governance, membership, funding, support, focus, and future-proofing; to offer insights into the key factors affecting the longevity and resilience of a community group who adopt an informal way of working. An in-depth case study methodology included multiple site visits to observe and interview group members in context; as well as conducting interviews with key actors from agencies engaged in supporting the activity of the group. In addition, contextual information about the project was gathered from archival material online. Therefore the findings were developed through analysis of two data sources; primary data collected via semi-structured interviews with group members and key actors; and secondary data sources, such as online newspaper reports documenting the project's achievements.

9.1.1 Interviewee Selection

The membership of Cecil Mews Project (CMP) is predominantly two individuals, *Interviewee 1 (P2)* and *Interviewee 2 (P2)*, who live adjacent to each other on Cecil Street and manage the alleyway as an extension of their private gardens (see Table 9.1). Site visits took place on three separate occasions, once during peak growing time in July 2014 when the alleyway was at its most busy in terms of activity (*Bloom*) and twice during colder months in November 2014 and February 2015 when activity focused on maintenance, tidying and planning for the year ahead (*Tidy, Plan*). As a result of these site visits, it was possible to meet other participants including a neighbouring resident from Cecil Street (Interviewee 3), and a representative from the Royal Horticultural Britain in Bloom initiative who have presented CMP with awards recognising their efforts on a number of occasions. Table 3 provides a matrix detailing the interview schedule in relation to the site visits.

Table 9.1 Interviewee selection – type, role and number of participating interviewees

Cecil Mews (core/occasional member)	Strategic (Partner/Stakeholder)	Adamson Alleyway (core member)
Interviewee 1 (core member)	Interviewee 4	Discussion group
Interviewee 2 (core member)	Interviewee 5	
Interviewee 3 (occasional member)		

Table 9.2 Cecil Mews Project Interview / Site Visit Matrix

	July 2014: *Bloom (P1)*	Nov 2014: *Tidy (P2)*	Feb 2015: *Plan (P3)*
Interviewee 1 (P2)	Interview 1	Interview 2	Interview 3
Interviewee 2 (P2)	Interview 1	Interview 2	Interview 3
Interviewee 3		Interview 1	Interview 2
Interviewee 4	-	Interviews 1 & 2	-

9.1.2 Site Character

Cecil Street is in Wavertree, a suburb to the south-east of Liverpool city centre (Figure 9.1). There are two key large sites of green infrastructure in the vicinity of Cecil Street: the Grade II listed Wavertree Botanic Gardens, designated as a 'city park', which is 585 metres away; and Toxteth Park Cemetery, located 1km away. There are a number smaller green infrastructure sites within 300m and 1.5km distance, approximately 5 minutes and 15 minutes' walk. These include one 'district park' and various 'neighbourhood parks' and 'small local parks/open spaces'; all designated by Liverpool City Council (2015). However, unlike areas in the south of the city where tree-lined streets provide green infrastructure functions and benefits at the street scale, the Wavertree area is characterised by terraced housing, narrower pavements, and predominantly tree-less streets (see Figure 9.3).

Figure 9.1 Geographical location of Wavertree within Merseyside, UK

In the case of Cecil Street, a small outdoor area (0.5m by 2 m) is provided to the front of the house acting as a buffer of private space before the pavement. In all instances except numbers 58 and 60, this outdoor area is characterised by hard landscaping, with some instances of container planting designed and managed by individual households. In the case of the households belonging to the two key members of CMP (58 and 60 Cecil Street) however, the hard landscaping has been removed and an area of soil and planting has been created, complete with evergreen shrubs and colourful perennials (see Figures 9.2 and 9.3). *Interviewee 3 (P2)* recalls how on moving to the street ten years ago, one of her first positive impressions of the aesthetic quality of the streetscape was that there seemed to be *"two houses in the street that always seemed to be in bloom."*

Figure 9.2 Approach to planting in front aspect of Cecil Street gardens (Interviewee 1's house) Source: Author's photo, taken November 2015

Figure 9.3 Street character of Cecil Street, showing the context of terraced housing with small private gardens at front, and highlighting the planting visible from street level in front of houses belonging to Interviewee 1 (58 Cecil Street) and Interviewee 2 (60 Cecil Street)

Source: Googlemaps (https://www.google.co.uk/maps Accessed May 2015)

The site of the Cecil Mews Project is the gated area to the rear of the houses on one side of Cecil Street. The site is characterised by a densely planted alleyway (Figure 9.4), approximately 2 metres in diameter and 30 metres in length; an equivalent measurement is the area of planting spans the alleyway area to the rear of fifteen houses (Figure 9.5). The section of alleyway within which the site sits is approximately 25 houses in total, illustrating the nature of the project which serves a number of houses either side of the two houses where the key group members live (58-60 Cecil Street).

Figure 9.4 Densely planted containers in Cecil Street Alleyway

Source: Author, photos taken in *Bloom* phase, 22 July 2014.

Figure 9.5 View of physical boundary between section of alleyway maintained by CMP and remainder of alleyway

Source: Author, photos taken in *Bloom* phase, 22 July 2014.

Figure 9.6 Span of alleyway planting at rear of houses; location of 58 Cecil Street (*Interviewee 1*)) and 60 Cecil Street (*Interviewee 2*); and location of vacant land at junction of Cecil Street/Piction Road

Source: Author adapted from Googlemaps (https://www.google.co.uk/maps Accessed May 2015)

The final significant site characteristic CMP's spatial proximity to another alleyway project, Adamson Street Alleyway Project (ASAP), located 1.5km away in Wavertree (Figure 9.6). CMP's approach to identifying and benefiting from local networks will be analysed in more depth later in the chapter.

Figure 9.7 Walking distance between CMP and ASAP
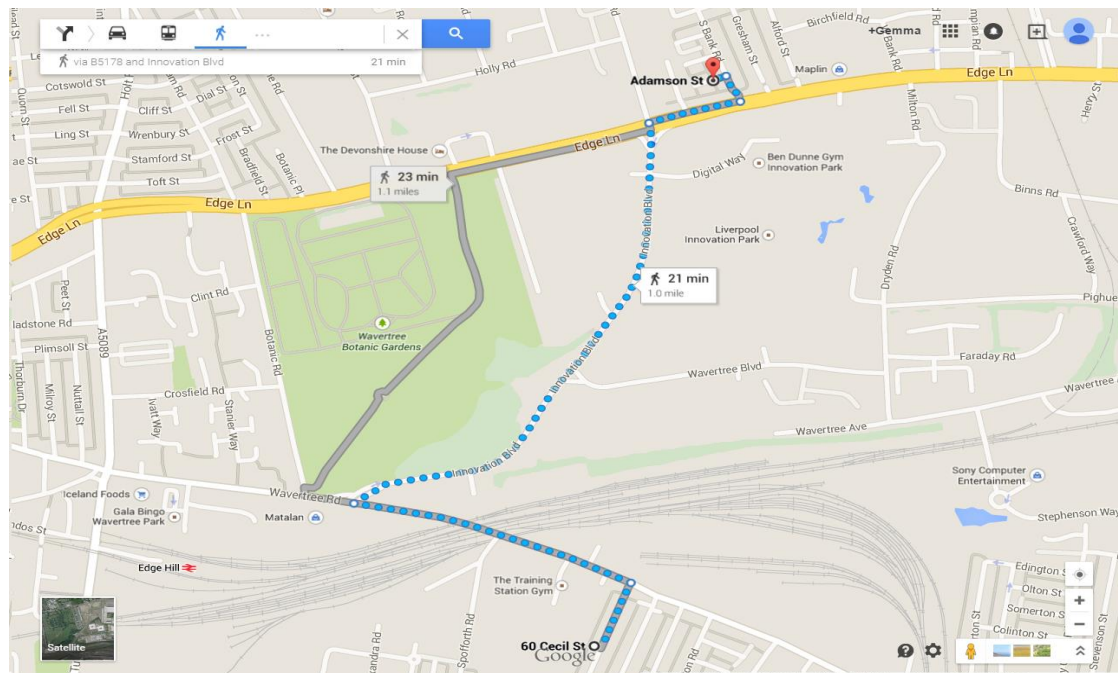
Source: Author adapted from Googlemaps (https://www.google.co.uk/maps Accessed May 2015)

9.1.3 Group Character

Neighbourhood statistics, drawn from the 2011 Census data, indicate that Cecil Street is characterised by a mix of social housing and privately owned housing. In terms of population density, Cecil Street is 'typical'. However, in terms of demographic profile, the average age of residents is comparatively low (24 years old) reflecting the popularity of this area with students from Liverpool's three universities. Other significant profile data includes the percentage of people who report their health condition as very good (54%, compared with a national average of 47%); and the percentage of people who report their religious affiliation as Muslim (22%, compared to the national average of 4%). These findings prove significant to the case study as the group's membership profile proves to be atypical for the profile of the area. The Cecil Mews Project is characterised by the involvement of two founding members: *Interviewee 1 (P2)* (female, aged 72 years, White British, Christian) and *Interviewee 2 (P2)* (female, aged 62 years, White British, Christian). While *Interviewee 1 (P2)* self-reports good health, *Interviewee 2 (P2)* suffers from a chronic respiratory condition and requires the use of medical oxygen at home.

A third member, *Interviewee 3* (female, aged 30 years, Asian British, Muslim) is more typical of the population profile for Cecil Street, including self-reporting a 'very good' health condition. However, in terms of her impact on the overall group character, she suggests that her involvement has been minimal in comparison to Interviewees 1 and 2:

"It's their efforts. Although people have come and gone, they've always been there… I'd say that my involvement has been tiny... We'd interact with regards sharing produce and sharing food, and we'd sit out in the summer, we'd interact in that way. But my involvement was minute."

This impression of the majority of the design, delivery and maintenance of the project being managed by *Interviewee 1 (P2)* and 2 is corroborated by interviews with the other participants, as well as analysis of secondary sources such as media depictions of CMP. When questioned about how far CMP is characterised by the input of *Interviewee 1 (P2)* and 2, *Interviewee 3 (P2)* suggests that their partnership is the key reason for the group's longevity:

"I'd say it works because it's just the two of them. I'd say that it's very difficult to rely on other people, because people are busy or they've got their own thing going on. With a set up like that things have to be done on time" When asked whether there has ever been a larger group of volunteers, *Interviewee 3* suggests that *"people have come and gone, but they are the constant… they almost live and breathe it."*

In the same interview, she describes CMP as being a pro-active and committed group whose informal approach to identifying and monitoring tasks ensures the continuation of the project:

"They're out in the morning and doing what needs to be done. They're out every night and they're slugging it! They're doing what they need to do. If there's any rubbish they'll contact Liverpool Housing Trust's environmental team to come and clear it away and keep it as clean as possible. I wonder whether they've grown to learn that it carries on and it works well when it's just the two of them… if people do come along, there are things for them to help out with but they could never say okay I'll do the hanging baskets all year round, because they couldn't guarantee that that would happen… When it comes to the summer and the competitions, it's constant, nearly all day... It takes so much work".

In terms of the group's character, *Interviewee 3(P2)* insists that the work is achieved without the need for formal meetings: *"they're just neighbours…they just chat to themselves."* On reflection, it is easy to see how it would be difficult to sustain regular volunteer contributions; the alleyway itself is only accessible via a private Cecil Street residence or by invitation, and the manner and timing of work is so informal as to be unknowable outside of the mechanism of invitation by the two key members. No evidence of timetabled activities was found; including public-facing signage at the site, or web-based communications detailing activity times, such as a Facebook group. In place of active participation, CMP has sustained a level of popularity and advocacy from a wider network of people who 'interact' with the project indirectly. This is recalled by all interview participants and is described positively by *Interviewee 3 (P2)*:
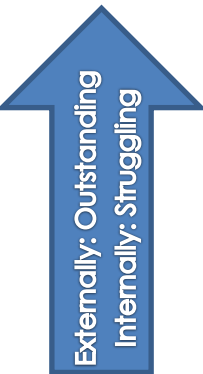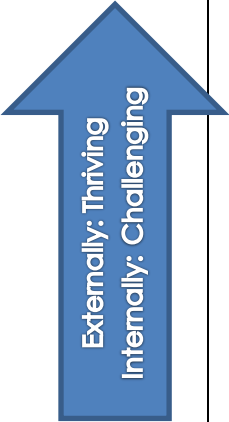
"They have a lot of people write to them after seeing them on the news, and in the Echo, donating money to the project to keep it going. People who aren't even in this city, something resonates with them when they see what's going on in Cecil Street. It's enough for them to write or donate or to say what a pleasure it is to see the results of their work."
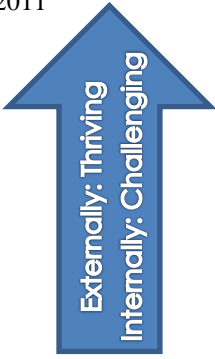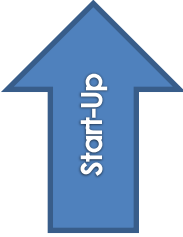
It may be argued therefore, that the green infrastructure benefits of CMP are geographically dispersed; through the dissemination of their green infrastructure 'story' they have been able to reach a wider audience of stakeholders than simply those community members who can physically access the site. The group's lasting character is undoubtedly the portrayal of two capable community champions, encapsulated in articles such as the 'Gardening Grannies' (Liverpool Echo, 2015). For the initial and middle stages of the project, this infamy appeared to sustain local and wider interest. However, this depiction of a strong partnership, which continues in external depictions available through media features (see Figure 9.8), begins to be superseded locally by perceptions of a closed group and recruitment and retention of volunteers outside of the core members wanes and ceases. This chronological sequence of events is summarised in a timeline (Table 9.2).

Figure 9.8 CMP selected as showcase for 50th Anniversary of Britain in Bloom, April 2015
Source: The Echo Liverpool (http://www.liverpoolecho.co.uk Accessed May 2015)

Table 9.3 Timeline illustrating key phases in the cycle of group membership and site development

2015	Based on interviews in the *Plan* phase (Feb 2015), CMP members are struggling on two main fronts:
Externally: Sustaining / Internally: Struggling	1) Physical tasks – seasonal and day to day maintenance of alleyway 2) Funding – to purchase replacement seasonal plants for colour Participation limited to *Interviewee 1 (P2)* and 2 (regular) and Interviewee 3 (occasional; task-based). Offers of help from new volunteers in the *Tidy* phase did not transpire.
2014	The Royal Horticultural Society (RHA) showcases CMP as an example of a successful community projects for the 50th anniversary year of Britain in Bloom. 'Gardening Grannies' article in Liverpool Echo (April 2015) emphasising role of two key members transforming a "derelict passage to an urban oasis".
Externally: Outstanding / Internally: Struggling	An ambassador from the RHA comments: "It's so important to champion projects like this so even more people will be inspired to do the same in their own community. It's incredible the different they've made and the sense of community that's developed from what used to be a really threatening place to live. Fear for the area has turned to pride." Awards: • 'Outstanding' category in North West In Bloom (NWIB) 2014 • 'Best Alleyway, NWIB Trophy 2014 Interviewees 1 and 2 report a lack of funding as the biggest challenge facing their continuation as a sustainable GI project.
2013	Liverpool Echo Wish Campaign - Received £232.09 - Headline: 'Helping their Garden Grow; Wish Tokens will transform Floral Alleyway'
2012	Liverpool Echo Wish Campaign - Received £172.88 - Headline: 'Cecil Mews Project; *Interviewee 1 (P2)* and 2 (names) - Detail:
Externally: Thriving / Internally: Challenging	• 'Cecil Mews has turned a dirty, grubby back alleyway into an oasis of flowers, trees, covered areas and places for residents to sit whatever the weather.' • CMP has been going since 2006 • CMP have won several awards from Royal Horticultural Society Britain in Bloom Northwest. • CMP have featured in the Echo previously 'which brought a huge response' • CMP have appeared on the TV several times including BBC 'The One Show', Granada Reports, and BBC Northwest. • "We get lots of people from outside the area as well as local people calling round to come in and see the alleyway."

		• "We're looking to raise money for the ongoing maintenance of flower containers in Cecil Mews which is roughly 130 hanging baskets, 20 baths, one complete toilet system, several tubs and wall features, renewing shrubs." • "Some flowers and trees have either died of been damaged by recent weather and the back alleyway is at least 120ft long and needs a lot of care and attention."
2011	Externally: Thriving Internally: Challenging	Article in Liverpool Echo (June 2011) appealing for support and funding to replace the discontinuation of small grants for such projects from Liverpool City Council and charitable organisations. *Interviewee 1 (P2)* tells the newspaper: "They say they haven't got any money to give us. Without help this will be the last year that we can do this." Shortlisted for 'Environmental Champion' Award as part of the Merseyside Environmental Awards to recognise 'outstanding contribution to an environmental project'.
2010		Extend planting design to include edible annuals, perennials and fruit trees. Involvement by students from a nearby college interested in learning how to grow food and gardening for individual wellbeing benefits.
2009 2008	Peak Participation	*Interviewee 1 (P2)* and 2 (P2) recall a period of peak participation during the earlier phase of CMP, including a number of neighbours contributing time towards the physical maintenance of the alleyway, as well as helping to organise activities such as children's play and get-togethers: *"At one time, we had about seven brushes all the way down helping…* *We had Jigsaw* (LHT environmental services), *and they helped us a lot. They used to come one day a week; they'd come and prune everything…"* *(Interviewee 2 (P2), P2)* Liverpool Housing Trust (LHT) provided regular support in the maintenance of the alleyway including clearing fly tipping debris and helping to prune trees and shrubs planted by members of CMP.
2007		CMP established as a small voluntary organisation; Chairperson, Secretary and Treasurer elected. Bank account opened and CMP becomes viable to funders looking to support groups making environmental improvements in their locality.
2006	Start-Up	*Interviewee 1 (P2)* asks local contractors to create two front gardens in 58 and 60 Cecil Street; *Interviewee 1 (P2)* and 2 fill with plants and shrubs. *Interviewee 2 (P2)* takes inspiration from a funded alleyway initiative in a nearby street. CMP begins with one bath, filled with soil and planted. *Interviewee 1 (P2)* arrives back from holiday to find the bath, and invites donations of more baths from local builders refurbishing properties. Employees from LHT, on routine walk in area, notice the front gardens of 58 and 60 and accept invitation from *Interviewee 1 (P2)* and 2 to view back. LHT begin to fund CMP (£250 per year for plants), including in kind donations of support from their environmental team, 'Jigsaw'.

9.2 Governance

9.2.1 Legal Status

Initially, in light of the documentary analysis of community-scale green infrastructure groups practicing in The Mersey Forest boundary, CMP was selected as a case study to explore the factors and forces effecting resilience in an *informal group*. This was primarily decided based on the language used by media sources describing the activities of CMP. The focus was consistently on the informality of the organisational aspects of the intervention: *two friends who have brought their community together* (Liverpool Echo, 8 June 2011); *green-fingered volunteers who transformed a dingy alleyway into a community garden* (www.highbeam.com, 26 October 2013); *Liverpool's 'Gardening Grannies' showed how they turned the derelict passage into an urban oasis* (Liverpool Echo, 15 April 2014). However, through a sequence of interviews with CMP's key actors (*Interviewee 1* and *2)*, it was possible to establish the fact that CMP is constituted as small voluntary organisation. However, there was no documentary evidence, observations made during site visits, or substantial evidence from interview transcripts to suggest that CMP conduct their voluntary activities in a formal manner, or make decisions within the structures provided by a constitutional framework.

9.2.2 Group Structure

At the time of the study, *Interviewee 1* and *Interviewee 2* occupied the roles of Treasurer and Secretary respectively, whilst another Cecil Street resident occupied the position of Chairperson. The role of Chairperson is effectively dormant within CMP however, and has been for a number of years. From analysis of conversations with *Interviewee 1* and *2* it was possible to establish that there have been historical disagreements within the committee of CMP, resulting in an estrangement of the Chairperson. It was unclear from the interviews what the source of conflict within the group's committee was, however *Interviewee 1 (P2)*, refers to the Chairperson as *"the one that turned on us"*, evidencing an incident where this individual made an appearance on television and critiqued the fact that CMP had become characterised by the efforts and ideas of *Interviewee 1*and *2*: *"He's been on the television, and he said 'they get all the praise down there', on the telly!"*

Interviewee 1 (P2) perceived this attitude as resentful towards their efforts, suggesting that any public praise was justified by the fact that *"we do all the work".* It was equally indeterminate from the interview analysis how *Interview 1 (P2)* defines 'work' in this context: it may be referring to physical work associated with maintenance, or 'work' relating to administration. However, there is no evidence from any of the interviews with CMP's participants that CMP adhered to governance procedures around holding formal meetings, which are chaired and minutes are recorded. In response to a question regarding the regularity of meetings, *Interviewee 1 (P2)* suggests that in the beginning, meetings were every week; however, by way of corroborating this fact, *Interviewee 2*

(P2) adds this information: *"At one time, we had about seven brushes all the way down helping. But they've left… We did have Jigsaw, and they helped us a lot last year. They used to come one day a week; they'd come and prune everything…"*

This suggests that meetings, even in the beginning phase of the project, were informal and gravitated towards the physical maintenance of CMP. This sits in contrast to the other CSGI case studies explored within this research study; in each of the other case studies, groups can evidence organising and administering their activities through formal governance structures such as regular meetings and annual general meetings.

Perhaps most significant for CMP, is the lack of adherence to procedure around committee positions which ought to be re-elected via a membership vote every year at an annual general meeting. During the course of the interviews, members of CMP were asked whether they have ever changed the committee positions, and there was no evidence that they had over their eight years of activity. Moreover, it appears within CMP there is an inherent misunderstanding about rules regarding re-electing committee positions, a practice which forms part of the governance guidelines for any constituted organisation. This misunderstanding is apparent in *Interviewee 1 (P2)*'s tone of regret around the current roles played by the key actors; she suggests that although she currently holds the position of Treasurer, and has since 2006, she would ideally like to become the Secretary as she believes that this role would strengthen her capacity to attract interest from external funders: *"I mean I'm sorry I'm the Treasurer and not the Secretary, because I know I'd be like that on the phone to different places".* When asked if there was any plan to change committee roles *Interviewee 1 (P2)* suggests that the current roles are fixed: *"No. We had to sign through the banks and everything".*

This highlights a significant lack of understanding within CMP as to the function of a committee and a constitution; further, this lack of understanding may be a characteristic of other CSGI groups. Documentary analysis of sample constitutions for small voluntary organisation such as CMP, indicate the necessity for annual general meetings where reports are submitted by the Chairperson and Treasurer and a new management committee is elected. Beyond the adoption of a constitution and the three essential roles of chairperson, secretary and treasurer therefore, CMP have not been adhering to the duties and requirements of a constituted organisation. This gap in knowledge at the community -scale could be supported by training organisations such as The Mersey Forest, who continue to offer bespoke training and governance support to community-scale green infrastructure groups, attending regular meetings as a neutral facilitator and being available for informal consultation on day to day decision making at a site level. However, as was made evident in the case with the formally constituted Friends of Furey Wood in Chapter 8, making such support available does not always ensure that a group adheres to formal procedures associated with becoming constituted and groups may still prefer to work in an informal and ad hoc way.

In the absence of formal meetings, CMP members and associates convey a picture of informality, with meetings occurring spontaneously and primarily at the discretion of the availability of *Interviewee 1* and *Interviewee 2*. Moreover, topics of discussion mainly focus on the order of planting and garden maintenance. When asked about meetings, *Interviewee 3 (P2)* suggested that this was not a feature of CMP: *"They're just neighbours, they just chat to themselves."* This view was supported by statements from *Interviewee 1 (P2)*: *"It's just us; we decide what we're going to do."*

This may explain the disagreement about organisational approach between the committee members. When the identity of the Chairperson is revealed in the interview with Interviewees 1 and 2 in Phase 2 of the site visits, it becomes apparent that this individual has contributed time and energy to a number of committees within Cecil Street's predominant social housing provider, LHT. Therefore, rather than there being evidence that the Chairperson has disengaged from CMP because of a reluctance to give time and energy to this more administrative function of a voluntary community group, documentary analysis of information freely available online shows that the individual currently in the role of Chairperson of CMP is a keenly active member of the Cecil Street community. Moreover, this individual has recently been awarded as an Environmental Champion for improving waste ground, indicating a personality which is actively committed to community development, and has experience in contributing via formal governance structures.

Instead of a deficit in the Chairperson's capacity to contribute to CMP, the relationship between the three committee members seems to have been complicated historically by the circumstances around a piece of derelict land at the junction of Cecil Street and Picton Road (see Figure 9.6). *Interviewee 1 (P2)* recalls a conversation with a local councillor in which CMP were offered the stewardship of this site, in reflection of their success with the alleyway: *"I said you're joking aren't you, we can't even get anyone to help us here. Why should we do the top of the street to keep them all happy when they don't help us?"* *Interviewee 2 (P2)* explains that the land sits at the 'top end' of the street, adjacent to the Chairperson's residence, and references a longstanding divide between Cecil Street tenants: *"They don't want to know us down this end; it's very, very difficult. "*In this sense, Cecil Street's micro-geography, or geographical localisation, is much more nuanced than may first appear. CMP's key members are suggesting that Cecil Street is geographically segmented and its features include those which are infinitely less measurable than those relating to demography, observable and measurable through ward profiles at the lower super output area level. *Interviewee 1 (P2)*, born in Cecil Street 72 years ago, suggests: *"It's always been like that, even when I was a kid. Because I lived over there and the top end didn't want to know the bottom end, when we were kids. We had street parties for the kids when they were little, and they had their own table."*

These comments become significant in terms of group structure if they are considered in terms of exposing the role that hidden historical or cultural geographies can play in a group's stability. The

notion that Cecil Street itself has not only a demographic profile but a cultural 'landscape' relating more to history and memory, finds precedence in literature relating to values and perceptions of place (Stewart and Strathern, 2003). Through a more ethnographic approach to considering these particular aspects of interview contributions, it may be possible to understand that the individual steps which make up the journey undertaken in the creation of a group to formalise the activities of CMP, will be perceived differently by different members of the group. Moreover, the journey or story which is then portrayed as a narrative when recalling these individual steps will enable a participant to foreground and background particular people or events to serve the particular perspective they have. *Interviewees 1 and 2* may have earned their status as representatives of CMP in light of participation over the project's eight year span. However, interview findings have highlighted the initial presence of a third committee member in the Chairperson; and in the absence of an interview with the individual occupying this role, the narrative concerning this individual is biased and without contest.

Ultimately the absence of this third committee member exposes CMP's failure to adhere to an active committee structure and potentially weakens their claim to be a fully constituted organisation. This finding highlights an emergent theme around a tension between groups understanding the requirement of a formal structure, and groups comprehending the obligations this places them under. For micro-scale voluntary groups the acquisition of a legal status may be solely catalysed by the wish to bid for funding; rather than an understanding of the core purpose of a constitution from the perspective of transparency and accountability around organisational governance. In this sense, although a group may be aware of the necessity of a legal status and a formal constitution, the formal structures and committee positions are perceived as a source of dis-benefit, and remain almost exclusively as an expedient for financial benefits; rather than providing guidance around how to govern the organisation so as to be accountable and transparent. This simplified, and ultimately flawed, approach to formal structure is perhaps best exemplified by CMP's attitude to providing public liability insurance for activities in the alleyway: *"We've got a constitution. It's insured for £1m you know. We have to pay £112 a year."* Interviewee 1 (P2) *"Otherwise we won't get any funding. So before we've got any money for plants, we have to find money for that. Well, that seems like a waste of time."* Interviewee 2 (P2)

It would seem that CMP's status as a constituted organisation is an increasing burden for the remaining members. Formal procedures and duties are regarded as an inherent weakness. In the case of CMP, the complexity of their governance is no longer in scale with the size and stretch of their activities; if their structure was more informal and flexible, reflecting the group membership more closely, they may not feel as disheartened by their lack of success to retain external validation and alternatively concentrate efforts on maintaining aspects of CMP which reflected their personal wishes.

9.3   Membership

9.3.1   Group Profile

In an interview with a strategic stakeholder engaged in community development in Liverpool City Council, *Interviewee* 5, the role of segmented geographies at the local level is underlined as a significant contributing determinant to the profile of a community garden group:

"If you look at the population profiles and demographic profiles of the various wards, what you will likely see is the demographic of the ward, or the demographic of the lower SOA is probably reflective of the community garden group. So it's how does that group reflect the demographic. And we see that because different areas have got very long term residents in certain streets around Liverpool particularly. And they've stayed there because they're committed to the area... People do tend to stay in their social housing properties; whereas private rental tenants tend to move a little bit more."

Although this arguably goes some way to explain the group profile of CMP, with *Interviewee 1 and 2* both representing long term social housing tenures, it does not fit with the case study findings around the age and diversity characteristics of the core group members. The defining characteristic of CMP is the relationship between *Interviewee 1*, female aged 72, and *Interviewee 2*, female aged 62. The project is frequently described as a team effort by two women, referred to as 'Liverpool's Gardening Grannies' or 'green-fingered Grandmas' (Liverpool Echo, 2011, 2014). Both women are retired from full-time work, and although they are busy with other commitments including being grandmothers, they dedicate a substantial amount of time and effort in creating, designing and maintaining the assortment of planters which make up the garden of CMP. The third most involved volunteer is *Interviewee 3*, a female Muslim aged 30. Other volunteers mentioned in the interviews include the Chairperson, male age unknown; temporary volunteers during 'Peak Participation' phase, in particular a group of female students, Muslim age unknown; plus various Cecil Street residents, including children, during CMP's 'Start Up' phase (See Table 9.3).

Interviewees 1 and 2 suggest that they have had offers of voluntary support from other Cecil Street residents at various times since starting in 2006, but many offers have never developed into regular participation. In their 2012 appeal to the 'Liverpool Echo Wish Campaign', *Interviewee 1* made a specific appeal to student volunteers to help with maintenance, suggesting that the seasonal intervention by a group of female students in 2011 had made a significant impact on CMP: *"In the summer holidays, we'd be very grateful for students who are into gardening to come and help us."* Perhaps this seasonal and work-directed support for CMP is preferable for *Interviewee 1 and 2* whose outward facing profile as two older women transforming an otherwise underused and neglected space was still garnering external interest and funding in 2011. An interpretation of CMP's approach to green infrastructure activities is that of community champions, evidenced in the

portrayal of their activities in local press. In their most recent coverage for the part they played in featuring as showcase project for the Royal Horticultural Society 50th Anniversary of Britain in Bloom, *Interviewee 2* surmised the overall success of CMP as transformational:

"Fear for the area has turned to pride, and what could be better than that?...There were needles everywhere, mattresses, smashed glass, dog-muck, empty beer cans – basically anything that could be thrown out found its way there – it was filthy and a dangerous place to be, especially for the local children."

9.3.2 Personalities

There is supporting evidence across interview findings with key actors and strategic partners, as well as documentary analysis of media articles reporting their activities, to make a substantial assertion that the singularly defining characteristic of the project is the enduring appeal (outward facing) and continual co-dependency (inward facing) of the two key personalities at the centre of CMP.

Interviewee 3 (P2) suggests her first encounter with CMP was a direct consequence of the open and friendly approach of being neighbours she experienced in her meetings with *Interviewee 1* as a new resident in Cecil Street:

"It was just one particular encounter with (Interviewee 1) really. (Interviewees 1 and 2) always stand outside and they're always chatting and they'd always say hello to everyone as they'd walk past. And we used to say hello but that was it… until that point that I was introduced to the back alleyway."

Interviewee 4, a strategic stakeholder familiar with the project's activities, suggests that in terms of green infrastructure typology, CMP is part of a network of similar alleyway initiatives:

"There are 25 similar areas with unique twists and with different funders. The variation is if it's 'bought off the shelf' or the community spirit is the driving force behind it."

According to *Interviewee 1* it is this 'community spirit' which has been most improved by CMP:

"I've lived in this street all my life – 68 years in the same place. (Interviewee 2) has lived here 30-odd years. We've seen a lot of changes. But I can honestly say that this has been the best thing that ever happened to this street (she laughs)… There are a lot of people these days who don't know their neighbours. I think it's such a shame. We know all ours. If I see them at the shops I'll say 'Come over for a cup of tea' and they do. We live in a very multi-cultural street, and we can all share our stories". (Liverpool Echo, 8 June 2011).

Although the study's interview material suggests that this type of informal gathering happens with less frequency at the time of the study than it did in the earlier phases of the project, it is clear that

the creation of a 'neutral' space for such meetings conveys a sense of benefit for levels of community cohesion, albeit in the very small section of Cecil Street.

The role of collective effort to make and maintain the alleyway project in Cecil Street is further evidenced by comments made in the same Liverpool Echo article (8 June 2011) by *Interviewee 2*:

"We recycle everything. We make raised beds out of old bathtubs and toilets. If we're going past a skip and there's a bath in it, I'll knock on the door and explain what we do. Nine times out of 10, they let us have it for the garden. But I'd never take it without asking. One of the nicest things is how many people we've met through doing this. You get talking to all kinds of people you might never normally meet."

Taken together, these comments suggest that the physical infrastructure of the project is supported by the active participation of a wider network of donors and well-wishers. However, a broader analysis of data captured from both interviews and documentary analysis reveals that contributions have been primarily in kind donations of goods, and people have been less willing to give their time to support the physical maintenance of the garden in the way that Interviewees 1, 2 and 3 have. Furthermore, when the interviews findings are considered in their entirety, a picture of community cohesion is less consistent with actual retellings of a diminution of active and non-active participation. *Interviewees 1* and *2's* reports of diminishing participation concur with *Interviewee 4*'s perception of CMP's decline. In terms of causality, *Interviewee 4* suggests that the key difference between CMP and their close neighbouring alleyway project in Adamson Street is the personalities involved: "*The key difference between Cecil Street and Adamson Street is personalities involved and the characteristics of the community.*"

Interviewee 4 qualifies this statement by asserting that: *"A much better example of an alleyway project is the Adamson Street Alleyway (L13). They won the top award in 2014."* And when probed as to the key factors affecting the resilience of CMP, *Interviewee 4* cites their lack of success in recruiting and retaining a larger pool of volunteers: "*Cecil Street started off well. To be frank, they got off to a flying start in the early period, and got a lot of help over the years. They haven't developed as much and they've had difficulty getting people. They are mainly 2 or 3 people.*"

The picture that begins to emerge with regards to the influence of key personalities within the project is one of tension. On the one hand, the vibrancy of their two-person partnership has captured the admiration of a wider network of stakeholders, including those with influence such as funders from local housing providers, Northwest in Bloom and attention from local media. And yet, this boost of global confidence for the legitimacy and value of CMP's aims and objectives did not effectively or reliably translate to a surge of local support from the immediate beneficiaries of the project, namely neighbours willing to contribute time and skilled efforts to the maintenance of CMP. Perhaps key actors within CMP has been too outward facing, understandably so as this is where the majority of

positive feedback has been communicated from; and pragmatically speaking, their skills in creating a media profile has culminated in their appearance in a significant celebration of the Royal Horticultural Society, a national organisation which promotes the continuation of micro-level green infrastructure delivery through private gardens.

In terms of CMP's attempts to be inward facing, the non-diverse group profile and the strength of the personalities at the centre of the project, in particular *Interviewee 1* who has been a lifelong resident of Cecil Street, may have acted as a barrier to volunteers unfamiliar with the two core members. In other words, if a participant is not a personal ally of *Interviewee 1 or 2*, it is difficult to see how they could successfully contribute to CMP in the absence of formal agreements around activities and decision making. This is exemplified by the ongoing disagreement between *Interviewee 1and 2* and CMP's Chairperson.

The documentary evidence supporting a picture of a community-focused personality as an accurate portrayal of the individual occupying the role of Chairperson problematises the narrative constructed by *Interviewees 1 and 2*'s concerning the ongoing conflict between the committee members. In the absence of interview data relating to the Chairperson's version of events, it is still possible that this individual may have disengaged from CMP due to the time pressures of other projects. However, it is also possible to construct an argument that the informal and spontaneous approach to organising CMP may have left this individual frustrated. And in the absence of appetite from the majority of members for formal governance procedures, it is difficult to see how this difference of opinion could be mediated and overcome. Methodologically speaking, if there was additional time for conducting interviews, it would be of value to seek an interview with this absentee CMP member.

An additional possibility relates to the dualistic nature of the role dynamic personalities play in the longevity of small voluntary organisations. In short, both *Interviewee 1* and the Chairperson exhibit the qualities of an individual committed to community development; perhaps a group focused on a site the scale of CMP can only accommodate one person acting in the capacity as a leader.

In the case of CMP, the media portrayal of the project at different points in the eight year lifespan has been to isolate the contribution of two people, as two equal partners, choosing not to differentiate the different roles they each play. In one sense, this version of events is supported by *Interviewee 3*'s description of two committed friends carrying out a community service through determination and civic duty for their 'small patch'. However, a more subtle reading of the interview findings, particularly the conversations with *Interviewee 1and 2 (P2)*, reveal different roles played by two different personalities, and point towards a power dynamic underpinning the motivational factors of each individual. For example, the theme of funding is a recurrent subject of concern and tension within the interviews. When asked whether a lack of funding would prevent the project from continuing in the long term, the contrasting responses from the two key actors within CMP were illustrative as to the contrasting sense of duty each feels to continuing CMP. Initially, *Interviewee 2*

(P2) says, *"We'll have a go"* whilst *Interviewee 1 (P2)* suggests, *"We've got to haven't we. You can't just let it go."* Then, seemingly in response to *Interviewee 1, Interviewee 2* adapts her response to sound more determined: *"You'd have to carry on, because you can't just leave it this way."*

A further example relates to the level of personal sacrifice each would make to support the project. *Interview 1 (P2)* suggests that the lack of success they've had recently with attracting external funding would lead to them contributing money of their own: *"Even if we put a few bob in ourselves we'll have to, because I'm not going to let mine lapse."* And, as before, *Interviewee 2* chooses to echo the gesture: *"Even if we just do it between us… (we could) just throw in £1 per week."* This interaction reveals a subtle dynamic observable across the interview data between *Interviewee 1 and 2*; *Interviewee 1* seems determined to continue the project, particularly in light of adversity. The language *Interviewee 1 (P2)* uses in the context of criticism is particularly reactive, suggesting her involvement has become very personally driven:

"Somebody wrote in the paper, when we were looking for funding, 'old age pensioners looking for funding', and all that; and it was nasty, it was a nasty thing that they wrote about us."

This, plus accounts of anti-social interactions with neighbours who expressed criticism towards her activities via CMP, give the impression of a personality which is extroverted and has the capacity to invoke a strong response, both negative and positive. It may be the case that the power dynamic between *Interviewee 1* and the Chairperson, who have both been recognised for their achievements in community development, prevented them from being able to work cohesively within the same project, highlighting the need for different personality types within a group dynamic in order to reduce the opportunity for conflict. *Interviewee 5* summarises this ambiguous influence of personality as such:

"In terms of personalities, and I would be very surprised if you didn't experience this in your on the ground research, is that they can create personality conflict of different personalities wanting a similar outcome but not necessarily agreeing how to make that happen. And that can create tension and again that tension, instead of creating a doubling of resilience, can destabilise the resilience and sustainability around the community supporting, be it a green space, or whatever."

Finally, when conflict occurs within a community organisation, being able to draw on the skills of a mediator or facilitator to progress such barriers to working effectively can mean the difference between a group becoming more divided, and evolving, adapting, becoming resilient. For example, for those Friends groups being supported by The Mersey Forest's 'Community Contracting Initiative', internal conflict would be addressed within the responsibilities of a supporting officer. However, in the absence of such external stakeholder support, this barrier to cohesion and conflict can quickly be the source of a group's fragmentation and the discontinuation of their green

infrastructure activities and therefore of any associated environmental and social benefits to the wider community.

9.4   Funding

9.4.1   Fundraising

The Cecil Mews Project has been -successful historically in attracting funds to support the purchase of plants, soil and gardening equipment associated with the creation and maintenance of the alleyway scheme. A broad analysis of both interview findings and documentary evidence across the case study however, proves that this fundraising capacity has diminished in more recent years and the capacity to attract financial support for the project has come to the foreground as a key concern for the key actors involved. Moreover, there is no evidence that CMP have focused efforts in their time of project activity to generating income to make the project more sustainable in the long term. *Interviewee 2 (P2)* who has been occupying the role of Secretary, feels particularly burdened by the responsibilities of finding external funding to continue the scale of planting they have created:

"I just feel like we're hitting a brick wall all the time, every time we go for funding, it's always an excuse, it's something or something else, you know."

The key barriers to funding success in later phases of CMP relate primarily to their declining membership and non-diverse group profile; it is difficult to evidence social outcomes of a project which is so discrete in its impact. An additional factor, which is beyond the influence of members of CMP but remains important nonetheless, is the shifts in funding streams associated with environmental improvements and community food growing towards physical and mental health benefits. In light of this policy level change, it is perhaps possible for an outside perspective to understand the shift in fortune CMP have experienced. Their lack of insight and understanding as to how their project does or does not reflect the objectives of funders, mixed with their decision to act primarily as a single issue project, has left them in a weak position strategically.

In contrast, other CSGI groups and projects have shown differentiating capacity to adapt their core objectives to those which are relevant to organisations administering funding. For example, Big Lottery successfully transferred substantial amounts of capital funding to small-scale projects like CMP during their 'Local Food' focus from 2008 onwards. More recently however, they have shifted their focus towards funding projects which can evidence how they tackle poverty and social exclusion in line with the strategic objectives of the European Social Fund (2014-2020) ('Building Better Opportunities, 2015). There is no evidence that CMP have an awareness of reflecting funding trends, nor the interest in adapting their core objectives to reflect a wider network of stakeholders or policy interests.

The study's interviews with *Interviewee 4*, a strategic stakeholder invested in the green infrastructure outputs and outcomes of small-scale groups such as CMP via a national network organisation, convey a coherent narrative around the historical context of the project. He suggests that CMP emerged, along with 25 other alleyway projects, in response to a funding stream created to support activities which improve the attractiveness and liveability of streets and neighbourhoods. In terms of supporting strategic objectives, this perspective of the functionality of projects like CMP correlates with *Interviewee 5's* comments regarding the core objective of community groups who create and support the management of green space:

"Where land is vacant because development hasn't occurred or development is going to be delayed… a sort of 'meanwhile use' (is established) …getting the community to recognise that (they) are using it temporarily, beautifying it, making it a more functional space for the community, which prevents fly tipping, which promotes the community aesthetic."

In terms of the strategic objectives of 'meanwhile' land, CMP have successfully created a space which beautifies an otherwise blighted alleyway, with a history of fly tipping and anti-social behaviour, which '*can have a negative impact on the community'* (*Interviewee 5*).

The key actors have facilitated the opening up of a piece of land for a greater diversity of functions, including activities which bring together community members of different ages and interests, and could therefore be described as contributing community cohesion. In this sense, CMP have created a response to a number of strategic objectives within the remit of Localities Services (previously Neighbourhood Services) at the local authority level. Consequently, CMP are in a position to lobby their ward councillor, responsible for administering the Mayoral Neighbourhood Fund, "*an awards allocation which is given to Councillors, often used to support smaller communities" (Interviewee 5).* Yet, remaining members of CMP do not show any awareness of the local government structures and actors at their disposal. When they are asked whether they have a relationship with Liverpool City Council's Cabinet member for regeneration, in light of his role installing community planters at the junction of Picton Road and Cecil Street, *Interviewee 2 (P2)* says:

"He's never been to see us… I'd like him to come… They must have put those boxes at the end, but no one looks after them… No-ones put any flowers in those boxes at the bottom of the street."

On one hand, this highlights a lack of joined-up thinking within local government regarding the capital funding for community resources and revenue funding for facilitating community ownership (Figure 9.9). On the other hand, it exposes the weakness within CMP regards perceiving the 'duty' of local officers to attend community matters at a micro-level. *Interviewee 1's* comments suggest

that she expects civic engagement to be initiated by external stakeholders, rather than catalysed by tenant-led engagement.

Figure 9.9 Community planters installed by Liverpool City Council; no evidence of ownership

Source: Author's own, Photo taken 22 July 2014

As CMP remains the responsibility of two people, it is susceptible to cessation of activities should key individuals discontinue. This ultimately reduces the opportunities available for statutory contributions as local government funders would be required to consider the sustainability of outputs and outcomes associated with community activities, before committing public funds.

Interviewee 5 conceptualises this inherent lack of sustainability in projects that rely on the input of one or two key members in terms of research around the role of nodes and networks in community development literature. As previously discussed, CMP has problems around group profile and the role of personalities, with a concentration of power in two key nodes. In terms of building capacity and supporting a community group to become more sustainable, the interview comments from *Interviewee 5* centre on upskilling CSGI group's understanding of business models. This perspective has direct relevance to the experiences reported with CMP and may prove invaluable to the remaining members, if an appropriate mediator or support officer was available:

"Where we've initiated or tried to build on the passions, we will try and start community groups beginning to think about their business models. Again, because it's personality driven it's about trying to skill up those people. And just jumping back to skills and training, forget about the equipment for a second and it's not even about the practical skills, part of the skills that need to be identified is, how do you fundraise; what are the grants that are out there; where do I go for them; who else is interested in delivering this with me. So there's a very important funding business model aspect to this as well."

9.4.3 Innovation

In terms of resourcefulness, CMP have demonstrated capacity to redirect materials which would otherwise be disposed of in landfill and recycle everyday items as imaginative containers for plants (Figure 9.10).

Figure 9.10 CMP's approach to landscaping utilising recycled containers as planters

Source: Author's own, photo taken in *Bloom* phase, 22 July 2014

9.5 Support
9.5.1 Local Networks

In 2011, *Interviewee 1 (P2)* tells the Liverpool Echo that the CMP has "*brought the whole community together… We all sit out at the back together and have a cup of tea. It's a safe place where people can let their children play, and everyone gets to know each other.*" When cross-referenced with interview findings, it is possible to find evidence of this wider engagement with the community; in their joint interview in July 2014, *Interviewees 1 and 2* recall regular visits from local police officers to the alleyway to enjoy a restful break. Similarly, stories were shared about families from neighbouring houses enjoying time in the alleyway with their families. At the time of writing however, CMP's activity focuses solely on their ideas and efforts.

Partly, this is due to a key family moving away. However, it also appears that the accessibility of the alleyway to houses except those with back gardens directly opening out on to the alleyway is wholly restricted, unless access is invited by *Interviewee 1 or 2*. Furthermore, interviews with these two key actors reveals a level of historic conflict and mistrust between neighbours at their end of Cecil Street and neighbours further up the street, as previously discussed. This has resulted in an informal boundary wall being erected part way along the alley (see Figure 9.11). In the final interview with *Interviewees 1, 2 and 3* (*Plan* phase, Feb 2015) it was discussed whether this barrier could be moved to minimise the extent of the alleyway planting further so as to reduce the length of alleyway to

maintain; as well as in recognition of the absence of participation of neighbours beyond this barrier erected by the members of CMP.

Figure 9.11 CMP have erected an informal boundary to segregate the alleyway

Source: Author's own. Photo taken during *Bloom* phase, 22 July 2014

In light of this barrier and its implications for cohesion between CMP and other residents in Cecil Street who may otherwise enjoy the benefits of the alleyway planting, we are reminded again of the prevalence of the influence of personality within this case study's findings. Similarly, this role of personality can have positive effect on the activation of local networks, primarily illustrated by *Interviewee 1's* resourcefulness and attitude towards engaging one-off interventions from local stakeholders willing to contribute in kind donations to the project. Examples include the efforts of contractors to dig the original front gardens of 58 and 60 Cecil Street, as well as contributions from local tradespeople of baths from refurbished properties. However, CMP's resourcefulness within local networks may also have extended to a sense of entitlement at times as recalled within *Interviewee 4's* comments:

"During the Lib Dem administration… £100k set aside through the old Housing Revenue account, which a colleague from housing and myself were given to set up. We used it to set up these alleyway gardens… Cecil Street was one of the first ones to jump on the wagon. They used to just come and pillage everything. We used to buy garden benches, plants, we had an account with B&Q, we spent £80,000 per year at B&Q on tools, plants you name it... The very last thing they did was come and empty the storeroom where we had benches and picnic tables and god knows what in 2009. There's no way those benches went in the alleyway, they probably went down to the market and were sold on. Some of them are there but they emptied the storeroom. I was happy for the stuff to go somewhere."

Interviewee 4's comments were not communicated to convey a negative perception of CMD, it was clear that there was a feeling of respect towards their tenacity; however, it is also possible to get a

strong impression from these comments that CMD became reliant on such sources of funding for their equipment, and consequently did not build up knowledge about the other benefits of belonging within a local network, such as sharing skills and knowledge. In contrast Adamson Street Alleyway Project (ASAP) approaches their production of resources in a more cost-effective and sustainable way, as identified by *Interviewee 1 (P2):"They don't get funding. They just got £100 off LMH. His wife, she gets all the seeds, they do everything from seeds, and keep them in the house, and all of that." Interviewee 1* clearly has respect for the efforts of ASAP to produce as many of their own plants as possible, and yet no mention is made of the opportunity this presents for sharing a plant nursery or requesting support from ASAP's members to make CMP more self-sufficient.

9.5.2   Professional Involvement

The most consistent contribution from professionals in the green infrastructure sector have been judges and representatives from the Royal Horticultural Society's Britain in Bloom initiative. CMP are clearly proud of the awards they have achieved as a project within the Northwest in Bloom programme. *Interviewee 1* recalls the fact that CMP was catalysed by LHT's encouragement to enter their project into local and national award programmes:

"What happened was the front of the house was lovely. And these girls were passing, and said 'Oh isn't your garden lovely', and I said well you want to see the back… we brought them in, we didn't know they were from the housing. They said have you entered any competitions and we said we didn't know there was any. And she said 'Oh aye yeah, Britain in Bloom and the Royal Horticultural Society'. So then, they put us into it you see. And it's been going like that. We've won eight years on the trot. You just a get a certificate you know. You get outstanding award, and it's the biggest one you can get. And we've won that a couple of times. Not only that you've got … the other one's a glass thing, and it's on a plinth. And your names get put on it when you win it, and erm, say you keep it for twelve months and we've won it four times. Whoever wins it their names go on. And then you just hand it back. We didn't win it last year but we won it this year, in October (2014)."

In spite of the lack of stability within the membership of CMP, RHS continue to acknowledge their efforts and achievements, in terms of green space management and maintenance. Most recently, they were awarded the 'Outstanding Award' in recognition of their selection as the showcase for RHS's 50th Anniversary celebrations. In this sense, CMP are familiar with a process of evaluating their activities. However, their focus is primarily on the quality of their physical work, and beyond professional critique in this regard, there is no evidence that they have received any professional support to enhance their skills in governance or membership recruitment and retention; an area that clearly presents a continuing challenge for them.

9.5.3 Internal and External Stakeholder Relationships

CMP's approach to stakeholder engagement is characterised by inconsistency. Historically, they recall having a good relationship with their housing association, however now they have less involvement. This shift is primarily depicted as a withdrawal of support from the point of view of CMP's members, focusing especially on the intervention by LHT's environmental service, 'Jigsaw'. *Interviewee 2*, who adopts the role of keeping in contact with LHT, explains to *Interviewee 1* in the interview conducted in Phase 2 of the study that the services offered to tenant groups have been reduced and CMP is no exception:

Interviewee 2: "It depends on where they are Aud, if they're not in L15, and out of the area, and somebody asks them to help them. They can't always be here, she said. So I said Okay well if you can."

Interviewee 1: "Did she put our name down for when they're in the area?"

Interviewee 2: "You don't have to put your name down, you just ring up."

Interviewee 1: "I mean when you rang up did you ask for them to come and help us when they're in the area, to come and help us?"

*Interviewee 2: "Of course I did! (*exasperated*) But that was in the summer when we first… remember when the bin men… took all the rubbish and all the bins. Because the kids kept setting fire to it, especially in the 6 weeks holiday we'd get no peace."*

This dialogue reveals an additional challenge facing CMP in terms of emgagement; anti-social behaviour is likely to be a recurrent issue affecting their activities and in light of the reduction in funding available for interventions from partners such as LHT, this is more likely to create a source of tension within tenant relations, and therefore the group's sense of confidence to engage a wider circle of stakeholders.

9.6 Activity Focus

9.6.1 Site Focus vs. Group Focus

CMP is simultaneously focused on the site, reflected in the core activity of providing and maintaining planting in the alleyway environment (gardening is the focus); whilst arguably also being group focused, reflected in the structuration of the project's activities around the availability of *Interviewee 1* and 2's ideas. Ultimately, as has been consistently evidenced, CMP is defined by the activities and decisions authorised by two individuals, meaning that CMP is restricted by its site boundary, but is more effectively and problematically constrained by the limitations inherent within its group focus.

9.6.2 Visionary vs. Reactionary

Interviewee 4 s comments suggest that CMP emerged within a city-wide network of alleyway projects in response to funding made available for housing area improvements and tenant-led initiatives. This is supported by the story presented in interviews with *Interviewee 1* and *2* who recall being inspired by an alleyway planting project in a nearby street, which is no longer active:

"The people who started (the garden), the fella who started that was getting money left right and centre from all different charities…he told me… they had a great big thing with swings… they had a massive pool, this high right round, because we went to see it, and they had it really lovely for the kids, in the middle of it… That was eight years ago. But they're not doing it no more, there's nothing there now."

In this way, CMP is both visionary and reactionary; essentially, pragmatic in its initial capacity to make the most of funding and policy support available, yet proving less realistic in terms of capacity in more recent phases, choosing to maintain a scale of planting which is out of proportion to the capabilities of the remaining members.

9.7 Future-Proofing

9.7.1 Key Factors Affecting Longevity

The singular key factor which continues to prove challenging and potentially insurmountable for the longevity of CMP is the group profile. Its activities have become the sole responsibility of two individuals, one of whom is increasingly incapacitated by illness. This may ultimately prove unworkable as a community project and the core activities of planting will continue at the discretion of one or both members maintaining an area of alleyway planting directly in front of their own households. In this sense, the life of the project as a CSGI, rather than a private garden, is extremely limited unless significant efforts are catalysed and supported to recruit new members of a more diverse profile.

9.7.2 Key Factors Affecting Resilience

There are three key factors affecting the adaptability and resilience of CMP. Firstly, accessibility of the site to members other than residents is a key barrier to involvement and engagement. This is essentially a resident or tenant association project, without the corresponding structure. There is potential for LHT to reinvigorate the project by acting as facilitator in place of the remaining committee members, whose capacity for formal decision making has proved ineffective for several years. Secondly, the volume of the planted area and the choice of planting is also very resource intensive, for example the decision to fill relatively small containers such as hanging baskets with annual bedding plants which require refreshing every year. The amount of watering this requires is

an additional sources of intensive labour for the members, particularly in warm or dry seasons; this will be increasingly unsustainable as weather patterns become increasingly unpredictable in a period of climate change. Thirdly and perhaps most significantly, is the lack of understanding at the core of the group in terms of benefits of a formal governance structure. Without adequate support and focused training to increase members' awareness of the procedures that must be adhered to as a constituted organisation and enhance their capacity to administer decision making; it will most likely prove impossible for CMP to convince a wider group of stakeholders that the social and environmental benefits of the project are deserving of additional contributions of time, energy, resource and capital investment. Without this additional input, the momentum of *Interviewee 1* and *2*, two increasingly tired individuals, will likely falter and fail, despite their best intentions and claims of determination.

9.8   Summary

The key barriers to supporting longevity and resilience of CMP are identifying a programme of skills and training for the two core members, particularly around their understanding of their business model. Depending on the receptivity of *Interviewee 1* and *2* towards upskilling, especially concerning their approach to formal governance procedures to make the activity of CMP more accessible, accountable and transparent, it may be possible for CMP to adapt and become more sustainable. Healey (2006: 124), whose observations are particularly useful in the context of the Cecil Mews project, reminds us that people 'co-exist in shared spaces' and that '[w]e often do have important relations with neighbours. Collaboration among neighbours can provide helpful solutions to a lot of challenges of accomplishing daily life', adding that '[n]eighbours – in the street, the neighbourhood, the city and the region – often share common concerns'. And further, in reference to the implied meaning of this creating community in this context Healey (2006: 124) suggests that '[t]his does not mean that they have rediscovered *gemeinschaft*[3]. It means they are re-working the meaning of a place-based *political community.'*

However, an inherent weakness in the project is the limitations relating to the site characteristics, principally the fact that the alleyway is a private space only accessible to residents of households. If residents are positive about the project and its objectives, they are likely to support and encourage wider support of its activities. However, as has been the case historically with CMP, if residents are critical and ultimately unsupportive of the activities, it is possible that individuals can become barriers to engagement. This is perhaps an inherent and insurmountable weakness in alleyway projects, and would require consistent and bespoke support mediating between tenants' concerns to prove sustainable in the long term. A key finding relating to the dynamics at play in projects at this

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[3] *Gemeinschaft* is a term drawn from German sociological theory (Healey, 2006: 124) and can be defined as a 'place-based social community… where everyone knew everyone else and shared experiences and values together' (Healey, 2006: 77).

scale and of this nature is the role that cultural geography can play in supporting or hindering community relations, necessary for the project management of a green infrastructure site such as CMP. This finding would equally be relevant to considerations of medium and long term management of green infrastructure typologies deliverable at a comparable scale and in a comparable context, for example street tree planting initiatives such as those being managed and funded by The Mersey Forest.

Overall, the main finding from the case study of CMP is the dual role personality can play at the community-scale. For at least half of its lifespan, CMP has been characterised by a dynamic partnership between two friends with the tenacity and resourcefulness to hold a vision and organise day to day tasks to deliver multiple benefits for the wider community. It is this familial story which captured the imaginations of a wide network of supporters, primarily interested in supporting from afar. Divergently, it is the same partnership which has resulted in the isolation of the group, with a number of localised struggles emerging around the rightful ownership of a project which is set up as a community initiative, and yet consistently fails to attract engagement from community members. In this sense, CMP provides an opportunity to be critical about the impact of personality on longevity and resilience within CSGI groups and projects. In the case of CMP, the decision to become a constituted organisation has resulted in a rigidness which has ultimately made the group brittle. However, with a better understanding of the workings of their adopted governance framework, CMP could have been committed to a fluid approach to leadership where the nodal points in a group are encouraged to move around, allowing individuals to avoid becoming 'burnt out', and preventing a concentration of power in one or two dominant personalities to the disbenefit of the group as a whole.

CHAPTER TEN

10. Formal Project – Lister Community Green

10.1 Introduction

Lister Community Green was selected as an example of a community-scale green infrastructure group which is formal in character, with a similar approach to formal decision-making as the Formal Group type described in Chapter Seven. However, the key difference between a Formal Group and a Formal Project relates to the autonomy of the group; Formal Projects are defined by their relationship to a 'parent' organisation, which describes a constituted body or group with ultimate responsibility for the community-scale green infrastructure project, often with sympathetic but different objectives. In the case of Lister Community Green, the 'parent' organisation is Lister Residents Association, a body constituted in 1995 by residents of the Lister Crescent, a small neighbourhood of detached and semi-detached dwellings in Kensington, an inner city area of Liverpool.

As with the other case study chapters, this chapter is structured around the main themes of site and group characteristics; governance; membership; stakeholder relationships; and future-proofing. The case study methodology involved a number of site visits to observe the site character, and meet with interviewees including the Chair of Lister Residents Association, who also organises the majority of the activities of the Lister Community Green project. Conducting interviews on site also allowed more informal interaction with other residents who were participants in the Lister Community Green project, and neighbours who lived in close proximity to Lister Crescent. This also presented an opportunity to meet with a visiting judge from the North West in Bloom initiative, of which Lister Community Green is an enthusiastic and award-winning entrant. This individual is *Interviewee 2* and provided an additional insight into the character of the group and the context of their activities more broadly as someone closely engaged with community-scale green infrastructure groups.

Lister Community Green was started as a green infrastructure project in 2004 by the residents of Lister Crescent, and became a key focus of the work of volunteers already engaged with Lister Residents Association.

The core objective of the project was to transform a plot of land sitting centrally in the Crescent from a play area with limited functionality into an attractive area of landscaping and a private garden for the use of members of households overlooking the site. Lister Residents Association have successfully bid for funding grants for the creation and maintenance of the Lister Community Green project, and the practical work involved in managing the site is carried out by volunteers who live on Lister Crescent. A key characteristic of the project is their annual calendar of community events when the garden is open for the use of residents from neighbouring streets; and in this way, although

the site is a private amenity for the residents of Lister Crescent the remainder of the time, on the occasions when events are organised, it becomes a focal point in the wider community for celebration and community cohesion.

10.1.1 Interviewee Selection

A key limitation of the case study relates to selection of interviewees. In part due to the small size of the group's membership – Lister Crescent has approximately ten dwellings and not every household were actively engaged in the management of the site – and in part due to the central role of *Interviewee 1*, it proved difficult to engage as large a sample size of interviewees as planned for within the research design. This in turn diminishes the richness of data which the case study has drawn its findings from, which is a methodological limitation. However, the case study has an important role to play within the whole case study approach as it represents the fourth type of community-scale green infrastructure group identified within the typology (Chapter Five). As such, to present a coherent case for delineating community-scale activities along the lines of governance and organisational structure, it was central to the thesis to acknowledge methodological limitations and conduct as robust an analysis of empirical data collected as possible. The role of documentary evidence relating to the project, and data collected from interviewees with a strategic interest in CSGI more broadly, is therefore utilised as a triangulation methodology to check the findings drawn from the narrow focus of interview data with Lister Community Green's participants as only one volunteer was available and willing to share their experiences during the timescale of the study.

Data drawn from interviews with *Interviewee 1* make up the greater part of the interview data relating to the group's character as it was not possible to compare and contrast these findings with other members of Lister Community Green who were unavailable for interviewing. However, it was possible to draw comparison from interview findings with *Interviewee 2* who has been an active stakeholder in Lister Community Green for a number of years as a judge for the North West in Bloom initiative; and prior to this role, he historically held a position within the parks and open spaces department of Liverpool City Council and was aware of the project and its activities during this time also. Similarly, *Interviewee 3*, an officer with Liverpool City Council involved with community-scale green infrastructure activities, was able to share their perspective of the experiences of Lister Community Green as a CSGI Project. In terms of checking specific facts or figures relating to the group's activities shared by either *Interviewee 1* or *2,* documentary evidence relating to funding grants or awards received by the group was available through online data searches; and copies of a newsletter distributed to households in proximity to the site, detailing the activities of Lister Community Green, were also made available by Lister Residents Association to help build a more coherent picture of the case study.

Lister Community Green (volunteer)	Strategic (Partner/Stakeholder)
Interviewee 1	Interviewee 2
	Interviewee 3

Table 10.1 Interviewee selection - detailing types, roles and number of participating interviewees

10.1.2 Site Character

The site is characterised by its position in the centre of Lister Crescent, which is a small cul-de-sac in a residential area of Kensington, an inner city area of Liverpool. Although the site sits only one street behind a main thoroughfare through the area, Kensington High Street, the character of Lister Crescent in urban design terms is one of a quiet, suburban neighbourhood of detached and semi-detached homes with front and back gardens.

Figure 10.1 Photo of houses on Lister Crescent, taken from within the site boundary

The site of Lister Community Green is a small area of landscaped garden with perimeter fencing on each side and a locked gate to gain access on the edge furthest away from the road off which the cul-de-sac is located. Residents of the houses of Lister Crescent have access to the site at all times and are provided with a key for private use of the garden whose features include several hard landscaped areas with seating, a lawn, ornamental planting areas, a container with children's outdoor play equipment, and an area for composting garden waste.

Figure 10.2 Photo of site showing a mix of hard landscaping and lawn, a seating area and a 'lamb banana' sculpture acquired by the members of Lister Community Green to celebrate the 'European Capital of Culture' celebrations in Liverpool in 2008

Figure 10.3 Photo of site showing ornamental planting and sculptures commissioned by members of Lister Community Green, including two plinths to commemorate the 'European Capital of Culture' celebrations in Liverpool in 2008 and Liverpool's 800th birthday

10.1.3 Group Character

The group is characterised by the involvement of *Interviewee 1*, a resident of Lister Crescent and the Chair of Lister Residents Association. Although it was clear from site visits that other residents are actively involved in the management of the site, and that other residents helped to

organise activities and events, it was the enthusiasm of *Interviewee 1* that appeared to shape the group's approach to creating and maintaining a site of community-scale green infrastructure. There are a number of factors which help to illustrate this central role played by *Interviewee 1*, which will be described in more detail throughout the chapter; however, in the context of group character, the role of Lister Residents Association is key to understanding the nature of Lister Community Green as an example of community-scale green infrastructure.

Lister Community Green is a project with the sole focus of managing a site of green infrastructure located in the residential street of Lister Crescent. It was set up in 2004 by the members of Lister Residents Association, which had been operating as a constituted group since 1995. According to *Interviewee 1*, the members of Lister Residents Association were already working together informally as friends and neighbours when a decision was taken at a sub-regional level for 35 neighbourhood partnerships to be created across Merseyside to enhance community involvement; a decision in part influenced by the availability of 'Objective 1' area European funding, a programme of strategic investment between 2000-2006. Lister Residents Association formed as a constituted body with a formal governance structure, with Chair, Treasurer and Secretary in 1995, and around the same time *Interviewee 1* became involved in the East Liverpool Partnership, one of the 11 partnerships created and led by Liverpool City Council to advance the community involvement objectives of the wider strategic programme of investment. *Interviewee 1* held a number of senior management positions within the East Liverpool Partnership, and was involved in the creation of 'The Parks Partnership', an initiative to improve five parks in response to community consultation highlighting the importance of green infrastructure at the neighbourhood level. Moreover, *Interviewee 1* became a senior Neighbourhood Officer during this time, and reports being *"well trusted within the community"* as a result of this role.

The significance of *Interviewee 1's* professional experience within the regeneration sector of Liverpool City Council became particularly significant for the ambitions of Lister Residents Association when in 1998 Kensington was selected as the area of Liverpool to benefit from the New Deal for Communities partnership programme, as an official regeneration area. The core objectives of the programme related to outcomes associated with three place-based phenomena: crime, community, and housing and the physical environment (Batty *et al.,* 2010: 7). *Interviewee 1*'s role as manager of the 'Parks Partnership' meant that he had a principle role in the creation of the Kensington Regeneration team, an outcome of the New Deal for Communities programme which was characterised by its ambitions to be as community-led as possible. As such, *Interviewee 1* was conscious that he could provide a conduit between local residents and decision makers, as a trusted member of the community, however during the interviews his opinion of the success of the programme was not altogether positive: *"It didn't do what it should have, although a lot of good things were achieved."*

A key characteristic of the group, which will be described in greater detail in the Funding section, is a propensity for identifying funding opportunities and successfully bidding for funding grants to support the group's activities. On reflection, it is clear to see the opportunities that have been made possible by the various roles *Interviewee 1* has played in strategic decision making within the neighbourhood and regeneration sector; and how the group's capacity to act on these opportunities, in no doubt due to the input of *Interviewee 1*, which has in great part constituted an effective approach to sustainability, albeit reliant on one individual's continued membership. In this sense, the characteristic of the group as a Formal Project is less defining for its capacity for resilience and longevity, than the influential part played by a well-connected individual. Thus, the status of the group as Formal Project, denoting its constitutional arrangements and its affiliation with an organisation with non-green infrastructure objectives, proved to be less significant than its informal approach to governance through the vision and personality profile of one key member; which in turn is a finding shared with all four cases across the typology.

10.2 Governance

10.2.1 Legal Status

Lister Community Green (LCG) is a project set up and run by the members of Lister Residents Association (LRA). The land that is utilised for LCG is owned by LRA and has been successively landscaped through the efforts of residents and suuccesssful bids for funding over a number of years since the group's creation in 2004. LRA have been a formally constituted residents association since 1995. Therefore, the activities pursued by their members to benefit the LCG project are initiated through the legal entity of LRA; and therefore benefit from a long-standing governance structure, endorsed by a Committee with formal decision-making procedures, and a track record for acting formally as evidenced by archives of meeting minutes. During a site visit *Interviewee 1* who acts as LRA Chairperson, made a number of these historical documents available for review to evidence the longevity and the formal approach of the organisation. Furthermore, this structured approach maintaining records of the group's activities and evidence of an accountable, formal approach to governance, is a contributory factor to the group's propensity for resilience and subsequent longevity as insight from across the case studies indicates that this is the 'baseline' information a funding or award body would expect a group to evidence to verify eligibility.

10.2.2 Group Structure

There was evidence that LRA conduct their governance procedures in a formal manner, with regular meetings, attended by the Committee and other core members, and that decisions are made in a constitutionally correct way, for example with a quorum of members present, and that official records ('minutes') are taken and archived for future reference. *Interviewee 1* acts as the Chairperson of the group and has occupied this role since 1995. When asked during an interview whether there

had ever been another member who had shown interest in being Chairperson, *Interviewee 1* suggested that committee members were re-elected annually at an annual general meeting as per the constitution, giving other members the opportunity to take on the role. However, the size of the group and the 'established' nature of the small neighbourhood of owner-occupiers (as opposed to the oftentimes more transience character of a neighbourhood with higher levels of private or rented households) resulted in a fairly stable, unchanging committee membership, that according to *Interviewee 1* everyone was happy with.

The role of tenureship in the relative longevity, of membership and subsequently the group itself, is discussed by *Interviewee 3* as a significant component of resilience affecting CSGI:

"So it's how does that group reflect the demographic. So I would say that's where your age diversity comes from in terms of that profile. And we see that because different areas have got very long term residents in certain streets around Liverpool particularly. And they've stayed there because they're committed to the area. In some areas where there are owner occupiers who have been there for a long time and you have a more transient population because properties have been given up the private rented sector, again the owner occupiers are more committed to the area. So that's something else to look at, what's the tenure balance that influences? Are they long term tenants if they're renting; if it's a social housing property what's the tenure like around that comparatively? People do tend to stay in their social housing properties; whereas private rental tenants tend to move a little bit more. That's a big nature around the transience of the population."

Interview transcripts with *Interviewee 1* (core member) and *Interviewee 2* (strategic partner), documentary evidence (group archives), and observations made during site visits triangulate to evidence that *Interviewee 1* is the primary driver of governance procedures within the group. Acting as Chairperson, keeper of the group's archives, and creatively recording the group's 'story' through documents like 'Lister Community Green Report 2014' (see Appendix), all amount to a significant contribution to the group's capacity for longevity; not least because inherent in all of these approaches is a recognition of the transparency and accountability required from a group in order to be in a position for external stakeholders in a position of power and influence to be able to offer the group support (finance, training, asset transfer, access to green infrastructure, professional involvement).

Beyond *Interviewee 1*'s involvement, there was evidence from all three sets of data that the group structure relied on core members taking 'ownership' of a particular task, as it suited their personal skills or interests; and other regular members were taking on roles and responsibilities at important times for the group, such as around the time of year when the site will be visited by judges from the award initiative, North West in Bloom, or in the period leading up to a seasonal event such as the annual 'Lister Summer Barbeque' organised by LRA. *Interviewee 1* suggests that all gardening activities stop in the period November to March, and during the 'growing season' there are defined

roles; such as, one key person mows the lawn every seven to ten days. In addition, members of LRA and other neighbours take on specific maintenance duties for the site; for example, one person is in charge of painting garden features and furniture if required, someone else is in charge of woodwork, and someone else takes a lead on planting and other gardening work. During two site visits in July in 2014 it was possible to observe individual members preparing the site in these various ways ahead of a visit from the judge from 'North West in Bloom' (*Interviewee 2*).

In terms of the how the group structure and the group profile interact (Section 10.3.1) in this case study, evidence from the interview transcripts with *Interviewee 1* and observations made during site visits, indicate that there is a factor of gender in the distribution of activities across the group. Subsequent interviews with other members, and additional site visits would serve to further verify initial observations; however, the members leading on the more physically involved tasks were all men, whilst the activities relating to organising events, and the less physical tasks such as watering and fertilising the planters were led by women. *Interviewee 1* suggests that *"certain people do certain things"* demonstrating that a shared understanding of the formal and informal arrangements underpinning the group structure and the group's activities is critical to longevity of LCG as a focus of LRA.

10.3 Membership

10.3.1 Group Profile

The core members are residents from the houses which are situated in a cul-de-sac around the gated greenspace which is managed by the group. In terms of assessing the factors and forces affecting the group profile of LCG, the site character is a key factor. The site is mainly a delineated green space at the centre of Lister Crescent, bordered on all sides by a fence and gated, with access permitted only to core members of the group and the residents of LRA, which represents the same group of individuals. However, planting extends beyond the central area of green space, and there are planters and hanging baskets filled with annual and perennial plants creating an attractive and 'green' environment for all residents (Figure 10.4).

Figure 10.4 Planters and hanging baskets, created and managed by members of LCG

Although not every resident is actively involved in the environmental stewardship of the space, which can be a daily responsibility in the summer months, to carry out tasks such as the watering of planters, there is a sense that residents of Lister Crescent are motivated to support the activities of the LCG's core members because of the benefits they receive from living in an attractively landscaped neighbourhood. *Interviewee 2* reflects on the group profile of LCG, and compares their approach to environmental stewardship and volunteering to other groups he has met during the course of his role as judge of CSGI groups as part of the North West in Bloom initiative. His comments also serve to highlight the current political and economic context of many CSGI groups, indicating the impact financial instability has on a group's capacity for resilience and longevity. He presents LCG as an exemplification of a group who are exhibiting the skills needed to be resilient in a period where external stakeholder input and access to funding and resources to support voluntary activity is diminishing. When asked what insight, if any, he had gathered from meeting a large number of CSGI groups, including groups matching the profile of the four case studies included in this thesis, he suggested he had reflected on the difference between the groups in relation to their profile, and membership capacities:

"The variation is, if (the group) is 'bought off the shelf' or the community spirit is the driving force behind it. In terms of resilience, parks are burdened financially; they are looking for The Land Trust and other organisations to manage them. Lister Green is fairly unique. It's tremendously well organised and the most organised in terms of local residents taking ownership." (Interviewee 2)

The key factors emphasised in *Interviewee 2*'s perspective relate to the role of the group, and the capacity, not just of individuals within the group, which has been a theme throughout the case

studies, but how well the group members work together to manage a site of green infrastructure. This state of stable and effective co-working is described as *ownership* and relates not to a legal or financial status of land-ownership (although that is a factor which is different in the case of LCG compared to the other groups explored); but to the group feeling that they have power and influence to shape the site of green infrastructure they have access to. *Interviewee 1* echoes *Interviewee* 2's evaluation of the effect of the group profile on LCG, describing the successes of the group as a result of the *"support of everybody, all unified and willing to contribute."*

Furthermore, *Interviewee 1* hypothesises the reason for this cohesion between group members, comparing the type of environmental stewardship and volunteering pursued by members of LCG to that of traditional allotment gardening. In allotments, he suggests, each person has their own *"little patch, their own plot of land and a shed"* and that people are *"on top of each other but separate"*. In contrast, in cases like LCG, volunteers are *"together and separate"* describing the situation where residents live separately in their households, and manage their own private gardens without the input of group members; whilst working collaboratively on the design, delivery, management and maintenance of the land 'belonging' to LRA. He goes on to describe this typology of territory as critical to maintaining a positive approach to the collectivisation of the green infrastructure assets belonging to LCG: *"There is no defined line of what's his and what's hers; nobody owns it and yet everyone owns it."* It is possible that the role of land ownership and the proximity of the site to where people live are significant drivers for engagement.

10.3.2 Personalities

The evidence from interview transcripts, informal conversations with other members during site visits, and documentary evidence relating the group's activities, corroborate to show the role of *Interviewee 1* as the "engine" of the group; acting as Chairperson, primary fundraising officer, archivist of the group's activities, which in turn supports the ongoing sustainability of group by articulating the social outcomes of LCG in a coherent and consistent way in a format expected from funding programmes. The skills involved in fundraising are technical and require knowledge and skills of a particular way of writing and recording information about the group and its objectives; for example, applicants are often asked to define and describe how they will measure their impact. For LCG, the presence of *Interviewee 1* was critical in this regard, and there is evidence from the interview transcripts that he was able to directly apply his professional experiences as a senior neighbourhood officer, and his qualifications in community work, to the role of Chairperson and core member of LCG. In this regard, the contributions of one core member were instrumental in creating the conditions for investment, and later, growth for the community-scale green infrastructure project.

As discussed throughout this chapter, the findings presented are limited insofar as the data collection sample is smaller than the other case studies. However, in one aspect, the findings from across the

interview transcripts, field notes and informal conversations with members on site visits, and review of documentary evidence are concurrent in one crucial regard: and that is in relation to the central role of *Interviewee 1* as the driver of Lister Residents Association, and as the catalyst for Lister Community Green. In an interview with *Interviewee 1*, he describes how his work in the community outside of his role as Chairperson for LRA was critical for transferring benefit to the group. *Interviewee 1* was able to draw directly on his experience working with the Kensington regeneration programme as part of the East Liverpool Partnership, one of eleven partnerships in Liverpool, and one of thirty five partnerships in Merseyside, set up to manage £700m of Objective 1 funding and support made available to the city region through the European Structural Fund available from 1994-2006. As such, LRA were in an advantageous position to benefit from *Interviewee* 1's personal and professional insights into what was required from a community group to be successful. *Interviewee 1* reflects how he was *"well trusted within the community"*, perhaps in part because of his advocacy role within such a significant regeneration project, and that this *linking* social capital helped to forge the foundations for LCG to be a project with the propensity for resilience.

10.4 Funding

10.4.1 Fundraising

Interviewee 1 is open and transparent about the importance of available funding in the decision by Committee members of Lister Residents Association (LRA) to set up Lister Community Green (LCG). He recalls that the housing association Riverside *"were looking for a project to move forward with",* and although the houses in proximity to "The Field" which became the site for LCG were owner occupied, Riverside took the decision to award LRA £6700 for Lister Community Green through their 'Community 7' initiative (Figure 10.5), even though the owner occupiers of Lister Crescent were not Riverside tenants. This initial injection of funding was significant for the group as it gave them money to spend up front of improvements; and *Interviewee 1* remembers that this money paid for the first step of landscaping the site, including planting the hedge that now delineates the green.

Figure 10.5 Plaque showing financial contributions from strategic partners within the area

Interviewee 1 explains that from this initial capital funding from Riverside, the group were successful in their applications for funding in successive years, raising the money to implement the hard and soft landscaping which is now visible at the site of LCG. In the interview transcripts with *Interviewee 1,* several Big Lottery awards are referred to, and there is evidence from the Big Lottery 'Awards for All' website that LRA were successfully awarded £4,500 for their LCG community-scale green infrastructure project in August 2002. The fundraising skills brought to the group by *Interviewee 1* are described in his own terms in interview transcripts:

"It is necessary to demonstrate what you are doing within the community as a consequence of funding, to give examples, to be clear and transparent in terms of governance, and to show progress and development over time." (Interviewee 1)

These comments reflect an individual who is a skillful and experienced fundraiser; which is an incredibly valuable asset for a community-scale voluntary group. In particular, in this instance, an individual who additionally recognises the wider political and social context within which the group are competing for funds:

"Small scale funders are now in competition with the 'big boys', the professionals. The Lottery Fund is now distributed much more widely. And bigger groups or organisations are now competing for pots of money that previously only smaller scale groups would have been eligible for."

Interviewee 1 goes on to say that the group's approach to raising funds through membership collection has meant that the group is relatively self-sufficient:

"Yet, if we never get another bid, we're okay. We're very sustainable. We ask residents for £2 per week, which is about £1000 per annum in total. It was £1 per week up until 2014, spread across 15 houses."

The fact that LRA are able to charge residents £2 per week, and to double the charge in 2014, suggests that the group value the work of the core members, and see the reciprocal benefit of having access to a green space and an area for community events.

10.4.2 Stakeholder Contributions

The most significant stakeholder contribution observable across the different sources of data for Lister Community Green was the impact of the group's efforts to enter the project into a number of regional award programmes. 'Lister Community Green Report 2014', a newsletter style report produced by members of Lister Residents Association, details a total of five awards for LCG in 2013. This included three awards in the North West in Bloom 2013 awards: *'Outstanding Achievement'* certificate in the 'Small Neighbourhood Garden' category; *'Community Gateway Trophy'* for their outstanding achievement in the 'Small Neighbourhood Garden' category; and the *'Helena Homes Trophy'* for the 'Best Overall Neighbourhood in the North West' category. In their evaluation of the significance of the awards, LRA acknowledge the wider impact of the award programme in its attempt to facilitate and enhance community engagement for wider social outcomes:

"This year there were 290 entries from across the North West taking part in this scheme which is part of the Government's drive for Cleaner, Safer, Stronger, Greener Communities, with this scheme recognizing the tremendous efforts and work people have done throughout the year to help build vibrant and sustainable communities throughout the North West."

By including an insight into the strategic drivers of a scheme like the Royal Horticultural Society's North West in Bloom annual awards, LRA are communicating effectively their capacity to understand and build responses to the drivers for social outcomes through the delivery and maintenance of local-level green infrastructure. And in this way, they represent an example of a CSGI group which is very likely to succeed in their ambitions, as they will remain attractive to funders and judges in a position to recognise and reward a community's efforts to pro-actively co-design and enhance where they live. The explanation in the LRA report (2014) continues:

"The Lister Community Green has provided opportunities for residents to get involved in community life with a 'hands on' approach. Residents young and old can help to make a difference and take pride in where they live while taking an active role in the planning and delivery of the work, with

tasks becoming a way of life that has motivated the community to take complete ownership of this unique opportunity for us to contribute to the urban greening of an inner city area, whilst also improving our neighbourhood."

The capacity of LRA to conceptualise their work through LCG, and the place it has in a wider picture of regeneration and urban improvements across the Liverpool City Region arguably reflects the experiences and knowledge brought to the group by *Interviewee 1*, who takes a leading role in producing the reports and meeting the demands of funding applications. In addition, LRA were recognised in 2013 by the 'Sunday People Cultivation Street Awards', and were selected as *'North West Regional Winners'* and *'Generation Street Category Winners'*. The latter was awarded in acknowledgement of the group's efforts to encourage young people to be involved in the project; and as such, recognises LRA's efforts to include young people in LCG by providing play equipment, and organising the Christmas party and the Summer BBQ events to enhance engagement with families and young people. In this way, the role of stakeholder contributions helps to determine the focus of LCG, and in turn the group profile.

It may be argued, that in light of the pro-active, strategic, and sustained efforts of LRA since 1995 to improve and continually enhance the public realm around Lister Crescent, the residents association as an organisation representing the community of residents which makes up the small neighbourhood are enacting the type of local governance which forms the focus of the policy rhetoric behind the Localism Act and the Big Society ideology. This in turn, is supported by *Interviewee 3*'s comments which describe the role of local authority agencies, such as the 'Street Clean' team responsible for street cleansing. In the case of LCG and the active leadership of LRA, many of these tasks otherwise led by local authority actors and agencies are being replaced by the residents:

"Our Street Clean team, which looks at street cleansing, fly tipping etc. might do the preparatory primary community engagement in an area that's repeatedly fly tipped on, how can we get you to, can we build some community ownership from that. Or again it could be coming back to that singular committed individual who goes I'm interested and I want to do something in that green space."

In the case of LCG, evidence from interview transcripts and site observations would suggest that the *"singular committed individual"* is *Interviewee 1*; however, there is clearly a collaborative community approach in the case of LCG. Another point emphasised by *Interviewee 3* is the emergent trend of vacant land being adopted by a voluntary community group, often with the focus of greening and growing food temporarily:

"The one thing that we've done in terms of land that be it privately owned or be it publicly owned, is where land is vacant because development hasn't occurred or development is going to be delayed,

it's using something that's like a meanwhile use. So it's essentially recognising and getting the community to recognise that you are not owning this, you are using it temporarily, beautifying it, absolutely, making it a more functional space for the community, which prevents fly tipping, which promotes the community aesthetic."

In the case of LCG, the residents of Lister Crescent acting in the capacity of LRA, took a pro-active approach to beautifying the land known as "The Field" in the centre of the neighbourhood; much in the way described by *Interviewee 3*.The key difference however, is that residents of Lister Crescent had been legal landowners of this site since the 1950s, and therefore were in a position to develop the land more permanently as a site for levering betterment for the community. It is difficult to find examples of CSGI groups who have taken *ownership*, in the way described by *Interviewee 1* in his reflections of the enthusiastic voluntary commitment to LCG over the years by the community, of a site which is knowingly going to be developed. There is some evidence in the literature (Jerome, 2012) in fact, to the contrary; that an explicit status of temporality for a site can be an inhibitor to a group's resilience, and particularly off-putting to membership recruitment. Furthermore, examples from this thesis suggest that *ownership* need not necessarily infer legal ownership, as in the case of LCG, but does involve a sense of familiarity, every-day and permanence, as in the example of the core members of the Cecil Mews Project and Adamson Street Alleyway Project (Chapter Nine), who were long-standing tenants of social housing and had adopted the alleyway as an extension of their private gardens.

10.4.3 Innovation

Interviewee 1 suggests that in 2008 the group realised that in order for the outgoing costs of LCG to be sustainble for the group, they would need to shift some of their planting focus to perennials[4], although annual plants would still be bought and planted to bring *"annual colour"*; reflecting the understanding within the group of the different functions played by different green infrastructure elements within the site. Other examples which were mentioned in interviews with *Interviewee 1* as to how the group was creatively responding to the need to minimize the overall annual cost of the project included the decision by the Committee members of LRA to create a 'pro forma' for residents, ahead of an event, to capture data about how many people would be attending and what dish of food they would like to prepare to share. *Interviewee 1* suggests that this reduced the costs of community events, which would historically have been supported from funds fundraised by the core members; but that it also encourages a sense of *belonging* and *ownership* over activities and events from the other, non-core (but regular) members.

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[4] 'Perennial plants' describe plants that grow back each year without needing intervention from 'the gardener'; in contrast to annuals, which only last one year and subsequently need to be replaced year in year out to achieve the same landscaping effect within a garden.

10.5 Support

10.5.1 Local Networks

There was no evidence from interview transcripts, site observations or documentary evidence that LRA were actively promoting LCG as a project within a wider network of CSGI projects. Insofar as LRA were successful in entering LCG as an applicant for green infrastructure award programmes, they were considerate of the outputs and impact of the project and this is reflected in the group's communications to both internal and external stakeholders about the positive effect the project has had on the local area, and residents beyond Lister Crescent:

"The Lister Crescent Community has transformed a neglected site into a well-managed and sustainable green space. Not only does it have positive impact on the look of the area, it makes people feel proud of where they live and builds a sense of belonging and ownership. This project has helped to keep the community motivated and has provided great opportunity for social inclusion and interaction. This has had a major impact on the local environment by providing a sustainable green site in an inner city location that has also helped to improve the neighbourhood, support the regeneration of the area and complement the renaissance of Liverpool."

10.5.2 Professional Involvement

The group, LRA, have had minimum involvement from external stakeholders in terms of providing additional professional support for their activities to deliver green infrastructure benefit through LCG. However, this is mainly a reflection of the contributions made by *Interviewee 1* as a community development professional within the group; rather than a reflection of the group's lack of need for such professional involvement. It would be difficult to assess how much 'in-kind' contribution *Interviewee 1* has made to LRA, and subsequently LCG as LRA's major focus as a residents association; however, it is clear from across the data recorded in the case study that the contribution is valuable, and potentially critical, to the longevity and resilience of the group.

As a senior local authority worker, *Interviewee 1*'s experiences as a Senior Neighbourhood Officer would have included a combination of strategic planning, business planning, community engagement, fundraising, relationship brokering, and delivering and monitoring against targets. These are all professional skills which are employed in the management and long-term maintenance of a site of green infrastructure, as evidenced across the cases. As such, by having an individual within the group who can anticipate how and when these skills will need to be employed in order for the group to envision, and deliver against, its objectives is a significant undertaking; and one which is arguably not effectively captured in the literature relating to the Government's expectations of what a voluntary community group will need to consider before taking on the management of a site

of green infrastructure; nor in their consideration of what tangible barriers there are to volunteering and environmental stewardship.

10.5.3 Internal and External Stakeholder Relationships

The marking sheet of the North West in Bloom (NWIB) award, which was shared with the author by *Interviewee 2* who was familiar with the group and its activities in part because of his role as a NWIB judge, indicates that a CSGI group is assessed on more than just their contribution to green infrastructure. The three sections of the marking sheet are: 'community participation', 'environmental quality' and 'gardening achievement'. As such, groups who enter the competition are assessed on their capacity to gather members of the local community together to form a 'neighbourhood action team'. The capacity to 'engage with the neighbourhood and other bodies' is also assessed; recognising the role of internal and external stakeholders. Within the section on 'gardening achievement' it is also noteworthy, in terms of a focus on longevity, that NWIB judges are expected to record evidence that a group has adopted an approach to site maintenance, and that observable attempts have been made towards 'enhancement through creativity and innovation', which in turn may influence resilience. Finally, the NWIB criteria for awarding excellence within a CSGI group is also interesting in that it judges whether the 'gardening has improved the area'; recognising the impact access to a site of CSGI can have on the wider community, levering positive social outcomes for more than just core members.

10.6 Activity Focus

The role of award initiatives is critical to the group, and evidence of how the seasonal group activities are driven by the group's collective ambition to achieve a particular award, such as North West in Bloom, is foregrounded in each of the data sources for the case study, including interview transcripts, site visits and observations, and documentary analysis. The group work across the season to make the garden attractive in time for the judges to visit ahead of prize giving; and *Interviewee 1*suggests that some voluntary activities are seasonal or more intensive in certain months of the year as a consequence. However, the work in preparation for the award initiative is not singularly focused on the physical aspects of LCG, and a combination of interviews with *Interviewee 1* and *Interviewee* 3, and the 'Lister Community Green Report (2014)' serve to emphasise the role of community participation in LCG:

"Lister Residents Association recognises that the Lister Community Green is not just a place to be developed and simply left to be looked at, although this is important.Lister Residents Association actively promotes the use of Lister Community Green for a range of activities that involve the local community in planning, co-ordination and delivery to support the development of Lister Community

Green. The provision of these activities helps to celebrate the rich diversity of our community as well as building upon a true sense of community ownership."

The members of LRA, in compiling the 'Lister Community Green Report (2014)', proactively recognize and communicate the manifold benefits of community engagement, through the activities associated with LCG. The *'diversity'* that they refer to is observable in documentary evidence, which includes photos from 'Community Fundays', and shows community members of all ages participating in the events. This inter-generational characteristic of LCG was confirmed by observations by the author on site visits to Lister Crescent.

Although community participation is a focus of LRA in their efforts to deliver and maintain LCG, the theme of 'gardening achievement', highlighted in their report (LRA, 2014: 3), appears to be the primary focus of the core members. *Interviewee 1* was very enthusiastic during one site visit, and the author recalls an extended guided tour, complete with a detailed narrative of how the group had transformed LCG from a field, or a 'neglected site' (LRA, 2014: 3), into a landscaped recreational area. It is also noteworthy that LRA are able to clearly articulate the environmental and social benefits arising from the activities of LCG:

"It improves the local environment; it generates community confidence; it creates new facilities; it connects people with nature; it supports education and provides training; contributes to the regeneration of the neighbourhood; improves the local environment; contributes to the ecological sustainability and natural built environment; generates community confidence; reduces conflict; stimulates inward investment."

In this sense, they are perhaps the most aware of all the groups illustrated across the case studies, of how their locally-focused ambitions and objectives are relevant to the wider policy objectives driving strategic decision making, such as where to invest diminishing money and resource to achieve the most impact for individuals and communities: in other words, to "achieve more, with less". Another exemplification of this is their decision to clearly define how their activities match the five strategic objectives as defined by Liverpool's 'Decade of Health and Wellbeing' public health initiative ('Connect, Be Active, Take Notice, Keep Learning, Give'). LRA suggest that they meet all five principles through their LCG activities through *"hands on involvement in community gardening; engaging with the community; volunteer-led; creating benefits for the community; full sustainability; community owned"* (LRA, 2014: 4).

10.7 Future-proofing

10.7.1 Key Factors Affecting Longevity

Lister Residents Association has existed as a formal, constituted community group since 1995. In 2004 they made the decision to set up Lister Community Green as a Formal Project to encapsulate

their ambitions for a green infrastructure approach to community development through a 'regeneration and environment project' (LRA, 2014: 4). The activities of LCG have therefore continued consistently, without a break, and without a significant change in core membership, for a decade before the author visited to explore the case study in more detail. As a Formal Project, it was possible to view a decade of records, including minutes from meetings, evaluation reports prepared for funders and other external stakeholders, and to hear from members who have been involved since its inception, and from before as members of LRA. In this sense, it was possible to piece together a 'story' of LCG in a fairly coherent narrative arc; which in turn, reflects its longevity as a CSGI group.

The value of the project to the core members, members of LRA, who are also residents of Lister Crescent, and to a wider network of residents from the Kensington area who interact with LCG during seasonal and annual events, is summarised by LRA in the following excerpt from their 2014 report:

"The Lister Community Green project is a sustainable, valued community resource and amenity that involves members of the Lister Residents Association working together to provide and develop this local project at a truly grassroots level, leading to a brighter positive future. It provides means for the local community to take a more active role in community life while enabling, encouraging and supporting the participation and social inclusion of the community."

In summary therefore, the key factors affecting longevity are the *site character* and *group character*, which are relatively stable, and reflect the characteristics of a 'settled' community of owner occupiers; the *status* and *governance* approach of the group, as a Formal Project, with consistent and established procedures for decision-making, and a clear and transparent structure of authority and accountability for decisions taken; and the *activity focus* itself contributes positively to longevity, insofar as the group make a concerted effort to provide activities and events which are attractive to a diverse cross-section of the community, which widens community participation, and proves more attractive to funders who purposefully seek to widen their impact per capita with public money and resource invested at the community-scale.

10.7.2 Key Factors Affecting Resilience

LRA have a strong track record designing and delivering community-scale green infrastructure, which is in addition community-owned. The strength of their cohesion as a group of members, and the support they enjoy from the wider neighbourhood, is evidenced in interview transcripts, field notes from site visits, and documentary evidence. In this sense, they have a very tangible sense of *linking* social capital, between core members of LCG, and between members of the wider LRA group. In addition, there is evidence to support the assertion that they have also proven very effective in engaging external stakeholders, and actors from both the *bridging* and *bonding* categories of

social capital, with the core objectives of the group – including those relating to social outcomes, and environmental and economic ambitions. This is most acutely exemplified by the recurrent successes they have received in regional award initiatives to recognise community-scale green infrastructure 'excellence'. However, there is also evidence that the efforts of the core members of LRA, also understand the strategic policy agenda at the neighbourhood, city and city regional scales; and have been consistently successful since their inception as a formal group in 1995, to effectively advocate for the types of activities and the types of green infrastructure features that they wish to have access to.

In no small part, the successes of the group have been supported, and enabled, by the inherent capacity provided by the input of *Interviewee 1*, whose professional knowledge, skills and experiences have emboldened the group to pursue funding opportunities with confidence and drive. It is this internal 'professional involvement' that may be foregrounded as a critical component for effective community action in this particular case study. The 'wider picture' perspective inherent in the group's activities, which nonetheless achieve support and 'buy-in' from the community evidenced by the continued efforts of volunteer gardeners, and participation in seasonal events, can be summarised in the following quote compiled by LRA:

"With the implementation of the Lister Community Green, Lister Residents Association are supporting the regeneration and improvement of the neighbourhood, by providing the opportunity to enable local residents to reclaim and develop pockets of neglected sites and derelict ground on their doorstep which brings with it many benefits, both for individuals and the wider community."

In summary, the key factors affecting the propensity for resilience in LRA, exemplified in the decade long activities of LCG as a focal Formal Project, are: *membership,* and in particular, the influence of *personalities* within the group, which has provided a stable source of professional expertise, as well as an effective, if informal, structure for specific tasks and responsibilities being shared across the group based on interest and experiential knowledge; *governance*, which substantiates the decision-making efficiency as the core members of LRA are delegated powers by the rest of the group, through a sense of mutual trust and respect earned over time, to make strategic decisions about the activity focus and the priorities for resource investment, partly to reflect the perception of these members of the local and regional priorities for allocation of funding; and *funding*, which the group have been exceptionally good at over their period of growth and stabilisation, partly because of skills of individuals within the core membership of LRA, and partly, one might argue, through circumstance or serendipity, as a reflection of the unique experience of Kensington as a site of European Objective 1 funding, through which a significant amount of public funding was made available for regeneration and environment, including of the community-scale and volunteer-led activity observable in LCG.

CHAPTER ELEVEN

11. Discussion

11.1 Introduction

In the four preceding case study chapters it has been possible to explore in more depth the experiences of community actors engaged in green infrastructure delivery and management at the local level. Each of the four case studies presented in this thesis enabled an illustration of how the critical components for effective community action derived from the literature and further defined in Chapters Two, Three and Four play out in different types of community-scale green infrastructure. The typology of community-scale green infrastructure described in Chapter Five – Formal Group, Informal Group, and Formal Project – provided an analytical framework for organising the data collected through interviews, site visits and documentary evidence from four distinct cases.

The results are a rich set of data, analysed thematically in line with the five critical components of *governance, membership, funding, support* and *activity focus.* Furthermore, in order to focus the data to more effectively address the central research questions relating to resilience and longevity of activity of individual groups and projects engaged in community-scale green infrastructure, an additional thematic component of *future-proofing* was highlighted in the case study data analysis. The following chapter and Chapter Twelve are therefore concerned with creating a synthesis of the findings from across the four case studies in light of the research objectives outlined in Chapter One, enabling comparisons and observable convergence and divergence across the different types of CSGI groups and how they approach the challenges associated with environmental stewardship and volunteering; brought into focus by increasing pressures on public sector funding, and diminishing sources of institution-led support, funding and guidance for voluntary groups engaged in civic activity. In this way, it is possible to recognise common experiences and diversity in approaches to address and overcome similar challenges; and as such, new understandings synthesised from this thesis' findings are presented to add to the literature on community action, environmental stewardship and volunteering, civic engagement and participatory approaches to green infrastructure planning; and, as such, recommendations will be made at the conclusion of this chapter and in Chapter Twelve as to how community-scale green infrastructure can be most effectively organised to address these challenges.

11.2 Reviewing the definition of community-scale green infrastructure

This section is concerned with integrating additional insights from the case study findings into the conceptualisation of community-scale green infrastructure introduced in the first part of this thesis, as shaped by a review of the literature (Chapters Two, Three and Four) and an empirical desk-search of observable voluntary activity in The Mersey Forest area (Chapter Five). In this sense, one purpose

of this chapter is to review and refine the definition of community-scale green infrastructure as per the research objectives outlined in Chapter One:

> *Part I* – To establish a more nuanced picture of green infrastructure at the local level, by defining community-scale green infrastructure, and categorising voluntary activity observable within The Mersey Forest area.
>
> > o *Objective 1* - To explore the political and social drivers of environmental stewardship and volunteering
> >
> > o *Objective 2* - To explore the diversity of community-scale green infrastructure within The Mersey Forest area

Chapters Two and Three offer a comprehensive overview of the contemporary political and social context for establishing community-scale green infrastructure as a reconceptualisation of environmental stewardship and volunteering, at a particular *scale* and with regards to a plurality of understanding as to what constitutes a community; as well as gauging the critical factors and forces affecting environmental stewardship and volunteering as a distinct approach to community action.

In relation to *scale* the findings from the four embedded case studies offer additional understanding as to the importance of local networks, including both physical and virtual networks, to articulate the extent to which community-scale green infrastructure groups represent a critical scale, and a critical mass, of green infrastructure delivery, management and maintenance when conceptualised as *more than* a network of individual sites, and instead are viewed as a network of engaged, *connected*, and inter-dependent, actors and agents. In this sense, we are reminded of planning discourses which emphasise the role of multiple *publics* in place-making through collective activity; and moreover, the role of place-governance practices as significant sites for rebuilding trust between and across communities (Healey, 2016).

Section 2.2.2 of this thesis highlighted the literature relating to 'place-keeping' (Dempsey, Smith and Burton, 2014) as an analytical framework for better understanding the particular challenges facing environmental stewards and volunteers engaged in green infrastructure activity at the small-scale. The literature critically evaluated the capacity of a group to perceive effective alternatives to addressing emergent challenges, and changes in circumstances such as those relating to land use and land ownership, as well as sources of funding for the continued management of a local green space. In turn, the findings from the four embedded case studies contributed further evidence of the role of internal and external stakeholders to recognise the complexity of factors and forces acting upon a group at any one particular time and ideally to anticipate potentially significant changes to a group's circumstance by creating as diverse a base of support, both internally and externally as possible.

Across all four case studies, the theme of *support* emerged as a significant factor affecting a group's capacity for resilience, specifically the capacity of a group to facilitate constructive relationships across internal and external stakeholders. The role of external stakeholders is discussed in the literature in relation to emergent models of partnership working, such as public-community partnerships (Mathers, Burton and Creevey, 2011; Burton et al., 2014). Within the case studies, external stakeholders are discussed in relation to a group's capacity to attract additional resource in the form of financial support, governance support, or opening up new conduits to attract additional or alternative cohorts of membership. In each case, the aim of external stakeholder engagement is enhanced capacity for resilience, or the resultant longevity secured through capacity to adapt and change to new and unforeseen challenges. This theme, in particular, echoes the depiction of community as *partner* in definitions of *community* within community-scale green infrastructure.

In relation to *community* the analysis of data collected from across the four embedded case studies contributes supplementary exemplification of how community-scale green infrastructure encompasses definitions of community as *place, user, actor, network* and *partner* (Section 2.2.3). The central role of *place*, namely the provision of a physical site for environmental stewardship and volunteering is evident across the case studies. However, there were distinctions across the four cases, and specifically between the three types of community-scale green infrastructure. In the case of the Formal Group, the role of the site, as signifier of *place*, is secondary to the role of the group. This is partly explained by the style of approach adopted by Friends of Everton Park (FOEP), whose core members of the gardening group regularly engage with multiple sites associated with Everton Park, including the Faith Plot allotment garden, the nature garden, and the sites of landscape interest across the wider park, such as the wildflower meadows planted as part of successive installations.

The ability of FOEP to coherently manage a feeling of volunteer-led *ownership* across sites of different scale and green infrastructure functionality (food-growing, wildlife and ecology, recreation and leisure) is testament to their strengths as a group, the role of key personalities within the group, but may also be explained by the inherent stability provided by a formal approach to governance. For example, the flexible and multi-directional hierarchy afforded by a Committee, a group of core members, regular members, occasional members, and inactive community residents, allows for dynamic volunteer engagement through a variety of entry points. In contrast, in the case of the Informal Group, represented in this thesis by Cecil Mews Project (CMP), a rigid approach to hierarchy where the two core members make bilateral decisions without the need for wider consultation - about all aspects of the group, from fundraising strategies to activity focus – paradoxically translates to a less stable and less responsive dynamic in relation to the role of *place*. The most substantial example of this in CMP is the group's decision to reduce the coverage of the project in response to disengagement from neighbouring residents – depicted in Chapter Nine as a physical boundary separating the alleyway into two parts (Figure 9.5). Although, there is evidence that this is explained to some extent by the influence of the particular personalities within CMP, and

their knowledge and experience of what skills were necessary to engage with specific tasks, such as consulting with internal stakeholders in the case of resolving divergent opinions, as well as engaging with external stakeholders, for example to identify new streams of fundraising beyond those familiar to the group.

It may be understood therefore, through interpretation of data from across the case studies, that *place* plays an important role in capacity-building within different types of environmental stewardship and volunteering, and as a defining theme of community-scale green infrastructure, the dynamics of place are best understood in terms of a group's approach to drawing boundaries in a meaningful, but flexible and fluid way. The impact of this can be significant to how a group is perceived by stakeholders, including internal and external players, and can ultimately determine whether a group is perceived as *open* or *closed* to new members; therefore, constraining a group's capacity for resilience by limiting access to a wider pool of resources inherent in a more diverse membership. Moreover, a *closed* group can encounter additional limitations when applying for funding grants, or award programmes, which increasingly request evidence of a group's competence in engaging a wider group of community stakeholders; reflecting the need for funders such as Big Lottery to show accountability for social outcomes associated with their distribution of public funds.

Community as *user* is less apparent in the case study findings, suggesting that 'user-centred models' of green infrastructure governance are integral to community-scale green infrastructure and therefore take a less definitive prominence within their typology. Rather, community as *actor* and community as *network* dominate the references to community within the data collected for all four case studies. In the case of the former, this may be partly explained by the central role of community actors as drivers of decision-making in community-scale green infrastructure; an autonomy that is even apparent in the case of the Formal Project, where decision-making authority is delegated from the associated voluntary organisation to volunteers directly engaged in the activities relating to green infrastructure delivery, management and maintenance. And in the case of the latter, the role of *local networks* is highlighted in the case of the Formal Group as a key driver of longevity; and the inverse is true in the case of the Formal Group (Inactive) who were unable to attract new members from existing local networks of volunteers engaged in the Northwich Woodlands community forest network due to a lack of historic engagement with stakeholders beyond a small group of core members.

11.2.1 Refining the typology of community-scale green infrastructure

The rich data provided by the empirical case study chapters assists in refining the typology of community-scale green infrastructure initially presented in Chapter Three (Section 3.3), and defined in the context of The Mersey Forest area in Chapter Five. Analysis of the case study findings suggests that a group, who may appear informal in character based on information observable in a desk-based study, may in fact prove to be formal in character, insofar as they are constituted

formally. This was proven in the case of Cecil Mews Project (CMP), who was selected as an example of an Informal Group in light of their approach to governance; and yet in the process of data collection, it became apparent that the group was in fact constituted, but they elected not to conduct themselves formally. Drawing on the findings from the interviews with members of CMP, and external stakeholders engaged with CMP, it was possible to foreground two critical components affecting their capacity to act in line with their adopted governance structure: *support* and *membership.* The example of CMP shows that the role of support in the form of professional involvement, and membership in the form of skills and capacity of individuals within the group, in particular, affect a group's capacity to act in a manner expected from a formal constitution, such as enacting decision-making in the context of regular meetings, open to all members.

Aside from this nuance, the typology of characteristics adopted to describe the three main types of community-scale green infrastructure, as illustrated in Figure 5.3, did not undergo any significant refinement as a result of the four embedded case studies. It was however possible to confirm the key characteristics as follows:

Type	Characteristics
Formal Group	Green infrastructure focus Constituted, managed by an elected Committee Regular activities Site/s focus 40% Friends groups Primary activity focus: environmental stewardship and volunteering
Informal Group	Green infrastructure focus Ad hoc organisation Site/s and group focus Seasonal / one-off activities
Formal Project	Not always green infrastructure focus Created and managed by established voluntary organisation Regular activities Group focus Primary activity focus: Health and wellbeing; Food

Table 11.1 Typology of characteristics of community-scale green infrastructure (Four Types)

An additional consideration emerging from the in-depth case study exploration is the necessity for including a further two cases in a secondary way to the four cases composing the subject of the four case study chapters: namely, Friends of Anderton and Marbury (FOAM) in Chapter Eight (FFW) and Adamson Street Alleyway Project (ASAP) in Chapter Nine (CMP). The rationale for including each of these 'secondary cases' is explained in part by the methodological approach outlined in Chapter Six, illustrated the model of 'iterative research design' adopted as a research design and process for the thesis, depicted in Figure 6.1, and with particular reference to the 'grounded observation' stage. Moreover, the inclusion of these further two cases served to strengthen the observations made in light of the case studies themselves, by presenting an alternative, and in each of these instances, contrasting exemplification of the capacities of a particular CSGI type, within the

same geographic and political context. As such, it was possible to conduct a more complex analysis of the date collected in reference to the original cases, for example supporting a more critical line of enquiry into some of the assumptions made by particular members of FFW and CMP about the potential for longevity and resilience within the circumstances presented by a particular type of green infrastructure feature (alleyway or woodland) and within a particular set of external stakeholder relations (possible sources of support and funding).

In this way, Yin's (2009) discussion of the strength of the case study being the flexibility of blurring the boundaries between phenomena and context is useful. In order to more effectively explore the complexity of phenomena present within a case study, in order to create theorisations about *why* something may be happening, it may be important to extend the focus of a case study from one phenomena to another in order to better understand the overall context. In this example, the original focus of the case study was on one particular CSGI group, FFW and CMP, respectively; with the aim of exploring each group as a representative group for CSGI type. In this way, the original unit of analysis was the group, rather than the type. However, in the course of data collection, it became clear that the experience of the group may relate as much to other factors, other phenomena, such as personalities within the group, as to the phenomena identified within the course of the research design; in this case the desk-search of CSGI groups identified defining characteristics observable extant of the case study process, such as approach to governance. Whereas the in-depth, explorative nature of data collection through the case study, was able to identify more nuanced phenomena which be far less possible to identify without an extended period of time observing a group, collecting primary data. Furthermore, the inclusion of FOAM and ASAP presented an opportunity to compare and contrast the exemplification of characteristics related to the type of CSGI group across two cases. The unit of analysis, therefore, shifted from the principal case study, to the CSGI type more broadly, arguably allowing a engaged discussion as to the critical factors and forces affecting longevity and resilience within the context of each type of CSGI.

11.3 Refining the critical components of effective community action

This section focuses on integrating supplementary findings from the case study chapters with regards illuminating research objectives three and four, which in turn comprise the second part of this thesis which is concerned with evaluating the critical components of environmental stewardship and volunteering, as they impact on a group's capacity for resilience, and resultant longevity; so as to be regarded as an effective mechanism for voluntary community action:

> *Part II* – To evaluate the critical factors and forces affecting longevity and resilience of community-scale green infrastructure activity within The Mersey Forest by exploring four distinct case studies

- *Objective 3* - To compare the characteristics of different types of community-scale green infrastructure and evaluate how characteristics correspond with longevity and resilience.
- *Objective 4* - To establish the potential for future research into the capacity for longevity and resilience in different types of community-scale green infrastructure.

In order to substantiate the themes drawn from the literature, the following sub-sections are organised around the five critical components for effective community action, to provide a framework for integrating the key findings from across the four embedded case studies. Section 11.3.6 draws together the findings to evaluate the critical factors and forces affecting longevity and resilience, conceptualised in this thesis as a set of conditions which may be described in terms of *future-proofing*.

11.3.1 Governance

Across all of the four case studies, without exception, governance was central to the experiences of the individual members within the group; as well as a regulating factor shaping the experiences of external stakeholders in their interactions with a group and its members. Both themes within the category of governance – legal status and group structure – proved to be influential on a group's capacity for resilience and longevity.

Alongside membership (Section 11.3.2), governance is the primary driver for determining a group's approach to decision making, which in turn shapes the other categories of funding, support and activity focus. By comparing governance approaches across the four case studies (Figure 11.1), it was possible to establish a pattern of group structure across the different types of CSGI.

Governance	
Formal Group	**Formal Group (Inactive)**
Legal Status	*Legal Status*
- Constituted	- Constituted
Group Structure	*Group Structure*
- Two key individuals	- Two key individuals
- Core members	- Core members
- Regular members	- Regular members
- Occasional/one-off participants	- Occasional/one-off participants
Informal Group	**Formal project**
Legal Status	*Legal Status*
- Constituted but governed informally	- Associated/affiliated voluntary organisation is constituted
- OR	
- Not constituted	
Group Structure	*Group Structure*
- Two key individuals	- One key individual
- Core members	- Core members
- Occasional/one-off participants	- Occasional/one-off participants

Table 11.2 Governance - Characteristics of different types of CSGI evidenced by case studies
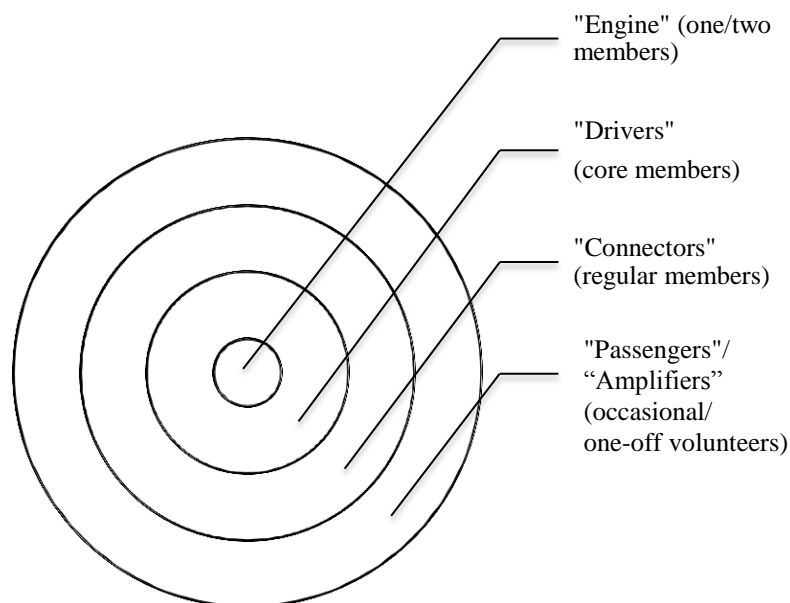
Figure 11.1 Multiple-levels of engagement observable in CSGI group structures Source: Author

The role of regular members may be conceptualised as "connectors"; complementing the continuity of the "engine" and "drivers", whilst giving a supplementary layer of diversity to support and offer different perspectives or different types of knowledge and experience. In contrast, "connectors" are not observable within the group structure of Informal Groups and Formal Projects.

In all four cases however, there was evidence of the role played by occasional and one-off participants in enhancing the extent to which the group's activities become and remain relevant to a wider cross-section of community members. This is mainly exemplified by seasonal or one-off events whereby core members develop volunteering opportunities to capture new audiences for their green infrastructure-related activities, such as environmental education and conservation, or health and wellbeing through engagement with the natural environment. In some cases this stakeholder engagement focus corresponded to a funded project, for example to fulfil targets for participation. In this sense, the occasional or one-off participants are conceptualised as "passengers" (Figure 11.1) to reflect the notion that through participation in community-scale green infrastructure activities, they will have voluntarily embarked on a journey from one place of understanding and experience to another.

In other cases, an event such as a music festival held in Everton Park, provided a platform for meaningful dialogue with a wider group of community residents living in close proximity to the site of community-scale green infrastructure value; however this dialogue varied in its focus, and although volunteering opportunities were promoted, core members equally utilised these types of events for more general discussions with residents, for example to talk about other community matters and highlight alternative means for civic engagement and participation, or share news about

changes occurring at the local level. As such, community-scale green infrastructure-focused events offered alternative spaces for civic engagement and active citizenship. This is reflected in the decision to alternatively characterise these types of volunteers within a conceptualistion of CSGI group structure as "amplifiers"; individuals who are in a position of insider knowledge in terms of *what* and *how* community-scale green infrastructure works, whilst continuing to maintain focus on outward looking activities and initiatives, not wishing to become too focused on one particular group or project.

As depicted in Figure 11.1 the four types of volunteer engagement observable across the four case studies' group structures, are distinct but work together. Ideally, as in the case of Formal Groups, there is evidence of all four types; this being the most effective way to ensure that a group has the potential to sustain core objectives and activities, such as site maintenance and fundraising, and generate new ideas and direction for the group through the contributions of core members; whilst attracting regular volunteers to carry out the tasks and creative ambitions of the group; and occasional and one-off participants to extend the reach of the group or the project beyond the (potentially homogenous) group profile, thus opening up opportunities for new members with alternative interests, and supplementary skills and expertise to enhance opportunities for resilience and longevity.

It is also possible to reflect on the role governance plays in determining a group's capacity for success – as defined within this thesis as the state of resilience as per analyses of the literature in Chapter Four – by integrating case study findings with existing notions of governance in theoretical literature. UN-ESCAP's characteristics of good governance, as defined in Satpathy, Muniapan and Dass (2013) (Figure 11.2), draw from perspectives put forward in the development literature; however their eight thematic characteristics may equally act as a framework for assessing the quality of governance approaches observable across the different types of community-scale green infrastructure (Table 11.2). Satpathy, Muniapan and Dass (2013) suggest that governance 'refers to the process whereby elements in society wield power and authority, and influence and enact policies and decisions concerning public life, and economic and social development'; that 'governance is the sum of many ways individuals and institutions, public and private, manage their common affairs'; and that 'it is a continuing process through which conflicting or diverse interests may be accommodated and cooperative action may be taken' (2013: 193).

Figure 11.2 Characteristics of good governance (adapted from Satpathy, Muniapan and Dass, 2013)

Table 11.2 Analysis of four case studies utilizing UNESCAP's characteristics of 'good governance'

Characteristic	Formal Group (FOEP)	Formal Group (Inactive) (FFW)	Informal Group (CMP)	Formal Project (LCG)
Consensus-oriented	✓	✓	✗	✓
Accountable	✓	?	✗	✓
Transparent	✓	?	✗	✓
Responsive	✓	✗	✗	✓
Equitable and inclusive	?	✗	✗	?
Effective and efficient	✓	?	?	✓
Follows the rules of the law	✓	✗	✗	✓
Participatory	✓	✓	✗	✓

Table 11.2 serves to highlight the limitations for good governance practices in less formal governance structures. Formal Group and Formal Project, both of whom draw on the guidance and supporting structure of a constitutional framework exhibit all aspects of 'good governance' (Satpathy, Muniapan and Dass, 2013), except 'equitable and inclusive', which will be explored in more detail in Section 11.3.2 on membership. This analysis may offer further insight into the role formal governance structures play in building trust within a group, exemplified at least in part by the additional accountability, responsiveness and predictability of a group with a transparent structure; encapsulated by Healey's (2016) suggestion that 'place-governance practices as significant sites for rebuilding trust'.

An additional theme across the case studies related to governance is the commitment within the group to be 'consensus-oriented' (Satpathy, Muniapan and Dass, 2013) when making decisions. This

is a theme explored by Glover (2004: 155) in their case study of relations in a community garden in Canada, illustrated in the comments of one member who reflects on the issue of exclusivity within the group:

"Even though Sally was determined to plant vegetables in the garden, the original decision to make the garden ornamental was ostensibly made without consulting non-core members and inactive residents of the neighbourhood. In so doing, the project, again, was viewed as something exclusive."

In Glover's (2004) example, it is partially the absence of vegetables that is the source of contention within the community garden in question, however it is the equally the concentration of decision-making power in the hands of a select few people ('core members') that results in other members ('non-core members') feeling excluded from the creative processes, including strategic decisions relating to 'activity focus', as well as less important decisions that form the everyday activities within the garden. Furthermore, the same interviewee alludes to the influence this concentration of power can have on the capacity of a group to extend its group profile, suggesting that by extending the group's activity focus to food-growing, other types of participants may be encouraged to join the community garden, in this case 'older black families that live near the garden' (2004: 155).

This echoes a number of similar findings from across the case studies in this thesis. For example in the case of FOEP (Formal Group) there was evidence from interview transcripts and site visits that the role of *Interviewee 1* within regular sessions was to direct the planting, and in fact, other members, including 'core members' actively sought the opinion of *Interviewee 1* before carrying out and completing a task. In addition, there did not appear to be a plan or a map of the garden from which volunteers could reference before making decisions; in other examples of community gardens, the role of a 'consensus-oriented' plan for a physical space can remove the potential for conflict as decisions are delegated to a shared vision, rather than the opinion or memory of one person (Jerome, 2012). In the case of FOEP, there is a contrast between the governance processes observable within the wider Friends group, which involves formal meetings which are *transparent, participatory*, and *follow the rules of the law*; and approaches to decision-making within the Faith Plot community garden, where findings drawn from interviews and site visits suggests that the horticultural skills a small number of 'core members' provides an ad hoc arrangement for strategically managing and maintaining the garden.

11.3.2 Membership

This section is concerned with synthesising the findings from across the four embedded case studies in relation to the theme of membership, which in turn is understood in terms of characteristics relating to group profile and personalities. Drawing on common themes across the case studies, it is possible to identify a singular critical factor with a pervasive effect on a group's capacity for longevity across the types of community-scale green infrastructure: *succession.*

In the literature, *succession* is described in the terms of being one of six major drivers of resilience in an ecological system (Pickett et al., 2004) (Section 4.3). In the context of this thesis, in light of the empirical findings, s*uccession* describes a number of related characteristics which indicate whether a group is able to sustain significant, and in some cases, complete changes in membership and continue to deliver green infrastructure functions and benefits. The range of characteristics highlighted across the case studies relate to both group profile and personalities; and challenges relating to succession are most pronounced in the case studies where it could be evidenced that a small number of personalities within the group are responsible for driving the group's activity focus, or brokering internal and external stakeholder relationships. In addition, succession describes the ability to plan ahead, and acknowledge the role of individuals within the group, and the skills or knowledge they contribute, have in determining a group's collective capacity to respond to opportunity or challenge.

This is exemplified in different ways across the case studies, and includes illustrations of individuals with competences in fundraising and managing finances; skills in 'telling the story' of a project and promoting a group's ambitions to wider stakeholders; perceiving the needs of a particular cross-section of volunteers and engaging a small but dedicated group of members in a narrow range of activities; and acting as a leader within the group and champion for the group in communications with external stakeholders in a position to support and enable the objectives of the group or project.

In this sense, there is evidence from across the case studies that the role of key personalities, and the homogeneity of group profile that may support the ambitions of a strong individual/s within the group, can be pivotal to a group's capacity for longevity. Equally, a common finding across the cases was the detrimental effect the loss of such individuals can have on a group's capacity for resilience. Thus, succession of individuals with the skills and desire to provide leadership within a group becomes instrumental to longevity and resilience.

However, there is an alternative analysis of the contingency between membership and longevity and resilience. In all four cases – Friends of Everton Park (Formal Group), Friends of Furey Wood (Formal Group – Inactive), Cecil Mews Project (Informal Group), and Lister Community Green (Formal Project) – one or two key personalities shaped the experiences of the group or project; and membership was highlighted as a principle driver for resilience, and the resultant longevity (or lack of longevity). However, in the case of Friends of Anderton and Marbury (a peer group of Friends of Furey Wood), and Adamson Alleyway (a peer group of Cecil Mews Project), the role of personalities was evidently less important. In contrast, both examples were observed as having a strong collective identity, and established approaches to formal governance processes, such as a constitutional commitment to electing a new Chairperson every three years, thus ensuring that the responsibilities of specific roles are shared across the group, and inherently limiting the influence of one personality over time.

Another matter for consideration within a discussion of the role membership plays in the potential for resilience and longevity is the size of the group, and how the small scale of community-scale green infrastructure can be limiting for longevity and resilience. For example, in the case of Cecil Mews Project, the solidarity between the two core members largely defined the group from the point of view of both internal and external stakeholders, illuminated in *Interviewee 1*'s comments: *"It's our labour of love. It's in my blood now. We do it because we want it to carry on." (Interviewee 1, Core Member, Cecil Mews Project)*

In contrast however, the over-reliance on a small number of individuals, particularly if this creates a group profile which is homogenous in character, can be perceived as a weakness from the point of view of external stakeholders, exemplified in the case of the Cecil Mews Project by the comments of a strategic partner who has engaged with CMP in a number of capacities, including a public sector role, and a community sector role:

"To be frank, they got off to a flying start in the early period, and were given a lot of help over the years. They haven't actually developed as much and they've had difficulty getting people. They are mainly two or three people. The key difference between Cecil Street and Adamson Street is personalities involved and the characteristics of the community."(Interviewee 4, Strategic Partner, Cecil Mews Project)

This example serves to emphasise the central role played by *succession* in determining the shape of a group's profile, the personalities involved; which in turn, largely determines the positive or negative impact *membership* can have on a group's resilience and longevity. Membership is therefore underlined in this thesis as a critical factor or *critical component of effective community action* as a reflection of the multiple and simultaneous ways in which it regulates a group's capacity to actualise resources, both from within the group (skills, experience) and from outside of the group (local networks, professional involvement). Thus, membership becomes shorthand for articulating an understanding of the role people play in community-scale green infrastructure; which may not always be the case for larger-scale green infrastructure projects which prioritise the involvement of strategic stakeholders and investment, rather than individual community members and place-based governance.

Personalities

Across the case studies, it is clear that a critical driver of the character of a group or project engaged in community-scale green infrastructure activity is the type of personalities involved; illustrated by the examples where the ccontribution of one core member have shaped the activity focus, success with fundraising and the relationship between stakeholders within the group and from the group to outside. This is summarised in an interview with a strategic stakeholder, a Liverpool City Council officer:

*"In terms of what you've come across in terms of personalities. I think that is consistently true across community organisations. And that is because the driving dynamic is driven **by the passion of an individual or group of individuals who are committed not just to their community**, but how they want to make their community better. So I think it absolutely is down to personalities. Certainly in terms of the broader theme of community development and community engagement, regardless of what you might be working on, be it in crime, which is another area of my portfolio, and we do work with communities around winter resilience and preparation, it is about finding those committed individuals to that community and building on their personality and their strength of wanting to do something in their community. The second thing is in terms of personalities, and I would be very surprised if you didn't experience this in your on the ground research is that then can create personality conflict of different personalities wanting a similar outcome but not necessarily agreeing how to make that happen. And that can create tension and again that **tension instead of creating a doubling of resilience, can destabilise the resilience and sustainability** around the community supporting, be it a green space, be it whatever."*

Personalities, as a categorisation within membership, as a critical component of effective community action is therefore perceived as source of resilience, and a consequence of it; however, strong personalities within a group can equally be the source of conflict and destabilisation and this is evident across the case studies in terms of the lack of resilience in response to changes in membership or disagreements between core members and other members in a group.

11.3.3 Funding

Across the four case studies funding and access to resources was highlighted by both internal stakeholders (members) and external stakeholders (voluntary sector organisations, local authority officers, and representatives from funding and award programmes). Within each case study, the themes of 'fundraising', 'stakeholder contributions' and 'innovation' were explored as categories to describe the observable approaches to funding adopted by community-scale green infrastructure groups and projects. This section will consider the key findings and common experiences across the three main types represented within the four case studies by way of suggesting the extent to which funding can be described as a critical factor in the resilience and resultant longevity of community-scale green infrastructure.

Fundraising

In Chapter Four (Section 4.3), a group's propensity for fundraising was framed in terms of their capacity for *linking* social capital, which describes how well a group can affect decisions outside of their immediate area of influence. In turn this relates to Pickett et al.'s (2004) notions of *open* flows of information and resource, and *responsiveness* to external factors. Drawing on the literature, there

was an expectation going in to the case study, that a community-scale green infrastructure group which can draw on skills from within the membership to effectively lever in investment from external sources, of both material and non-material capital, is in a better position to adapt and change to changing circumstances in order to achieve resilience over time. It was therefore illuminating to reflect on the case study findings in order to establish whether this theoretical understanding was substantiated in practice.

In all four embedded case studies, fundraising was central to the role played by the core members, and in particular the one or two key individuals present across the four cases who were acting as the "engine" of the group. The difference observable across the groups was the level of skill, experience or expertise exhibited. In the cases of FOEP (Formal Group), FOAM (Formal Group) and LCG (Formal Project), fundraising was pursued with impressive results and significant impact on the group's capacity to sustain existing or explore new activities; widen the reach of a group through advertisement of activities through, for example, the production of communication materials; and prove resilient to unforeseen events, such as the loss of equipment or facilities through theft or damage. In contrast, in the case of CMP (Informal Group) who had a limited experience of writing applications to funding programmes, and in fact a limited knowledge of how to identify new sources of funding, they encountered difficulties when the sources of funding and in-kind support they were reliant on ceased to exist as a result of new priorities at the local authority level. In the case of FFW (Formal Group), the group were successful in fundraising for a number of community events and infrastructure projects on site; however, evidence from across interview transcripts with members and external stakeholders corroborate to suggest that the role of key individuals working alongside the core members, namely professional community development workers from organisations such as The Mersey Forest, was critical in guiding the group through such processes.

In summary, the case study findings indicate that for community-scale green infrastructure groups there is a need for professional knowledge and experience for a sustainable and *responsive* approach to funding and fundraising; and further, that this expertise can come either from within the membership, or from supporting stakeholders. This finding is significant in two ways. Firstly, there is increasingly less support available for voluntary groups, either in the public or voluntary sector, due to significant reductions in UK public spending on 'non-essential' services since 2010. Secondly, and as a direct consequence of the reduction in funding available, there is more competition between groups for the same resources. In turn, this advantages groups who have a track record of successful funding bids and are in a position to more skilfully articulate why they are eligible for a particular funding stream; groups similar to the Formal Groups and Formal Project identified in this case study, who each have a number of key individuals with professional experience of fundraising and financial management. Equally, groups without this knowledge and experience, such as CMP, are disadvantaged and may prove to unsuccessful in their social and environmental objectives as a result. The additional consideration is that the latter set of groups is

more likely to be situated in an area with relatively poorer access to quality green infrastructure, and higher indices of multiple deprivation, and therefore arguably in greater need of green infrastructure to deliver functions and benefits to those living in close proximity. Therefore, the case study findings support the idea that funding, and the presence or absence of skills in accessing resources, is a critical component of effective community action as outlined in the literature.

Stakeholder contributions

To some extent the role of stakeholder contributions has been highlighted in the discussion of funding in the previous section. However, it is also notable within the data analysis sections of each case study that external stakeholders in particular were significant forces acting within the groups to support, shape and animate the latent potential within the membership. In many ways, the role adopted by characters such as *Interviewee* 2, a strategic partner from The Mersey Forest, working closely with FFW (Formal Group – Inactive) over their period of activity, is a traditional community development role; with an emphasis on identifying champions within the group with the capacity to build up the skill and confidence necessary to act as a leader within the group; and with the ultimate intention of stepping back and delegating power and responsibility once this transference has occurred. In the case of FFW, however, the core members remaining after the departure of individuals historically acting as the group's "engine", did not feel able or the desire to utilise the input of *Interviewee 2* to this end, and instead, preferred to integrate their contributions as a supplementary member of the core group. In this sense, the role adopted by the external stakeholder within the pre-existing governance arrangement and group structure is key to ensuring resilience beyond the time in which support is available.

Another related issue was highlighted in the case of LCG (Formal Project) who were fortunate to have an experienced fundraising professional as the "engine" of the community-scale green infrastructure group. The limitations presented by this approach to funding are that a group's capabilities for fundraising are dependent on the continued input of this one individual; as whilst this individual is driving funding-related activities within the group, it is not necessary for other members to develop these skills. This issue, however, is not exclusive to the theme of funding and is highlighted in the case study findings relating to membership; reflecting the fact that across the cases, the influence of one or two key individuals, and the personality they bring to the group, is an over-arching factor defining the group, its group structure and activity focus, and ultimately its capacity for longevity and resilience.

Moulaert (2010: 4-5), whose work identifies four of the five critical factors identified in Part I of the thesis (*governance, resources* (see *funding*), *networks*, and *support*), purports that the role of external stakeholders is central to building a group's capacity, particularly in the early stages of their formation: *"And all of them discovered early on that it would not work if their network did not include partners from 'elsewhere', connected to agents and institutions at higher spatial scales than*

the local." In this sense, the different roles of 'peers' and 'partners from elsewhere', echoes the types of social capital identified in Chapter Four, namely 'bonding' and 'linking' social capital respectively. Moulaert (2010) continues by suggesting that the resilience of community-scale groups is partly reliant on the role played by the continued input from these external stakeholders, as a supplementary to the work of the volunteers themselves: *"And virtually none of them could be sustained without at least some form of partnership with the state, or some other formal institutional system, that enabled the creation and sustained the operation of socially innovative initiatives."*

Moulaert (2010) is therefore purporting that the initial input from external stakeholders is critical, to help a group forge their ideas, set up the group structures to govern their decision making, and try a number of activities before settling on one focus which has potential to sustain the interest of existing members, and continue to be attractive to new members; but that the continued input from external stakeholder can also prove critical in contributing to the capacity of a group to remain 'socially innovative', echoing Pickett et al's (2004) concept of *responsiveness.* This perspective can be exemplified throughout the case studies, but in particular in the case of FFW (Formal Group – Inactive), whose enthusiasm for community-scale green infrastructure, although sustained over a twelve year period, continued to require the input from a number of external stakeholders and 'trusted partners' to supplement the input from core members, whose desire to take on delegated power over this time did not increase. In turn this suggests that assumptions within the public and voluntary sector, built on notions of linear movement from civic engagement and community participation towards 'citizen control' (Arnstein, 1969), overlook the influence of personality and culture within groups such as FFW; groups who prefer to perceive their time spent volunteering as an opportunity for creativity without the responsibility (of land management, financial management, stakeholder engagement, evaluation of impact, forward business planning and fundraising).

In some cases, such as FOAM (Formal Group) members do not seem to push against this 'professionalisation' of volunteering. Thompson (2015) suggests, in light of a growing number of groups working in partnership to deliver public services, that 'community-based projects and resistances become increasingly professionalized and institutionalized into active state-led area-based initiatives aimed at activating 'social capital' to address growing problems of 'social exclusion' and the re-emergences of material deprivation in the 1980s and 1990s.' (2015: 60). Furthermore, Thompson (2015) brings DeFilippis (2004) into focus in his suggestion that 'engagement with property rights: the long-term success of insurgent attempts to (re)appropriate the urban space for control over the means of social reproduction depends on the capacity to exercise collective autonomous control over land and resources'. (2015: 96).

Innovation

Capacity for innovation varies considerably across the case studies. It is most noticeable in the case study examples of a Formal Group (Friends of Everton Park) and the Informal Group (Cecil Mews

Project) that a group's capacity for innovation is linked to the capacity to draw resource from formal and informal networks. In this way, thematically, innovation is contingent on local networks. Marmot (2010: 12-13) defines 'support (for) community groups with long term funding' as a delivery mechanism for removing barriers to community participation and action, with the aim of creating healthy and sustainable places and communities.

Perhaps the most significant reflection to be made across the cases with regards the role innovation can play in supporting resilience and longevity is the efforts made by some groups to diversify, and adapt their governance models and group structures to better meet the needs of a changing political and funding landscape. In the case of FOEP (Formal Group) the members of the group were actively leading the negotiation with The Land Trust and the local authority to explore alternative governance, ownership, funding and management arrangements to secure the position of the park in a future and a city with significantly less resource to distribute for the maintenance of public, open green space. In this sense, FOEP are driving the discussions about a *partnership approach* to the delivery, management and maintenance of community-scale green infrastructure; operationalising the trust, reputation and respect they have built up with external stakeholders over the years of being a formally constituted voluntary group and pro-active voice within the community, to actively seek alternatives to reducing access to quality green infrastructure for residents in Everton.

This perspective is supported by the interview with a strategic stakeholder from Liverpool City Council who reflects on the potential for asset transfer to local voluntary groups, in the context of diminishing resources for the management of parks and open green spaces, reflecting on the capacity of different groups to manage the legal and governance responsibilities within emergent models of partnership:

"In many instances, the bigger groups, Friends of Parks and allotments, they already have that constitution formal we will met x amount of times and have that clarity of this is how we will get resource or bid for resource, because they're organised and understand how to get resource, there is that possibility of asset transfer. And in some instances you might talk to them about that. One of the big things is what's the viability of asset transfer in terms of does it make sense to asset transfer. And in some cases it might make sense to transfer. One of the things that is in statute that we absolutely use in terms of asset transfer, is that we will always willingly engage with community and voluntary organisations about the potential. So it's very much if we think that they might be ready for it we will approach it with them, or we're quite open and receptive about what are the possibilities for us."

The interviewee goes on to highlight the inherent need for fundraising and financial management capacity within groups that will be considered as eligible for tendering for transfer of public assets to community ownership:

"And what we also made quite clear is that there would not be a resource from the Council in terms of supporting it; the funding plan had to be in place for those organisations which were bidding. And in terms of asset transfer, that's one of the big things that we do look at, what's there in terms of sustainability; what are they planning on doing with it and how sustainable that is... What do the community groups need to be ready. That kind of process… And there was a community group in the area who are now using it as their community offices for want of a better phrase, to take it over, and it's still accessible to the community."

11.3.4 Support

The theme of support as a critical component of effective community action is evident across the four case studies. This section will illustrate the commonalities between the experiences of the different types of community-scale green infrastructure group characterised across the case studies. The discussion is structured around three main subjects: local networks; professional involvement; and internal and external stakeholder relationships. Each subject proved to be more or less prominent within each case study, however the theme of support on the whole was highlighted as a significant contributing factor for resilience and longevity at the community-scale; and in particular, the support of peers through local networks and the support of voluntary-sector professionals as key external stakeholders, are common across the four case studies.

Local Networks

The role of local networks emerges in each case study in a variety of ways. For example, it may be as a measure of how linked in the group are to local agendas in terms of local policy priorities and funding opportunities. Equally, it may indicate how *open* a group is to flows of information, knowledge and resources from other voluntary groups with similar objectives, particularly those in geographical proximity. It may also relate to a group's propensity for utilising new media, such as social media and online communication tools, to effectively engage as many people as possible 'virtually' in order to attract a small percentage of that wider network to engage 'actually'. Moreover, the role of social media and online communications has additional benefits and links to other components, such as funding – evidencing a group's impact is wider than the core membership; and evidencing the social outcomes for a wider cross-section of the community, which is frequently a metrics for measuring the impact of investment though a funding programmes. In more specific examples relating to individual cases, it was possible to ascertain that groups who take a formal approach to governance, including the types of Formal Group and Formal Project, are better equipped to navigate the processes involved in joining a local network, as well as having the group structure and appointed positions within the group to effectively delegate responsibilities for managing subsequent stakeholders relationships which materialise as a consequence of being an active member and a voice within a network.

Professional Involvement

The question of professional involvement in community-scale green infrastructure is crucial to this thesis in light of the political context outlined in Chapter One. That is, a key consideration supporting the research questions is an exploration into the extent to which voluntary groups engaged in environmental stewardship and volunteering can expect structured and dedicated professional support, such as that available historically through environmental non-governmental organisations such as The Mersey Forest. There was evidence across the case studies that community-scale green infrastructure groups continue look to professional involvement in a number of ways, in spite of the reduction in funding available to support dedicated roles within ENGOs to work closely with CSGI groups, such as the position occupied by *Interviewee 2* in FFW (Formal Group – Inactive).

This is a significant finding in so much as the assumption inherent within contemporary policy directives is that community volunteers will have the capacity to organise themselves sufficiently to meet the demands of the Localism agenda; including grasping opportunities to create Neighbourhood Planning Development Groups to strategically steer new development in their area, and pursuing partnership approaches to collaboratively manage and maintain local green spaces. This was the case in the example of FOEP (Formal Group) who had actively shaped the negotiations between Liverpool City Council, The Land Trust and community residents to agree terms of asset transfer from the local authority to the charitable organisation of Everton Park in response to shrinking public budgets and growing need for accessible natural green space to meet the complex picture of health inequalities in a city region with comparatively higher concentrations of deprivation.

A common finding from across the case studies was the critical influence of professionals from *within* the group: *Interviewee 1* in FOEP, who had a career in community development to draw on; two previous core members in FFW whose professional roles outside of the group in fundraising and community arts proved essential to the group's capacity; the professional backgrounds of the committee members in FOAM; and the professional knowledge and experience of *Interviewee 1* in LCG.

Internal and External Stakeholder Relationships

This theme serves to conceptualise the dynamic between members within the group, between members and other types of internal stakeholders such as community residents living in close proximity to the site or activities which constitute the foci of the group, and between members and external stakeholders, such as local champions for the activities of a group situated in the local council, or strategic partners within the community such as professionals from public health and community education organisations.

A finding which is illustrated clearly in all four studies is the impact a constructive relationship with external stakeholders can have on facilitating the ambitions of a group. In the case of FOEP, the sophisticated approach to consistent and pragmatic relations with decision makers initiated by *Interviewee 1* proved critical to the group's effectiveness in advocating for the multi-functional benefits of Everton Park, locally, and in the city region. In the case of LCG (Formal Project), the substantial knowledge and expertise brought to the group by *Interviewee 1*'s previous professional experiences working in regeneration and strategic distribution of funding within the area proved critical to the group's *responsiveness* to changes in policy focus at the city regional level. In contrast, CMP (Informal Group) and FFW (Formal Group – Inactive) proved non-responsive to significant changes in policy focus: in CMP's case by becoming over reliant on the distribution of public funds; and in FFW's case by becoming over reliant on additional resource in the form of professional support from external stakeholder organisations such as The Mersey Forest.

11.3.5 Activity Focus

Across the case studies there is evidence that the underlying driver of activity focus within the group is co-design and co-production of place. In this way, Healey's (2016) ideas about thinking relationally about place, bringing place into attention as a 'social process', 'an imaginative process', and a 'collective and political process' becomes relevant to a discussion of how CSGI is another way of evaluating how individuals and communities are engaging, pro-actively with collaborative planning processes. The interaction between activity focus as a critical component of effective community action through CSGI and the role of community networks is interesting in this regard; by engaging in CSGI activity, residents are finding and co-creating new ways of community by taking ownership of physical assets (sites of green infrastructure).

Unt and Bell (2014) demonstrate that 'small, inexpensive and possibly temporary interventions can have a major positive effect' on the 'spatial pattern' of urban derelict space after small design interventions (2014: 121). Their analysis corroborates with findings from across the case studies in this thesis, however, in particular their description of 'small projects, events and installations' as 'urban acupuncture' (2014: 121) offers a conceptualization of the approach taken by Friends of Everton Park (Formal Group) to animate under-used areas of the park. Considering the historical context of Everton Park's creation, highlighted in the transcripts of *Interviewee 1* and *Interviewee 7*, it is interesting to reflect on the different types of behavior identified as being typical or possible across formal green spaces and urban derelict spaces in Unt and bell (2014). Specifically, although Everton Park is an example of an urban park offering a significant volume of formal green space in a part of Liverpool with poorer access to multi-functional green infrastructure, it continues to face similar challenges as those identified by Unt and Bell (2014) as typical of urban derelict spaces. Furthermore, FOEP have designed 'small projects, events and installations' to attempt to influence behavior change in local residents who live in close proximity to the park. Examples highlighted

within the case study include regular events such as the 'Out of the Blue' music festival, as well as one-off interventions such as the 'Tale of Two Cities' (2015) wildflower initiative and the 'Foraging Spiral' installation as part of Liverpool Biennial (2012). Perhaps the key difference in the examples drawn from the FOEP case study however is that in contrast to Unt and Bell's (2014) suggestion that small-scale design interventions can be defined by their small size and low cost, FOEP's range of events, initiatives and installations vary quite significantly in cost, and although they are all relatively small in scale, their sophisticated use of 'local networks' widens their reach to 'users' from across the city, and in the case of the 'Tale of Two Cities' initiative, to neighbouring city regions.

11.4 Summary

Building on Adams, Scott and Hardman's (2013) conceptualisation of the potentially limiting role planners and decision-makers can have in managing and ordering space, drawing on findings from case studies which highlight contemporary environmental practice permaculture and guerilla gardening, community-scale green infrastructure may be seen as an 'innovative practice that delivers significant societal and environmental benefits'; particularly in light of the ways it opens up opportunities for 'initiatives to intersect with the planning system, raising important questions about joined-up policy across scales and sectors, and the ability of planning to be a proactive vehicle of environmental and societal change' (2013: 375). In this regard, the potential for volunteers to influence the shape and character of their local green infrastructure, its functionality and therefore its associated benefit, is theoretically and tangibly evidenced throughout this thesis. However, the capacity of individual groups, and their inherent propensity to sustain their efforts over time, and prove resilient to changes both within and outside of the group's structure, power and extension of influence, remains the critical question of this thesis.

In this regard, the critical components of effective community voluntary action remain central to our understanding of resilience and longevity; the five thematic components highlighted in the literature in the first half of this thesis, are substantiated by the case study findings in the second half. Specifically, the role of *governance* and *membership*, and within these components, the dynamic of *formality* and *informality*, and the role of *personalities*, are shown to be of definitive importance in CSGI. This finding is particularly important for forming conclusions (Chapter Twelve) about how CSGI groups act and interact in a shifting policy sphere, as it fundamentally challenges existing notions that volunteers and community groups are capable of performing the role/s of public service provision, given the 'correct' circumstance. It follows, therefore, that conditions can be externally contrived in order to create the amenable environment for a CSGI group to flourish. However, the in depth case study findings presented within Chapter Seven to Ten serve to highlight the nuanced nature of groups, and the bespoke character of the professional involvement CSGI groups and projects have enjoyed in the past, through initiatives like The Mersey Forest's 'Community Contracting Initiative', and how critical these two aspects have been to support a group's propensity for resilience and longevity.

Future-proofing: Summary of Four Case Studies				
CSGI Type	**Formal Group**	**Formal Group (Inactive)**	**Informal Group**	**Formal Project**
Longevity	Group Profile Activity Focus Support -Local Networks -Internal and External Stakeholder Relationships	Site Character Membership -Personalities Support -Professional Involvement	Group Profile Membership -Personalities	Membership -Personalities Governance -Group Structure
Resilience	Membership -Personalities -Group Profile Activity Focus Support -Internal and External Stakeholder Relationships	Funding Support -Internal and External Stakeholder Relationships	Site Character Activity Focus Governance Support -Internal and External Stakeholder Relationships	Support -Internal and External Stakeholder Relationships Governance -Legal Status Funding -Fundraising -Innovation Support -Internal and External Stakeholder Relationships Activity Focus

Table 11.3 Key factors and forces affecting longevity and resilience (future-proofing) across types

CHAPTER TWELVE

12. Conclusion – The critical factors and forces affecting longevity and resilience

12.1 Introduction

The aim of this chapter is to bring together the various aspects of this thesis, outlining the key findings and suggesting ways in which they can be taken forward as recommendations. Further, this chapter will aim to reflect on whether the research questions outlined in Chapter One have been answered, and whether the methods adopted for exploring the research questions were successful.

12.2 Key conclusions: factors and forces affecting longevity and resilience

This section considers how, throughout this thesis the two variables of longevity and resilience have been assessed and evaluated in the context of community-scale green infrastructure. However, on close examination of the experiences of voluntary groups engaged in the delivery of CSGI at the local level, the two variables are interdependent; and the resilience of a group is more often the foundational principles for whether a group has the propensity for longevity. It is possible for a group to achieve longevity, but remain non-resilient, as exemplified by Friends of Furey Wood (FFW) in Chapter Eight. In this example, the CSGI activities of FFW discontinued, however the management and maintenance of green infrastructure at the Furey Woods site was adopted by the Friends of Anderton and Marbury (FOAM), another CSGI Formal Group. In this case the critical components of membership, activity focus and professional support were identified as key constraints affecting the group's capacity to adapt to changes from within the membership, and change to circumstances from both within the group and externally.

Furthermore, the findings relating to FFW suggest that it is also possible for a group to demonstrate a degree of resilience, without achieving longevity. This refers to the instances where a CSGI group, Group A (e.g. FFW) may cease to exist, but members of Group A may continue their CSGI activities in a different location, with Group B (e.g. FOAM). In the case of FFW, the original group (A) ceased to exist, but an alternative group (B) subsumed their CSGI activities, extending their original geographic reach to enable the stewardship of Furey Wood with members from their group of volunteers set up to manage Anderton and Marbury Woods (now with remaining members of FFW) (A>B).This is conceptualised in Figure 12.1 as an example of a 'Dynamic State': where the resilience, and subsequent longevity of a group is dependent on a group's capacity to exhibit dynamism in response to changing circumstances; including those within a group (e.g. membership) and externally (e.g. sources of funding or support). Groups which are able to exhibit this level of dynamism are more likely to be successful at adapting to change if they are characterized by heterogeneity. In the case of FFW, the activity focus of the group was to create CSGI activities

primarily to serve the interests of one type of participant; families with children. When this type of participant declined, the group was not successful in attracting different types of participant. Therefore homogeneity, although the source of group cohesiveness for the time that FFW were active, proved intrinsically weakening to the group's adaptive capacity; and the only option was for the group to change and be subsumed by another group (FOAM).

Alongside the 'dynamic state', two other possibilities are conceptualised in Figure 12.1: 'steady state' and 'adaptive state'. 'Steady state' describes groups whose homogeneity (e.g. membership profile, activity focus) can prove to be a source of stability, which in turn can result in longevity. For example, the members engaged in CSGI activities at The Faith Plot (FOEP) (A) represent a fairly homogenous group profile; and CSGI activities are principally focused on food production, and more recently woodwork. Evidence from the FOEP case study showed that homogeneity can be both a strengthening influence for a group, bringing together like-minded individuals, and providing a clear set of objectives to communicate to potential members and funding bodies alike. However, it can also limit perceived opportunities for diversification, particularly if the influence of one or two members in determining these foci is characteristic of this stability. In the case of FOEP, the role of key personalities providing a sense of stability, strengthening the 'steady' state of the group (A>A) partially facilitated by a formal governance structure. However, FOEP also exemplifies a situation where multiple states can arise at once: the 'steady' state of the group, did not prevent a 'dynamic state' occurring when changes to external circumstances necessitated leadership from within the group to engage with decision makers regarding the future of the group and its site (A>A+). In this instance, Interviewee 1's decision to engage positively with Liverpool City Council and The Land Trust regarding asset transfer resulted in members of Faith Plot and FOEP having agency and advocacy within the policy sphere and with an ENGO (Schema 21.2); and as a result their role as strategic partners in the future of Everton Park has become more substantiated.

Figure 12.1 Schema visualising resilience of CSGI Types as three distinct 'states'

'Steady State'	'Dynamic State'	'Adaptive State'
A	A A+/B	
Strength: Stability Risk: Brittleness Character: Homogeneity	Strength: Change Risk: Stagnation Character: Heterogeneity	Strength: Adaptability Risk: Temporality Character: Mixed (Homogenous/ Heterogeneous)

A → A

A → A+
+/OR
B

A → B → X
+/OR
C
+/OR
D

e.g. FOEP, CMP, ASAP	e.g. FFW > FOAM	e.g. LCG
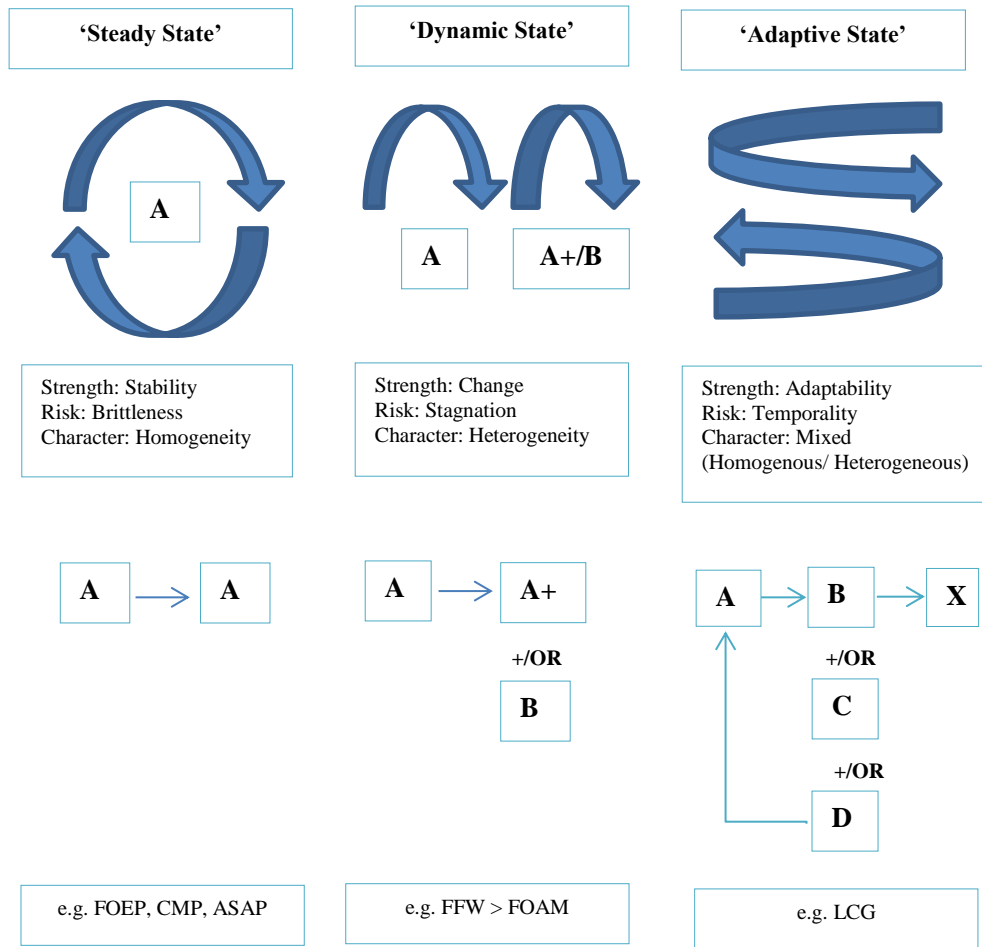
Key

A - CSGI group (original)

A+ - CSGI group (original with small change; recognisable as original

B – CSGI group (new characteristics to original)

X – Cessation of CGSI group (original discontinues without replacement)

C – CSGI group (new characteristics to original and B)

D – CSGI group (new characteristics to original, B and C)

In some cases, the characteristics associated with a 'steady state' can result in a lack of resilience, as illustrated by the case of CMP whose inability to adapt to changing circumstances (funding and support), combined with a homogeneous group profile, has resulted in a 'brittleness' which leaves them at risk of becoming unable to continue their CSGI activities due to the scale of management and maintenance proving unfeasible for a small group of volunteers, and a lack of resources to continue the activity focus which defines the group (e.g. replacing annual flower displays).

The third 'state' identified from the in-depth case studies is the 'adaptive state', which describes groups which prove highly adaptive to changing circumstances, whether internal (group profile and membership) or external (sources of funding and support) (A>B; B>C; C>D; D>A). This 'adaptive state' recognizes groups which are effective in adapting to changes both internally, and externally, and may adapt a number of times, whilst engaging in activities with the same group of volunteers and/or the same site of green infrastructure. The type of CSGI group which is most associated with this 'state' is Formal Project which is primarily set up in response to an identified need, or an opportunity to diversify the activity focus of an existing organisation. In this sense, Formal Projects are characterized by their temporality, and a lack of longevity may not in fact be interpreted as a weakness; but instead a capacity to adapt to a shift in focus within a locale, or within a sector. In Figure 12.1, LCG is used to exemplify the 'adaptive state; to recognize their ability to shift the focus of their CSGI activity focus in response to emergent funding streams. In this case of LCG, however, constitutionally the CSGI Project is offered a 'steady state' by its affiliation with Lister Residents Association.

Another example of 'adaptive state' CSGI activities can be found in the 'Master Sheet(s)' (see Appendix 2 & 3) which include Formal Projects, set up by health and wellbeing organisations in response to a funding opportunity such as the Big Lottery's Local Food programme, which continue their CSGI activities for as long as there is funding available to support volunteer interest. In terms of the social outcomes associated with this CSGI activity, this is not necessarily a problem. However, if the focus is on sustainable management and maintenance of a particular site of green infrastructure, this temporality may prove to be a weakness of the Formal Project type for meeting a long-term need. This is arguably the difference between output focus and outcome focus; which is a significant shift to make in terms of land use planning and situates CSGI more in the health literature where wellbeing is becoming more outcome focused (Peel and Pemberton, 2016); and social capital literature where the activities of an individual initiative can be evaluated in terms of its impact on social outcomes (cf. Glover, 2004; Firth, Maye and Pearson, 2011).

The differences between the three main types of CSGI explored throughout this thesis, and the capacity of each to achieve a 'state' of resilience and longevity can also be conceptualised as in terms of the role CSGI has, as a specific scale of green infrastructure activity to shape the wider debate about *how* to manage and maintain green infrastructure in a rapidly changing policy environment. Figure 12.2 depicts this relationship in terms of the multiple-levels of governance that CSGI groups are part of and shaped by. As argued when setting the context for this thesis in Chapter One, the changes happening within central government, in particular the decision to cut funding for non-essential public services including management and maintenance of parks and other green infrastructure features within the public realm, have affected the 'policy sphere' for shaping debates about *how* to deliver and maintain green infrastructure and *who* should be responsible for its management. In turn, 'decision makers' at the sub-regional and local (district) levels of governance,

responsible for the distribution of resources and funding from central government to local communities, are pressured to make cuts which affect the viability of some sites of green infrastructure, including parks, but especially smaller sites of green infrastructure with less functionality, serving a smaller population. It is this latter group of sites within the wider green infrastructure typology which are most vulnerable, and are also more often managed by volunteers because they are less strategically important for wider policy drivers such as economic generation, tourism and attracting inward investment for new residential or commercial development.

Within this context however, ENGOs are focused on advocating for the multiple-functions of green infrastructure, and the associated benefits for people, the environment and the economy. The Mersey Forest is an exemplification of how ENGOs have been instrumental in determining the parameters and establishing the evidence around the need for green infrastructure, and identifying green infrastructure assets to protect, enhance and, where appropriate, improve access to. Figure 12.2 shows, however, that with diminished status and associated resources flowing from the 'policy sphere' through 'decision makers' to ENGOs, the capacity of ENGOs to advocate for CSGI groups and the additional value they bring in terms of social and environmental (and economic) outcomes is also diminished. In turn, the relevance of ideas, policy mechanisms and funding is less likely to be as relevant to the nuances of CSGI groups, compared to for example the work of ENGOs, who have a more direct channel of influence to more strategic levels of governance.

Figure 12.2 Schema of 'flows' to and from CSGI through multiple -levels of governance
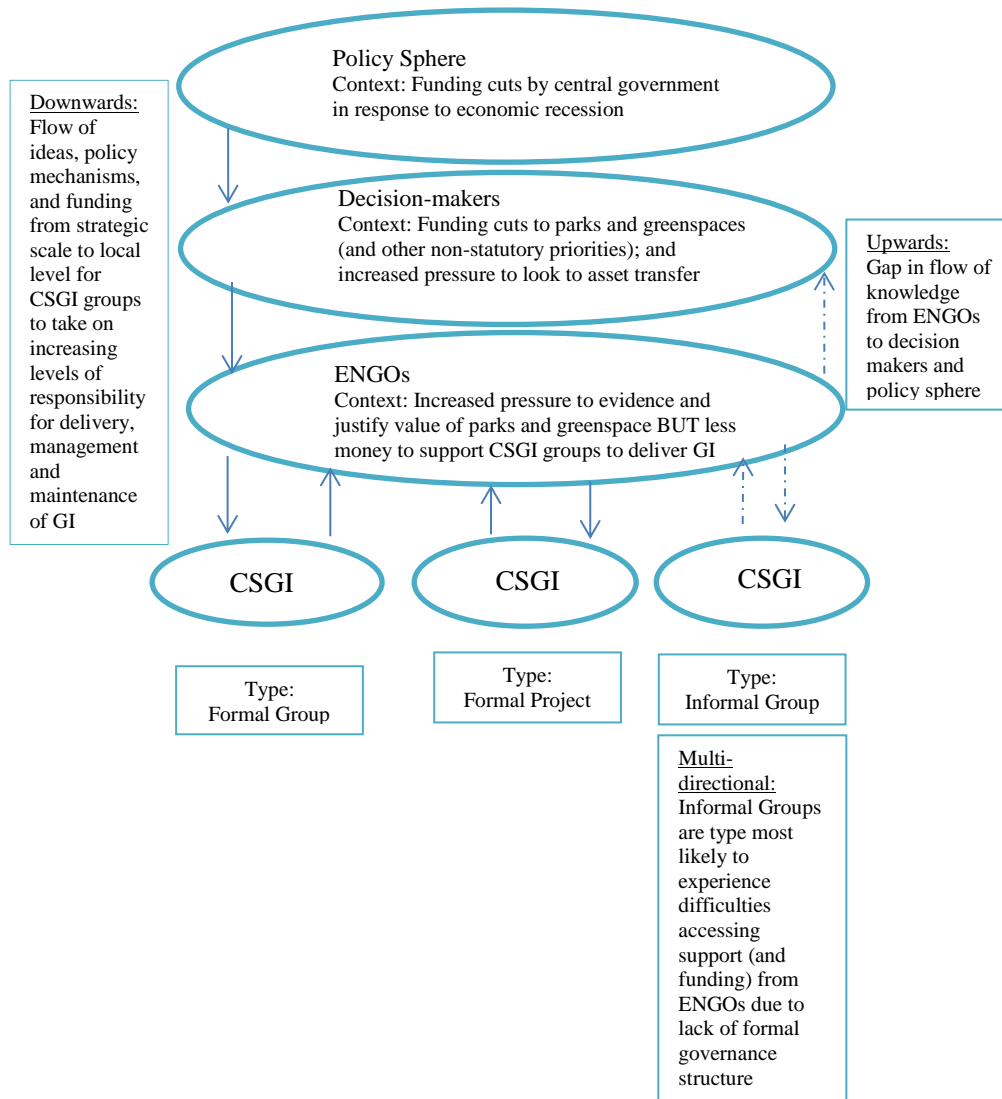
An additional observation from the case study analyses captured in Figure 12.2 is the limitations of Informal Groups to benefit from ENGOs in terms of funding and support due to their lack of a formal governance structure. It is often the case that groups are required to demonstrate a constitution, associated procedures such as regular meetings, and transparent approaches to membership and decision making, to be considered for the support of external stakeholders. As in the case of CMP, the presence of a constitution may prove ineffectual if members of the group are insufficiently prepared to manage and maintain a formal governance structure. Moreover, the limited capacity of ENGOs to provide skills and training to CSGI groups, even to groups who adopt a formal governance model such as a Friends group, has proven throughout the illustrative cases included in the thesis, to be a significant shift in the 'landscape' of CSGI groups in recent years:

even in the case of FFW, who had benefited from support and training from The Mersey Forest for many years, a lack of understanding and willingness within the group to take on the role and responsibilities of formal governance, which can also be conceptualised as a lack of succession, ultimately resulted in a lack of resilience and longevity.

12.3 Review of the methodological structure

This thesis has adopted a qualitative research design emphasizing the experiences of individuals within groups and projects through a case study approach in which data collection is ethnographic in character. A desk study of existing activity within the sample area enabled the creation of a typology of characteristics to define community-scale green infrastructure. As a result, four distinct categories of groups and project provided a framework for four case studies. Underpinned by phenomenology, the four case studies explore the challenges faced by groups and projects for sustaining activity at this community-scale. Broadly speaking, this choice of methodology and data techniques has served to meet the objectives of the research aim: both in the creation of a more nuanced definition of community-scale green infrastructure; and facilitating an in-depth exploration at the group and project level of what factors and forces are critical to influencing a group's propensity for longevity and resilience. Further, relating to Objective 4, further avenues for explorative research have been identified; including the emergent role of asset transfer from local authorities to partnerships, including or led by CSGI groups (as in the case of Everton Park, FOEP and The Land Trust); brought more into focus by the publication of the 'State of UK Public Parks Report' (HLF, 2016).

On reflection, there are two aspects in which the thesis may have been strengthened methodologically. First, to introduce an additional phase of data collection, for example by creating 'pilot phase' where a number of case studies could be explored in preparation for the case study approach. This may have mitigated circumstances such as those encountered in the case of Lister Community Green (Chapter Ten) where it proved more difficult to access members beyond the 'gatekeeper' volunteers, and as such a more holistic view of the experiences of the whole group was limited to the contributions of core members and strategic partners. In addition, the ethical issue of anonymity was less of a problem than anticipated. The decision was taken to deliberately anonymise interviewee contributions as a component of the thesis' research ethics, due to the possibility of sensitive comments being made about the impacts of an actor or an agency on a group's experiences. However, this ultimately limited the potential to highlight the key organisations, and individual roles within those organisations, which have proved critical to a group's capacity for longevity and resilience.

An additional consideration relating to the methodological structure relates to the selection of four case studies (Chapter Six). In light of the desk-search and the sample of 244 unique groups, it may have been possible to conduct more case studies, perhaps adopting a less in-depth approach to data

collection, allowing analysis across a wider sample of groups to test any assumptions inherent in a small selection about the *representativeness* (Section 6.2.4) of particular cases. This is highlighted also by the decision to include 'secondary' cases in the case of FOAM and ASAP to introduce contrasting cases, with significantly different experience of managing a site of CSGI value, within the same type of CSGI as defined by the typology.

Finally, if more time had been available, it may also have been valuable for the thesis to conduct a pilot study where the individual case study methods could be piloted, as well as the initial case study selections, to interrogate any assumptions made about a group based on the data available through the desk-search. For example, CMP presented the characteristics of an Informal Group based on analysis of the data collected through documentary analysis. However, during the course of the data collection period during the case study, it became clear that CMP were formally constituted, but they did not adhere to all of the processes and procedures of formal governance. Similarly, although LCG were affiliated to a formally constituted group (Lister Residents Association), it proved difficult to maintain contact with other members of the group during the course of data collection for the case study, as the role of the Chairperson as 'gatekeeper' to the group proved to be an obstacle to wider communications. These, and similar challenges, may have been flagged during a pilot study.

12.4 Contribution to knowledge

As this thesis was being prepared, a revised 'State of UK Public Parks Report' (HLF, 2016) was being prepared by Heritage Lottery Fund (HLF), partly in response to a House of Commons Select Committee investigating the future of parks in Britain, and whether the management and maintenance of parks ought to be a statutory responsibility at the local level. The final findings of this report are yet to be published; however it is clear from the HLF (2016) report that the management and maintenance of parks, and other publicly accessible sites of green infrastructure, is going to be a hybrid of public, private and community ownership in the future. As such, this thesis is a timely publication, with valuable insights into how community voluntary groups can play a critical role in creating additional benefits from green infrastructure, in particular social benefits. Moreover, the HLF (2016) report echoes the findings of this thesis in suggesting that the role of small-scale, local level intervention such as Friends and user groups is important; yet there are clear limits to their *capacity*. For example, 92% of local authorities who responded to ASPE's State of the Market survey agreed or strongly agreed with the view that 'there's a limit to the extent to which volunteers can be involved in delivering parks and green space services' (HLF, 2016: 24).

The critical factors and forces affecting the resilience and associated longevity of community-scale green infrastructure are summarised as five critical components for effective community action: *governance*, *membership*, *support*, *funding* and *activity focus*.

In addition, it is possible to highlight overarching findings that are common across the typology of community-scale green infrastructure:

1. Governance structures make all the difference

    A good governance structure, with clarity around who is responsibility for particular.

2. Succession

    The succession of leaders or 'champions' within a group is essential.

2. Support is essential

    The role of external stakeholders and professionals was observable across each of the case studies, including strategic partners and various actors from external agencies, including local authorities and specialist organisations such as The Mersey Forest.

2. Longevity is achievable

    Longevity is possible, even when groups lack resilience, however this tends to encourage homogeneity.

3. Resilience requires a greater understanding of external factors and forces

    Resilience is the capacity to adapt to changing patterns of social behavior and needs, therefore resilience is dependent on a group's capacity to understand external factors and forces.

It has also been possible to reflect on the nature of community-scale green infrastructure and evaluate the potential role it can play in contributing additional, and valuable, social and environmental outputs and outcomes to a wider typology of green infrastructure delivery.

   i.   As a response to the need for alternative approaches to long-term management and maintenance at the local level, community-scale green infrastructure represents a locally relevant delivery mechanism with the flexibility to respond to niche interests in the local community.

   ii.   Relationships within the group are the most important factor affecting a group's propensity for longevity.

           o   The key dynamics are created through personalities, and often one or two key personalities can affect a group's capacity for longevity and resilience through what they bring to a group, or subsequently what they take away

iii. Skills and capacity for linking social capital within the group are the most important factor affecting resilience

iv. External stakeholders are important insofar as unlocking the potential for longevity and resilience within a group by signposting training opportunities, fundraising, and acting as a facilitator to make connections between groups with similar objectives across different areas.

  o For example, the role of an 'outsider', particularly if perceived as an 'expert' (in environmental conservation, or fundraising, or community development) can neutralise tensions within a group and help steer a group towards a consensus about what objectives to prioritise and which strategy to adopt to achieve their goals.

v. Be offering a definition of community-scale green infrastructure, his thesis describes the human infrastructure contributing to the network of green infrastructure sites at the micro-scale, creating a rich picture of what people are doing to enhance their local green spaces, how they are doing it, with whom and furthermore, the ways in which they are (staying nimble) and sustaining their efforts over time to stay relevant not only to their local context as neighbours move away, and trends for certain activities peak and decline, but to stay relevant to changing political and policy climates. As emphases change in response to new research findings and new political priorities, green infrastructure may be adopted as a way of tackling obesity through physical activity or supporting those living with dementia through the creation of sensory gardens

vi. Grant funding, such as the Big Lottery's 'Local Food' and 'Natural Choices for Health and Wellbeing', can be focused on the provision of capital resources to support a voluntary group's objectives through the purchase of equipment, such as tools or materials. It is less common for a trust or charity distributing grant funding to agree to fund items which are described as revenue expenses, such as a person's time. To an extent, this should not affect community-scale green infrastructure groups which are definitively voluntary in nature. However, this thesis has shown that a percentage of voluntary groups which are active in The Mersey Forest area are supported by established community and voluntary sector organisations; this describes the characteristic of the 'Formal Project' typology. In these cases, there is evidence to show that groups can benefit from revenue funding indirectly, for example if a project officer from a charity assists a group in writing a funding application, or manages the group's communications, such as the promotion of an event, through the internal communications of the wider organisation. The effect of this additional support, and

benefit from other types of funding not open to voluntary groups directly by nature of their constitution, can be significant. It may allow the group to concentrate on new areas of activity through the purchase of equipment if grant funding is awarded, which in turn may attract new volunteers, and contribute to a group's resilience by highlighting opportunities which would otherwise be invisible to a group operating in a more isolated manner.

vii.   The role of linking social capital, operated in particular by 'gatekeepers' within the group, is a particularly strong finding in the case studies.

12.5 Further research

This section in particular highlights the focus of Objective 4 – 'To establish the potential for further research into the capacity for longevity and resilience in different types of community-scale green infrastructure'. In light of the policy and political developments in the field of green infrastructure planning, this thesis serves as a timely piece of literature which emphasises the diversity of approaches necessary to meet the need for sustainable models of delivery, and moreover, long-term management and maintenance of green infrastructure in a climate of reduced public sector funding. This is depicted in Figure 12.2, and highlighted as the wider 'policy sphere' context throughout the thesis.

12.5.1 Links back to the wider literature

Although the wider context of public sector funding cuts is critical to understand the role CSGI groups play in providing an alternative model and mechanism for small-scale green infrastructure planning; this thesis is primarily concerned with exploring the social outcomes associated with CSGI activity, to better understand the advocacy argument for delivering green infrastructure functions and benefits at this scale, as a complementary scale of delivery to more strategic sites of green infrastructure e.g. the landscape scale benefits of national parks. As such, research literature has been highlighted throughout the thesis highlighting the growing body of evidence of the multiple benefits (social, environment, and economic) delivered through green infrastructure. This thesis has primarily focused on ways in which volunteers organise themselves to manage and maintain small sites of green infrastructure, and in turn create opportunities to transfer the social benefits of natural, accessible green space in close proximity to where people live; which in turn is a subject of empirical research in the public health literature (cf. Ward Thompson, Roe and Aspinall, 2010) and in literature focused on social capital (cf. Firth, Maye and Pearson, 2011).

As such this thesis is situated in an arguably rich body of wider literature focusing on the questions of *what* and *why* in the context of environmental volunteering, including in the context of community-scale green infrastructure. The slight shift in emphasis of this thesis however, is to focus more squarely on the question of *how*: how do groups organise themselves to sustain their activities, in order to sustain the multiple benefits associated with green infrastructure; and are there models and mechanisms and approaches which are more likely to result in longevity and resilience. As such, the findings of this thesis, including the typology of CSGI and the characteristics of each type as illustrated by the case studies, could contribute to further research on theorisations of volunteer-led or community-led asset transfer of goods and services, and partnership approaches to long-term management and maintenance of public assets (cf. Dempsey, Smith and Burton, 2014).

Through the course of this thesis, it has been possible to witness emergent literature exploring and extending the possible theoretical and policy-based frameworks for assessing the value and impact of community engagement and participation in the planning, design, delivery and long-term management and maintenance of public goods and services. The author recognises the potential for drawing on international case studies to reflect and interrogate the insights into resilience at the community-scale in the context of The Mersey Forest in the North West of England.

As such, Ilieva's (2016) work presents an opportunity to compare the experiences of community voluntary groups in the US and the UK. For example Brooklyn Grange Farm in New York City, where a community-led volunteer initiative is managing a 2.5 acre organic urban rooftop farm utilised for producing vegetables and honey for local restaurants, markets and community-supported agriculture. This case study provides an interesting line of enquiry for future research in light of its funding model. The financial resources to catalyse the project (£600,000) were provided in 2011 by the Environment Protection Agency, a US government agency, to facilitate the creation of more resilient urban landscapes through a green infrastructure approach in response to Hurricane Sandi. There is an opportunity therefore for extending an exploration of CSGI as a spatial approach to resilience; with a focus on asking questions relating to what the role might be for agency, ownership, and an endogenous community-led approach (as opposed to a technocratic, professional-led approach) (Ilieva, 2016).

An additional line of enquiry for the findings presented in the thesis relate to the possibility of adopting other analytical frameworks to interrogate the evidence gathered: such as Latour's (2004) networks and assemblages. When viewed as a network, community-scale green infrastructure is a significant part of the picture of delivery of multifunctional green infrastructure benefits; in particular informal education and learning, improved levels of health and wellbeing, social capital through improved access to social networks and relationships (reduction in isolation), and contributing to feelings of pride, and a sense of place and belonging, at the local level.

Furthermore, it may be possible to consider the opportunity this thesis presents to reconceptualise Arnstein's (1969) 'ladder of participation' identifying a temporal factor, in reflection of the difficulties voluntary groups face in being prematurely launched into 'delegation'. This thesis serves to show that some voluntary groups will never want delegation, preferring to act as stewards of a piece of land, and show reluctance to take on the responsibility of ownership. The case of FOEP exemplifies an emergent model of asset transfer and partnership working, between a CSGI group and a community sector organisation or ENGO like The Land Trust, which substantiates the role of community members, whilst meeting a group's existing skills deficit by drawing on professional expertise. However, in the context of squeezed resources, even ENGOs such as The Mersey Forest, are increasingly being pressurised to make groups ready for 'delegation' due to limited funding to continue support of groups in perpetuity. A focus on the demands on ENGOs under financial pressure could equally be a focus of future research.

12.5.2 Extending the sample area to verify the typology

An additional possibility for further research relates to the prospect of verifying the typology of CSGI identified through the desk-search of groups within The Mersey Forest, to a wider sample area. For example, it would be possible to conduct a similar desk-search of another community forest area, such as the Red Rose Forest whose area covers an expanse of the Northwest of England in close proximity to The Mersey Forest. In this instance, it would be possible to identify characteristics of groups and projects within a similar geo-political area, and with similar patterns of urban density and demography, whilst testing any assumptions inherent within the typology as they relate to phenomena of being located within The Mersey Forest. In turn, this may prove interesting to The Mersey Forest; to compare and contrast the nature and shape of CSGI within a neighbouring community forest area, to consider how their particular approach to supporting and funding CSGI groups over an extensive period of time may have impacted on CSGI groups within their boundary.

12.6 Summary and conclusion

Policies introduced by the Coalition Government in 2010 placed greater emphasis on the roles and responsibilities of community members, acting as volunteers, to manage and maintain local greenspaces in the wake of austerity and reduced public funding. And yet, there is an underlying misunderstanding in the centre of government about the drivers for volunteering. This thesis therefore presents a timely and critical analysis of government policies focused on the decentralisation of planning for green and open space management; critiquing assumptions about inherent capacities – both individual and community – to adopt the role/s of environmental stewards

in the place of the state. Further, the predominance towards viewing green infrastructure as a strategic approach to planning in both academic and practitioner literature serves to diminish the opportunity to redefine successful cases of environmental stewardship as community-scale green infrastructure; and in turn to better advance an argument for its continued and enhanced support as a significant scale of delivery. By creating a more nuanced picture of activity at the community-scale, it may be possible to assist decision-makers in their task of reducing public expenditure whilst protecting and enhancing access to natural green space in close proximity to where people live, in light of well-evidenced social and economic benefits to individuals and communities.

The typology of community-scale green infrastructure provides a framework for defining, comparing and contrasting different volunteer-led groups and projects actively managing sites of ecological or educational interest within their local environment. The categories of Formal Group, Formal Project, Informal Group and Formal Group (inactive) differentiate groups and projects participating in community-scale green infrastructure according to their approaches to governance, membership, funding, support and overall focus; which then thematically provides a structure for exploring four case studies in more depth. The desk study highlights a rich picture of activity within The Mersey Forest area, providing a more nuanced picture of environmental volunteering and activism than is available in current literature. In addition, the case study findings serve to illuminate and prioritise the critical success factors for longevity and resilience at the community-scale. Across the four case studies, three factors were universally foregrounded as crucial to securing a group or project's capacity to survive change within the group, or adapt to changing circumstances externally: adopting a governance structure to manage decision-making and membership; securing succession of dynamic 'leaders' within the group; and securing the support and assistance of external stakeholders and professional partners.

The findings of the case studies suggest that although community volunteers are a vital ingredient to the diversity of approaches to local greenspace management and environmental stewardship, defined by this thesis as community-scale green infrastructure, the role of external stakeholders and professional bodies from the public and voluntary and community sector providing support and assistance is a crucial missing ingredient in recent years. In turn, the capacity of many groups and projects to achieve longevity and resilience in the face of unforeseen circumstance change, such as the end of a funding stream, or the discontinuation of a local authority funded environmental management role, is ultimately limited by the capacity inherent within the group; which in turn, is largely shaped around the experiential knowledge of individual members to conduct the skills necessary for land management and governance.

As such, the policies encapsulated by the rhetoric of 'The Big Society' and legislated for within the Localism Act are inherently prejudiced towards groups and projects which can draw on individuals with experience of management, such as retired professionals in more affluent communities. In

contrast, communities in less affluent areas with higher levels of multiple deprivation, and therefore higher demands on existing budgets for public expenditure, are exposed to more risk with an inherently lower capacity for resilience. This finding is significant for this thesis and for wider decision-making in light of the mounting evidence illustrating the net positive health and wellbeing benefits access to natural greenspaces can have for individuals living in areas with high rates of health inequalities.

In conclusion, the community response to a meet this need for access has resulted in a vibrant response from volunteers within the area of The Mersey Forest; and that there is a diverse network of groups and projects with enthusiasm and motivation to be active stewards of the natural environment at the local level. However, a critical analysis of success factors of these groups and projects through four case studies highlights the limitations of delivering sustainable, multi-functional green infrastructure solely through volunteer-led activity. There is therefore a continuing need for external stakeholder input; and best results are achieved when strategic partners and professionals engaged in the design and delivery of green infrastructure support CSGI Groups and Projects, and build on capacity within the groups for longevity and resilience. This thesis shows therefore that CSGI activity is only one piece of the jigsaw in the growing challenge of conserving, enhancing and creating new sites for green infrastructure within our towns and cities. However, with the right support, CSGI playsa critical role in engaging people and extending the benefits of green infrastructure to a far wider audience than traditional public-sector management and maintenance of green infrastructure, with its necessary focus on land management, could ever hope to.

BIBLIOGRAPHY

ADAMS, D., SCOTT, A.J. and HARDMAN, M., 2013. Guerrilla Warfare in the Planning System: Revolutionary Progress Towards Sustainability? *Geografiska Annaler: Series B, Human Geography,* 95(4), pp. 375-387.

AGENCY (2016) 'Council proposes ban on blackberry picking', *The Telegraph* [online] Available at: http://www.telegraph.co.uk/news/politics/council-spending/12135786/Council-proposes-ban-on-blackberry-picking.html Accessed August 2016.

ASSOCIATION OF GREATER MANCHESTER AUTHORITIES (AGMA) [online] (2011) *Greater Manchester Green Infrastructure Framework.* Available: http://www.greeninfrastructurenw.co.uk/html/index.php?page=resources&SubRegion/CityRegion=true Accessed 20 August 2016.

ALLEN, W.L. (2012) Advancing green infrastructure at all scales: From landscape to site. *Environmental Practice,* 14(1), pp. 17-25.

ALLMENDINGER, P. and TEWDWR-JONES, M. (1997) Mind the gap: planning theory-practice and the translation of knowledge into action (1997). *Environment and Planning B,* 24(6), pp. 802-806.

AMATI, M. and TAYLOR, L. (2010) From Green Belts to Green Infrastructure. *Planning Practice & Research,* 25(2), pp. 143-155.

ASSOCIATION OF PUBLIC HEALTH OBSERVATORIES (APHO) (2013) *Public Health Profiles* [online] Available at: www.apho.org.uk Accessed October 2013.

ARNSTEIN, S.R. (1969) A Ladder of Citizen Participation, *JAIP*, Vol. 35. No. 4, July 1969, pp. 216-224.

BATH AND NORTH EAST SOMERSET COUNTY COUNCIL (2013) [online] *A green infrastructure strategy for Bath and North East Somerset.* Available at: http://www.bathnes.gov.uk/sites/default/files/e2389-app.1_draft_gi_strategy_0.pdf Accessed 26 September 2016.

BBC NEWS [online] (2016a) *Art Council's budget cut by 30%.* Available at: http://www.bbc.co.uk/news/entertainment-arts-11582070 Accessed 27 July 2016.

BBC NEWS [online] (2016b) *Foragers raise 'blackberry picking ban' fears.* Available at: http://www.bbc.co.uk/news/uk-england-bristol-35481536 Accessed August 2016.

BENEDICT, M.A. and MCMAHON, E. (2006) *Green infrastructure: linking landscapes and communities.* Washington, DC: Island Press, c2006.

BIOSPHERIC STUDIO [online] (2015) Available at: http://www.biosphericstudio.com Accessed August 2016

BISGROVE, R. (2010) Urban horticulture: future scenarios. *Acta Horticulturae,* (881), pp. 33-46.

BOND, A. (2006) *Your Master Thesis: How to plan, draft, write, revise.* UK, Studymates Ltd.

BOVAIRD, T. (2007) Beyond Engagement and Participation: User and Community Coproduction of Public Services. *Public administration review,* 67(5), pp. 846-860.

BREUSTE, J.H. (2010) Allotment Gardens as Part of Urban Green Infrastructure: Actual Trends and Perspectives in Central Europe, In N. MULLER, P. WERNER and J.G. KELCEY, eds. (2010) *Urban Biodiversity and* Design, Oxford, Wiley-Blackwell, pp. 463-476.

PRIDEAUX, S. (2016) 'Last chance to have your say on controversial byelaws for Bristol's parks', *The Bristol Post* [online] Available at: http://www.bristolpost.co.uk/chance-say-byelaws-banning-balckberry-picking/story-28898033-detail/story.html Accessed August 2016.

BROWNILL, S. and CARPENTER, J. (2007) Participation and planning: Dichotomies, rationalities and strategies for power. *Town Planning Review,* 78(4), pp. 401-428.

BROUILLETTE (2016) 'Foraging shouldn't be forbidden', *The Guardian* [online] Available at: http://www.theguardian.com/commentisfree/2016/feb/03/foraging-healthy-sustainable-bristol-city-council-ban Accessed August 2016.

BUCKINGHAMSHIRE COUNTY COUNCIL [online] (2013) *Green Infrastructure Delivery Plan.* Available at: http://www.buckscc.gov.uk/media/1521901/5326-Buck-GI-Delivery-Plan-FINAL-ISSUE_2013_08_07_low_res.pdf Accessed 30 August 2016.

BURTON, M., DEMPSEY, N. and MATHERS, A. (2014) in DEMPSEY, N., SMITH, H. and BURTON, M. (2014) Place-keeping: Open space management in practice. London: Routledge.

BURNS, D. (2007) *Systemic action research: a strategy for whole system change.* Bristol: Policy Press, 2007.

BUTLER, P. (2015) 'Councils warn latest cuts heap pressure on stretched services, *The Guardian* [online] Available at: http://www.theguardian.com/society/2015/dec/17/councils-warn-latest-cuts-heap-pressure-stretched-services Accessed 27 July 2016.

CAMERON, R.W.F., BLANUŠA, T., TAYLOR, J.E., SALISBURY, A., HALSTEAD, A.J., HENRICOT, B. and THOMPSON, K. (2012) The domestic garden - Its contribution to urban green infrastructure. *Urban Forestry and Urban Greening,* 11(2), pp. 129-137.

CAMPBELL, G. (2009) Transforming neglected spaces. *Green Places,* (58), pp. 37-39.

CAMPBELL, H. (2000) Public Involvement and Planning: Looking beyond the One to the Many. *International Planning Studies,* 5(3), pp. 321-344.

CASTELL, P. (2010) Involving Tenants in Open Space Management: Experiences from Swedish Rental Housing Areas. *Urban Geography*, Vol. 31 (2010), pp.236-258.

COLEMAN, A. (2009) Role of the Green Haven. *Government News,* 29(5), pp. 16.

CUTHILL, M. and FIEN, J. (2005) Capacity building: Facilitating citizen participation in local governance. *Australian Journal of Public Administration,* 64(4), pp. 63-80.

DEMPSEY, N., SMITH, H. and BURTON, M. (2014) *Place-keeping: Open space management in practice.* London: Routledge

DEPARTMENT OF COMMUNITIES AND LOCAL GOVERNMENT (2012) [online] *National Planning Policy Framework.* Available at: http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf Accessed 26 September 2016.

DINNIE, E., BROWN, K.M. and MORRIS, S. (2013) Community, cooperation and conflict: Negotiating the social well-being benefits of urban greenspace experiences. *Landscape and Urban Planning,* 118(0), pp. 103-111.

DUNN, A.D. (2010) Siting Green Infrastructure: Legal and Policy Solutions to Alleviate Urban Poverty and Promote Healthy Communities. *Boston College Environmental Affairs Law Review,* 37(1), pp. 41-66.

ENNIS, G. and WEST, D. (2010) Exploring the Potential of Social Network Analysis in Asset-based Community Development Practice and Research. *Australian Social Work,* 63(4), pp. 404-417.

EC EUROPEAN COMMISSION (2012) [online] *Green Infrastructure Studies, Green Infrastructure Implementation and Efficiency.* Available at: http://www.ec.europa.eu/environment/nature/ecosystems/studies.htm#implementation. Accessed 22 March 2015.

FEENSTRA, G.W. (1997) Local food systems and sustainable communities. *American Journal of Alternative Agriculture*, Vol. 12, pp. 28-36.

FIELD, D.R (2000) Social Groups and parks: leisure behavior in time and space. *Journal of Leisure Research*, 32, pp. 27-31.

FIRTH, C., MAYE, D. and PEARSON, D. (2011) Developing 'community' in community gardens. *Local Environment,* 16(6), pp. 555-568.

FISHER, D.R., SVENSDEN, E.S. and CONNOLLY, J. (2015) *Urban Environmental Stewardship and Civic Engagement: How Planting Trees Strengthens the Roots of Democracy.* London: Routledge.

FISCHER AND FORESTER (1993) *The Argumentative Turn in Policy Analysis* Available online at: http://www.maartenhajer.nl/upload/HAJER%20Arg%20Turn%201993.pdf Accessed October 2013

FLYVBERG, B. (2006) Five misunderstandings about case-study research. *Qualitative Inquiry.* Vol. 12, 2, pp. 219-245.

FRAZIER, T.G., THOMPSON, C.M., DEZZANI, R.J. and BUTSICK, D. (2013) Spatial and temporal quantification of resilience at the community scale. *Applied Geography,* 42(0), pp. 95-107.

GLOVER, T.D. (2004) Social Capital in the Lived Experiences of Community Gardeners. *Leisure Sciences,* 26(2), pp. 143-162.

GREEN INFRASTRUCTURE NORTHWEST [online] (2008) *Key findings from Liverpool JSNA.* Accessible at: http://www.greeninfrastructurenw.co.uk/liverpool/doc.php?docID=279 Accessed August 2016.

GROUNDWORK [Online] (2016) *Barton Alleyway Greening Project Case Study*. Available at: file:///C:/Users/User/Downloads/case_study_-Barton_Alleywaysv2.pdf Accessed August 2016.

GRIX, J. (2004) *The Foundations of Research*. Hampshire: Palgrave Macmillan.

GUSTAFSSON, K. and GUSTAFSSON, K.M. (2013) Environmental discourses and biodiversity: the construction of a storyline in understanding and managing an environmental issue. *Journal of Integrative Environmental Sciences,* 10(1), pp. 39-54.

HAJER, M.A. (1997) *The politics of environmental discourse: ecological modernization and the policy process.* Oxford: Oxford University Press, 1997.

HEALEY, P. (2016) Promoting well-being through caring for place: the planning project in challenging times. *Planning for Future generations: UK-Ireland Planning Research Conference, Cardiff, 6-7 September 2016.*

HEALEY, P. (2008) The Pragmatic Tradition in Planning Thought. *Journal of planning education and research,* 28(3), pp. 277-292.

HEALEY, P. (2006) *Collaborative Planning: Shaping places in fragmented societies.* Hampshire: Palgrave Macmillan.

HEALEY, P. (1992) A Planner's Day: Knowledge and Action in Communicative Practice. *Journal of the American Planning Association,* 58(1), pp. 9-20.

HERITAGE LOTTERY FUND [online] (2016) *The State of UK Public Parks Report.* Available at: https://www.hlf.org.uk/state-uk-public-parks-2016. Accessed 5 March 2017.

HICKEY, D. (2010) Growth Initiative. *Regeneration & Renewal*, pp. 26-27.

HINCHLIFFE S. and WHATMORE, S. (2006), Living cities: towards a politics of conviviality, Special 'Technonatures' issue of *Science as Culture*, 15(3): 123-138

HITCHINGS, R. and HITCHINGS, R., 2013. Studying the preoccupations that prevent people from going into green space. *Landscape and Urban Planning,* 118(2), pp. 98-102.

HORWOOD, K. (2011) Green infrastructure: reconciling urban green space and regional economic development: lessons learnt from experience in England's north-west region. *Local Environment,* 16(10), pp. 963-975.

HOU J. et.al (2009), *Greening cities, growing communities. Learning from Seattle's urban community garden.* Seattle & London: University of Washington Press

HOU J. (ed.) (2010), *Insurgent public space. Guerrilla Urbanism and the remaking of contemporary cities*. London: Routledge

HOWLAND, M. (2013) From the Ground Up, Community Gardens in New York and the Politics of Spatial Transformation. *Journal of urban regeneration and renewal,* 7(1), pp. 98-99.

HUNTER, M.C.R. and BROWN, D.G. (2012) Spatial contagion: Gardening along the street in residential neighborhoods. *Landscape and Urban Planning,* 105(4), pp. 407-416.

INCREDIBLE EDIBLE NETWORK [online] (2016) Available at: http://incredibleediblenetwork.org.uk/incredible-beginnings Accessed August 2016.

JEROME, G. (2017) Defining Community-scale Green Infrastructure. *Landscape Research: Special Edition*, Vol. 42, Issue 2, 2017.

JOHNSON, S. (2012) Reconceptualising gardening to promote inclusive education for sustainable development. *International Journal of Inclusive Education,* 16(5), pp. 581-596.

JORGENSEN, A. and GOBSTER, P.H. (2010) Shades of Green: Measuring the Ecology of Urban Green Space in the Context of Human Health and Well-Being. *Nature & Culture,* 5(3), pp. 338-363.

KAUFMAN, H. (1963) *The Forest Ranger: a study in administrative behaviour*. London: Oxford University Press.

KINGSLEY, J. & TOWNSEND, M. (2006) 'Dig In' to Social Capital: Community Gardens as Mechanisms for Growing Urban Social Connectedness. *Urban Policy & Research,* 24(4), pp. 525-537.

KORPELA, K., VENN, S., YLI-PELKONEN, V., KAZMIERCZAK, A., NIEMELA, J. and JAMES, P. (2007) Promoting ecosystem and human health in urban areas using Green Infrastructure: A literature review. *Landscape and Urban Planning,* 81(3), pp. 167-178.

KUPPER, H., LAURENTZEN, R. and MULDER, M. (2012) Recent policy developments in green education in the Netherlands. *Journal of Agricultural Education and Extension,* 18(2), pp. 121-139.

KREUTZ, S., DEMPSEY, N. and LINDHOLST, A.C. (2014) in DEMPSEY, N., SMITH, H. and BURTON, M. (2014) Place-keeping: Open space management in practice. London: Routledge

LATOUR, B. (2004) *Reassembling the social: An introduction to actor-network theory.* Oxford: Oxford University Press.

LAURENT, A., OLSEN, S.I. and HAUSCHILD, M.Z. (2012) Limitations of carbon footprint as indicator of environmental sustainability. *Environmental science & technology,* 46(7), pp. 4100-8.

LAWSON, L. and KEARNS, A. (2010) Community engagement in regeneration: are we getting the point? *Journal of Housing & the Built Environment,* 25(1), pp. 19-36.

LIVERPOOL CITY COUNCIL [online] (2014a) *Joint strategic needs assessment.* Available at: http://liverpool.gov.uk/council/strategies-plans-and-policies/adult-services-and-health/joint-strategic-needs-assessment/ Accessed August 2016.

LIVERPOOL CITY COUNCIL [online] (2014b) *Liverpool Health and Wellbeing Strategy.* Available at: http://liverpool.gov.uk/media/9138/health-and-wellbeing-strategy-final.pdf Accessed August 2016.

LIVINGSTON, M., BAILEY, N. and KEARNS, A. (2010) Neighbourhood attachment in deprived areas: evidence from the north of England. *Journal of Housing & the Built Environment,* 25(4), pp. 409-427.

LOCALITY [online] Available at http://locality.org.uk/projects/incredible-edible-network/ Accessed August 2016.

LLAUSÀS, A. and ROE, M. (2012) Green Infrastructure Planning: Cross-National Analysis between the North East of England (UK) and Catalonia (Spain). *European Planning Studies,* 20(4), pp. 641-663.

MARGERUM, R.D. (2002) Collaborative Planning. *Journal of Planning Education and Research,* 21(3), pp. 237-253.

MAYER, A.L., SHUSTER, W.D., BEAULIEU, J.J., HOPTON, M.E., RHEA, L.K., ROY, A.H. and THURSTON, H.W. (2012) Building green infrastructure via citizen participation: A six-year study in the Shepherd Creek (Ohio). *Environmental Practice,* 14(1), pp. 57-67.

MCKAY, G. (2011), *Radical gardening.* London: Frances Lincoln Limited.

MCLAIN, R., POE, M., HURLEY, P.T., LECOMPTE-MASTENBROOK, J. and EMERY, M.R., (2012) Producing edible landscapes in Seattle's urban forest. *Urban Forestry and Urban Greening,* 11(2), pp. 187-194.

MCLINDEN, D. (2013) Concept maps as network data: Analysis of a concept map using the methods of social network analysis. *Evaluation and program planning,* 36(1), pp. 40-48.

MEREDYTH, D., EWING, S. and THOMAS, J. (2004) Neighbourhood Renewal and Government by Community. *International Journal of Cultural Policy,* 10(1), pp. 85-101.

MILLARD-BALL, A. (2012) Do city climate plans reduce emissions? *Journal of Urban Economics,* 71(3), pp. 289-311.

MYERSON, G. and RYDIN, Y. (1996) *The language of the environment: A new rhetoric.* London: UCL Press.

NATURAL ENGLAND [online] (2015) *Monitor of Engagement with the Natural Environment (MENE) – Survey Purpose and Results.* Available at http://www.gov.uk/government/collections/monitor-of-engagement-with-the-natural-environment-survey-purpose-and-results Accessed July 2016.

NATURAL ENGLAND (2013) [online] *Green infrastructure.* Available at: http://www.naturalengland.org.uk/regions/east_of_england/ourwork/gi/ Accessed 2013.

NATURAL ENGLAND (2010) [online] *'Nature Nearby' Accessible Natural Greenspace Guidance.* Available at: http://www.ukmaburbanforum.co.uk/docunents/other/nature_nearby.pdf Accessed 25 February 2017.

NATURAL ENGLAND and LAND USE CONSULTANTS (2009) *Experiencing Landscapes: capturing the cultural services and experiential qualities of landscape.* Available at: http://publications.naturalengland.org.uk/publication/48001 Accessed 26 February 2016.

NEWELL, J.P., SEYMOUR, M., YEE, T., RENTERIA, J., LONGCORE, T., WOLCH, J.R. and SHISHKOVSKY, A. (2013) Green Alley Programs: Planning for a sustainable urban infrastructure? *Cities,* 31, pp. 144-155.

NICHOLLS, S. (2012) The resilient community and communication practice. *Australian Journal of Emergency Management, The,* 27(1), pp. 46.

O'BRIEN, E. (2005) Social and cultural values of trees and woodlands in northwest and southeast England. *Forest, Snow and Landscape Research* 79, pp. 169-184.

O'BRIEN, D. (ed.) (2010) *Gardening. Philosophy for everyone*. Wyley-Blackwell.

OLDENBURG, R. (2000) *Celebrating the third place: Inspiring stories about the "Great Good Places" at the heart of our communities.* New York: Marlowe & Company.

PEEL LAND AND HOLDINGS [online] (2015) Website for *Wirral Waters* Available at: http://www.wirralwaters.co.uk Accessed 19 October 2016.

PEETERS, J. (2012) The place of social work in sustainable development: Towards ecosocial practice. *International Journal of Social Welfare,* 21(3), pp. 287-298.

PINKERTON, T AND HOPKINS, R. (2009), *Local Food: How to make it happen in your community.* UK: Transition Books.

PUNCH, (2005) *Introduction to Social Research – Quantitative and Qualitative Approaches.* London: Sage Publications.

PUTNAM, R. (2000) *Bowling alone: the collapse and revival of American community.* New York: Simon Shuster.

RAMESH, R. (2012) Caring for England's poorest patients: Liverpool GP who welcomes all-comers. *The Guardian* [online] Available at: http://www.theguardian.com/society/2012/may/22/england-poorest-patients-liverpool-gp. Accessed 2 July 2015.

REYNOLDS Richard (2008) *On Guerrilla Gardening: A Handbook for Gardening without Boundaries*, Bloomsbury Publishing PLC.

RICHARDSON Tim and KINGSBURY Noel (eds) (2005) *Vista. The culture and politics of gardens*, Frances Lincoln: London

ROBSON, C. (2011) *Real world research: a resource for users of social research methods in applied settings.* Chichester: John Wiley & Sons Ltd, 2011; 3rd ed.

RODWELL, J. (2013) *NIA Best Practice Event, East Sussex* [online] Available at: publications.naturalengland.org.uk /file/6523289342050304 Accessed 2013

ROSELAND, M. (2000) Sustainable community development: integrating environmental, economic, and social objectives. *Progress in Planning,* 54(2), pp. 73-132.

ROSOL, M. (2012) Community Volunteering as Neoliberal Strategy? Green Space Production in Berlin. *Antipode,* 44(1), pp. 239-257.

SAFRANSKY, S. (2014) Greening the urban frontier: Race, property, and resettlement in Detroit. *Geoforum,* 56(0), pp. 237-248.

SALFORD STAR [online] (2015) *£400,000 Biospheric project goes bust* Available at: http://www.salfordstar.com/article.asp?id=3040 Accessed August 2016.

SANGASUBANA, N. (2011) How to Conduct Ethnographic Research. *Qualitative Report,* 16(2), pp. 567-573.

SARKISSIAN, W., HURFORD, D. and WENMAN, C. (2011) Creative community planning: transformative engagement methods for working at the edge. *Australian planner,* 48(3), pp. 237-238.

SEAMAN, P.J., JONES, R. and ELLAWAY, A. (2010) It's not just about the park, it's about integration too: why people choose to use or not use urban greenspaces. *International Journal of Behavioral Nutrition & Physical Activity,* 7, pp. 78-86.

SEFTON COMMUNITY AND VOLUNTARY SERVICE [online] (2016) *VCF Direct* Available at: http://www.vcfdirect.org.uk/seftoncvs/ Accessed 31 July 2016.

SHEATE, W.R., EALES, R.P., DALY, E., BAKER, J., MURDOCH, A., HILL, C., OJIKE, U. and KARPOUZOGLOU, T. (2012) Spatial Representation and Specification of Ecosystem Services: a Methodology using Land Use/land Cover Data and Stakeholder Engagement. *Journal of Environmental Assessment Policy & Management,* 14(1), pp. 1250001-1250001-36.

SHEFFIELD UNIVERSITY (2014) From Grey to Green: Adventures in Radical Urban Gardening. *The Guardian* [online] Available at: http://www.theguardian.com/lifeandstyle/gardening-blog/2014/oct/10/guerrilla-gardening-a-report-from-the-frontline Accessed 16 August 2016.

SHROPSHIRE COUNTY COUNCIL [online] (2014) *Much Wenlock Neighbourhood Plan 2013-2026.* Available at: https://www.shropshire.gov.uk/committee-services/documents/s3227/21%20much-wenlock-neighbourhood-plan-referendum-version-april-2014.pdf Accessed 30 August 2016.

SMITH, H., DEMPSEY, N. and BURTON, M. (2014) in DEMPSEY, N., SMITH, H. and BURTON, M. (2014) Place-keeping: Open space management in practice. London: Routledge.

SMITH, H., PEREIRA, M., HULL., A. and KONIJNENDIJK VAN DER BOSCH, C. (2014) in DEMPSEY, N., SMITH, H. and BURTON, M. (2014) Place-keeping: Open space management in practice. London: Routledge.

SOUTHPORT VISITOR [online] (2010) Available at:
http://www.southportvisiter.co.uk/news/southport-news/funding-boost-friends-ainsdale-village-6613229 Accessed 31 July 2016.

STONE, D. (2002) *Policy Paradox: The Art of Political Decision-Making.* 2nd ed. New York: W. W. Norton.

SWANWICK, C. (2009) Society's attitudes to and preferences for land and landscape. *Land Use Policy,* 26, Supplement 1(0), pp. S62-S75..

SWYNGEDOUW, E. (2010) Trouble with nature: Ecology as the new opium for the masses. In Hillier, J. and Healey, P., 2010. *The Ashgate Research Companion to Planning Theory: Conceptual Challenges for Spatial Planning.* Oxon. Routledge.

THE MERSEY FOREST [online] (2011) *The Value of Mapping Green Infrastructure.* Available at: http://www.merseyforest.org.uk/files/The_Value_of_Mapping_Green_Infrastructure_pdf.pdf Accessed 26 February 2017.

THE MERSEY FOREST [online] (2013) *Green Infrastructure for Tomorrow - Together! (GIFT-T) - a European project to develop a bottom-up approach to sustainable land management.* Available at http://www.merseyforest.org.uk/our-work/green-infrastructure/green-infrastructure-for-tomorrow-together/ Accessed October 2013.

THE MERSEY FOREST [online] (2014). *The Mersey Forest Plan.* Available at: http://www.merseyforest.org.uk/The_Mersey_Forest_Plan_web_version_single_new.pdf Accessed 26 February 2017.

THE MERSEY FOREST (2016) [online] *Rotunda's 'Kirkdale Country Garden'* Available at http://www.merseyforest.org.uk/our-work/kirkdale-country-garden-at-the-rotunda/. Accessed August 2016.

THE MERSEY FOREST (2016b) [online] *The impact of street tree planting.* Available at: http://www.merseyforest.org.uk/news/impact-of-street-tree-planting-new-case-studies/ Accessed August 2016.

THE WILDLIFE TRUSTS [online] (2014) *Local Food – Feeding the growth of local communities.* Available at http://www.wildlifetrusts.org/localfood Accessed July 2016.

TRACEY David (2007) *Guerrilla Gardening: A Manualfesto.* New Society Publishers

TRANSITION LIVERPOOL [online] (2016) Available at: http://www.transitionliverpool.org/ Accessed 31 July 2016.

TZOULAS, K., KORPELA, K., VENN, S., YLI-PELKONEN, V., KAZMIERCZAK, A., NIEMALA, J. and JAMES, P., (2007) Promoting ecosystem and human health in urban areas using green infrastructure: A literature review. *Landscape and Urban Planning,* 81(3), pp. 167-178.

UK NATIONAL ECOSYSTEM ASSESSMENT [online] Available at: http://uknea.unep-wcmc.org/Resources/tabid/82/Default.aspx Accessed 2013

WAKEFIELD, S., YEUDALL, F., TARON, C., REYNOLDS, J. and SKINNER, A., 2007. Growing urban health: Community gardening in South-East Toronto. *Health promotion international,* 22(2), pp. 92-101.

WALKER, B.H. and SALT, D. (2012) *Resilience practice [electronic book: building capacity to absorb disturbance and maintain function.* Washington, DC: Island Press.

WALL, D. (1994) *Green History: a reader in environmental literature, philosophy and politics.* London: Routledge.

WALTER, P. (2013) Theorising community gardens as pedagogical sites in the food movement. *Environmental Education Research,* 19(4), pp. 521-539.

WARD THOMPSON, C., ROE, J. and ASPINALL, P. (2013) Woodland improvements in deprived urban communities: What impact do they have on people's activities and quality of life? *Landscape and Urban Planning,* 118(2), pp. 79-89.

WEST OF ENGLAND GREEN INFRASTRUCTURE GROUP [online] (2011) *West of England Strategic Framework for Green Infrastructure.* Available at: http://www.bathnes.gov.uk/sites/default/files/westofengland_gi_framework.pdf Accessed 12 August 2016.

WILLIAMS, H. (2013) Incredible edible gardeners are planting veg for the masses in West Yorkshire*, The Independent* [online] Available at: http://www.independent.co.uk/property/gardening/incredible-edible-guerrilla-gardeners-are-planting-veg-for-the-masses-in-west-yorkshire-8657717.html Accessed August 2016.

WIRRAL WATERS [online] (2016) Available at: http://www.wirralwaters.co.uk/ Accessed August 2016.

WOOD, R., BRAGG, C. AND BARTON, J. (2013) *Natural Choices for Health and Wellbeing – Report for Liverpool Primary Care Trust and The Mersey Forest.* Mental Health Foundation.

WOODS, M. (2011) *Rural.* London: Routledge.

WORCESTERSHIRE COUNTY COUNCIL [online] (2013) *Green Infrastructure Strategy 2013-2018.* Available at: http://www.worcestershire.gov.uk/download/downloads/id/3780/worcestershire_gi_strategy_document_2013-2018.pdf Accessed 26 September 2016.

WRIGHT, H. (2011) Understanding green infrastructure: the development of a contested concept in England. *Local Environment,* 16(10), pp. 1003-1019.

YIN, R.K. (2009) *Case Study Research: Design and Methods*. (4th Ed.) Thousand Oaks, CA: Sage.

YIN, R.K. (2010) *Qualitative Research from Start to Finish.* UK: Guildford Press.

YOUNG, R.F. (2011) Planting the Living City. *Journal of the American Planning Association,* 77(4), pp. 368-381.

YOUNG, R., ZANDERS, J., LIEBERKNECHT, K. and FASSMAN-BECK, E. A comprehensive typology for mainstreaming urban green infrastructure. *Journal* of *Hydrology,* 519 (2014), pp. 2571–2583.

ZILLER, A. (2004) The Community is Not a Place and Why it Matters - Case Study: Green Square. *Urban Policy & Research,* 22(4), pp. 465-479.

ZOELLNER, J., ZANKO, A., PRICE, B., BONNER, J. and HILL, J.L. (2012) Exploring community gardens in a health disparate population: findings from a mixed methods pilot study. *Progress in Community Health Partnerships: Research, Education and Action,* 6(2), pp. 153-165.

APPENDICES

Appendix 1: Interview Schedule

Group Profile
How did you begin? (Individual, site, activity or campaign focus)
Who makes up the group? (One or two individuals plus supporters, core group, larger group)
NB: something here relevant to definition of CSGI; a 'group' must be three or more members?
How often do you meet? (Daily, weekly, more or less, depends on season, depends on activity/event)
Do you have formal meetings to discuss what's working, what's not working, what to do next?
Have you ever received support?
> In the form of funding?
> In the form of training and support?
> If so, who from; when; how long did you have to spend it; what evidence or evaluation did you have to perform to qualify for final payment?

Do you have a leader(s) or management team /committee?
Do you have a constitution or agreed way of working?
Do you have/have you had a relationship with the local authority? Or another professional body?
What factors and forces might be at play?
Membership
> Personalities
>> Is there a theme of individual personalities leading or controlling the group?
>> What qualities or characteristics can you recognise in the people identified? (+/-)
> Champion(s)
>> Has there/is there an individual(s) who has been instrumental for the group?
> Age and diversity
> Skills and experience
>> Any volunteers with amateur or professional level skills in relevant sector training
>> Any volunteers who are members of other CSGI groups or GI organisations/bodies
> Opportunities for training
>> Do you have a high turnover of members because of your education/workshops

Activities
> Community-focussed (training, skills, enterprise, workshops, events, play)
> Family-focussed (play, education, skills, outdoor pursuits)
> Health and well-being focussed (group activities, physical exercise, enrichment, self-esteem)
> Wildlife and nature (conservation skills, nature identification, habitat planting/ maintenance)
> Food focus (growing, harvesting, cooking skills)
> Site focus (relaxation, meeting space, safe space, culture and heritage, neighbours gathering)

Actors and Agents
> Professionals (local authority, funding bodies, land agencies, training organisations, mentors)
> Landowners (public, private or third sector)
> Mediating organisation (professional organisation distributing support, skills and training)
> Local experts (residents, stewards, neighbours, Friends, specialist associated groups)
> Members (regular volunteers, committee members, group leaders, administrators)
> Participants (one-off/short-term volunteers, event participants, social media contacts)
> Associations (e.g. Land Trust, Wildlife Trust, RSPB)

Governance
> Formal (Friends group, constitution, agreed principles of co-operation, bank account, AGM, regular schedule of activities and events, easily accessible and transparent e.g. minutes and accounts published)
> Formal by Association (via residents association, housing group, established third sector)
> Quasi-formal (regular meeting time and clear hierarchy of management in terms of schedule outlined by Founding members, but open to change via participants at each session)
> Informal (regular meeting time/place but irregular schedule, meetings posted via internet)
> Ad-hoc (no official line of communication or visible profile to group, except via Founders)

Funding
> Structured (Friends group, receive annual sum or in kind support from a professional body)
> Fundraising model (experienced members or volunteers whose key foci includes fundraising)
> Ad hoc fundraising (submit funding applications in response to funding streams available)

Peppercorn/seed funding (one-off or infrequent small amounts of funding, micro capital purchase)

Gift economy model (over 90% of activity occurs through voluntary contributions of time and donations of materials and assets, from both local businesses and individuals)

Historical

How long have you been practising volunteer-led green infrastructure activities on this site?

Did you practise on another site previously?

How stable would you describe the membership? (very/fairly/sometimes/not at all/problematic – I'd like to include here profiles of weather – calm, breezy, stormy ☺)

What have been the major factors at play in your practise to date? (site; activity; members; structure and/or governance)

Future-facing

Looking to the future, what do you perceive as your:

a) Strengths and areas for growth?
b) Weaknesses and areas of challenge?
c) Most likely focus in terms of activity (the same or different)?
d) Most likely source of funding (if relevant)?
e) Most likely course of action in terms of structure and governance (same or different)?

Appendix 2: 'Master Sheet' of 244 CSGI groups and projects in The Mersey Forest

	Name of Group/Project	Group	Active (2013)	Project	Active (2013)	Food initiative / community garden	Environmental volunteering	Well-being	Education	Postcode	Site or Group (Activity)	One Site Focus
	Key											
	# in postcodes means more than one geographic focus											
1	Church Wood Conservation Group	1	_	0		0	1			CW8 2BA	Site	1
2	Friends of Anderton and Marbury	1	1	0	_	0	1			CW9 6AT	site	1
3	Friends of Belle Vale Park	1	1	0	_	0	1			L25 2PE	site	1
4	Friends of Bluebell Woods	1	_	0	_	0	1			L32 7RS	site	1
5	Friends of Childwall Woods and Fields	1	1	0	_	0	1			L16 0JE	Site	1
6	Friends of Clinkham Wood	1	1	0	_	0	1			WA11 7DJ	Site	1
7	Friends of Deansgate Lane Playing Fields	1	_	0	_	0	1			L37 3LE	Site	1
8	Friends of Everton Park	1	1	0	_	0	1			L5 3LE	Site	1
9	Friends of Furey Wood	1	0	0	_	0	1			CW9 6AT	Site	1
10	Friends of Griffin Wood	1	1	0	_	0	1			WA9 4SL	Site	1
11	Littlewoods of Stockbridge Association	1	1	0	_	0	1			L28 6YB	Site	1
12	Friends of Millwood & Alderwood	1	1	0	_	0	1			L24 0TJ	Site	1
13	Friends of Murdishaw Valley	1	0	0	_	0	1			WA7 4UB	site	1
14	Friends of Newsham Park	1	_	0	_	0	1			L6 7UN	Site	1
15	Friends of Owley Wood	1	1	0	_	0	1			CW8 6LS	site	1
16	Friends of Penny Wood	1	0	0	_	0	1			L36 4HD	Site	1
17	Friends of Pickering Pasture	1	1	0	_	0	1			WA8 8LP	Site	1
18	Friends of Princes Park Community Group	1	1	0	_	0	1			L8 3TH	Site	1
19	Friends of Runcorn Wood	1	0	0	_	0	1			WA8 8LP	site	1
20	Friends of Sefton Park	1	1	0	_	0	1			L8 3TH	Site	1
21	Friends of St James Park	1	1	0	_	0	1			L1 7AZ	Site	1
22	Friends of St John's Gardens	1	1	0	_	0	1			L1 1JJ	Site	1
23	Friends of Ten Acre Pits	1	_	0	_	0	1			L36 5TW	Site	1
24	Friends of Willaston Meadows	1		0	_	0	1			CH64 1RQ	Site	1
25	Friends Woolton Woods	1	1	0	_	0	1			L25 7RF	Site	1
26	Marshalls Arm Management Group	1	1	0	_	0	1			CW8 1NU	Site	?
27	The Friends of Harmers Wood Trust	1	1	0	_	0	1			WA6 9PE	Site	0
28	Park Roots CIC / Friends of Birkenhed Park	1	1	0	_	0	1			CH41 4HY	Site	1
29	Friends of Clinkham, Moss Bank and Carr Mill	1	1	0	_	0	1			WA11 7AD	Site	1
30	Friends of Gorse Covert Mounds	1	1	0	_	0	1			WA3 6UG	Site	1
31	Friends of Windmill Hill	1	0	0	_	0	1			WA7 6QE	Site	1
32	Friends of Fountains Wood	1	0	0	_	0	1			WA7 6LE	Site	1
33	Friends of Haddocks Wood	1	0	0	_	0	1			WA7 1NU	Site	1
34	Friends of Murdishaw Wood	1	0	0	_	0	1			WA7 6DN	Site	1
35	Friends of Railway Plantation	1	0	0	_	0	1			WA7 6EU	Site	1
36	Friends of The Gorse	1	0	0	_	0	1			WA7 6AL	Site	1
37	Friends of Garston Park	1	1	0	_	0	1			L19 9AF	Site	1
38	Friends of Moorside Park - Rose Gardens Maintenance	1	_	0	_	0	1			L23 2RH	Site	1
39	Friends of Sudley Estate	1	1	0	_	0	1			L18 8BX	Site	1
40	Friends of Delph - Delph Project	1	1	0	_	0	1			CH45 7LW	Site	1
41	Grasslands Sustainable Liverpool	0	_	1	_	0	1			L69 7ZH	group	0
42	Edible Formby	1	1	0	_	1	0			L37 4AW	group	0
43	Incredible Edible Hoylake	1	1	0	_	1	0			CH47 5AA	group	0
44	Rice Lane City Farm	1	0	0	_	1	1			L9 3DA	site	1
45	Rotters Community Composting	0	_	1	0	1	0			L15 5PE	group	0
46	Seaforth Nature Reserve	1	1	0	_	0	1			L21 1JD	Site	1
47	Liverpool Loop Line Volunteer Conservation Days	1	1	0	_	0	1			#	site	0
48	Friends of Warbreck Park	1	_	0	_	0	1			L9 4SH	Site	1
49	Wellbeing in the Woods - Wellbeing Enterprises (assoc F O Griffin Wood)	0	_	1	1	0	1	1		WA9 4RX	group	0
50	Mab Lane Community Woodland	1	1	0	_	0	1			L12 6QL	site	1
51	Friends of Calderstones Park	1	1	0	_	0	1			L18 3JD	site	1
52	Friends of Camphill and Woolton Woods	1	1	0	_	0	1			L25 0NB	site	1
53	Friends of Croxteth Hall and Country Park	1	1	0	_	0	1			L12 0HB	site	1
54	Friends of Falkner Square Gardens	1	1	0	_	0	1			L8 7PA	site	1
55	Friends of Greenbank Park	1	1	0	_	0	1			L18 1HQ	site	1
56	Friends of Our Lady and St Nicholas Church Garden	1	1	0	_	0	1			L2 8TZ	site	1
57	Friends of Otterpool Park	1	1	0	_	0	1			L17 5AL	site	1
58	Friends of Reynolds Park	1	1	0	_	0	1			L25 5JE	site	1
59	Friends of Stanley Park	1	1	0	_	0	1			L4 2RU	site	1
60	Friends of Walton Hall Park	1	1	0	_	0	1			L4 9XP	site	1
61	Friends of Wavertree Botanic Gardens	1	1	0	_	0	1			L7 5PX	site	1
62	A Haven of Greenspace	1	_	0	_	0	1		1	L28 6YB	group	0
63	ABCC Community Allotment	1	1	0	_	1	0			L24 0TJ	site	1
64	Access to Nature in South St.Helens	1	_	0	_	0	1			L25 7RF	group	0
65	Community Garden at Edge Hill Station	0	_	1	1	1	0			WA3 6UG	Site	1
66	Delph Project - Friends of Delph	1	1	0	_	0	1			CH45 5DF	Site	1
67	Dingle Growers	1	1	0	_	1	1			L8 9RN	Group	0
68	Five Seasons	0	0	1	0	1	0			L24 1UY	Site	1
69	Flourishing Fire Stations	0		1		1	0			#	site	1
70	Forest School Speke	0	_	1	1	0	1		1	L24 1XD	Group	0
71	Gardening Project 2 Aigburth Drive	0	_	1	_	0	1			L17 3AA	Site	1
72	Grassroots & Greenshoots	0	1	1	_	1	0	1		L8 1YR	Group	0
73	Green Dream	0	_	1	1	1	0		1	L20 4AP	Site	1
74	Green Fingers Project (Frances Taylor Foundation)	0	_	1	1	1	0			L25 6EJ	Group	0
75	Growing Altfinch (Everyman)	0	_	1	_	1	0	1		L14 8YG	Group	0
76	Growing Creativity at The Bluecoat	0	_	1	0	0	1	1		L1 3BX	Site	1
77	Growing Granby	1	1	0	_	1	0			L8 2XH	site	1
78	Homeless Hostels Food Alliance Dutch Farm	0	1	1	1	1	0	1		L19 5PE	site	1
79	Kensington and Fairfield Community Growing Space (Healing Space)	0	_	1	1	1	0	1		L7 0LB	site	1
80	Kirkdale Community Gardens Scheme	0	_	1	1	1	0	1		L5 2PL	site	1
81	Knowsley Eco Teams	0	_	1	0	0	1			#	group	0
82	Landlife National Wildflower Centre	0	1	1	1	1	0	1		L16 3NA	group	0
83	Larkin's Farm	0	_	1	1	1	0			L34 9EN	site	1
84	Liverbirds Wildlife Explorers	1	1	0	_	0	0		1	WA8 5QW	group	0

	Name of Group/Project	Group	Active (2013)	Project	Active (2013)	Food initiative / comm-unity garden	Environm-ental volunteering	Well-being	Education	Postcode	Site or Group (Activity)	One Site Focus
	Key											
	# in postcodes means more than one geographic focus											
76	Growing Creativity at The Bluecoat	0	_	1	0	0	1	1		L1 3BX	Site	1
77	Growing Granby	1	1	0		1	0			L8 2XH	site	1
78	Homeless Hostels Food Alliance Dutch Farm	0	1	1	1	1	0	1		L19 5PE	site	1
79	Kensington and Fairfield Community Growing Space (Healing Space)	0	_	1	1	1	0	1		L7 0LB	site	1
80	Kirkdale Community Gardens Scheme	0	_	1	1	1	0	1		L5 2PL	site	1
81	Knowsley Eco Teams	0	_	1	0	0	1			#	group	0
82	Landlife National Wildflower Centre	0	1	1	1	1	0	1		L16 3NA	group	0
83	Larkin's Farm	0	_	1	1	1	0			L34 9EN	site	1
84	Liverbirds Wildlife Explorers	1	1	0	_	0	0		1	WA8 5QW	group	0
85	Liverpool Loop Line Volunteer Conservation	1	1	0	_	0	1			#	group	0
86	Liverpool Organic Gardeners Group	1	1	0	_	1	1			#	group	0
87	Norris Green Fingers - Community Garden at St Christopher's Church	1	1	_	_	1	1			L11 1BQ	Site	1
88	Writing Well - Writing Green (North End	0	_	1	_	0	0	1		L4 2SL	group	0
89	NSC Schools Mini-Farms	0	_	1	1	1	0			L34 9EN	site	0
90	PSS Urban Green Team	0	_	1	1	0	1	1		L3 5TF	group	0
91	Recording for the Future	0	_	1	_	0	0		1	#	group	0
92	River Alt Restoration	0	_	1	1	0	1			L11 0EE	site	0
93	Riverside Green Space and Urban Realm	0	_	1	1	0	1			#	site	0
94	Riverside's Lee Valley Green Space Project	0	_	1	_	0	1			L27 3YA	site	0
95	Roots 'n' Shoots	0	_	1	1	1	0			L13 3DS	site	1
96	Seed to Soup	0	_	1		1	0			L25 7RF	site	1
97	Sefton Greengym	0	_	1	_	0	0	1		#	group	0
98	The 'Jubilee Park' Regeneration Project	0	_	1	_	0	1			L36 2NW	site	1
99	The Liverpool Bumblebee Haven Project	0	_	1	_	0	1			L11 1EH +	group	0
100	This is Green Liverpool	1	1	0		0	1			#	group	0
101	Tomato	1	_	0	_	1	0			#	group	0
102	Transition Town Liverpool	1	1	0	_	0	1			#	group	0
103	Unicorn Park	0	_	1	1	0	1			L11 0AP	site	1
104	Urban Greening Initiative	1	_	0	_	0	1			L5 2PL	group	0
105	Village Farm Orchard Project (Squash	0	_	1	1	1	0	1		L28 1NR	site	0
106	Eco Teams Legacy Project (Knowsley Housing Trust)	_	_	1	_	0	1			L33 8XD +	site	0
107	Waterloo Community Forest Garden	1	1	0	_	1	1			L22 9QY	site	1
108	Wild about Plants - Plantlife	1	1	0	_	0	0	0	1	#	group	0
109	Windsor Well-being	0	_	1	0	0	0	1		L8 1YR	group	0
110	Women's Urban Garden Gym	0	_	1	_	0	1	1		L9 4SE	group	1
111	Zoe's Place Sensory Garden Project	0	_	1	1	0	1	1		L12 9HH	site	1
112	Potter Allotment Growing Scheme (ARCH) Arch Potters Allotment Growing Scheme - 'Little Dibbers', 'Potters'	0	_	1		1	0			L7 0HG	site	1
113	Tandem Group and Bradbury Walkers (Bradbury Fields)	0	_	1		0	0	1		L14 2EP	group	0
114	Family Refugee Support Group	1		0	_	1	0	1		L8 8DX	site	1
115	Minestrone Garden	1	_	0	_	1	0			#	Site	1
116	Green Steps	0	_	1	_	1	0			#	Group	0
117	Growing Creativity	0	_	1	_	0	0	1		#	Group	0
118	Croxteth Children Allotment	0	_	1	_	1	0			L11 1EH	site	1
119	Single Mens Hostel Gardening Project	0	_	1	_	1	0	1		#	Group	1
120	Windsor Grassroots, greenshoots	0	_	1	1	0	1	1		L8 1YR	Site	0
121	The Urban Green Team	0	_	1	_	0	1			#	Group	0
122	Diggers Group, Diggers Start Up!	1	1	0	_	0	1			#	site	1
123	Happy Hedges, Happy People	1		0	_	0	1			#	Group	0
124	Kensington Grows	0	_	1	_	1	0			#	Group	0
125	The Urban Environment Gym	0	_	1	_	0	1	1		#	Group	0
126	Healing Space Community Growing Space	0	_	1	_	1	0	1		#	group	0
127	Global Gardens: Health and Wellbeing through food and floral garden	0	_	1	_	1	0	1		#	group	0
128	Cohiba - Our Garden	0	_	1		1	0	1		#	group	0
129	Roots, Fruits and Leaves	0	_	1		1	0			#	site	1
130	Get Connected in Your Community	0	_	1	_	0	1	1		#	group	0
131	Heat, Eat and Greet	0	_	1	_	1	0	1		#	group	0
132	A Haven Green Space	0	_	1	_	0	1	1		#	site	0
133	Rotunda Edible and Sensory Community	0	_	1	1	1	0	1		L9 3DA	site	1
134	A Brighter Space (Macbeth Tenants	0	_	1	_	1	1			L20 7EE	site	0
135	Community Horticulture	0	_	1	1	1	0			L17 8UU	site	1
136	Incredible Edible Hoylake	1	1	_	_	1	0			#	group	0
137	Warbreck in Bloom	1		0		0	1			CH47 3BZ	site	0
138	Lister Community Green (Lister Residents Association)	0	_	1	1	0	1			L7 0HP	site	1
139	Adamson Street Alley Way	1	1	0	_	0	1			L7 9LR	site	1
140	Evergreen Garden Project	1	_	0	_	0	1			#	site	1
141	Magull in Bloom	1	1	0	_	0	1			L31 3DE	site	0
142	Northwood Estate	0	_	1	_	0	1			L33 6XD	site	0
143	Towerhill Community Garden Project(Get Growing)	0	_	1	1	1	1			L33 1XT	site	0
144	Friends of Garston Park	1	1	0	_	0	1			L19 9AF	site	1
145	Birkdale Civic Society	0	_	1	1	0	1			#	group	0
146	Sustrans Liverpool Loopline Volunteers	0	_	1	1	0	1			#	site	0
147	Northwood Allotment Association	1	1	0	_	1	0			L33 6UN	site	1
148	Friends of Eaton Street Park	1	1	0	_	0	1			L34 6HD	site	1
149	Cecil Mews Project	1	1	0	_	0	1			L15 1HR	site	1
150	Nutgrove Allotments Plotholders'	1	1	0		1	0			WA10 3NZ	site	1
151	The Academy of St Francis of Assisi School	0	_	1		1	0			L6 7UR	site	1
152	Mill Lane Community Garden Project	1	_	0	_	1	0			L15 8LQ	Site	1
153	Jigsaw Neighbourhood Solutions (LHT)	0	_	1		0	1			#	site	0
154	Rice Lane City Farm Food Hub	1		0		1	1			L9 1AW	site	1
155	Fir Tree Farm Climate Friendly Food	1	1	0		1	1			WA11 8RG	site	1
156	Safe Productions Community Garden	0	_	1	1	1	1			L20 4AP	site	1
157	Ashtons Green Allotments (Ashtons Green Allotments Association)	1	1	0	_	1	0			WA9 2DY	site	1
158	St Luke's Church Ground Breathing Place	0	_	1		0	1	1		L23 5SE	site	1
159	Clayton Community Kidzone and Wildflower Meadow (Clayton Communtiy Assocation)	0	_	1	_	0	1		1	WA8 6NS	site	1
	Cherryfield Urban Garden (Cherryfield	0	_	1	_	1	0			L32 3YE	site	1

	Name of Group/Project	Group	Active (2013)	Project	Active (2013)	Food initiative / community garden	Environmental volunteering	Well-being	Education	Postcode	Site or Group (Activity)	One Site Focus
	Key											
	# in postcodes means more than one geographic focus											
152	Mill Lane Community Garden Project	1	_	0	_	1	0			L15 8LQ	site	1
153	Jigsaw Neighbourhood Solutions (LHT)	0	_	1	_	0	1			#	site	0
154	Rice Lane City Farm Food Hub	1	1	0	_	1	1			L9 1AW	site	1
155	Fir Tree Farm Climate Friendly Food	1	1	0	_	1	1			WA11 8RG	site	1
156	Safe Productions Community Garden	0	_	1	1	1	1			L20 4AP	site	1
157	Ashtons Green Allotments (Ashtons Green Allotments Association)	1	1	0	_	1	0			WA9 2DY	site	1
158	St Luke's Church Ground Breathing Place	0	_	1	_	0	1	1		L23 5SE	site	1
159	Clayton Community Kidzone and Wildflower Meadow (Clayton Communtiy Assocation)	0	_	1	_	0	1		1	WA8 6NS	site	1
160	Cherryfield Urban Garden (Cherryfield Primary School)	0	_	1	_	1	0			L32 3YE	site	1
161	Gillbrook School Garden	0	_	1		1	0			CH49 8HE	site	1
162	Friends of St Benedict's Wood - Community Woodland	1		0	_	0	1			L35 4PF	site	1
163	ARCH Under the Bridge	0	_	1	1	0	1	1		L19 8JZ	group	0
164	Bradbury Fields	0	_	1	1	0	1	1		L14 2EP	Group	0
165	Breckfield Diggers, Breckfield & North Everton Neighbourhood Council	0	_	1	1	1	0			L6 5AD	site	1
166	Brontescape, Bronte Youth & Community Centre	0	_	1	0	1	0			L3 5NB	site	0
167	Daisy Inclusive UK	0	_	1	1	0	1	1		L19 5PE	Group	0
168	Faiths4change	1	1	0	_	1	0	1		L1 7BY	Group	0
169	Five Children and Families Trust	0	_	1	1	1	0	1		L24 0TW	site	1
170	Healing Space (Liverpool)	0	_	1	1	0	1	1		CH64 1RQ	Group	1
171	L'Arche Liverpool	0	_	1	1	0	1	1		L25 7RF	Group	0
172	Liverpool Everyman Theatre	0	_	1	1	1	0			L1 9BH	site	1
173	Liverpool Friends of the Earth	1	1	_	_	0	1		1	L28 6YB	Group	0
174	Liverpool World Centre	0	_	1	_	0	0		1	L8 1XE	Group	0
175	Local Solutions	0	_	1	_	0	1	1		L7 8TF	Group	0
176	Neighbourhood Services Company	0	_	1	_	0	1	1		L34 9EN	Group	0
177	North End Writers	0	_	1	_	0	1	1		CW9 8AG	Group	0
178	Parish Power	0	_	1	_	0	1	1		#	Group	0
179	St Michaels in the Hamlet with Christ Church	0	_	1	1	1	0			L17 7BA	site	1
180	The New Belve Youth & Community Sports Centre	0	_	1	_	0	1	1		L8 4PX	site	1
181	The Women's Organisation	0	_	1	_	0	1	1		WA6 9PE	group	0
182	Friends of the Flyover	1	1	0		0	1			L3 8EN	site	1
183	Friends of Ainsdale Village Park (Southport)	1	1	0		0	1			PR8 4JS	site	1
184	Friends of Bedford Park (Southport)	1	1	0		0	1			PR8 4JT	site	1
185	Friends of Botanic Gardens (SOP)	1	1	0		0	1			PR9 7NB	site	1
186	Friends of Coronation Park (Crosby)	1	1	0		0	1			L23 5RD	site	1
187	Friends of Copy Farm Park (Netherton)	1	1	0		0	1			L30 8RA	site	1
188	Friends of Crossens Rec (SOP)	1	1	0		0	1			PR9 8JH	site	1
189	Friends of Deansgate Lane (Formby)	1	1	0		0	1			L37 3LG	site	1
190	Friends of Deansgate Lane Sculpture Trail (Formby)	1	1	0		0	1			L37 3LG	site	1
191	Friends of Derby Park (Bootle)	1	1	0		0	1			L20 9AA	site	1
192	Friends of Duke St Park (Formby)	1	1	0		0	1			L37 4AP	site	1
193	Friends of Hatton Hill Park (Litherland)	1	1	0		0	1			L219JN	site	1
194	Friends of Hesketh Park (SOP)	1	1	0		0	1			PR9 9JN	site	1
195	Hesketh Park Garden Volunteers	1	1	0		0	1			PR9 9JN	site	1
196	Friends of Kings Gardens (SOP)	1	1	0		0	1			PR8 1QU	site	1
197	Friends of Lord Street Gardens (SOP)	1	1	0		0	1			PR8 1NY	site	1
198	Friends of Marian Park (Netherton)	1	1	0		0	1			L30 3SW	site	1
199	Friends of Mellanear Park (Bootle)	1	1	0		0	1			L20 5ET	site	1
200	Friends of North Park (Bootle)	1	1	0		0	1			L20 5JJ	site	1
201	Rotton Row Garden Volunteers (Birkdale)	1	1	0		0	1			PR8 2BZ	site	1
202	Friends of Seafront Gardens (Waterloo)	1	1	0		0	1			L22 5PR	site	1
203	Friends of South Park (Bootle)	1	1	0		0	1			L20 7DA	site	1
204	Friends of Victoria Park (Crosby)	1	1	0		0	1			L22 2AP	site	1
205	That Bloomin Triangle, Granby	1	1	0		0	1	1		L8 2UW	site	0
206	Riverview Residents Association	0	1	0		0	1			#	site	0
207	Friends of Calderstones Park	1	1	0		0	1			L18 3JD	site	1
208	Friends of Otterspool Park	1	1	0		0	1			L17 5AP	site	1
209	Friends of Reynolds Park	1	1	0		0	1			L25 6EA	site	1
210	Friends of Grange Hill	1	1	0		0	1			CH48 6DS	site	1
211	Gilroy Nature Conservation Society	1	1	0		0	1		1	CH61 0HN	site	0
212	G.O.A.L. (Greasby Outdoor Activity & Leisure)	1	1	0		0	1	1		#	site	0
213	Friends of Grange Community Park	1	1	0		0	1			PR2 6QW	site	1
214	Friends of Harrison Park	1	1	0		0	1			CH45 3NS	site	1
215	Friends of Hilbre Nature Reserve	1	1	0		0	1			CH48 8BW	site	1
216	Friends of Hoylake and Meols in Bloom	1	1	0		0	1			#	site	1
217	Friends of Hoylake Golf	1	1	0		0	1			CH47 4BG	site	1
218	Friends of Leasowe Lighthouse	1	1	0		0	1			CH46 7SA	site	1
219	Friends of Mayer Park	1	1	0		0	1			CH63 7RB	site	1
220	Irby Thurstaston & Pensby Amenity Society	1	1	0		0	1			CH61 0HW	site	0

	Name of Group/Project	Group	Active (2013)	Project	Active (2013)	Food initiative / comm-unity garden	Environm ental voluntee ring	Well-being	Educatio n	Postcode	Site or Group (Activity)	One Site Focus
	Key											
	# in postcodes means more than one geographic focus											
215	Friends of Hilbre Nature Reserve	1	1	0		0	1			CH48 8BW	site	1
216	Friends of Hoylake and Meols in Bloom	1	1	0		0	1			#	site	1
217	Friends of Hoylake Golf	1	1	0		0	1			CH47 4BG	site	1
218	Friends of Leasowe Lighthouse	1	1	0		0	1			CH46 7SA	site	1
219	Friends of Mayer Park	1	1	0		0	1			CH63 7RB	site	1
220	Irby Thurstaston & Pensby Amenity Society	1	1	0		0	1			CH61 0HW	site	0
221	Friends of Meols Park	1	1	0		0	1			CH47 6AF	site	1
222	Friends of Ness Gardens	1	1	0		0	1			CH64 4AY	site	1
223	New Ferry Regeneration Action Group	1	1	0		0	1			#	group	0
224	Friends of North Wirral Coastal Park	1	1	0		0	1			CH45 8LW	site	1
225	Overchurch Residents Association	1	1	0		0	1			#	site	0
226	Friends of Rock Park	1	1	0		0	1			CH42 1PP	site	1
227	Friends of Royden Park	1	1	0		0	1			CH49 1NP	site	1
228	Thornton Hough Community Trust	1	1	0		0	1			CH63 1JB	site	1
229	Friends of Tower Grounds	1	1	0		0	1			L25 7UL	site	1
230	Friends of Tranmere Parks	1	1	0		0	1			CH42 0LF	site	1
231	Friends of Vale Park	1	1	0		0	1			CH45 1LZ	site	1
232	Friends of Warwick Park	1	1	0		0	1			CH43 4TF	group	1
234	Cheshire and Wirral Ornithological Society	1	1	0		0	1		1	#	site	0
235	Dee Estuary Conservation Group	1	1	0		0	1			#	group	0
236	Dee Estuary Voluntary Wardens	1	1	0		0	1			#	group	0
237	Mersey Estuary Conservation Group	1	1	0		0	1			#	group	0
238	Wirral Countryside Volunteers	1	1	0		0	1			#	group	0
239	Wirral Bird Club	1	1	0		0	1		1	#	group	0
240	The Wirral Society	1	1	0		0	1			#	group	0
241	Wirral Wildlife	1	1	0		0	1		1	#	group	0
242	Wirral & Cheshire Badger Group	1	1	0		0	1		1	#	group	0
243	Friends of Birkenhed Park/Park Roots CIC	1	1	0		0	1			CH41 4HY	site	1
244	Friends of Bowring Park	1	1	0		0	1			L36 4HD	site	1

Appendix 3: 'Master Sheet' CSGI groups and projects – Four types

	Name of Group/Project	Group	Active (2013)	Project	Active (2013)	Food initiative / community garden	Environmental volunteering	Wellbeing	Education	Postcode	Site or Group (Activity)	One Site Focus
	Key											
	# in postcodes means more than one geographic focus											
	Formal Group											
	Formal Project											
	Informal Group											
1	Church Wood Conservation Group	1	_	0		0	1			CW8 2BA	Site	1
2	Friends of Anderton and Marbury	1	1	0	_	0	1			CW9 6AT	site	1
3	Friends of Belle Vale Park	1	1	0	_	0	1			L25 2PE	Site	1
4	Friends of Bluebell Woods	1	_	0	_	0	1			L32 7RS	site	1
5	Friends of Childwall Woods and Fields	1	1	0	_	0	1			L16 0JE	Site	1
6	Friends of Clinkham Wood	1	1	0	_	0	1			WA11 7DJ	Site	1
7	Friends of Deansgate Lane Playing Fields	1	_	0	_	0	1			L37 3LE	Site	1
8	Friends of Everton Park	1	1	0	_	0	1			L5 3LE	Site	1
9	Friends of Furey Wood	1	0	0	_	0	1			CW9 6AT	Site	1
10	Friends of Griffin Wood	1	1	0	_	0	1			WA9 4SL	Site	1
11	Littlewoods of Stockbridge Association	1	1	0	_	0	1			L28 6YB	Site	1
12	Friends of Millwood & Alderwood	1	1	0	_	0	1			L24 0TJ	Site	1
13	Friends of Murdishaw Valley	1	0	0	_	0	1			WA7 4UB	site	1
14	Friends of Newsham Park	1	_	0	_	0	1			L6 7UN	Site	1
15	Friends of Owley Wood	1	1	0	_	0	1			CW8 6LS	site	1
16	Friends of Penny Wood	1	0	0	_	0	1			L36 4HD	Site	1
17	Friends of Pickering Pasture	1	1	0	_	0	1			WA8 8LP	Site	1
18	Friends of Princes Park Community Group	1	1	0	_	0	1			L8 3TH	Site	1
19	Friends of Runcorn Wood	1	0	0	_	0	1			WA8 8LP	site	1
20	Friends of Sefton Park	1	1	0	_	0	1			L8 3TH	Site	1
21	Friends of St James Park	1	1	0	_	0	1			L1 7AZ	Site	1
22	Friends of St John's Gardens	1	1	0	_	0	1			L1 1JJ	Site	1
23	Friends of Ten Acre Pits	1	_	0	_	0	1			L36 5TW	Site	1
24	Friends of Willaston Meadows	1		0	_	0	1			CH64 1RQ	Site	1
25	Friends Woolton Woods	1	1	0	_	0	1			L25 7RF	Site	1
26	Marshalls Arm Management Group	1	1	0	_	0	1			CW8 1NU	Site	?
27	The Friends of Harmers Wood Trust	1	1	0	_	0	1			WA6 9PE	Site	0
28	Park Roots CIC / Friends of Birkenhed Park	1	1	0	_	0	1			CH41 4HY	Site	1
29	Friends of Clinkham, Moss Bank and Carr Mill	1	1	0	_	0	1			WA11 7AD	Site	1
30	Friends of Gorse Covert Mounds	1	1	0	_	0	1			WA3 6UG	Site	1
31	Friends of Windmill Hill	1	0	0	_	0	1			WA7 6QE	Site	1
32	Friends of Fountains Wood	1	0	0	_	0	1			WA7 6LE	Site	1
33	Friends of Haddocks Wood	1	0	0	_	0	1			WA7 1NU	Site	1
34	Friends of Murdishaw Wood	1	0	0	_	0	1			WA7 6DN	Site	1
35	Friends of Railway Plantation	1	0	0	_	0	1			WA7 6EU	Site	1
36	Friends of The Gorse	1	0	0	_	0	1			WA7 6AL	Site	1
37	Friends of Garston Park	1	1	0	_	0	1			L19 9AF	Site	1
38	Friends of Moorside Park - Rose Gardens Maintenance	1	_	0	_	0	1			L23 2RH	Site	1
39	Friends of Sudley Estate	1	1	0	_	0	1			L18 8BX	Site	1
40	Friends of Delph - Delph Project	1	1	0	_	0	1			CH45 7LW	Site	1
41	Grasslands Sustainable Liverpool	0	_	1	_	0	1			L69 7ZH	group	0
42	Edible Formby	1	1	0		1	0			L37 4AW	group	0
43	Incredible Edible Hoylake	1	1	0		1	0			CH47 5AA	group	0
44	Rice Lane City Farm	1	0	0	_	1	1			L9 3DA	site	1
45	Rotters Community Composting	0	_	1	0	1	0			L15 5PE	group	0
46	Seaforth Nature Reserve	1	1	0		0	1			L21 1JD	Site	1
47	Liverpool Loop Line Volunteer Conservation Days	1	1	0	_	0	1			#	site	0
48	Friends of Warbreck Park	1	_	0	_	0	1			L9 4SH	Site	1
49	Wellbeing in the Woods - Wellbeing Enterprises (assoc F O Griffin Wood)	0	_	1	1	0	1	1		WA9 4RX	group	0
50	Mab Lane Community Woodland	1	1	0	_	0	1			L12 6QL	site	1
51	Friends of Calderstones Park	1	1	0	_	0	1			L18 3JD	site	1
52	Friends of Camphill and Woolton Woods	1	1	0	_	0	1			L25 0NB	site	1
53	Friends of Croxteth Hall and Country Park	1	1	0	_	0	1			L12 0HB	site	1
54	Friends of Falkner Square Gardens	1	1	0	_	0	1			L8 7PA	site	1
55	Friends of Greenbank Park	1	1	0	_	0	1			L18 1HQ	site	1
56	Friends of Our Lady and St Nicholas Church Garden	1	1	0	_	0	1			L2 8TZ	site	1
57	Friends of Otterpool Park	1	1	0	_	0	1			L17 5AL	site	1
58	Friends of Reynolds Park	1	1	0	_	0	1			L25 5JE	site	1
59	Friends of Stanley Park	1	1	0	_	0	1			L4 2RU	site	1
60	Friends of Walton Hall Park	1	1	0	_	0	1			L4 9XP	site	1
61	Friends of Wavertree Botanic Gardens	1	1	0	_	0	1			L7 5PX	site	1
62	A Haven of Greenspace	1	_	0	_	0	1	1		L28 6YB	group	0
63	ABCC Community Allotment	1	1	0		1	0			L24 0TJ	site	1
64	Access to Nature in South St.Helens	1	_	0		0	1			L25 7RF	group	0
65	Community Garden at Edge Hill Station	0	_	1	1	1	0			WA3 6UG	Site	1
66	Delph Project - Friends of Delph	1	1	0	_	0	1			CH45 5DF	Site	1
67	Dingle Growers	1	1	0		1	1			L8 9RN	Group	0
68	Five Seasons	0	0	1	0	1	0			L24 1UY	Site	1
69	Flourishing Fire Stations	0	_	1	_	1	0			#	site	1
70	Forest School Speke	0	_	1	_	0	1		1	L24 1XD	Group	0
71	Gardening Project 2 Aigburth Drive	0	_	1	_	0	1			L17 3AA	Site	1
72	Grassroots & Greenshoots	0	1	1	_	1	0	1		L8 1YR	Group	0
73	Green Dream	0	_	1	1	1	0			L20 4AP	Site	1
74	Green Fingers Project (Frances Taylor Foundation)	0	_	1	1	1	0			L25 6EJ	Group	0
75	Growing Altfinch (Everyman)	0	_	1		1	0	1		L14 8YG	Group	0
76	Growing Creativity at The Bluecoat	0	_	1	0	0	1	1		L1 3BX	Site	1
77	Growing Granby	1	1	0		1	0			L8 2XH	site	1
78	Homeless Hostels Food Alliance Dutch Farm	0	1	1	1	1	0	1		L19 5PE	site	1
79	Kensington and Fairfield Community Growing Space (Healing Space)	0	_	1	1	1	0	1		L7 0LB	site	1
80	Kirkdale Community Gardens Scheme	0	_	1	1	1	0	1		L5 2PL	site	1
81	Knowsley Eco Teams	0	_	1	0	0	1			#	group	0

	Name of Group/Project	Group	Active (2013)	Project	Active (2013)	Food initiative / community garden	Environmental volunteering	Well-being	Education	Postcode	Site or Group (Activity)	One Site Focus
	Key											
	# in postcodes means more than one geographic focus											
	Formal Group											
	Formal Project											
	Informal Group											
74	Green Fingers Project (Frances Taylor Foundation)	0	_	1	1	1	0			L25 6EJ	Group	0
75	Growing Altfinch (Everyman)	0	_	1	_	1	0	1		L14 8YG	Group	0
76	Growing Creativity at The Bluecoat	0	_	1	0	0	1	1		L1 3BX	Site	1
77	Growing Granby	1	1	0	_	1	0			L8 2XH	site	1
78	Homeless Hostels Food Alliance Dutch Farm	0	1	1	1	1	0	1		L19 5PE	site	1
79	Kensington and Fairfield Community Growing Space (Healing Space)	0	_	1	1	1	0	1		L7 0LB	site	1
80	Kirkdale Community Gardens Scheme	0	_	1	1	1	0	1		L5 2PL	site	1
81	Knowsley Eco Teams	0	_	1	0	0	1			#	group	0
82	Landlife National Wildflower Centre	0	1	1	1	1	0	1		L16 3NA	group	0
83	Larkin's Farm	0	_	1	1	1	0			L34 9EN	site	1
84	Liverbirds Wildlife Explorers	1	1	0	_	0	0		1	WA8 5QW	group	0
85	Liverpool Loop Line Volunteer Conservation Days	1	1	0	_	0	1			#	group	0
86	Liverpool Organic Gardeners Group	1	1	0	_	1	1			#	group	0
87	Norris Green Fingers - Community Garden at St Christopher's Church	1	1	_	_	1	1			L11 1BQ	Site	1
88	Writing Well - Writing Green (North End Writers)	0	_	1	_	0	0		1	L4 2SL	group	0
89	NSC Schools Mini-Farms	0	_	1	1	1	0			L34 9EN	site	0
90	PSS Urban Green Team	0	_	1	1	0	1	1		L3 5TF	group	0
91	Recording for the Future	0	_	1	_	0	0		1	#	group	0
92	River Alt Restoration	0	_	1	1	0	1			L11 0EE	site	0
93	Riverside Green Space and Urban Realm	0	_	1	1	0	1			#	site	0
94	Riverside's Lee Valley Green Space Project	0	_	1	_	0	1			L27 3YA	site	0
95	Roots 'n' Shoots	0	_	1	1	1	0	1		L13 3DS	site	1
96	Seed to Soup	0	_	1	_	1	0			L25 7RF	site	1
97	Sefton Greengym	0	_	1	_	0	0	1		#	group	0
98	The 'Jubilee Park' Regeneration Project	0	_	1	_	0	1			L36 2NW	site	1
99	The Liverpool Bumblebee Haven Project	0	_	1	_	0	1			L11 1EH +	group	0
100	This is Green Liverpool	1	1	0	_	0	1			#	group	0
101	Tomato	1	_	0	_	1	0			#	group	0
102	Transition Town Liverpool	1	1	0	_	0	1			#	group	0
103	Unicorn Park	0	_	1	1	0	1			L11 0AP	site	1
104	Urban Greening Initiative	1	_	0	_	0	1			L5 2PL	group	0
105	Village Farm Orchard Project (Squash Nutrition)	0	_	1	1	1	0	1		L28 1NR	site	0
106	Eco Teams Legacy Project (Knowsley Housing Trust)	_	_	1	_	0	1			L33 8XD +	site	0
107	Waterloo Community Forest Garden	1	1	0	_	1	1			L22 9QY	site	1
108	Wild about Plants - Plantlife	1	1	0	_	0	0	0	1	#	group	0
109	Windsor Well-being	0	_	1	0	0	0	1		L8 1YR	group	0
110	Women's Urban Garden Gym	0	_	1	_	0	1	1		L9 4SE	group	1
111	Zoe's Place Sensory Garden Project	0	_	1	1	0	1	1		L12 9HH	site	1
112	Potter Allotment Growing Scheme (ARCH)	0	_	1		1	0			L7 0HG	site	1
113	Tandem Group and Bradbury Walkers (Bradbury Fields)	0	_	1	_	0	0	1		L14 2EP	group	0
114	Family Refugee Support Group	1		0	_	1	0		1	L8 8DX	site	1
115	Minestrone Garden	1		0	_	1	0			#	Site	1
116	Green Steps	0	_	1	_	1	0			#	Group	0
117	Growing Creativity	0	_	1	_	0	0	1		#	Group	0
118	Croxteth Children Allotment	0	_	1	_	1	0			L11 1EH	site	1
119	Single Mens Hostel Gardening Project	0	_	1	_	1	0	1		#	Group	1
120	Windsor Grassroots, greenshoots	0	_	1	1	0	1	1		L8 1YR	Site	0
121	The Urban Green Team	0	_	1	_	0	1			#	Group	0
122	Diggers Group, Diggers Start Up!	1	1	0	_	0	1			#	site	1
123	Happy Hedges, Happy People	1		0	_	0	1			#	Group	0
124	Kensington Grows	0	_	1	_	1	0			#	Group	0
125	The Urban Environment Gym	0	_	1	_	0	1	1		#	Group	0
126	Healing Space Community Growing Space	0	_	1	_	1	0	1		#	group	0
127	Global Gardens: Health and Wellbeing through food and floral garden	0	_	1	_	1	0	1		#	group	0
128	Cohiba - Our Garden	0	_	1	_	1	0	1		#	group	0
129	Roots, Fruits and Leaves	0	_	1	_	1	0			#	site	1
130	Get Connected in Your Community	0	_	1	_	0	1	1		#	group	0
131	Heat, Eat and Greet	0	_	1	_	1	0	1		#	group	0
132	A Haven Green Space	0	_	1	_	0	1	1		#	site	1
133	Rotunda Edible and Sensory Community Garden	0	_	1	1	1	0	1		L9 3DA	site	1
134	A Brighter Space (Macbeth Tenants Association)	0	_	1	_	1	1			L20 7EE	site	0
135	Community Horticulture	0	_	1	1	1	0			L17 8UU	site	1
136	Incredible Edible Hoylake	1	1	_	_	1	0			#	group	0
137	Warbreck in Bloom	1	_	0		0	1			CH47 3BZ	site	0
138	Lister Community Green (Lister Residents Association)	0	_	1	1	0	1			L7 0HP	site	1
139	Adamson Street Alley Way	1	1	0	_	0	1			L7 9LR	site	1
140	Evergreen Garden Project	1		0	_	0	1			#	site	1
141	Magull in Bloom	1	1	0	_	0	1			L31 3DE	site	0
142	Northwood Estate	0		1	_	0	1			L33 6XD	site	0
143	Towerhill Community Garden Project(Get Growing)	0	_	1	1	1	1			L33 1XT	site	0

	Name of Group/Project	Group	Active (2013)	Project	Active (2013)	Food initiative / community garden	Environmental volunteering	Well-being	Education	Postcode	Site or Group (Activity)	One Site Focus
	Key											
	# in postcodes means more than one geographic focus											
	Formal Group											
	Formal Project											
	Informal Group											
156	Safe Productions Community Garden	0	_	1	1	1	1			L20 4AP	site	1
157	Ashtons Green Allotments (Ashtons Green Allotments Association)	1	1	0	_	1	0			WA9 2DY	site	1
158	St Luke's Church Ground Breathing Place	0	_	1	_	0	1	1		L23 5SE	site	1
159	Clayton Community Kidzone and Wildflower Meadow (Clayton Communtiy Assocation)	0	_	1	_	0	1		1	WA8 6NS	site	1
160	Cherryfield Urban Garden (Cherryfield Primary School)	0	_	1	_	1	0			L32 3YE	site	1
161	Gillbrook School Garden	0	_	1		1	0			CH49 8HE	site	1
162	Friends of St Benedict's Wood - Community Woodland	1		0	_	0	1			L35 4PF	site	1
163	ARCH Under the Bridge	0	_	1	1	0	1	1		L19 8JZ	group	0
164	Bradbury Fields	0	_	1	1	0	1	1		L14 2EP	Group	0
165	Breckfield Diggers, Breckfield & North Everton Neighbourhood Council	0	_	1	1	1	0			L6 5AD	site	1
166	Brontescape, Bronte Youth & Community Centre	0	_	1	0	1	0			L3 5NB	site	0
167	Daisy Inclusive UK	0	_	1	1	0	1	1		L19 5PE	Group	0
168	Faiths4change	1	1	0	_	1	0	1		L1 7BY	Group	0
169	Five Children and Families Trust	0	_	1	1	1	0	1		L24 0TW	site	1
170	Healing Space (Liverpool)	0	_	1	1	0	1	1		CH64 1RQ	Group	1
171	L'Arche Liverpool	0	_	1	1	0	1	1		L25 7RF	Group	0
172	Liverpool Everyman Theatre	0		1	1	1	0			L1 9BH	site	1
173	Liverpool Friends of the Earth	1	1		_	0	1		1	L28 6YB	Group	0
174	Liverpool World Centre	0	_	1		0	0		1	L8 1XE	Group	0
175	Local Solutions	0	_	1	_	0	1	1		L7 8TF	Group	0
176	Neighbourhood Services Company	0	_	1	_	0	1	1		L34 9EN	Group	0
177	North End Writers	0	_	1	_	0	1	1		CW9 8AG	Group	0
178	Parish Power	0	_	1	_	0	1	1		#	Group	0
179	St Michaels in the Hamlet with Christ Church	0	_	1	1	1	0			L17 7BA	site	1
180	The New Belve Youth & Community Sports Centre	0	_	1	_	0	1	1		L8 4PX	site	1
181	The Women's Organisation	0	_	1		0	1	1		WA6 9PE	group	0
182	Friends of the Flyover	1	1	0		0	1			L3 8EN	site	1
183	Friends of Ainsdale Village Park (Southport)	1	1	0		0	1			PR8 4JS	site	1
184	Friends of Bedford Park (Southport)	1	1	0		0	1			PR8 4JT	site	1
185	Friends of Botanic Gardens (SOP)	1	1	0		0	1			PR9 7NB	site	1
186	Friends of Coronation Park (Crosby)	1	1	0		0	1			L23 5RD	site	1
187	Friends of Copy Farm Park (Netherton)	1	1	0		0	1			L30 8RA	site	1
188	Friends of Crossens Rec (SOP)	1	1	0		0	1			PR9 8JH	site	1
189	Friends of Deansgate Lane (Formby)	1	1	0		0	1			L37 3LG	site	1
190	Friends of Deansgate Lane Sculpture Trail (Formby)	1	1	0		0	1			L37 3LG	site	1
191	Friends of Derby Park (Bootle)	1	1	0		0	1			L20 9AA	site	1
192	Friends of Duke St Park (Formby)	1	1	0		0	1			L37 4AP	site	1
193	Friends of Hatton Hill Park (Litherland)	1	1	0		0	1			L219JN	site	1
194	Friends of Hesketh Park (SOP)	1	1	0		0	1			PR9 9JN	site	1
195	Hesketh Park Garden Volunteers	1	1	0		0	1			PR9 9JN	site	1
196	Friends of Kings Gardens (SOP)	1	1	0		0	1			PR8 1QU	site	1
197	Friends of Lord Street Gardens (SOP)	1	1	0		0	1			PR8 1NY	site	1
198	Friends of Marian Park (Netherton)	1	1	0		0	1			L30 3SW	site	1
199	Friends of Mellanear Park (Bootle)	1	1	0		0	1			L20 5ET	site	1
200	Friends of North Park (Bootle)	1	1	0		0	1			L20 5JJ	site	1
201	Rotton Row Garden Volunteers (Birkdale)	1	1	0		0	1			PR8 2BZ	site	1
202	Friends of Seafront Gardens (Waterloo)	1	1	0		0	1			L22 5PR	site	1
203	Friends of South Park (Bootle)	1	1	0		0	1			L20 7DA	site	1
204	Friends of Victoria Park (Crosby)	1	1	0		0	1			L22 2AP	site	1
205	That Bloomin Triangle, Granby	1	1	0		0	1		1	L8 2UW	site	0
206	Riverview Residents Association	0	1	0		0	1			#	site	0
207	Friends of Calderstones Park	1	1	0		0	1			L18 3JD	site	1
208	Friends of Otterspool Park	1	1	0		0	1			L17 5AP	site	1
209	Friends of Reynolds Park	1	1	0		0	1			L25 6EA	site	1
210	Friends of Grange Hill	1	1	0		0	1			CH48 6DS	site	1
211	Gilroy Nature Conservation Society	1	1	0		0	1		1	CH61 0HN	site	0
212	G.O.A.L. (Greasby Outdoor Activity & Leisure)	1	1	0		0	1		1	#	site	0
213	Friends of Grange Community Park	1	1	0		0	1			PR2 6QW	site	1
214	Friends of Harrison Park	1	1	0		0	1			CH45 3NS	site	1
215	Friends of Hilbre Nature Reserve	1	1	0		0	1			CH48 8BW	site	1
216	Friends of Hoylake and Meols in Bloom	1	1	0		0	1			#	site	1
217	Friends of Hoylake Golf	1	1	0		0	1			CH47 4BG	Site	1
218	Friends of Leasowe Lighthouse	1	1	0		0	1			CH46 7SA	Site	1
219	Friends of Mayer Park	1	1	0		0	1			CH63 7RB	Site	1
220	Irby Thurstaston & Pensby Amenity Society	1	1	0		0	1			CH61 0HW	site	0
221	Friends of Meols Park	1	1	0		0	1			CH47 6AF	site	1
222	Friends of Ness Gardens	1	1	0		0	1			CH64 4AY	site	1
223	New Ferry Regeneration Action Group	1	1	0		0	1			#	group	0
224	Friends of North Wirral Coastal Park	1	1	0		0	1			CH45 8LW	site	1
225	Overchurch Residents Association	1	1	0		0	1			#	site	0
226	Friends of Rock Park	1	1	0		0	1			CH42 1PP	site	1

	Name of Group/Project	Group	Active (2013)	Project	Active (2013)	Food initiative / community garden	Environmental volunteering	Well-being	Education	Postcode	Site or Group (Activity)	One Site Focus
	Key											
	# in postcodes means more than one geographic focus											
	Formal Group											
	Formal Project											
	Informal Group											
219	Friends of Mayer Park	1	1	0		0	1			CH63 7RB	site	1
220	Irby Thurstaston & Pensby Amenity Society	1	1	0		0	1			CH61 0HW	site	0
221	Friends of Meols Park	1	1	0		0	1			CH47 6AF	site	1
222	Friends of Ness Gardens	1	1	0		0	1			CH64 4AY	site	1
223	New Ferry Regeneration Action Group	1	1	0		0	1			#	group	0
224	Friends of North Wirral Coastal Park	1	1	0		0	1			CH45 8LW	site	1
225	Overchurch Residents Association	1	1	0		0	1			#	site	0
226	Friends of Rock Park	1	1	0		0	1			CH42 1PP	site	1
227	Friends of Royden Park	1	1	0		0	1			CH49 1NP	site	1
228	Thornton Hough Community Trust	1	1	0		0	1			CH63 1JB	site	1
229	Friends of Tower Grounds	1	1	0		0	1			L25 7UL	site	1
230	Friends of Tranmere Parks	1	1	0		0	1			CH42 0LF	site	1
231	Friends of Vale Park	1	1	0		0	1			CH45 1LZ	site	1
232	Friends of Warwick Park	1	1	0		0	1			CH43 4TF	group	1
234	Cheshire and Wirral Ornithological Society	1	1	0		0	1		1	#	site	0
235	Dee Estuary Conservation Group	1	1	0		0	1			#	group	0
236	Dee Estuary Voluntary Wardens	1	1	0		0	1			#	group	0
237	Mersey Estuary Conservation Group	1	1	0		0	1			#	group	0
238	Wirral Countryside Volunteers	1	1	0		0	1			#	group	0
239	Wirral Bird Club	1	1	0		0	1		1	#	group	0
240	The Wirral Society	1	1	0		0	1			#	group	0
241	Wirral Wildlife	1	1	0		0	1		1	#	group	0
242	Wirral & Cheshire Badger Group	1	1	0		0	1		1	#	group	0
243	Friends of Birkenhed Park/Park Roots CIC	1	1	0		0	1			CH41 4HY	site	1
244	Friends of Bowring Park	1	1	0		0	1			L36 4HD	site	1