

Manchester's Great Outdoors

a **Green** and **Blue** Infrastructure Strategy for Manchester

2015-25

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Introduction from the Leader of the Council

The 21st century is the age of the city. Cities are increasingly the places we live, the places we work, the place we visit; a picture now familiar to over half the world's population. We know that cities are the engines of ideas and innovation that underpin global development. We know that they are set to continue to grow over the coming decades; we know this story well. But what makes a city successful and what sets one apart from the rest?

There is no one size fits all, no blueprint for a successful city, no one city the same as any other. There are, however, fundamental differences between the world's leading cities, and those following in their wake. The kind of differences that attract the brightest and best talent, that provide the right setting to attract the smartest investments, and which provide the right conditions and culture to support a healthy and fulfilled population. It is these differences that the cities of the future will need to understand and capitalise on if they are to be successful. This success will be defined not simply by the numbers of people living there, but by the numbers who choose to live and stay there, not just for jobs but also the quality of life they enjoy.

This is the vision being developed as part of the Manchester Strategy, setting out how the city will continue to evolve and grow over the next 10 years, 2015 to 2025. It will build on the achievements of the last two decades and the transformation of our city; the creation of safe, attractive neighbourhoods for people and their families, major expansion of the city's sports, leisure and cultural facilities, an improvement in the city's natural environment, investment in our parks, and the growth of jobs in new and sustainable industries. Devolution will be a key part of the journey to 2025, helping to further unlock the city's potential for continuing growth, and enabling all our residents, businesses and visitors to share in and contribute to Manchester's success.

Versions of Manchester's growth will of course be seen in other places around the world. This is, after all, the age of the city. The cities that truly prosper, however, those that compete and collaborate on a world stage, will be the ones that understand properly what makes places and people tick. They will integrate sustainability into their spatial and investment plans, creating places that people want to live, work and stay for the long-term.

Green and blue infrastructure will be a core component of Manchester's plans to 2025. It is as important as our other types of infrastructure; energy, transport, water, waste, telecommunications and others. Residents, visitors, businesses and workers will be drawn to Manchester by a range of factors; schools and universities, employment opportunities, arts and culture, health standards, the quality of the city's environment, and easy access to the parks and green spaces of Greater Manchester and beyond, all combining to offer residents a lifestyle that is uniquely Manchester, and places us among the top flight of world cities.

The 21st century can't simply be the age of the city, it has to be the age of the sustainable, liveable city. The Manchester Strategy will set out the city's part in helping to drive this shifting global paradigm to 2025; with investment in our green and blue spaces very much part of it. I look forward to seeing the city's communities, businesses and the City Council all coming together over the next 10 years to realise this vision.

**Sir Richard Leese,
Leader of Manchester City Council**

Executive Summary

Introduction

Green infrastructure – the green and blue spaces that exist within and between urban areas – is an essential part of creating a successful, liveable city. Parks, river valleys, gardens, street trees, green roofs, canals and many other components all form part of a rich network that is integrated with the built environment in the world's most popular cities.

Manchester's green infrastructure (GI) has been part of the city's success for a number of years. Five river valleys, three canals, over 160 parks, street trees, woodland, private gardens, and other areas of natural environment are familiar and well-used parts of the city's landscape. It is set within a wider landscape; that of the Greater Manchester city-region and beyond to the Pennines, Peak District and Cheshire Plains, and within easy reach of additional areas in the Lake District and Snowdonia National Parks.

As the city continues to grow over the next decade, existing and new GI will need to continue to be an integrated part of this growth. This strategy has been produced to set out how this will be achieved, drawing together existing commitments on GI and progress achieved to date, to provide a framework for scaling up this good work and the basis for driving new investment over the coming decade.

Context and analysis

The strategy does not mark the start of action on the city's green and blue assets, rather it reframes this action in the context of the city's

objectives for growth, public sector reform and the creation of attractive places where people will choose to live, work, visit and invest. To do this new research and analysis has been undertaken to provide a better understanding of the social and economic benefits that GI provides to the city's residents and businesses.

This work comes at the early stages of valuing GI in socio-economic terms, a relatively new discipline that is being applied in a small but growing number of cities, particularly in North American and Europe. The findings provide helpful confirmation that Manchester's GI has a quantifiable benefit to people and the economy, and the basis for further research, including investigations into new funding models that will enable an even wider range of organisations to invest in the city's GI.

Vision, Objectives and Headline Actions

Building on the investment to date in the city's GI and the understanding of its importance in helping to create a successful city, the vision for green and blue infrastructure in Manchester over the next 10 years is:

By 2025 high quality, well maintained green and blue spaces will be an integral part of all neighbourhoods. The city's communities will be living healthy, fulfilled lives, enjoying access to parks and greenspaces and safe green routes for walking, cycling and exercise throughout the city. Businesses will be investing in areas with a high environmental quality and attractive surroundings, enjoying access to a healthy, talented workforce. New funding models will be

in place, ensuring progress achieved by 2025 can be sustained and provide the platform for ongoing investment in the years to follow.

Four objectives have been established to enable the vision to be achieved:

1. Improve the quality and function of existing green and blue Infrastructure, to maximise the benefits it delivers
2. Use appropriate green and blue infrastructure as a key component of new developments to help create successful neighbourhoods and support the city's growth
3. Improve connectivity and accessibility to green and blue infrastructure within the city and beyond
4. Improve and promote a wider understanding and awareness of the benefits that green and blue infrastructure provides to residents, the economy and the local environment

This vision recognises that all Manchester's communities and sectors of the economy will benefit from ongoing investment in GI. As such the strategy is designed to allow all stakeholders in the city to understand how and where they can play their part in its delivery, and enjoy the benefits that will come as a result. Headline actions have been established for each objective, providing a framework for all stakeholders in the city, from the Council and other large organisations, to developers, to residents and communities to identify how they will be able to contribute to the city's GI.

Implementation and Monitoring

Collective action by all the city's stakeholders is a critical factor in the strategy's successful delivery. A similar approach has been established for the city's climate change action plan, *Manchester: a Certain Future* (MACF) where the plan's delivery is overseen by the MACF Steering Group, an independent group made up of representatives from the public, private, third, academic and community sectors.

The Stakeholder Implementation Plan has therefore been developed jointly by the City Council and the MACF Green and Blue Infrastructure Group, and has sought to include actions from a broad range of stakeholders from across the city. It is structured according to the objectives and headline actions in the strategy and contains key strategic actions and an initial set of medium to large scale projects to begin to translate the strategy into reality over the period 2015-18.

Recognising that the plan cannot helpfully capture all activities in the city, a separate interactive 'project database and map' will also be produced. This tool will be able to capture and share the actions of stakeholders in the city so as to help recognise their efforts, provide further momentum and encouragement to other stakeholders in the city, and be an important part of the framework for measuring progress against the strategy.

1. Introduction

1.1 Introducing the Strategy

High quality green and blue infrastructure (GI) is an essential part of successful, liveable cities. The green spaces and waterways in our neighbourhoods attract residents and families, creates the setting for businesses to invest, with access to the brightest and best employees, and it is part of the package that draws in visitors from the surrounding area and around the world.

Successful cities are those that understand the importance of GI, including it as part of their plans for growth and development. Portland, Toronto, Copenhagen, and Berlin are among these cities, integrating high quality, well-maintained GI as part of wider plans for residential growth, improving health and well-being, attracting businesses and increasing tourism.

This approach has been part of the Manchester story over the last two decades. Investment in the city's river valleys as part of neighbourhood regeneration plans, delivery of parks, biodiversity and tree strategies, creation of new areas of greenspace through development, and ongoing activity by the city's communities and third sector partners, have all been part of ongoing efforts to improve the city's GI.

This strategy does not, therefore, mark the start of action on GI in Manchester. Rather it builds on the progress achieved to date, draws together existing policy commitments, and reframes the city's GI in the context of the plans for growth over the coming decade.

The resulting strategy is one which provides a refreshed approach to GI in the city, one which helps to more clearly articulate how Manchester can achieve objectives for growth and environmental improvement. It recognises the good work delivered to date and provides a framework for scaling this up through the collective action of all the city's stakeholders. The approach set out in this strategy, built on a growing understanding of the socio-economic benefits of GI, will unlock the potential for new funding and delivery mechanisms, including new delivery partnerships, new maintenance arrangements, and bids for external funding.

Success will be measured not simply in terms of improvements to the city's existing GI and creation of new areas, but in how this contributes to the city's wider objectives, demonstrating that Manchester can be at the same time both a green city and a growing city.

1.2 Developing the Strategy

The Council's commitment to produce a Manchester Green and Blue Infrastructure Strategy was set out in the Manchester Core Strategy 2012-27, the document that provides the long term strategic policies for the city's future development. Making it clear that action on GI should be seen in the context of the city's plans for growth and development.

In 2013 the city's climate change action plan, *Manchester: a Certain Future* (MACF), was refreshed by the MACF Steering Group and stakeholders from across the city. The refreshed plan, for the period 2013 to 2015, further iterated support for the development of a Manchester GI Strategy, setting this activity

in the context of a collective commitment by the city and its stakeholders to take action on climate change and environmental improvement.

From this platform the City Council has worked with a wide range of partners and stakeholders since 2013 to develop the strategy. This process has been designed to ensure that it reflects the views of local and national experts and interest groups, and that it is informed by the latest research and best practice in GI investment and maintenance in cities.

The landscape for investing in GI has continued to change substantially over the course of the strategy's development. Local authority budgets have further reduced, driving the need for new funding and delivery models. Understanding of the socio-economic value of GI has continued to develop, underpinned by new local and international research and policy developments. And Government's recognition of the potential and role of cities in the UK has increased exponentially, giving rise to city devolution and the Greater Manchester Devolution Agreement.

These factors have all provided key inputs to the strategy's development and are reflected in the following sections.

1.3 Document Structure

Section 2 – The Importance of GI in Manchester: context and analysis

Section 2 sets out the local context for GI in Manchester. It sets out the benefits that GI provides within this context, and those benefits that the city should focus on as part of realising its objectives for growth, reducing dependency and creating attractive neighbourhoods. This section is underpinned by a separate Technical Report, which provides further detail.

Section 3 - Vision, objectives and headline actions: contributing to the city's plans for growth, and reform

This section builds on the context and analysis to set out the vision and objectives for GI over the next 10 years. It maps out an approach to delivering these objectives through a set of citywide headline actions.

Section 4 - Delivering the vision at neighbourhood level

This section includes illustrative maps and text for different areas of the city, providing the context for plans and potential projects. This will enable them to contribute to the overall vision for GI across the city.

Section 5 – Realising the vision: implementation and monitoring

The strategy is accompanied by a separate stakeholder implementation plan. Structured according to the objectives and headline actions in section 3, it provides the framework for all partners and stakeholders in the city to play their part in the strategy's delivery. In this context, the MACF Green and Blue Infrastructure Group have worked with the

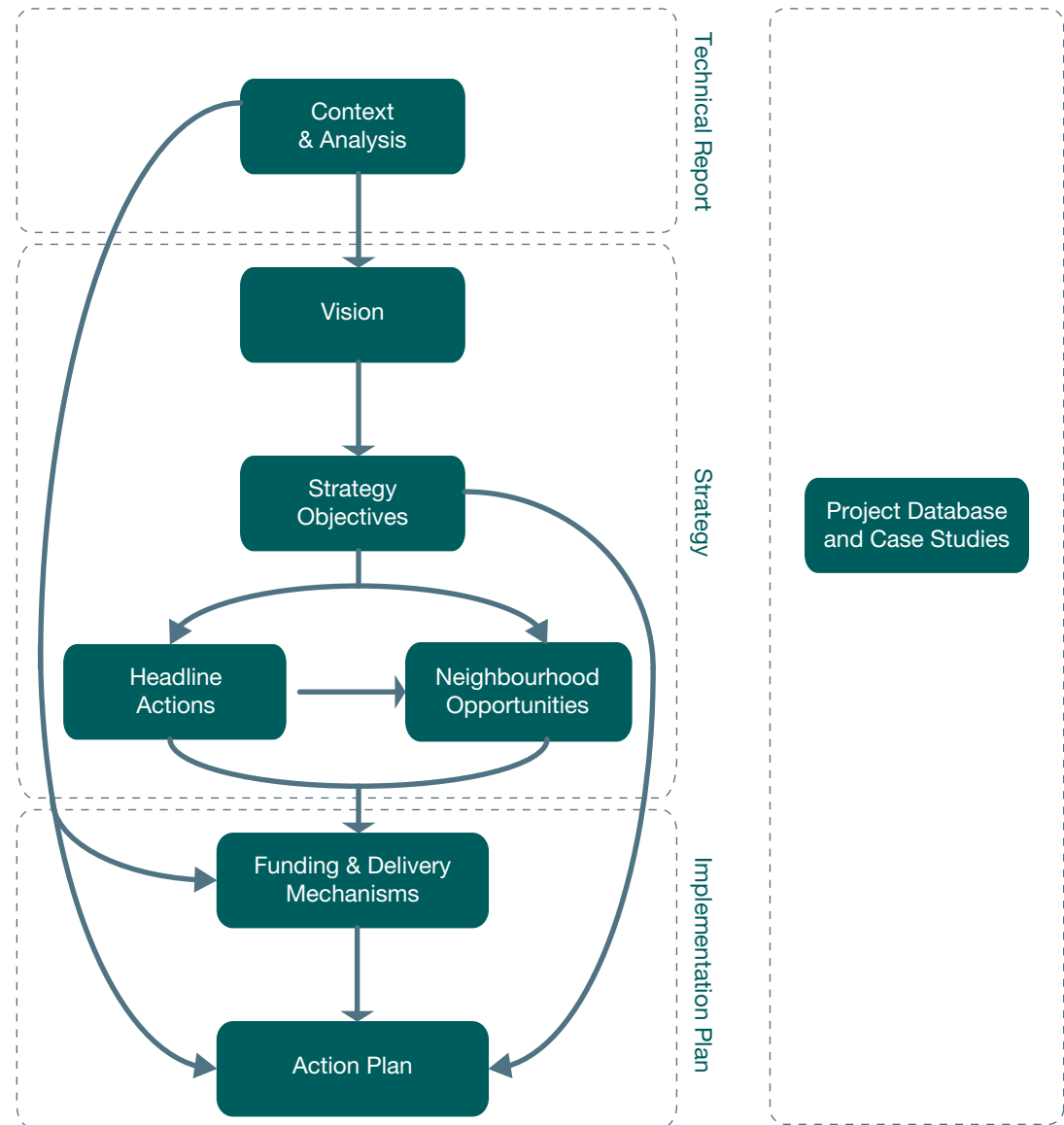
City Council to develop the plan and are responsible for overseeing and championing its delivery.

1.4 Document Relationship

Three documents have been produced in the development of the Manchester Green and Blue Infrastructure Strategy:

- **Strategy:** the strategy sets out the vision, objectives and headline actions for GI in Manchester, and the approach to its delivery.
- **Implementation plan:** this sets out the projects and mechanisms for delivering the strategy, providing the framework for all stakeholders in the city to understand and set out how they can make an active contribution.
- **Technical report:** the technical report provides analysis of the Manchester context, spatial analysis of the city's GI, and headline analysis of the socio-economic benefits it provides.

An accompanying portfolio of case studies has also been developed to help further underpin the strategy and implementation plan. They provide practical examples of action in Manchester and will be helpful for stakeholders looking to take action for themselves .



2. Context & Analysis

2.1 The Manchester Context

Manchester is at the core of the Greater Manchester city-region and is the fastest growing city in the UK. With a population of over 500,000 residents, as an internationally recognised centre for finance, commerce, retail, culture and leisure, and one of the largest student populations in Europe, it is the principal economic driver of the north of England.

For Manchester to achieve its fullest potential, economic growth must be combined with a quality of place that creates a liveable city; one that enables the retention and attraction of people with the right talents and skills to support the economic base.

The city's strategy for the next ten years will further develop this vision and the strategic priorities for 2015 to 2025. Currently in development, the Manchester Strategy will build on the progress achieved to date, and provide the policy framework to guide and drive the next phase of the city's transformation and growth.

Manchester has already taken major steps to secure its future as an internationally successful city, with investment in cultural institutions such as Home at First Street, Manchester International Festival and The Factory, centres of excellence for sport and leisure, including the new Manchester City Football Academy, English Institute of Sport and other facilities at Sportcity, as well as significant investment in the knowledge economy through the city's universities, the National Graphene Institute and the Sir Henry Royce Institute for Advanced Materials Research and Innovation.

Investment in sustainable travel has also played an important role in supporting the city's growth; connecting people to jobs. Planned and proposed rail investments, including the Northern Hub and High Speed 2 and 3, will transform access to Manchester and the north of England.

Metrolink, our tram system, continues to grow, including new lines now running to Wythenshawe and the airport, and further routes planned. With additional investment in priority bus routes and an ambitious cycling programme, our transport investment continues to focus on encouraging accessible and sustainable transport that helps people get to the places they want to go, including Manchester's destination parks and greenspaces.

Underpinning these investments and the delivery of previous city strategies has been a coherent citywide spatial plan, setting out regeneration priorities for residential and employment growth, and the important role for the city centre, at the heart of the city and the city-region. The same approach will be required for the next ten years, drawing on the Manchester Core Strategy 2012-2027, to ensure that the city has the land required to meet the need for new homes, schools, commercial buildings, green and blue spaces, and other priorities.

Setting these plans in the context of and integrated with Greater Manchester plans will be critical to their success. In the context of global growth in cities and UK devolution, and building on the successful work to date across Greater Manchester, the city-region will become increasingly important as a functional economic

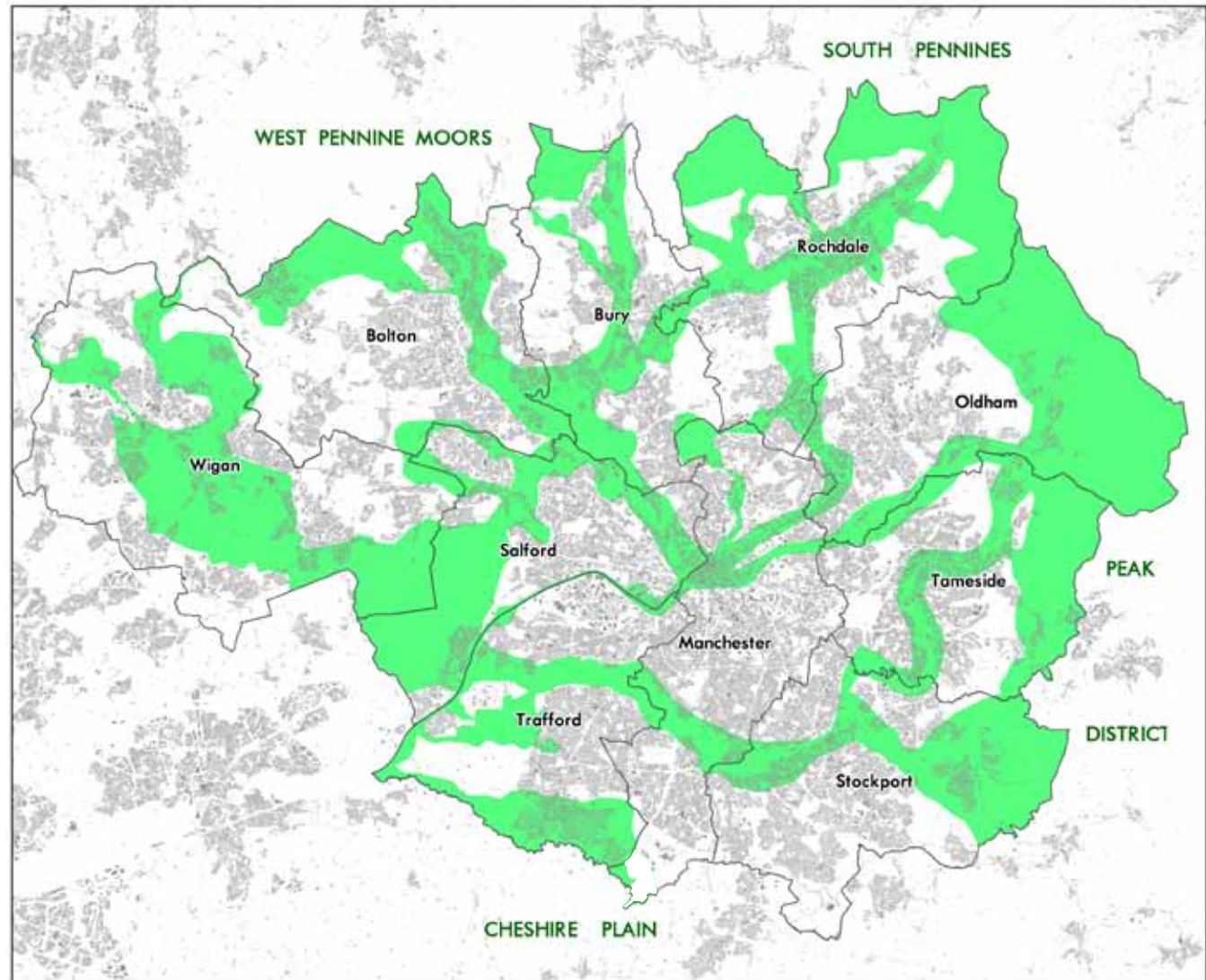
geography, helping to drive change across the north of England and beyond.

Greater Manchester is leading the way in creating a model for city devolution. The proposals for a Mayor and major transfer of powers from central Government to the city-region will mean we can accelerate the delivery of local and nationally significant strategic priorities.

This Greater Manchester dimension is particularly important from a GI perspective. The city-region is home to a significant amount of GI, within easy reach of Manchester, particularly as public transport connections continue to improve. Beyond this, national parks and other areas of iconic green and blue spaces are accessible within 30 minutes to two hours; the Lake District, Peak District, and Snowdonia National Parks, the Pennines, the Cheshire Plains, the northwest coast, Yorkshire Dales and others.

This strategy should be read within this context. Recognising the importance of both investment in GI within the city, at the same time as ensuring that transport connections continue to improve to enable residents and visitors to access GI throughout Manchester and the significant greenspaces that exist within Greater Manchester and beyond.

Figure 1:
Green Infrastructure in Greater Manchester
(Ref AGMA GI Framework)



2.2 What is Green and Blue Infrastructure in Manchester?

“Green infrastructure is the network of multi-functional green and blue space, urban and rural, which is capable of delivering a wide range of environmental and quality of life benefits for local communities” (National Planning Policy Framework 2012).”

Drawing on this national definition, the Manchester Core Strategy 2012-27 and this strategy define Manchester’s green and blue infrastructure as:

- Open Spaces - parks, woodlands, informal open spaces (including amenity grass areas, allotments), nature reserves, lakes and reservoirs, historic sites and natural elements of built conservation areas, civic spaces and accessible countryside, outdoor sports facilities (with natural surfaces)
- Linkages - river valleys and canals, pathways, cycle routes, tram routes and railway lines – both used and disused
- Networks of “urban green” - the collective resource of private gardens, pocket parks, street trees, verges, green roofs and green walls

These different types of GI, from the small-scale (individual gardens and street trees), through to the large scale (river valleys and major parks) are all important, serving to create a network whose total value is greater than the sum of the individual parts, as part of the wider landscape of Greater Manchester and beyond.

Manchester’s location at the heart of the city-region is particularly relevant to its green and blue infrastructure provision. Three of the city’s five rivers and its canals converge on the city centre, in turn providing the opportunity to travel out into north and east Manchester and to surrounding districts along green and blue routes, away from traffic, that have improved and continue to improve as part of the city’s growth.

The city’s GI has been mapped as part of the strategy development, identifying a diverse range of GI types, and a varied distribution in terms of quantity and quality across the city.

The city’s river valleys make up a significant proportion of this resource, particularly the Irk in the north, Medlock in the east and Mersey in the south. The Irwell is an important part of the city centre’s character, providing the setting for existing developments and the potential for new schemes that can animate the waterway and encourage links out to Media City in the west and the Irwell Valley to the north. Although only a short stretch runs through Manchester, the River Bollin is nonetheless also an important part of the city’s natural environment.

The city has over 160 parks, made up of large destination parks at Heaton and Wythenshawe, through to smaller but still significant district parks such as Platt Fields Park, and community parks that serve a large number of the city’s communities.

Small-scale GI such as street trees and private gardens are often overlooked when considering a city’s GI but play an important role as part of Manchester’s overall resource, particularly in helping to define the character of local areas

and creating attractive neighbourhoods.

In looking at Manchester’s spread and type of GI, it is important to always understand the city context. There are, and will be into the future, large areas of well-established green and blue spaces, focused particularly in the river valleys and in the major parks. In addition to these there are areas of GI that are temporary and take the form of sites awaiting development. In combination with new areas that become available over time, these sites provide a shifting mosaic of GI that is to be expected in a dynamic, ever-changing city. Ensuring that these sites can be used, even on a temporary basis, is important in making best use of the city’s land assets. Temporary, or ‘meanwhile’, greening has already started to become part of the city’s process of change, with this strategy helping to provide further impetus and direction to scale up this activity.

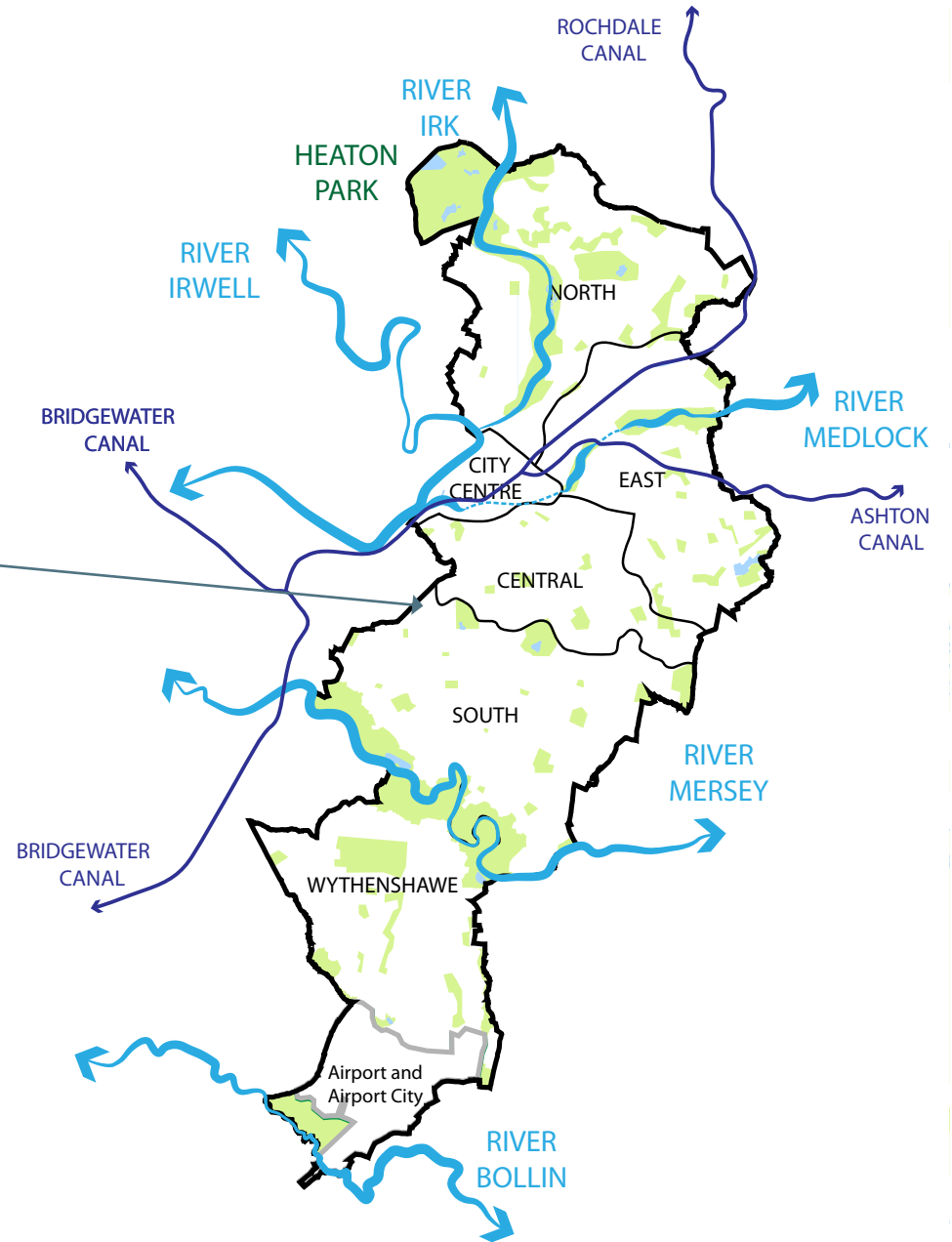
Figure 2 provides an overview of the city’s GI; the river valleys, canal network, and larger green spaces, including parks. More detailed maps and analysis have also been produced in developing the strategy and are available as part of the technical report. Work is underway to make this extra information available to stakeholders looking to identify existing assets at a local level and to help in starting to identify new opportunities and project ideas. A snapshot of this extra detail is provided for Whalley Range, showing the diverse range of different GI types that exist in the city’s communities.

Figure 2:
Major Areas of Green and Blue
Infrastructure in Manchester



Green and blue infrastructure assets within
Whalley Range

- Allotment, community garden or urban farm
- Cemetery, churchyard or burial ground
- Derelict land
- General amenity space
- Grassland, heathland, moorland or scrubland
- Institutional grounds
- Orchard
- Outdoor sports facility
- Park or public garden
- Private domestic garden
- Residential flat garden
- Street trees
- Water body
- Water course
- Wetland
- Woodland



Manchester's green and blue spaces cover 58% of the city. Outside of the city centre and central Manchester green infrastructure coverage is generally high, made up of a combination of assets in public ownership and privately owned spaces, particularly residential gardens in south Manchester and Wythenshawe.

Most residents have access to an area of natural or semi-natural greenspace over two hectares in size (approximately the size of three football pitches) within 720m (approximately half a mile) of their homes, the standard set in the Manchester Core Strategy. In some areas, where the existing urban form does not accommodate these types of larger greenspace, other smaller scale GI is typically present, appropriate to that location, as well as public transport providing access to nearby green areas. In some parts of south Manchester there is a lower provision of natural or semi-natural greenspace over two hectares in size, compared to other areas of the city. Mature street trees and private gardens provide an alternative source of GI in this area, contributing to its reputation as being home to some of the city's most attractive, leafy neighbourhoods. Ready access to the Mersey Valley and its adjacent greenspaces also provides part of south Manchester's appeal.

In the city centre a number of existing parks and high quality areas of public realm form important elements of the landscape, with new development providing the opportunity to create additional new public space, as seen in recent years at One Angel Square and Spinningfields. Other public spaces are also planned as part of First Street and at St John's, the old Granada Studios site.

The city centre also benefits from ready access to areas of greenspace on the edge of its boundaries, including Angel Meadow, New Islington Water Park, Hulme Park, Whitworth Park, and the Irk and Medlock river valleys. The growing public transport network also provides access to major parks within the city at Heaton and Wythenshawe, and areas beyond including those within Greater Manchester, the Peak District, Cheshire, and the Lake District. As with other cities, continuing to develop these transport links is an important part of ensuring that all residents have access to high quality areas of greenspace.

Blue infrastructure, focused mainly in the river valleys, the canal network, and at Gorton Reservoir is a strong part of the city's history and will be an important part of its future. Industry and its decline left a legacy of degraded river valleys and poor water quality for a period. The concerted efforts of the Council, the Environment Agency, United Utilities, the Mersey Basin Campaign, Groundwork and others have been instrumental in reversing this decline, transforming these areas into havens for wildlife and recreation. Further work will continue to enhance these areas, including investment to improve accessibility and the ability for them to provide safe, attractive routes for walking, cycling and jogging.

The city's trees stock is an important part of overall GI levels, particularly in the south and north of the city. 20% of the city is classed as being tree-covered, compared to a national average of 9% in towns and cities. Street trees can be an integral part of the overall character of an area, helping to create an attractive green environment, sometimes despite a lower provision of public open spaces compared to

other areas. Making sure that the city has the right species of trees for a changing climate and the right arrangements for their long-term management are both essential to ensure that trees – in parks, forests, gardens and on streets – can continue to be an important part of the city's character.

In well-established areas of the city, with low levels of overall GI, and where low levels of development are planned, including parts of central Manchester, smaller-scale interventions such as street trees and community-led greening can provide an important means of improving local GI provision. In combination with making best use of existing resources in both public and private ownership, for example through registered housing providers, there are a range of options for ensuring that quality, accessible GI can form an integral part of these neighbourhoods.

Figure 3
Percentage green infrastructure cover

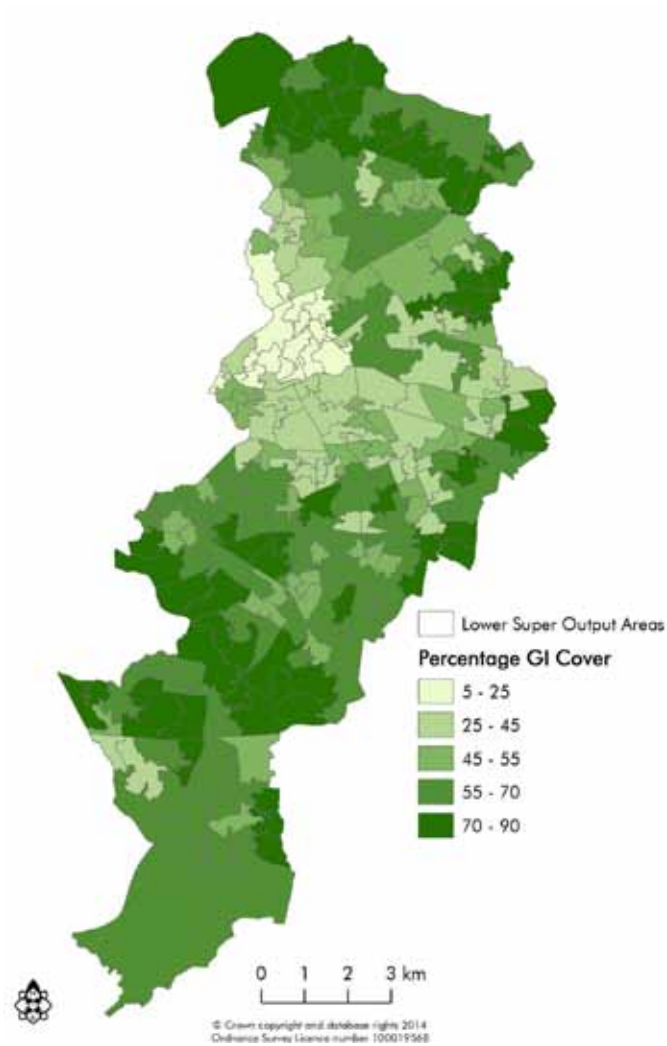
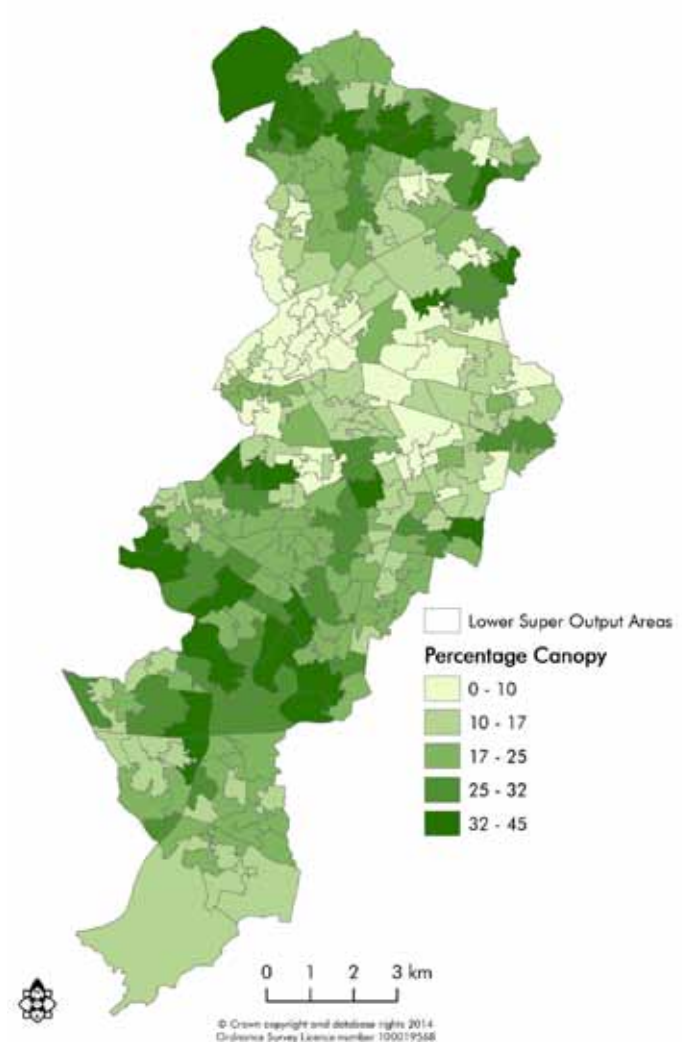


Figure 4
Percentage tree canopy cover



2.3 How does Green and Blue Infrastructure benefit Manchester?

Green and blue infrastructure can provide multiple social, economic and environmental benefits. Research, particularly over the last decade, is helping to grow the understanding of these benefits, shifting the emphasis from using GI to deliver a narrow set of benefits, to an approach where people, wildlife and businesses can all benefit simultaneously.

Developing the evidence base for these wider benefits is a new field of research. To begin to adopt this approach in Manchester is to place the city in a small group of cities, particularly from North America and Europe who believe this new approach to GI will lead to more joined-up policy making, the establishment of new investment mechanisms, and the delivery of better outcomes for local people. Joining-up health and GI policy is an area which could deliver significant mutual benefits in Manchester and other cities. There are already a number of national and international examples where investment in GI is being made as a more cost effective, preventative and recuperative health care intervention than traditional measures.

In Manchester, initial work has been undertaken to begin to understand the benefits that the city's GI provides in relation to its social and economic objectives, adding to more well established work over a number of years to understand the environmental and biodiversity value of GI. This work builds on work by the Natural Economy Northwest programme in 2008, which defined eleven benefits that could be derived from GI, and applies a set of 'logic chains' that connect GI and the benefits it can provide to a set of socio-economic objectives and outcomes. This methodology is based on the latest Government and European research and best practice, with further information provided in the Technical Report.

The scope of this research was designed to test the hypothesis that GI has a quantifiable socio-economic benefit to the city, and which could form the basis of further research and investigation into new investment mechanisms that will support the delivery of the strategy. At this early stage of research, the conclusions provide high-level support for this hypothesis, and some specific examples where GI is making a quantifiable contribution to the city's socio-economic objectives.

The connections between health and wellbeing and GI provide an important opportunity to deliver better outcomes for residents and reduce dependency on strained public sector services. Anecdotal and personal experience tends to support a link between these areas, with a growing body of research internationally that is helping to more clearly define the connection. In Manchester it is estimated that the physical activity supported by parks may be responsible for cost savings (avoided health care spending) of between £6 and £10 million per year.

Visitors to Manchester are drawn to the city by its range of cultural, retail, sporting, educational and recreational attractions. Balancing the demands of the city's residents with those of out-of-town visitors should remain an important priority for the city.

A growing interest in urban greening is drawing new partners into Manchester, keen to help the city to meet and grow this demand. In 2012 the National Trust appointed a new Gardener in Residence to work with the City Council, businesses and residents to help further green the city, resulting most recently in the citywide planting of 100,000 snowdrops, including an exhibition at Manchester Art Gallery. Since 2013 the 'Dig the City' urban gardening festival has been attracting visitors to temporary and new permanent areas of greenery in the city centre, generating £2.10 of additional revenue for every £1 spent on delivery in its first year.

Across Greater Manchester it is estimated that 15,000 jobs are directly linked to, or depend upon the city-region's green infrastructure. The Manchester proportion of this is yet to be calculated but will include employees at the Greater Manchester Tree Station in West Gorton, workers at Hulme Community Garden Centre, Royal Society for the Protection of Birds (RSPB) staff working as part of the RSPB-Council partnership in the Mersey valley and city centre Peregrine Falcon project, plus many others, including Council employees working in parks and greenspace management.

The ability for GI to help to create an attractive setting for development and regeneration is a key priority for Manchester. The creation of the new Hulme Park was a core element of the wider Hulme regeneration masterplan, creating a resource at the heart of the community and enhancing the values of adjacent properties. The regeneration of Castlefield and New Islington have been built around their attractive canal-side settings and a market keen for access to green and blue infrastructure in the heart of the city. The next phase of the city's development to 2025 provides significant opportunities to continue this good practice, including at St Johns in the city centre, and as part of the residential growth schemes on the edge of the city centre. Integrating GI as part of the masterplans for these areas will be a key consideration in their development.

(Source: ECOTEC 2008 / Manchester Green Infrastructure Strategy: Technical Report 2015)

This initial research and review of existing good practice has provided an important insight into the developing discipline of 'ecosystem services', an approach to quantifying the socio-economic benefits that people and the economy receive from GI. This work and the strategy itself provide the basis for further investigation into the benefits provided by the city's GI, how it contributes to the creation of a liveable, healthy city, and what new mechanisms may be needed to ensure the city can continue to invest in its GI as part of its plans for growth.

Local universities have an important role to play in this work. They have worked with the Council in the development of the strategy in order to provide relevant research and best practice, and to begin to identify areas where new research is needed to support the strategy's implementation. This joint working will continue to be an important part of shaping and measuring the impact of investment in GI, and will be taken forward as part of the Implementation Plan.

At this stage, the evidence gathered in the development of this strategy can provide the Council and the city with confidence that GI is already an important component of the character and success of the city. It has been instrumental in helping to create attractive, liveable neighbourhoods, and drawn further investment to provide homes for new communities. Ensuring that this continues therefore needs to be an integral part of Manchester's plans for growth over the coming decade.

	Economic Growth and Investment	Investments in green space are known to improve a region's image, helping to attract and retain high value industries, new business start-ups, entrepreneurs and workers. Jobs can also be directly linked to or depend upon a city's GI.
	Land and Property Values	Proximity to green spaces has a positive impact on property values. Estimates in the size of the premium to residential properties is between 1% and 19%, with the majority of estimates between 5% and 10%.
	Labour Productivity	Green working environments have been shown to reduce stress amongst workforces and to stimulate higher productivity. In addition, higher quality work environments attract and retain higher calibre staff.
	Tourism	A huge range of events take place in public parks and green space, from small local community-based events, through to those of national importance.
	Products from the Land	Using green infrastructure as a place for communities to grow crops can provide health and education benefits whilst also supporting community cohesion.
	Health and Wellbeing	Green Infrastructure can provide much needed opportunity and motivation to increase activity and exercise in the Manchester population. Small changes in the built environment can motivate people to exercise. Green infrastructure can improve air quality.
	Recreation and Leisure	Manchester's parks and linear routes provide an important local resource for recreation and exercise and can lead to improvements in health and well being.
	Quality of Place	Improving the quality of place is an important factor in motivating people to enjoy and exercise in their local area.
	Land and Biodiversity	The natural environment delivers essential 'ecosystem services' including life-support systems such as the recycling of air and water; capturing and storing carbon in peat, woodland and soil; flood protection; and waste purification – along with many others.
	Flood alleviation and management	Using green infrastructure for flood alleviation and management has economic as well as environmental value.
	Climate change adaptation and mitigation	Interconnected green infrastructure is vital for managing a range of climatic changes, particularly in urban areas, where it can reduce the impact of heavy rainfall or the urban heat island effect.

3. Vision, objectives and headline actions: contributing to the city's plans for growth and reform

3.1 Vision

Building on the context and analysis the Vision for Manchester's GI is:

By 2025 high quality, well maintained green and blue spaces will be an integral part of all neighbourhoods. The city's communities will be living healthy, fulfilled lives, enjoying access to parks and greenspaces and safe green routes for walking, cycling and exercise throughout the city. Green and blue infrastructure will be supporting Manchester's growth. Businesses will be investing in areas with a high environmental quality and attractive surroundings, enjoying access to a healthy, talented workforce. New funding models will be in place, ensuring progress achieved by 2025 can be sustained and provide the platform for ongoing investment in the years to follow.

The delivery of the strategy will mean;

- Our river valleys are well managed, accessible and safe – providing a key recreational resource to residents;
- Our canal network is rejuvenated as a key asset for the city centre and beyond;
- Our parks and green spaces are attractive and accessible to residents;
- Our networks of smaller scale urban green connect more residents with urban nature and provide corridors and stepping stones for biodiversity
- Our green spaces, both permanent and temporary, work harder, providing multiple social, economic and environmental benefits to the city.
- Our growth is supported by green and blue infrastructure, as a key part of creating attractive, successful neighbourhoods

3.2 Objectives

The following objectives are based on the context and analysis in section 2, and the accompanying Technical Report. They are set within the unique Manchester context, one of ongoing population growth and development, at the heart of a growing city-region, and with access to green and blue spaces within the city and Greater Manchester, and beyond to nationally significant parks and greenspaces in locations such as the Peak District, Lake District, and Snowdonia National Parks.

In order to realise the city's vision Manchester and its stakeholders will:

1. Improve the quality and function of existing green and blue Infrastructure, to maximise the benefits it delivers
2. Use appropriate green and blue infrastructure as a key component of new developments to help create successful neighbourhoods and support the city's growth
3. Improve connectivity and accessibility to green and blue infrastructure within the city and beyond
4. Improve and promote a wider understanding and awareness of the benefits that green and blue infrastructure provides to residents, the economy and the local environment

Headline citywide actions have been identified for each objective, providing the framework for all stakeholders in the city to play an active part in the strategy's delivery. They are set out in the following sections, with further detail on specific projects provided in the Implementation Plan.

3.3 Objective 1: Existing GI

As Manchester, and cities around the world, continue to grow, making best use of limited land resources is critical to ensuring that the needs of the local population, economy and environment can be met.

An estimated 58% of Manchester is made up of GI, varying in its quality and functionality, and the benefits it provides to the city. Focusing on making best use of existing GI is therefore a priority, ensuring that it has a designated function and use, clear ownership and maintenance arrangements, and that it delivers tangible and relevant benefits to the local community and businesses. In some instances this may mean a net reduction in the quantity of existing GI in a specific location, in order that resources can be focused on improving the quality and functionality of the retained area, delivering more net benefits to the surrounding communities as a result.

Improvements to the city's existing GI are important at all scales, and can be delivered by a range of stakeholders, from the City Council and major landholders, through to individual residents and community groups. The headline actions for the delivery of this objective are structured with this in mind and are provided in Figure 5 on page 18.

3.4 Objective 2: New Development

As set out above, Manchester is a growing city, with plans for significant growth and development over the coming decade. The key focus for new housing development will be within the city centre, and areas to the east and north of the city centre. Employment will be focused on the city centre, including the Corridor area, Central Park, Eastlands and Airport City. Retail development will be concentrated within the city centre and supplemented by that in district centres across the city.

High quality, green and open space that is appropriate to its location, well designed and well maintained will be an important and integral part of creating successful developments and supporting the city's growth. The strategy is intended to provide initial guidance on how developers can achieve this. It recognises that different approaches will be required for different types of development and that different solutions, appropriate to the location, will be needed on each scheme.

By considering GI from the beginning of the design process developers will be able to understand the surrounding landscape, opportunities to enhance and link to it, and the types of green and open space that could be incorporated within and add value to the development itself.

Further detail is provided in Figure 6 on page 20.

3.5 Objective 3: Connectivity and Accessibility

Green linkages across the city provide an effective means to improve access to green space in Manchester, specifically in areas where the existing urban form does not allow new large areas to be easily created.

Providing permeable, safe and attractive green routes between existing green infrastructure assets can be effective in providing ease of access and a means of extending off-road routes for recreation and health benefits. There is potential for both extending the provision of green routes, and improving the quality of existing routes to improve access to Manchester's green spaces and using them to increase GI levels in their own right.

The strategy seeks to ensure that all communities can have access to high quality GI, both within their local area, and out to other areas of the city and wider conurbation. This objective should be read with sustainable transport in mind, both in terms of existing provision but also in terms of increased capacity through new and improved cycle routes, bus routes and further expansion of the Metrolink.

The headline actions in Figure 7 on page 22 provide further information on the delivery of this objective.

3.6 Objective 4: Understanding and Awareness

This strategy is built on a good initial understanding of the important role that GI has to play in supporting the city's objectives for growth and environmental improvement. Further work will allow us to continue to develop this understanding and provide evidence that will enable the development of new funding and delivery mechanisms. The local universities are well-placed to lead on this activity, hosting a number of academics with expertise in this area.

As set out above, all stakeholders in the city have an important role to play in contributing to the city's GI in and making best use of it for health, recreation, employment and other outcomes. Wider communication, education and awareness raising covers the second key area of activity under this objective. This is a priority for MACF our stakeholder-led climate change action group.

The headline actions on page 24 provide further information on how this objective will be delivered.

Figure 5
Objective 1: Existing GI - Headline Actions

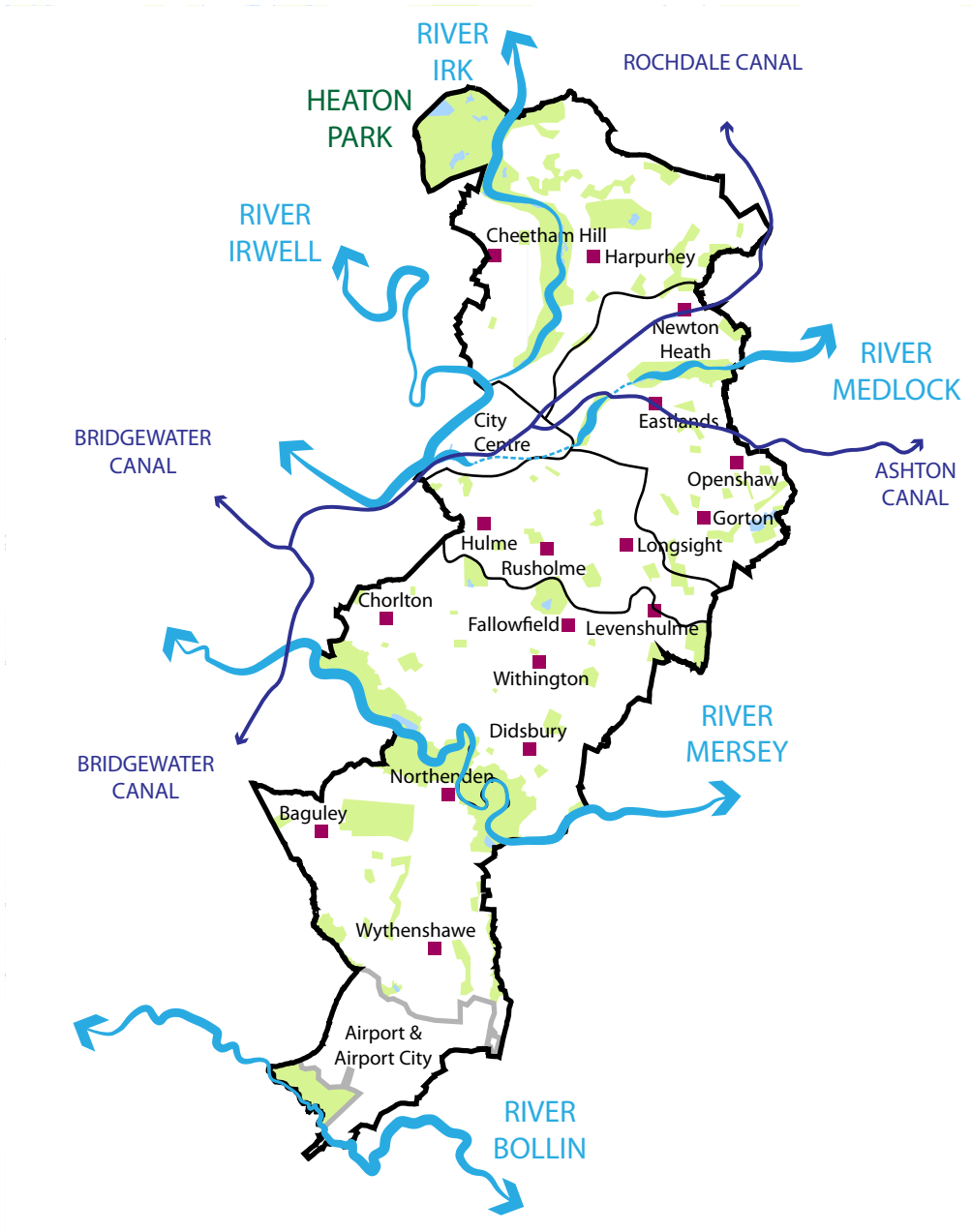
Action 1:
 River valleys and canals : continue to invest in the river valleys and canals to provide attractive settings for residential communities, leisure and recreation, health, and biodiversity benefits

Action 2:
 Enhance existing parks to maximise their potential in making Manchester a world class city

Action 3:
 Enhance existing and introduce new green infrastructure within large estates and land holdings e.g. registered housing providers, cemeteries, universities and hospitals.

Action 4:
 Schools and colleges: enhance school grounds for environmental education and biodiversity

Action 5:
 Trees and woodlands: effective and appropriate tree and woodland management and planting



The following section of the Strategy uses plans to illustrate assets and opportunities, at city and regional scale. The plans are used for spatial illustration purposes only, they do not show every asset, park or open space. The strategy needs to be flexible and adapt over time so the intention is to indicate where principles may be appropriate for action based on the identified assets and needs of an area, rather than to identify specific interventions, or provide site specific advice.

Action 6:
 Community greening and food growing: delivery of community-led and focussed green infrastructure projects

Action 7:
 Gardens: protect and enhance private gardens as important areas of green space.

Action 8:
 Sites of Biological Importance (SBIs): increase the number of SBIs in active management to conserve, protect and enhance biodiversity

Action 9:
 Local Nature Reserves: increase the coverage of LNRs in line with national guidance to 1 ha of LNR per 1,000 residents

Action 10:
 Health and wellbeing: deliver green infrastructure projects with a particular focus on improving health and wellbeing



Action 1: Investment in river valleys and canals

Improving water quality, enhancing biodiversity, increasing access and other improvements to the river valleys will ensure that these significant green and blue areas can play their full part in a healthy, liveable city. They are already an important part of creating successful neighbourhoods, with potential for this role to be further enhanced in areas which could accommodate new communities.

Case Study: Renaturalisation of River Medlock to restore biodiversity value and flood resilience



Action 2: Enhance existing parks

Parks are an important and iconic part of the city's landscape. They are at the heart of vibrant neighbourhoods, often with potential for further improvements to access and usage. Realising this potential, with regular and active participation from local communities, will be a key part of the city's success over the next 10 years.

Case Study: Heaton Park: Enhancing the functionality of a destination park



Action 3: Green infrastructure within large estates and land holdings, and Action 4: Enhancing school and college grounds

Large areas of the city's green and blue areas are owned or managed by organisations with large estates and land holdings, or a large number of similar organisations who can readily support and replicate each other's activities. Actions by schools, colleges, registered housing providers, and cemeteries have the opportunity to make change at a significant scale.

Case Study: Natural management of Southern Cemetery to balance biodiversity & amenity



Action 5: Effective and appropriate tree and woodland management

Trees play a key role in defining the character and attractiveness of Manchester's neighbourhoods, as well as myriad biodiversity, climatic, air quality and other benefits. Maintaining and developing tree stocks will be an important priority, particularly in the face of a changing climate and threats from tree disease.

Case Study: Sensitive forest management at Clayton Vale to maximise biodiversity & recreation functionality



Action 6: Community greening and community food growing

Communities that can define and achieve the outcomes they want to see are the ones that tend to prosper, creating their own unique sense of place and long term success. Community greening and food growing can often be part of this success, with many projects already underway across the city.

Case Study: Meanwhile community produce growing on vacant site, McDonalds Wythenshawe



Action 7: Protect and enhance private gardens

Gardens and courtyards make up approximately one third of Manchester's GI. Maximising their potential as well-managed green areas for recreation, relaxation, food growing, wildlife watching and other pursuits is an important part of life in a successful city. They should be protected and enhanced, with residents and registered housing providers having a key role to play.

Case Study: Southway Homes Green Guardian Scheme: Encouraging ownership and pride in local green space & gardens



Action 8: Sites of biological importance and **Action 9:** Local nature reserves

Meeting the needs of both people and wildlife is important, particularly in a city context. Local Nature Reserve designation is awarded to those areas that are able to achieve both, through good management and maintenance. Manchester's 38 SBI's are focused more towards the needs of wildlife and play an important role in supporting the diverse range of species that live in the city.

Case Study: Blackley Forest is a Local Nature Reserve & Grade B Site of Biological Importance



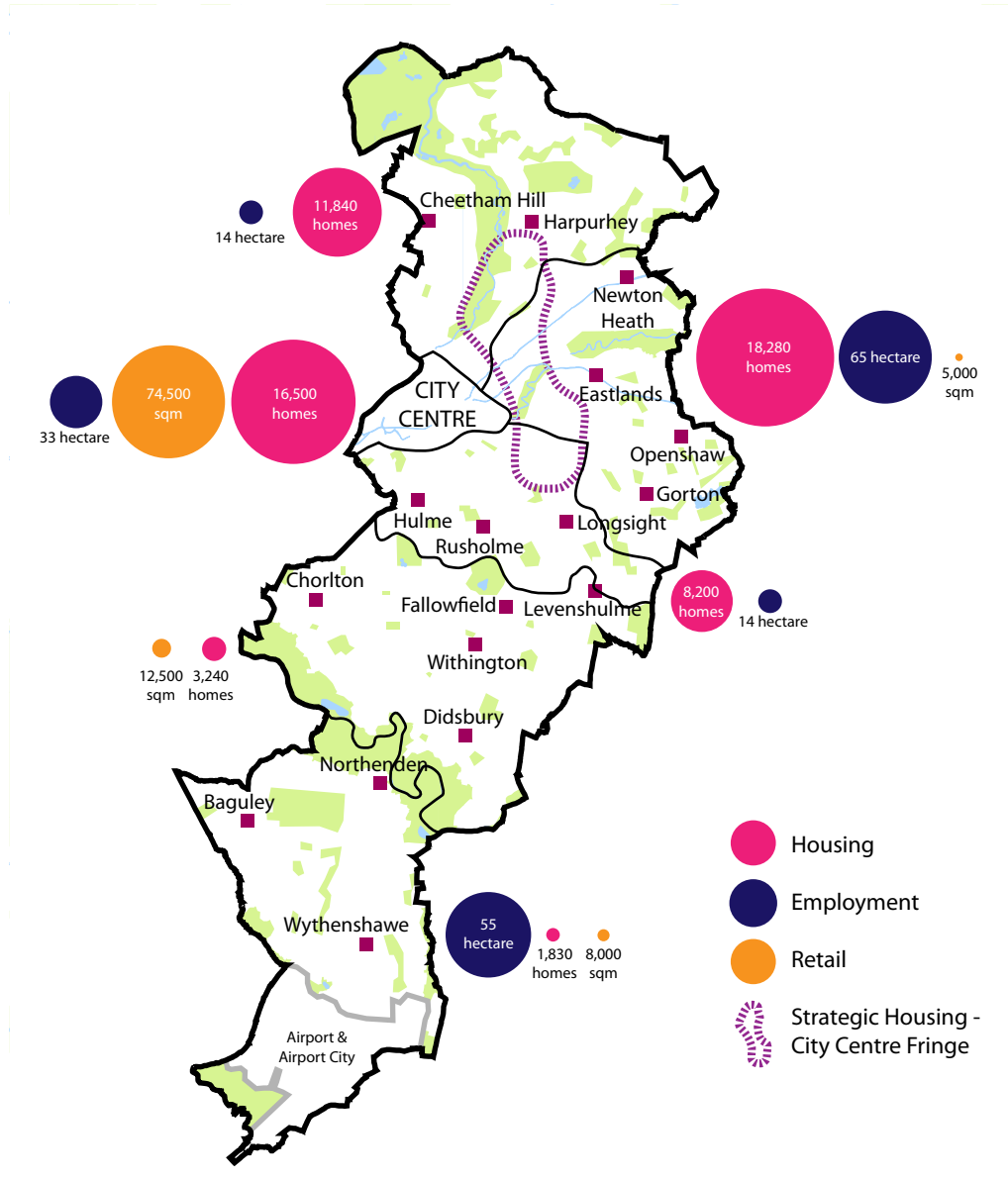
Action 10: Health and wellbeing

Improving the quality and accessibility of green routes and green spaces to increase utilisation for active pursuits such as walking, cycling, jogging and sports is important in helping to improve the health of both residents and the city's large working population.

Case Study: Park Run. Free weekly running event encourages use of green space with exercise and social benefits in a number of Manchester Parks

Figure 6
Objective 2: New Development - Headline
Actions

- Action 1:**
 Embed green infrastructure as part of residential developments
- Action 2:**
 Embed green infrastructure as part of city centre developments
- Action 3:**
 Embed green infrastructure as part of major employment developments
- Action 4:**
 Retrofit new green infrastructure to existing buildings, particularly in the city centre
- Action 5:**
 Embed green infrastructure as part of school new build and major refurbishment
- Action 6:**
 Establish temporary 'meanwhile' use on sites awaiting development



Action 1:
 Embed green infrastructure as part of residential developments

High levels of residential development are planned to support the growing numbers of people choosing to live and work in Manchester, particularly on the edge of the city centre. The Irk and Medlock river valleys, which extend from the north and east of the city centre, provide an attractive setting to create new neighbourhoods. The communities in these areas will enjoy access to high quality greenspace on their doorsteps and throughout the river valleys, including easy reach to major parks such as Heaton Park and Philips Park.

A range of different GI interventions can be considered within new residential developments. Gardens and balconies can provide private areas for residents, new pocket parks and public open space can provide spaces at the heart of the community for shared enjoyment, and areas designed for nature can help ensure that people and wildlife both have space within a dense city setting, provided long term maintenance arrangements are in place.

As with other types of development, new housing schemes should include GI that is appropriate to and informed by the wider landscape. Linkages to existing areas will help add to the new spaces within the development, and help encourage residents to travel by sustainable modes of transport.

As with all types of green infrastructure long-term management and maintenance is key to ensure that it can contribute towards the creation of successful neighbourhoods. Developers will need to consider the arrangements that will work best for their scheme, including opportunities to work with local partners and communities to design sustainable solutions for the long-term.

Case Study: New green infrastructure through dense residential development at New Islington



Action 2:
Embed green infrastructure as part of city centre developments

The greatest opportunity for new green infrastructure in the city centre is likely to come from major new developments. Major developments, including those at St John's on the site of the old Granada Studios, the Piccadilly Strategic Regeneration Framework area, and First Street on the border with Hulme, will deliver transformational change to large areas of the city centre.

Successful developments will need to have a number of different components in order to contribute to the creation of attractive neighbourhoods and the city's growth. Developers should consider how green and open space can work best to achieve this and form an integrated part of the overall scheme. They should also consider how the development can link to the wider city centre environs, to support residents, workers and visitors in accessing green and open spaces across the city centre and areas outside.

The rivers Irwell and Medlock run through the city centre, in some areas providing an important part of the landscape and an attractive setting for offices, apartments, hotels and restaurants. In other areas the rivers are covered, a legacy of development from a period where green and blue infrastructure was less well valued. Taking opportunities to make the most of these rivers should be maximised through new development, encouraging views and access as part of the city centre's overall green and blue resource.

The canals also provide an important part of the city centre's character and the city's heritage. Enhancing and encouraging increased access to these areas through new development will also be part of making the most of existing green and blue assets in the city centre. Using the canals and rivers as an important setting for attracting new investment will also be an important part of the growth of the city centre.

New models for the maintenance of city centre GI and public realm should continue to be explored and implemented, to ensure that sustainable funding and management arrangements are in place for the long-term.

Case Study: Spinningfields: creation of new public green and open space, and innovative arrangements for its long-term management and maintenance.



Action 3:
Embed green infrastructure as part of major employment developments

Outside of the city centre a number of major employment developments are anticipated, including at Airport City and Central Park. By creating and maintaining attractive green environments at these sites developers and employers will be helping to ensure that they have a motivated workforce with lower levels of sickness and improved health.

Where sites are located next to or near to existing areas of greenspace new employment developments should look to link to and encourage access to these areas. In doing so staff can be encouraged to walk and cycle to work, take time to relax and de-stress during the working day, and use greenspaces for leisure, sport and recreation purposes. Developers should also consider opportunities for enhancing existing areas of GI that staff will be able to enjoy, both in terms of investment as part of the development and in terms of its ongoing management and maintenance.

Case Study: Noma: landscaping for enjoyment and benefit of building occupants



Action 4:
Retrofit new green infrastructure to existing buildings, particularly in the city centre

Retrofitting smaller scale GI provides an important means of increasing GI in parts of the city where space is limited, particularly the city centre. Green roofs and green walls are beginning to become part of the city's built environment, providing an increasingly important resource for biodiversity, water management and climate adaptation.

Case Study: Green Roof at Manchester Town Hall Extension



Action 5:
Embed green infrastructure as part of school new build and major refurbishment

Major refurbishment provides the opportunity to enhance existing GI on site, improve access to nearby greenspaces, and incorporate new GI as part of the building itself. Schools can offer a significant GI resource within an urban area, including playing fields, nature conservation areas, and green linkages to the wider community.

Case Study: Green Roof at No. 1 First Street



Action 6:
Establish temporary 'meanwhile' use on sites awaiting development

Sites that are planned for development will often be left vacant until the right market conditions are in place to bring forward a viable scheme. These sites provide a major opportunity for land owners and local communities to work together to establish a temporary 'meanwhile' use for the site. Well-designed and managed schemes can help to improve the local area, the relationship between a developer and local communities once development begins, and provide an important new area of GI for local use.

Having clear agreements in place for what happens once development starts are important in delivering successful meanwhile projects. It may be possible to incorporate the scheme into the completed development, relocate it to another development site, or provide a permanent home as part of an existing area.

Case Study: Community cohesion via produce growing at Old Moat Allotments

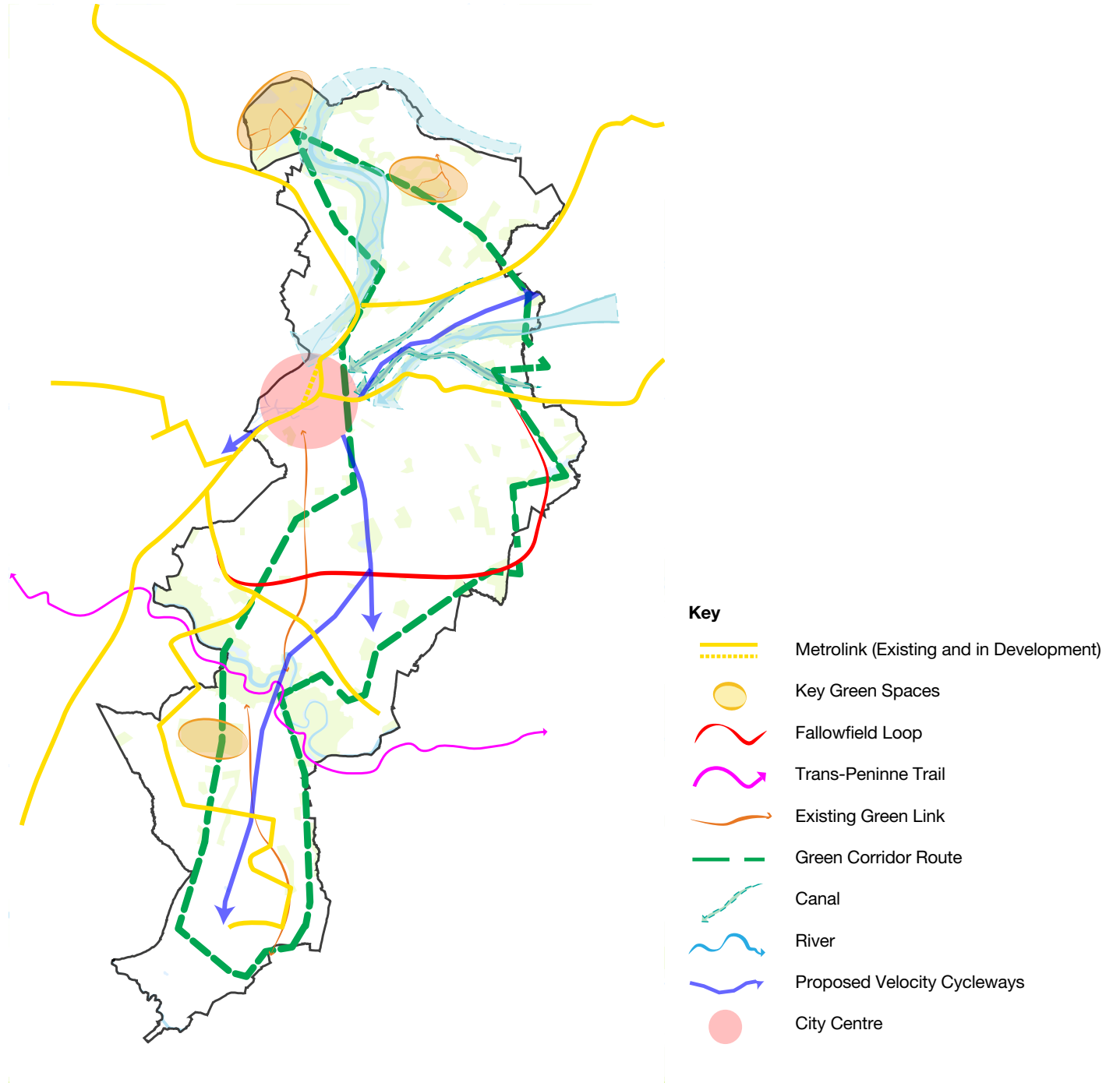
Figure 7
Objective 3: Connectivity and Accessibility -
Headline Actions

Action 1:
 River valleys and canals:
 enhance river valleys and
 canal tow paths to improve
 accessibility and use as
 active transport corridors

Action 2:
 Green routes: greening
 transport routes (eg
 tramlines, footpaths, cycle
 routes, roads, rail corridors,
 disused railway lines) to
 encourage walking and
 cycling, reduce flood risk
 and provide attractive
 corridors for wildlife.

Action 3:
 Working with neighbouring
 authorities to improve ac-
 cess and connectivity

Action 4:
 Use active and sustainable
 transport to access green
 infrastructure in the city and
 beyond



Action 1:

Enhance river valleys and canal tow paths



Manchester's canal and river network provides existing routes which could be further developed as green links to connect areas of Manchester with the city centre, improving connectivity and promoting sustainable transport options. Whilst towpaths and riverside pathways exist in part along Manchester's waterways, these are typically fragmented, particularly towards the city centre. Improving the quality and permeability of waterside pathways will effectively link neighbourhoods to the city centre.

The improvements to the Ashton Canal as part of the Velocity cycling project will be an important part of this work.

Case Study: Medlock Valley Way: Improving river corridor access to encourage health benefits

Action 2:

Green transport routes



Green routes often use existing infrastructure eg along canal tow paths, river valleys and disused railway lines, to provide traffic free routes. Other green linkages may be developed or created as appropriate, through the provision of intelligent street tree and verge-side planting and appropriate maintenance and management regimes to provide attractive and safe routes adjacent to roads. These routes can improve access to Manchester's green spaces, encourage walking and cycling for shorter journeys, and help with flood resilience and biodiversity.

Case Study: Manchester Green Corridor: Promoting green routes and spaces for health & exercise benefits

Action 3:

Working with neighbouring authorities



Green infrastructure linkages and their benefits cross local authority boundaries, for example river valleys, canals and green corridors. Cross boundary working between local authorities, businesses and local communities is therefore essential to maximise the extent of green linkages and connectivity.

Case Study: Moston Brook Partnership Project between MCC, Oldham MBC and Groundwork

Action 4:

Use active and sustainable transport to access green infrastructure in the city and beyond



Manchester has an existing network of footpaths, cycle routes and public transport. There are also opportunities to improve and extend these networks to increase access to open spaces within Manchester, the city region and beyond. Metrolink provides easy access out from the city centre to Heaton Park, Wythenshawe Park and Sale Water Park. Velocity 2025 is an ambitious plan to make cycling safer and easier, by delivering a major new network of strategic, integrated and – where possible – segregated cycle routes to employment centres, schools and leisure facilities.

Case Study: Cycle Hub is the ideal place to park your bike in Manchester, providing cycle parking spaces, lockers and showers

Objective 4: Improve and promote a wider understanding and awareness of GI benefits

Action 1:
Map and monitor changes in the amount and distribution of GI across the city.

Action 4:
Showcase local best practice and seek recognition for delivered projects.

Action 2:
Embed GI in key plans and policies, to ensure it can support the delivery of the city's socio-economic policies.

Action 5:
Raise the awareness of the benefits of GI and opportunities for businesses and communities to get involved through public communication, education and training.

Action 3:
Develop research into the benefits of GI for residents, the economy and environment to provide the basis for new policies, projects, programmes and investment mechanisms.

Action 6:
Raise the profile of Manchester as an attractive place to live with access to high quality GI within and beyond the city.



4. Delivering the vision at neighbourhood level

This section provides a more detailed understanding of the assets and opportunities that exist in different areas of the city. Through further analysis and mapping undertaken at a neighbourhood level, it helps relate the citywide objectives to existing assets and opportunities for GI on the ground.

The illustrative maps and supporting text set out a high level view of GI within each part of the city providing the context for specific proposals that stakeholders may be considering and provide a starting point for new projects. They help to demonstrate how these potential projects could contribute to the overall network of GI across the city and the different benefits that improving the quality and function of GI could bring to a locality.

Whilst the maps do not show every area of green space in the city, this more detailed level of information has been used in developing the strategy. Work is underway to enable this to be made available to stakeholders to help inform projects that they may be seeking to bring forward. A range of detailed maps and information is already publicly available in the Technical Report.

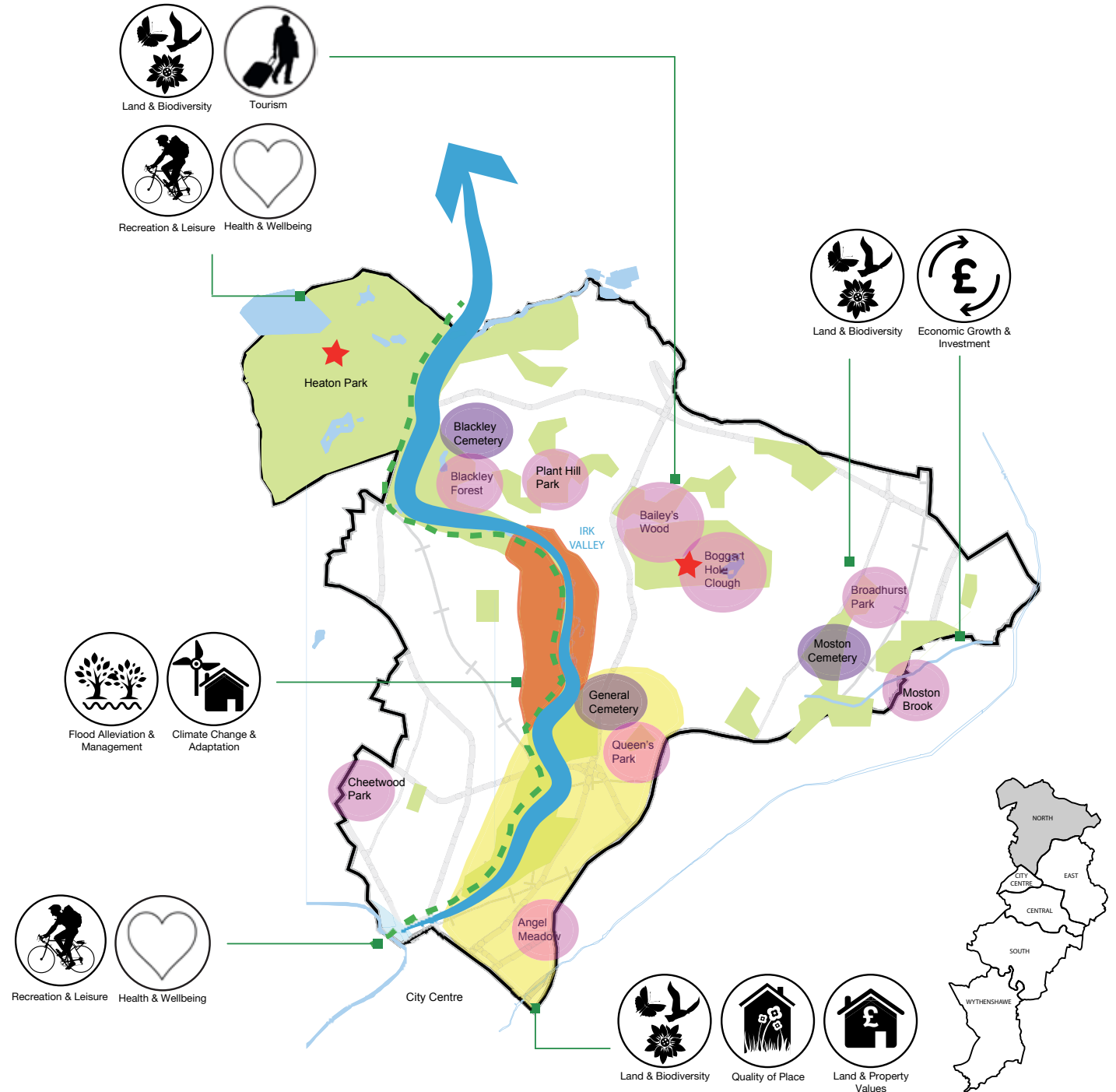


**Figure 8
North Area**

North Area

North Manchester has seen significant investment in a range of community facilities, including schools, libraries and district centres, to improve its offer as a high quality neighbourhood of choice. There are opportunities for major new housing development across the neighbourhood and extending north from the city centre. Much of this is in close proximity to the Irk Valley, an important natural asset, providing a sense of place and the potential to be used to enhance connectivity to and from the centre, through new and existing residential communities and up to Heaton Park and beyond.

North Manchester has the highest tree cover and the most natural and semi-natural space across the city. Heaton Park is a major recreational asset both for the local and wider area. The potential to improve the use, quality and access to this and other key green spaces should be fully explored to maximise their benefits to the wider community.



Opportunities

- The Irk Valley is a major asset within North Manchester, providing opportunities for future flood resilience, through sustainable drainage systems (SuDs), and the integration and renaturalisation of water course.
- Maximise green infrastructure functions at cemeteries, churchyards and burial grounds and manage for enhanced biodiversity value.
- Focus on enhancing the quality and accessibility to existing parks including Heaton Park, Queens Park, Plant Hill Park, Broadhurst Park, Crumpsall Park and Bailey's Wood. Recognising the diversity of the green space offer in this area (Boggart Hole Clough and Blackley Forest Local Nature Reserves, Heaton Country Park and 11 Sites of Biological Importance), maximise the multi-functionality, quality and accessibility of these spaces helping to tackle issues of health and obesity through increased accessibility, active/walking events, information boards, routes and signage
- Significant new residential development in North Manchester, with a priority for family housing provides opportunities for incorporation of existing green and blue infrastructure to create neighbourhoods of choice. Use existing green spaces to create linkages between the Irk Valley and the wider area.
There will also be considerable opportunities for new residential development across the whole of this area.
- The Irk Valley forms the main green link between the city centre and Heaton Park. The Irk Valley local plan is already in place and the delivery of the improvements identified will need to continue, involving a creative approach to the public realm of North Manchester including arts, heritage and fitness trails as examples of activities that can animate river valleys.
- ➔ Exploit natural topography (hills and valleys) to manage flood risk, provide diverse habitats for urban ecology and provide accessible green routes linking the north to the city centre via the Irk Valley.
- ★ Maximise the use of Heaton Park as a major destination park with an important existing economic and social function and support Boggart Hole Clough as an attraction for local residents and visitors from the wider area.
- Improvements to quality of natural waterways (Irk and Moston Brook); enhance biodiversity, water quality and recreational use.

Existing Good Practice



'Friends of Blackley Forest' are a good example of community driven management and improvement of green infrastructure in Manchester. The Friends Group are active in the ongoing management of Blackley Forest making the most of an important asset within the heart of the community.



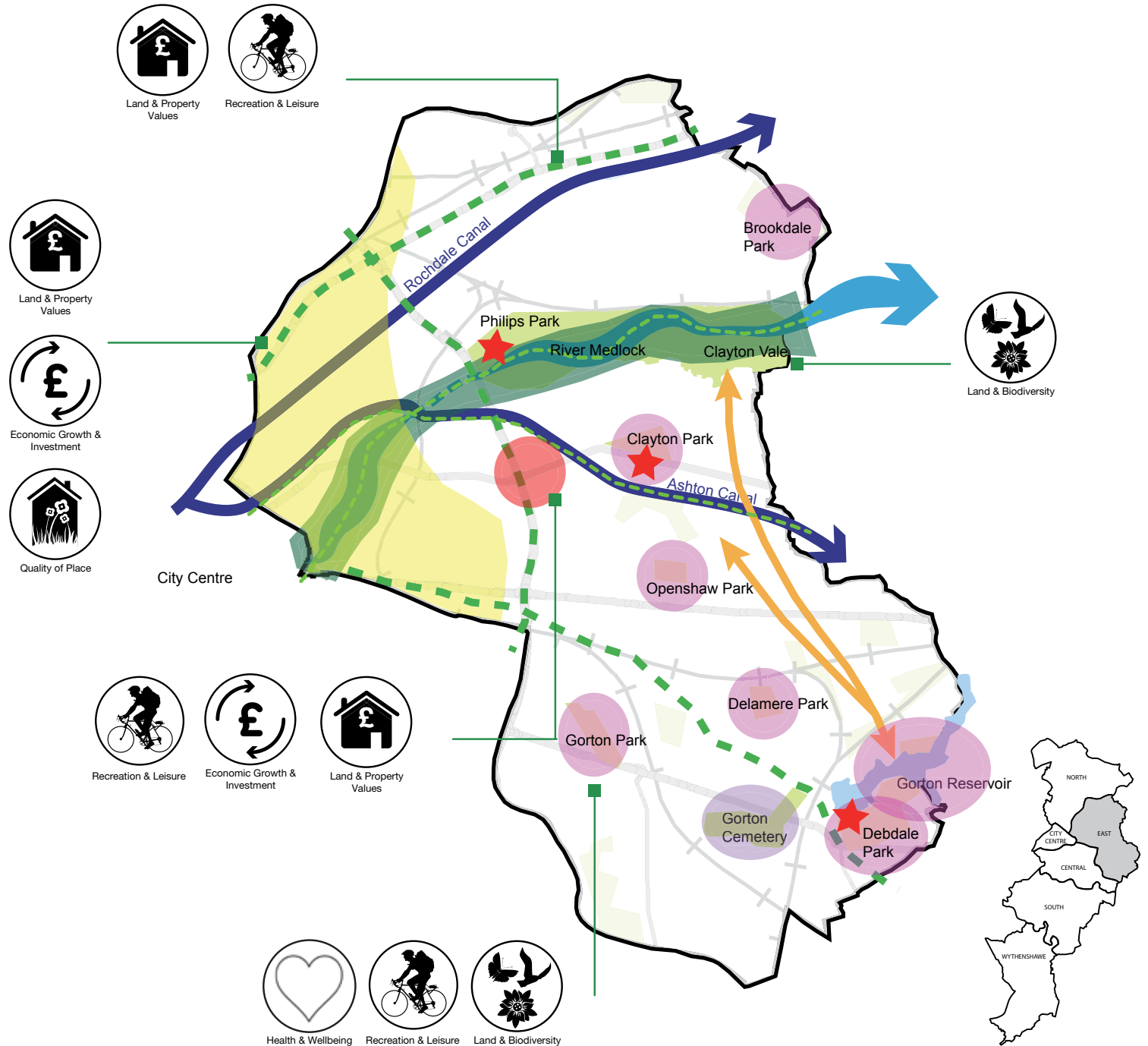
The site of the former Booth Hall Hospital in Charlestown is being redeveloped to provide 257 homes. This was subject to a financial contribution for the improvement and maintenance of the adjacent Boggart Hole Clough area including the development and 10 year management of a new play area, and/or the provision of new sports facilities or a new visitors centre at Boggart Hole Clough, and/or the overall upgrade, improvement, maintenance and management of Baileys Wood (adjacent Site of Biological importance).

Figure 9
East Area

East Manchester has experienced substantial regeneration, successfully attracting employment and people back into the area. Central Park is a key employment and business location within the north of the area. Sportcity has become a destination for national and regional sporting events, with major investment including health and educational facilities, centring on the Etihad stadium and campus. New housing development will take place in the areas closest to the city centre, extending out alongside the River Medlock, Ashton and Rochdale Canals, utilising these blue corridors to create a strong sense of place and provide a high quality environment.

East Manchester has the highest proportion of brownfield sites within the city. These sites provide an opportunity for land owners and community groups to work together to create 'meanwhile' temporary green spaces. Ultimately many of the brownfield spaces will be rationalised for development, providing opportunities for high quality multifunctional green and blue spaces to be created and incorporated as part of attractive new neighbourhoods.

Existing parks and green spaces, including Philips Park, Clayton Park and Debdale Park, are important multifunctional green assets, which have a vital role to play in improving the quality of life for local residents.



Opportunities

- Significant new residential and commercial development in East Manchester provides opportunities for incorporation of existing green and blue infrastructure to enhance quality and function. The integration of green infrastructure can be used to create neighbourhoods of choice and support the further development of East Manchester as a major commercial, leisure and residential investment location.
- River Medlock Corridor Improvements - enhance water quality and biodiversity, and investigate opportunities for renaturalisation.
- ■ Maximise opportunities for increasing tree canopy cover. This could include street tree planting along major corridors: Alan Turing Way, Oldham Road, Ashton New Road, Ashton Old Road, Hyde Road and Great Ancoats Street.
- ➔ Create and enhance linkages, most notably in South Gorton where new corridors can be established and strengthened, linking east to the reservoirs and north to the Medlock Valley. North-south connection along the former Stockport Branch Canal will be formalised as a landscaped recreational trail to link the Gorton Reservoirs with the Ashton Canal and Medlock Valley. Fallowfield loop, an important cross-city route, delivers health and environmental benefits.
- Enhance quality and accessibility to existing parks and green spaces including Philips Park, Clayton Park, Openshaw Park, Brookdale Park and Gorton Park.
- Manchester City Football Academy
- ➔ Protect and enhance the major blue infrastructure assets (Rochdale and Ashton Canal, River Medlock and Gorton Reservoirs). Focus on protecting and enhancing their multi-functional role including creating linkages to the city centre, flood resilience, recreation and biodiversity and improving water quality and the soft landscaping features of the canals.
- ★ Support the development of Philips Park, Clayton Park and Debdale Park to create an attraction for local residents and visitors from the wider area.
- Maximise green infrastructure functions at cemeteries, churchyards and burial grounds and manage for enhanced biodiversity value.

Existing Good Practice



New Islington is a community which has been developed on the fringe of the city centre. The Ashton and Rochdale waterways have been deliberately used to create a public space which acts as a focus for the development, enhances the unique sense of place and allows access through the development. The area is maintained by utilising part of the rent that residents of the new development pay.



Clayton Vale Bike Trail which opened in 2013, uniquely offers a 14km mountain biking route within a local nature reserve. It is an example of partnership working and the ability to make green infrastructure truly multi-functional.



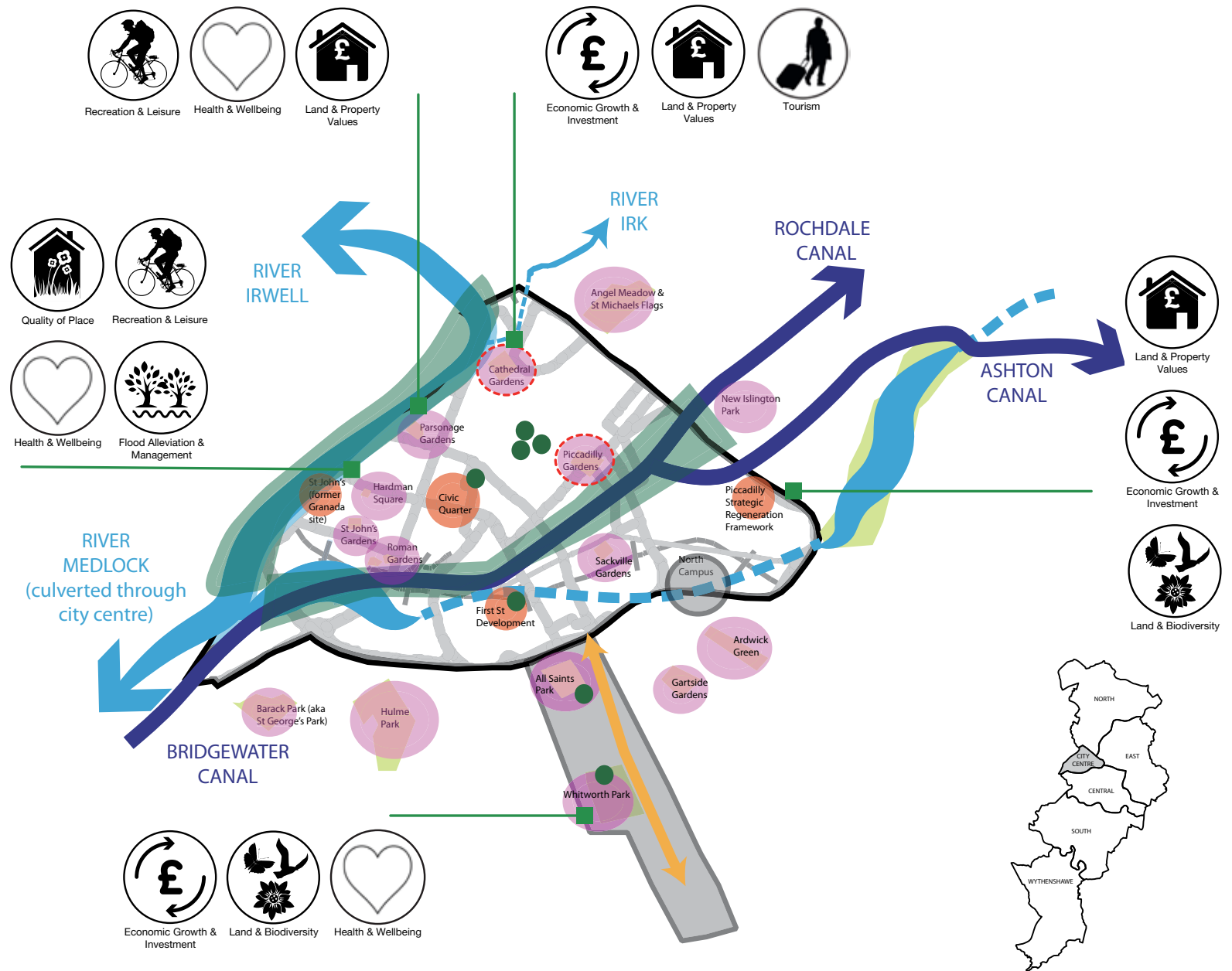
The renaturalisation of the River Medlock is the result of a major collaborative project between the City Council, the Environment Agency and Groundwork. It has breathed new life into the neglected watercourse; improved flood defence, water quality and biodiversity value. As a result a formerly derelict wasteland bordering the River Medlock has been transformed into an award winning well used local community and environmental asset.

Figure 10
City Centre

Manchester City Centre (including Oxford Road Corridor)

The city centre is a distinct area of the city, with different opportunities and challenges to providing GI than other areas of the city. It has a relatively low level of green and blue infrastructure provision, as would be expected in a densely developed area. Enhancing appropriate provision is particularly important for the city centre in helping to create an attractive location for residents, workers and visitors.

The diagram assesses the level of green infrastructure provision in relation to the constraints of a dense urban fabric and considers the application of new green infrastructure through the retrofitting of green roofs, enhancing canal corridors, urban street networks and creation of new GI through development.



Opportunities

-  Enhance the quality and accessibility of existing parks and greenspaces, including raising the profile of St John's Gardens, Piccadilly Gardens, Sackville Gardens, Parsonage Gardens, Roman Gardens and All Saints Park, and engaging communities who live and work in the city centre through friends of and other similar groups.
-  Development opportunities on key city centre and corridor sites including; St John's, Piccadilly Strategic Regeneration Framework, First Street, NOMA, BBC site, Manchester Science Park, the MMU All Saints Campus and UoM capital build programme. Increasing the density of new development in certain locations can create space for green and blue infrastructure.
-  Enhanced blue corridors create safe, attractive green routes for a walkable/cyclable city, health benefits and accessible 'lunch hour' green space for city workers. Utilisation of the waterways as recreational green space assets to increase sale/rental value of residential and business units.
-  Walkable neighbourhood links to improve access and legibility across the city.
-  Canal enhancement to provide links and legibility across the city.
-  Use city centre gardens and green space for events and temporary features- revenue generation and increasing use by local residents, businesses and visitors, for example, street food vending, open air cinema, exhibitions, street art, pop up retail and Dig the City.
-  Establish the corridor as a Living Laboratory for the development of research on the benefits of GI.
-  Opportunities for green retrofit to existing buildings and infrastructure; green roofs/walls, courtyards, planters where space limitations curtail opportunity for larger intervention (Symbol denotes existing green roofs).

Meanwhile use on appropriate sites.

Greening of existing apartment blocks by residents and management companies.

Existing Good Practice



Manchester Town Hall Green Roof: A 500 sq m green roof was installed in 2013 on top of Manchester City Council's Town Hall Extension.

The Town Hall Green Roof is one of eight green roofs in the City Centre alongside Manchester Metropolitan University's All Saints and new Business School buildings, the Whitworth Art Gallery, the University of Manchester's Business School, ASK's First Street building, Bruntwood's number one New York Street and BDP's Piccadilly Basin offices.



Stevenson Square : Manchester's Stevenson Square is situated in the vibrant and creative Northern Quarter of the city centre. In 2013, the square was given a green makeover. In addition to securing funds from Manchester City Council, the project underwent a substantial crowd fundraising campaign to transform the square into an 'urban oasis'. Local residents and businesses donated more than £6000 to provide street trees, permeable pavements and planters.



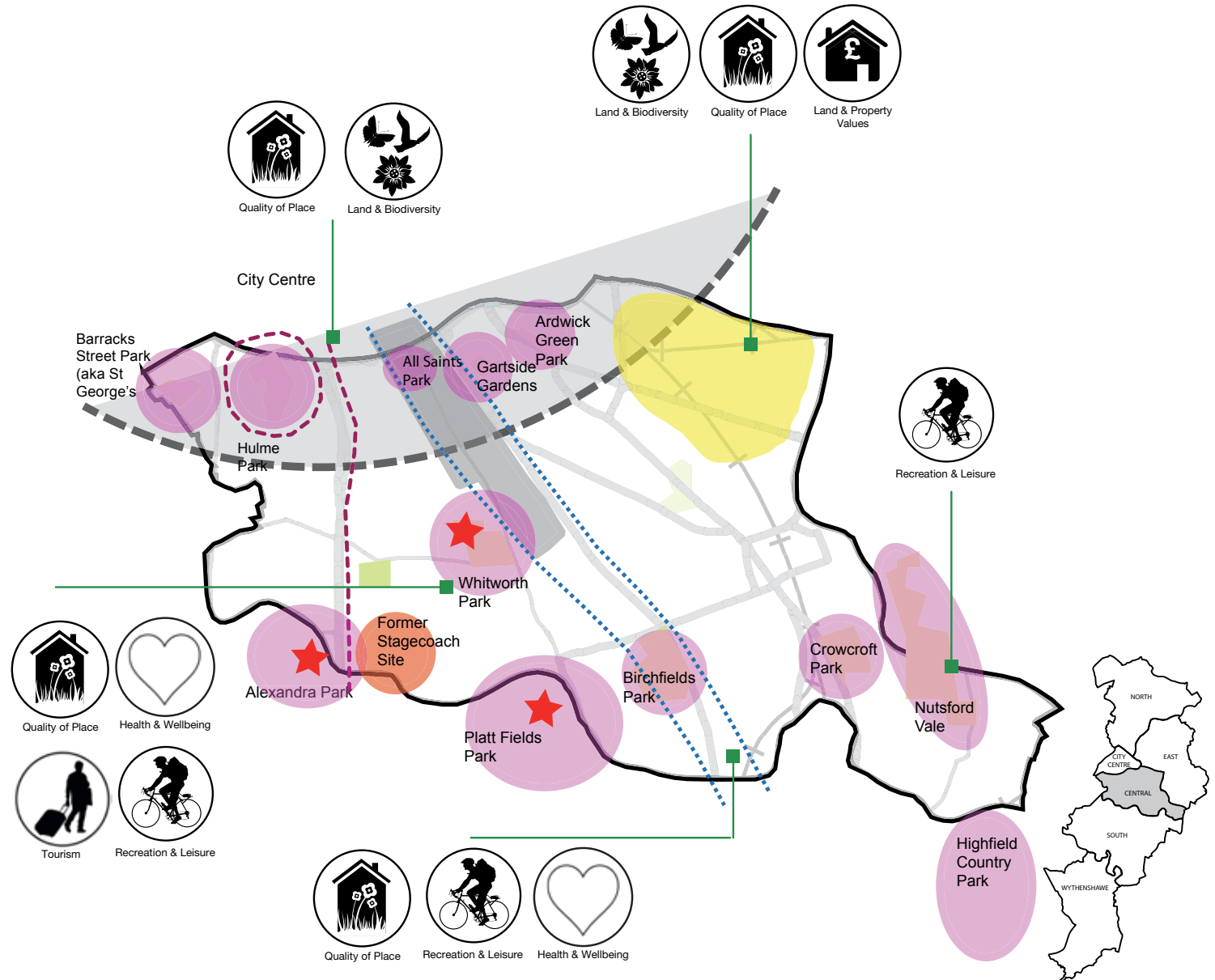
Angel Meadow and St Michael Flags: was previously an under-used area that was subject to anti-social behaviour and vandalism. The aim is to create an area of green space which the local community can enjoy and also serve as a city centre gateway to the Irk Valley and beyond. To date the regeneration of the park has helped it to achieve a Green Flag quality award and has been funded through a variety of sources including section 106, grant and match funding and EU funding through the Co-operative NOMA development.

Figure 11
Central Area










Central Manchester is home to key economic assets, based around the Oxford Road Corridor, and which include the University of Manchester, Manchester Metropolitan University, Central Manchester University Hospitals and the Manchester Science Park. This area attracts high numbers of students, employees and visitors and is the focus of major investment over the next 10 years. Improving connectivity and transport infrastructure (eg Velocity and Cross city bus routes) will improve access for residents to GI sites outside the area.

Opportunities for new developments are largely restricted to the redevelopment of key sites or refurbishment of existing buildings. The area has a mix of established residential and student communities; it also has a range of busy district centres.

Central Manchester has a dense urban form which reflects its location adjacent to the city centre and in this context the existing parks have a particularly important role to play for the local communities. Smaller scale GI interventions, such as street tree planting and community greening also have the potential for increasing the area's image, attractiveness and climate resilience



Opportunities

-  Potential to enhance links between parks and the city centre to improve access to green space
 -  Enhance quality of and accessibility to existing parks and green spaces including Whitworth Park, Birchfields Park, Barrack Street Park, Hulme Park, Ardwick Green Park and Gartside Gardens and Crowcroft Park
 -  Significant opportunity through new housing to create neighbourhoods of choice, linking to existing open space and incorporating new public and private green space and green roofs as appropriate to address local deficiencies.
 -  Green cycle routes and street tree planting on major arterial routes
 -  Oxford Road Corridor
 -  Wildflower planting (Kew Grow Wild flagship project)
 -  Potential for Whitworth Park to become an attraction for local residents and visitors from the wider area due to its central location and and the cultural offer at Whitworth Art Gallery.
 -  Opportunities for biodiverse planting and management on key arterial route
 -  Site for new residential development
- Encourage links to parks just outside and on the boundaries, which are used by local residents

Existing Good Practice



MMU's Birley Fields Campus includes a range of multi-functional green infrastructure available to the university staff, students and the community. It includes the Community Orchard, Sensory Garden and an extensive landscaped setting to the student blocks, incorporating tree planting and SuDs and a new public square is also planned.



Hulme Park is an example of successfully integrating a new green space into development and regeneration. Located on the edge of the city centre, Hulme Park is a 16 hectare site, combining a diverse range of community and leisure activities, including equipped play areas, sports areas, a new public square and general open space. Its creation has sparked redevelopment of nearby buildings, including Zion Arts Centre.



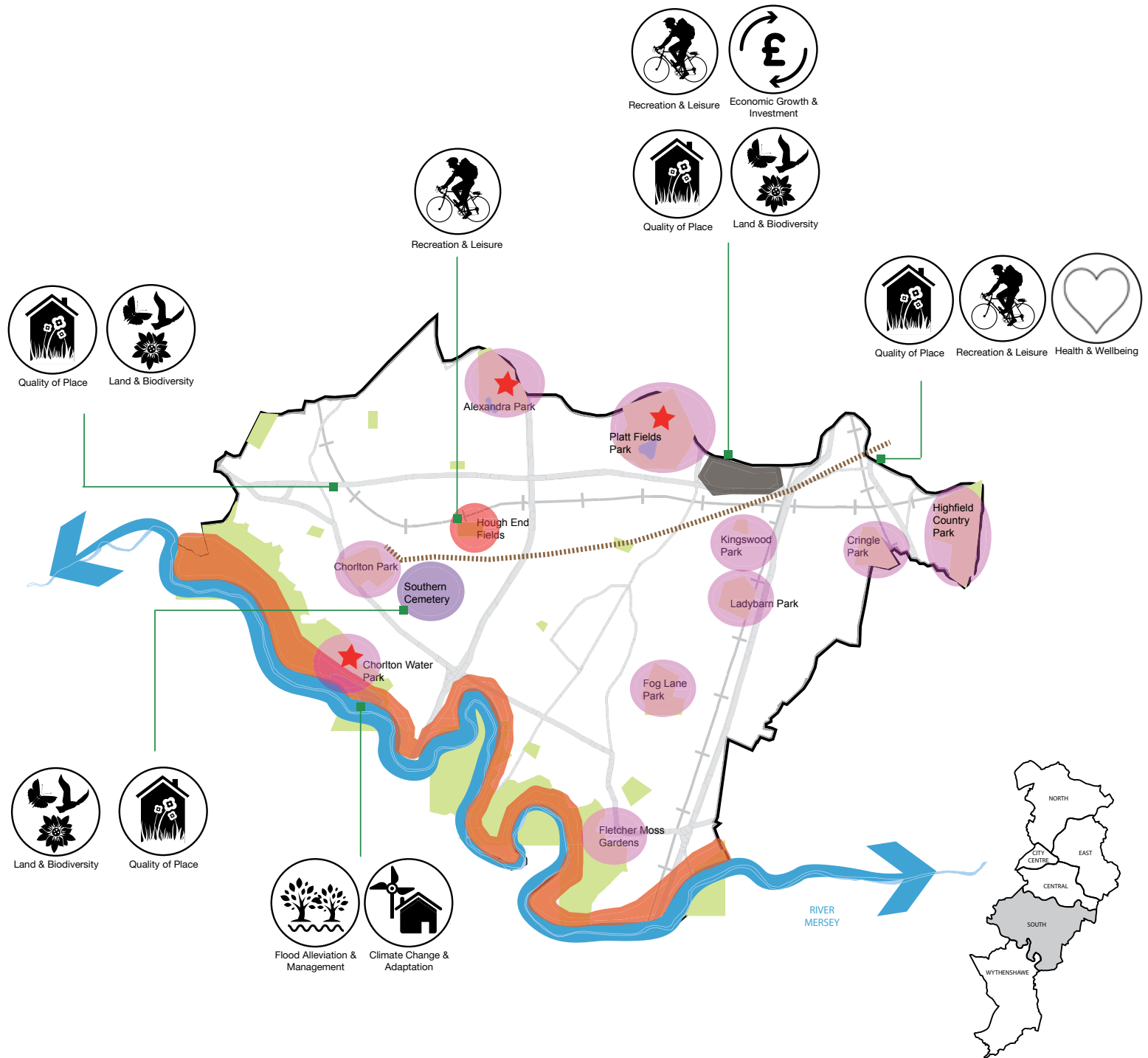
Led by Landlife, Manchester City Council and the National Trust, Tale of Two Cities won the nation's vote for Grow Wild's English flagship campaign. Combining Manchester and Liverpool, the project will see the transformation of prominent spaces into wild flower celebrations. In Manchester wild flowers will be sown along Princess Parkway and nearby schools in Hulme and Moss Side. The Tale of Two Cities Scheme aims to deliver a unique cultural landmark wildflower project to inspire communities by sowing bold wild landscapes in both cities and igniting a new generation of wild flower enthusiasts.



Oxford Road Green Corridor: In partnership with the University of Manchester, Red Rose Forest has used sensitive climate monitoring equipment in an urban climate change experiment. The data collected will enable Red Rose Forest to quantify the roles of trees and green infrastructure in helping to manage projected climate change in Manchester

Figure 12
South Area

South Manchester is one of the most well established and popular residential locations within the city. It is well connected with easy access to the city centre, the airport and the motorway network. The area contains the River Mersey, Manchester's most well established river valley and has a higher than average proportion of green infrastructure, largely due to the extent of private gardens. Street trees are an important part of the landscape in south Manchester, helping to create attractive streets and high quality neighbourhoods. The area is home to approximately one third of Manchester's population.



Opportunities

- Enhance quality and accessibility to existing parks and green spaces including Alexandra Park, Platt Fields Park, Chorlton Water Park, Fog Lane Park, Ladybarn Park, Cringle Park and Chorlton Park. Green links connecting green spaces to establish walking and cycling routes.
- Mersey Valley - continuing to provide flood resilience, recreational opportunities and biodiversity enhancement.
- Redevelopment of University of Manchester Fallowfield Campus
- ▬ Fallowfield Loop, an off road walking and cycling route, is a key opportunity for delivering health and environmental benefits. Enhance access and connection to green spaces along route.
- ➔ Mersey River Valley provides a significant blue and green corridor for pedestrians and cyclists via the Trans Pennine Trail. Encourage exploration of partnerships such as the agreement between MCC and RSPB to manage the Mersey Valley, launched in 2014.
- ★ Potential to enhance Platt Fields Park, Alexandra Park and Chorlton Water Park to increase their attraction for local residents and visitors from the wider area.
- Maximise green infrastructure functions at cemeteries, churchyards and burial grounds and manage for enhanced biodiversity value.
- Hough End - maximise use as a location for outdoor sport, leisure and recreation.

Existing Good Practice



Southway Homes, which manages 6,000 properties, has made significant investment in their green spaces, through a mixture of planting hedgerows, trees, creating new wetland planting areas and creating new planting schemes that are not only biodiversity rich but also look visually impressive as well. Two green spaces per year are selected for large scale improvement works. Southway Homes have appointed two new staff to manage and improve their greenspace; an Environmental Manager and an Urban Ranger. Both are skilled in GI delivery and management.



Southern Cemetery has managed to achieve a careful fine balance between maintaining a working cemetery and promoting biodiversity. For example, areas around regularly visited headstones are mowed regularly to maintain a neat appearance and allow ease of access, whilst in other areas grass and wildflowers are managed to allow free growth to support wildlife. Walking tours highlighting the biodiversity of the site as well as notable gravestones have proved extremely popular, with ticket donations contributing to the Friends of Southern Cemetery.

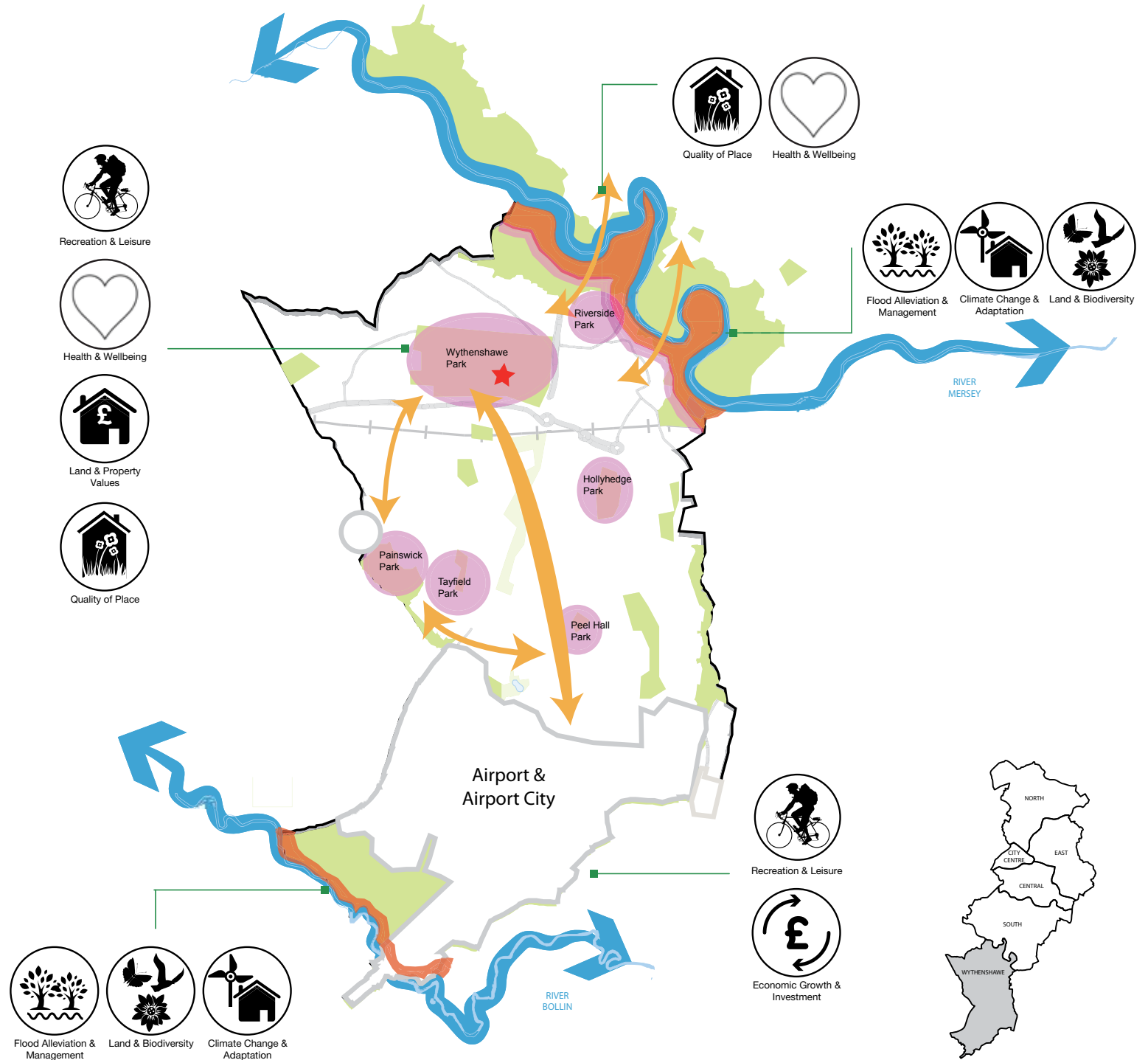


Alexandra Park has undergone a multi-million pound transformation to restore the park to its former glory. The restoration focused on restoring key Victorian features with the aim of creating a popular park for leisure and recreation based on the original Victorian Park. Work included bringing Chorlton Lodge back into community use, restoration of the Pavilion to create a home for sports teams, a community café and a central hub for the park.

Figure 13
Wythenshawe Area

Wythenshawe is a predominantly residential area originally developed as a garden suburb. The high proportion of social housing has decreased with the development of homes to buy. The area is well connected with easy access to the motorway network and to the city centre via both road and the extended tram system. Manchester Airport, the UK's third busiest and a major employer lies to the south of the neighbourhood. The development of Airport City will create further employment opportunities.

The Mersey Valley and Wythenshawe Park are major green assets used by local residents and visitors from further afield. The neighbourhood also has an extensive network of smaller scale parks, green spaces and woodlands. There is potential to further improve the attractiveness of Wythenshawe's housing offer by improving the quality and function of this network and using it to improve connectivity between residential and employment areas.



Opportunities

- ➔ Mersey River Valley provides a significant blue and green corridor for pedestrians and cyclists via the Trans Pennine Trail. Encourage exploration of partnerships such as the agreement between MCC and RSPB to manage the Mersey Valley, launched in 2014.
- Enhance quality and accessibility of existing parks, including Wythenshawe Park and the community parks, green spaces and woodlands. The creation of attractive routes through parks and along tree-lined routes, linking directly into Wythenshawe's major environmental assets including Wythenshawe Park, and Mersey Valley.
- Mersey Valley - continuing to provide flood resilience, recreational opportunities and biodiversity enhancement.
- Green space provision within major employment development, including Airport City
- ★ Support Wythenshawe Park with its wide range of facilities and functions as an attraction for the local community and visitors from the wider area.
- ↪ Potential for strengthening cycling and pedestrian links across and around Wythenshawe including The Black Path and Manchester Airport Orbital Cycle Route, and enhancing links to the Mersey Valley.

Existing Good Practice



Real Food Wythenshawe is an ambitious Lottery funded, five year community led project. Its aim is to work across Wythenshawe, engaging with new and existing community networks to grow produce, encourage healthier diets and encourage business enterprise based around sustainable food.



Wythenshawe Park is an 109 hectare open parkland. It offers a wide range of facilities including athletics track, play area, horse riding, pitch 'n' putt, woodland and walks. There is an active local community and three dedicated Friends of Groups and volunteers, the Horticultural Friends Society, Wythenshawe Parkwatch Group and Friends of Wythenshawe Hall. Wythenshawe Community Farm is also a registered charity for which volunteers contribute to the successful running of the farm.



The McDonald's fast food restaurant in Wythenshawe includes the former pub's bowling green which has lain derelict for a number of years. Red Rose Forest secured European Union funding for a project to transform the bowling green into a food growing site. McDonald's have leased the land to the residents free of charge. The site has been cleared and secured with new fencing, while vegetable planters, water butts and a tool shed have been added. Residents have also been given advice on how to grow food. Planting on the site is within 60 containers, allowing them to be moved when the site is eventually developed.

5. Implementation & Monitoring

This strategy sets out the importance of Manchester's green and blue infrastructure in creating an attractive, liveable city that can continue to grow. It is not site specific as there is no one size fits all approach to sites and solutions will inherently be locally specific, with all actions, from small-scale community-led greening, to ongoing investment in major parks and river valleys important in creating an interconnected network of green and blue spaces. The strategy is built on a Manchester-specific understanding of the issues and opportunities that need to be addressed. And a broad suite of case studies that provide a good understanding of the range of different activities that the city's stakeholders have delivered to date, and those which lend themselves to being scaled up and replicated.

It is also built on a growing understanding of the socio-economic benefits provided by green and blue infrastructure. Enabling the city to begin to establish new funding and delivery mechanisms, including those which recognise that those who benefit from the enhanced environment and multiple benefits that green and blue infrastructure provides, also have a role to play in its creation, management and maintenance.

In this context this section sets out the approach to implementing the strategy, recognising that a range of existing funding and delivery mechanisms are already in place, and that new mechanisms will also be needed.

5.1 Stakeholder Implementation Plan and the *Manchester: a Certain Future* Steering Group

This strategy provides the formal policy framework for action on green and blue infrastructure in the city, and as such has been formally approved by the City Council. Implementation can not, however, simply be the responsibility of the City Council alone.

The implementation plan is a stakeholder plan for the city, one which supports, enables and encourages all parties to get involved. It provides the framework to bring together a wide range of public, private, academic and community stakeholders, including the Council, developers, larger, sometimes land holding bodies, as well as local community groups, 'friends of' groups, community groups, individuals, and others. The successful delivery of the strategy will depend on the actions of all.

A similar approach has been put in place for the city's climate change action plan, *Manchester: A Certain Future* (MACF), recognising that all stakeholders will need to play their part in realising the city's vision to become a leading low carbon city by 2020. Since 2010 the delivery of MACF has been overseen by the MACF Steering Group, an independent group made up of representatives from the public, private, academic and third sectors. The Steering Group work with a well-established and growing network of stakeholders from across the city who are actively contributing to Manchester's action on climate change and environmental improvement. They have therefore been well-placed to work with the

City Council to develop the green and blue infrastructure implementation plan and support its delivery, drawing on the MACF network of stakeholders to maximise engagement and action.

The Council and the Steering Group has worked with stakeholders from across the city in 2015 to develop the implementation plan, providing a flexible framework that can be updated on an ongoing basis and draw together the collective efforts of Manchester in realising its vision to be a growing and green city.

5.2 Funding and Delivery Mechanisms

The following section sets out the different funding and delivery mechanisms that underpin the implementation plan, recognising that new mechanisms will also need to be developed in the course of the strategy's delivery.

Two different forms of funding and resources will be required for investment in Manchester's GI: capital funding for the physical delivery of new GI and enhancements to existing, and; revenue funding and human resources for its ongoing management and maintenance, ensuring that it can deliver maximum benefits throughout its life.

As the role and levels of funding for local authorities continues to change, so does the need for new sources of funding for both aspects of GI investment. In all cases site-specific solutions will be needed, creating opportunities for innovative new partnerships between the Council, developers, community

groups and others for the ongoing management and maintenance of GI.

Council/Planning led

The planning system provides an important framework within which green infrastructure can be safeguarded and enhanced, and provides mechanisms for new infrastructure to be created through development. The importance of green infrastructure is firmly embedded in the planning system and the National Planning Policy Framework (NPPF).

Manchester's Local Plan, the Manchester Core Strategy 2012-27 set out the local policy context for GI. Policy EN9 is the principal Green Infrastructure Policy and this strategy adds detail to its implementation.

There are also a significant number of other policies within the Local Plan that directly support the protection, enhancement and provision of GI. These includes EN1: Design Principles and Strategic Character Areas, EN8: Adaptation to Climate Change, EN10: Safeguarding Open Space, Sport and Recreation Facilities, EN11: Quantity of Open Space, Sport and Recreation, EN12: Area Priorities for Open Space, Sport and Recreation, EN14: Flood Risk, EN15: Biodiversity and Geological Conservation, EN17: Water Quality and DM1: Development Management.

This strategy and the supporting Technical Report, together with other linked and developing strategies such as the Manchester Park's Strategy will assist in the implementation of these policies by:

- Increasing the awareness of the socio-economic case for investing in green and blue infrastructure
- Setting out high level principles for integrating green infrastructure into new development
- Identifying opportunities for linking new development with existing green and blue infrastructure within neighbourhoods.

These opportunities for GI in new development can be incorporated within area specific masterplans, development frameworks or be used by developers and the City Council when engaging in pre-application discussions on development proposals.

The Role of Developers

Developers have a key role to play in contributing to the delivery of this strategy, in terms of responding directly to local planning policies, but also in terms of recognising that GI can add value to their scheme and looking to identify creative solutions for incorporating high quality GI as part of development.

Section 3 has a specific objective relating to the role of new development and provides case studies and high-level guidance for developers on how to begin to incorporate high quality GI as part of development proposals and enhance existing spaces.

A portfolio of case studies has been produced to show how green and blue infrastructure can be appropriately incorporated into sites awaiting development and within developments. Ultimately the appropriate incorporation of green and blue infrastructure can add to the overall value of a scheme, by improving its

marketability and therefore the speed of sales, or enabling a higher quality tenant or end user. In some instances the higher value of the final development may justify an increased initial investment.

The Role of Stakeholders

Manchester is already home to a broad range of partners taking action to improve the city's green and blue infrastructure. A number of these organisations have been investing in the city's GI for a number of years, and have roles that are wholly or partly focused on this agenda. Their work to date in the city has already delivered transformational change and their continued commitment will be key in supporting the delivery of this strategy. These partners include:

- Red Rose Forest
- Groundwork
- RSPB
- Forestry Commission
- National Trust
- Canals and Rivers Trust
- Environment Agency
- Lancashire Wildlife Trust
- Hulme Community Garden Centre

In addition to these environmentally-focussed organisations, the city has a number of other partners who also have a key role to play. They include major landholders with an interest/responsibility for the provision and maintenance of green infrastructure, those with a reach into the city's diverse communities, and service providers who could support investment in GI in order to deliver multiple outcomes. They include:

- Registered housing providers

- Major land and estate holders
- Investment and development funds such as the Manchester Life Development Company
- Clinical Commissioning Groups
- Manchester Strategic Flood Risk Partnership

A number of these partners are already active, as set out in the case studies throughout this document, and have been involved in the development of the strategy and the stakeholder implementation plan. Ongoing engagement and partnership-based delivery both in developing external funding bids and delivering projects will be essential to delivering this strategy.

Manchester's communities, voluntary organisations and interest groups will all need to continue to play an active part in improving the city's GI. There are already many examples of this type of activity in Manchester, sometimes working in partnership with the City Council and other organisations, other times working independently to take forward the initiatives that make a positive difference in their neighbourhoods.

There are a large number of friends of groups who actively contribute to the management and upkeep of local parks, as well as arranging educational, recreational, health and other activities to engage individuals to make the most of their local park. Approximately 50 friends of parks groups are already active in Manchester. This significant resource already plays a major role in maximising the value of these spaces at the heart of communities, and will be a key consideration in the development of a new Park's Strategy for the city.

5.3 External Funding

A number of local, national and European funding sources exist to support improvements in green infrastructure, designed for organisations of all sizes, from community groups and charities, through to local authorities and other large public sector organisations. In all cases applications for GI funding are competitive and require varying degrees of capacity and expertise for their preparation.

A key driver for the development of a Manchester GI Strategy is the need for a coherent policy framework and strong platform from which successful bids for funding can be developed. The strategy also provides the mechanism for drawing together smaller stakeholders and projects, to create collaborative partnerships and larger programmes that will have an increased chance of success both in terms of bidding and in delivering positive change on the ground. This collaborative approach will be another key part of the strategies successful delivery.

5.4 Monitoring and Reporting

The successful implementation of this strategy will deliver outcomes that benefit not just the City Council, but the city as a whole. Success will be measured not simply in terms of improvements to the city's existing GI and creation of new areas, but in how these actions help to achieve the city's wider social, economic and environmental objectives.

Groups, businesses, schools, universities, individuals, and others will come together through the MACF network of stakeholders to continually add to the implementation plan, maintain momentum for its delivery, and provide updates on their activities. The City Council will be an active part of this network, providing support and influence to bring in new partners wherever possible, and providing reports against its own commitments.

Understanding the impact of investment in GI in relation to the city's strategic priorities will require new research and analysis, building on the work undertaken as part of developing the strategy. Local universities will have an important part to play in this activity, harnessing their ability for world-class research and relationships with other cities who are also committed to action on GI.

The Council, the MACF Steering Group, local universities and other partners will work together to provide ongoing updates on progress, including through the MACF website www.manchesterclimate.com.

This approach to monitoring the plan will be important in itself but will also provide an important tool for communicating the city's progress on GI, ensuring that within the city and beyond Manchester can be known for becoming a liveable city of choice, with high quality green and blue infrastructure embedded in its plans for future growth.

