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 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.
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 wellbeing, 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, has 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: Contributing to the city’s plans for growth, and reform: vision and objectives

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 and opportunities at the neighbourhood level.

Section 4 – Realising the vision: implementation and monitoring

The strategy will be accompanied by a separate implementation plan. Structured according to the objectives and headline actions in section 3, it will provide the framework for all partners and stakeholders in the city to play their part in the strategy’s delivery. In this context, the MACF Steering Group will be responsible for developing the plan with the city’s stakeholders, including the City Council, and overseeing 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 the mechanisms for delivering the strategy and the action plan, 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.
2.1 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, and the planned 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 multifunctional 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 and should continue to be managed to a high standard by the Bollin Valley Partnership.

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. This extra information may be useful for 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.
Green and blue infrastructure assets within Whalley Range.
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 tree 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 and the work that we are doing is at the leading edge. 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 and 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 form the basis for 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.

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 for 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.

Doning an analysis of the evidence base, 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, 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.
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.


<table>
<thead>
<tr>
<th>Economic Growth and Investment</th>
<th>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.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land and Property Values</td>
<td>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%.</td>
</tr>
<tr>
<td>Labour Productivity</td>
<td>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.</td>
</tr>
<tr>
<td>Tourism</td>
<td>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.</td>
</tr>
<tr>
<td>Products from the Land</td>
<td>Using green infrastructure as a place for communities to grow crops can provide health and education benefits whilst supporting community cohesion.</td>
</tr>
<tr>
<td>Health and Wellbeing</td>
<td>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.</td>
</tr>
<tr>
<td>Recreation and Leisure</td>
<td>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.</td>
</tr>
<tr>
<td>Quality of Place</td>
<td>Improving the quality of place is an important factor in motivating people to enjoy and exercise in their local area.</td>
</tr>
<tr>
<td>Land and Biodiversity</td>
<td>The natural environment delivers essential ‘ecosystem services’ (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.</td>
</tr>
<tr>
<td>Flood alleviation and management</td>
<td>Using green infrastructure for flood alleviation and management has economic as well as environmental value.</td>
</tr>
<tr>
<td>Climate change adaptation and mitigation</td>
<td>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.</td>
</tr>
</tbody>
</table>