



# CESHIRE EAST GREEN INFRASTRUCTURE PLAN

OCTOBER 2019



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## Foreword

Cheshire East has an outstanding position on the plain between the Peak District in the east, the mid-Cheshire Sandstone Ridge in the west and the Mersey in the north. Its distinctive landscapes are near major transport hubs and economic centres making it a great place to live, work, invest and visit.

Our green infrastructure contributes to our 'Quality of Place' and to our strategies and plans, including the Environment Strategy, our Local Plan and others relating to health and wellbeing, rights of way or green space. It provides opportunities to address the climate emergency and improve sustainability through carbon capture and storage or through mitigating impacts such as flood risk. It enables many people to enjoy the outdoors contributing to the wellbeing of our communities and our economy. Our outdoor environment provides £924m of value<sup>1</sup> per year in terms of the benefits that flow to society, such as food, flood management, water and air quality improvement and health and wellbeing opportunities. We cannot take this for granted; if economic growth is to be sustainable, we must ensure a parallel increase in the quality of our environment in order to sustain our 'natural capital'.

The current Local Plan strategy sets a vision for growth, but one that is balanced in a sustainable way. It recognises the need for people to be able to lead healthy and active lifestyles benefiting from improved access to sporting facilities, high quality open spaces, play areas, allotments, watercourses, water bodies and the open countryside. It envisages a green infrastructure network that will increase the provision of accessible green spaces, supporting flora, fauna and improving general wellbeing. New

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<sup>1</sup> Green Infrastructure Assessment of Cheshire East (2018) prepared by the Mersey Forest Team for Cheshire East Council

development and infrastructure will inevitably affect green spaces, making it an imperative to enhance the quality of retained green infrastructure or create more, to sustain quality of life and place.

At the same time, climate change is a real and present danger to our health and wellbeing. Although target dates may vary a little, most experts advise we have only a relatively short window to reverse the current trajectory towards irreversible global warming. All of us living and working in Cheshire East have a responsibility to act. Safeguarding our green infrastructure plays an important role, whether this is through planting trees where appropriate, enhancing priority habitats, managing soils, sustainable management of water or reducing our personal carbon footprint by cycling and walking more.

Cheshire East aspires to a comprehensive and connected green infrastructure that will meet the needs of people and nature in the 21<sup>st</sup> century; we aim to pass on a better environment to the next generation. Cheshire East Council is taking a lead, commissioning this Plan, incorporating policies in the Local Plan and bringing forward an Environment Strategy to address the threat of climate change.

Much has already been achieved and this Plan celebrates the achievements of the Peak District National Park, of the many environmental organisations or communities active in Cheshire East and of previous landscape-scale initiatives, such as the Bollin Valley Partnership. We also look forward to the delivery of exciting new schemes such as the National Trust's Riverlands Project.

Our green infrastructure is in good hands. Cheshire East has thousands of landowners, volunteers, green space managers, water managers, trusts and campaigners who plan and care for their environment. All individuals and organisations with an

interest in our environment can help the effort to achieve the goals set out in this Plan, for we can do more together than individually.

The Council will maintain a commitment to leadership but cannot deliver this agenda on its own. This Plan sets out an evidence base for what residents, employers, workers, landowners, developers and visitors could do to improve Cheshire East's green infrastructure. The Plan offers an opportunity to take a coordinated approach to the management of the green infrastructure with the Council working closely with partners that share a common purpose. We hope this Plan will guide future approaches to green infrastructure in the Borough and help us address a sustainable future together

*Signed*

A handwritten signature in black ink, appearing to read 'Nick Mannion', written over a horizontal line.

*Cllr. Nick Mannion  
Portfolio Holder for Environment and  
Regeneration*

## **A framework for improving our green infrastructure – an Executive Summary**

This Green Infrastructure Plan has been commissioned by Cheshire East Council as a road map for a more comprehensive and connected Green Infrastructure (GI) to meet the needs of people and nature in the 21st century and to pass on a better environment to the next generation.

The Plan can be used by Cheshire East Council, its residents, partners, landowners and developers to develop projects that deliver a net gain in GI. The Plan provides an evidence base and framework for like-minded organisations or individuals who share a vision for excellent GI; while it has been commissioned by Cheshire East Council, it will be delivered through collective contributions, with leadership shared and distributed across a range of delivery mechanisms. The Plan highlights some strategic areas for further consideration and suggests some approaches to partnership working and the involvement of communities or landowners. It envisages a place-based collaborative approach.

To help realise the Local Plan vision and other environmental and place-making goals whilst highlighting areas where investment in GI can bring multiple benefits, the GI plan maintains a clear focus on four strategic themes:

- Economy
- Life chances and choices
- Environment
- Connectivity and movement

While most types of GI may have a primary purpose or function, by its nature GI is multi-functional, providing a range of benefits

and improving our ‘natural capital’. Using GIS software, multifunctionality of GI has been mapped across Cheshire East, giving a useful indication as to how and where investment in GI can support strategic themes and result in a range of benefits for Cheshire East’s residents and the environment. This builds on a Green Infrastructure Assessment undertaken for Cheshire East in 2018 by the Mersey Forest. A prioritisation process uses objective spatial analysis, informed by stakeholder consultation, to identify assets and “pinch-points”, which help set potential GI investment priorities.

The spatial analysis is borough-wide and cannot fully capture local nuances and priorities. Thus, it is recognised that when a GI investment is being made, local knowledge will be important in project design to optimise the response to local needs and opportunities. Particular benefit will arise when GI activity areas are combined to tackle multiple issues and draw together partnerships across several sections of the local community.

The Green Infrastructure Plan identifies GI activities that can be aligned to projects and specific pinch points:

- **Urban greening** – creating and maintaining vibrant, healthy and inspiring places where people want to live and work.
- **Getting outdoors easily** - engaging people and improving community access to, and enjoyment of, GI for health and wellbeing.

- **Rivers and valleys** –catchment-wide activity to improve water quality, natural flood management, re-naturalisation and tranquil enjoyment of watercourses and waterways.
- **Thriving nature** – creating and safeguarding well-connected networks of habitats.
- **Working alongside major infrastructure** – integrating GI into major new infrastructure projects and retrofitting GI alongside existing infrastructure.
- **A distinctive place for culture, heritage and tourism** - enhancing the setting of and access to heritage, landscape and outdoor recreational assets.
- **Environments for business** – creating an attractive and accessible setting for centres of employment and economic activity, both in towns and the countryside.
- **Farmland and soils** – enabling land management which conserves and restores soil productivity and improves carbon sequestration.

The Plan goes on to apply this analysis at both a landscape scale in urban fringe and rural areas, followed by urban projects in the principal towns and key service centres.

### Opportunities

1. Reduce disparities in GI quality and multifunctionality between the north and south of the borough to benefit both Cheshire East's residents and environment
2. Enhancing the accessibility of Cheshire East's landscapes, whilst protecting their biodiversity and resilience to climate change, helping to ensure their continued value

### Priorities

1. Increasing tree and woodland cover towards the national average
2. Contribute to the creation of a comprehensive and connected network of GI
3. Safeguard and enhance our GI assets in the face of climate change and population growth, recognising their value in delivering numerous GI functions that meet local and wider needs.

### Initiatives

1. Facilitate catchment scale sensitive farming to improve soil and land management, reduce water pollution and improve riparian habitats
2. Urban greening interventions, planned or retrofitted into the existing urban environments to address issues such as air quality and provide shading, whilst improving the general health and wellbeing of local populations

Whether it is existing, enhanced or newly created GI, it is recognised that to be effective in delivering potential GI benefits, the resource must be managed appropriately over the short, medium and long terms. The Plan highlights the need for effective management planning, delivery mechanisms and funding to ensure that the existing resource or original investment in new infrastructure realise the intended benefits. Stakeholders in Cheshire East have a good track record in raising funds for GI and already have innovative mechanisms of using their land and corporate resources to improve the environment. The Plan provides a framework for further consideration of the priorities and mechanisms for taking this forward, including suggestions about the need to develop a blended-finance approach.

## 1 OUR GREEN VISION

### What is green infrastructure?

Our definition of Green Infrastructure (GI) is .....

*A network of multi-functional green 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 2019)

Throughout this Green Infrastructure Plan reference will also be made to watercourses, water bodies and canals. These assets are considered to form part of the overall network and within the definition of GI.

### Multifunctionality

One of the principal drivers of GI planning is to manage land and water in a more sustainable way. While most types of GI may have a primary purpose or function, by its nature GI is multi-functional, providing a range of benefits and improving our 'natural capital'. By taking account of the fact that these functions co-exist, it allows us to design and use land more effectively or efficiently to generate multiple benefits for people, nature and climate.

GI delivers a range of functions such as recreation, improving health and wellbeing, supporting wildlife, mitigating and adapting to climate change, food production, managing water resources and reducing flood risk and supporting heritage and cultural assets. This multifunctionality has been assessed and mapped, showing where in Cheshire East, GI can deliver up to 28 functions.

### Natural Capital

Natural Capital is the collective value of the environment to society including ecosystems, wildlife species, freshwater, land, minerals and the air. 'Natural capital accounting' provides a means of valuing the 'services' that ecosystems provide to society and helps to articulate the value of Green infrastructure

### Green infrastructure – a positive investment

There are four reasons that make a compelling case for investment in Cheshire East's GI:

1. Recreational, social and wellbeing: Our expectations of the quality of the places we live, work, play and enjoy are rising and we want to engage more with our local environment – we want to be able to walk and cycle on safe, convenient routes, we want to play in local parks and we want to enjoy our local countryside and rivers and canals– increasing investment now in maintaining and creating these assets will make us healthier both physically and mentally and can have wider social benefits in addressing inequalities.
2. Economic: GI can demonstrate significant economic value by helping to ameliorate climate change impacts or address adaptive capacity through sustainable drainage systems. Furthermore, as well as any direct economic value for products or tourism, GI adds value through 'Quality of Place'. Businesses need locations that offer competitive advantages over others and make decisions that affect the lives of all our communities – sustained investment in GI now will lower long term development costs and create attractive valuable environments that will raise land values, stimulate further economic investment,



improve access to employment opportunities, create healthier working environments and a more productive workforce.

3. **Wildlife and biodiversity:** The environmental benefits of improving biodiversity and maintaining our landscapes are important to the planet – continuing to invest in protecting and enhancing our green and blue infrastructure assets will enable our wildlife and habitats and landscapes to flourish. Climate change and biodiversity decline are real and present dangers needing urgent action in terms of woodland and wetland creation, soil conservation and establishment of wildlife-friendly landscapes.
4. **Climate change:** The natural environment has significant potential to help mitigate or offset the impacts of climate change and help to achieve ‘net zero’ targets. Investing in green and blue infrastructure can address issues such as carbon capture and storage, air and water quality, flood management, alternative modes of travel and alleviation of high temperature fluctuations. Investment can create new economic value through natural, sustainable approaches to the issues facing us, not only managing their impacts, but making a positive contribution. Tree and woodland planting, adaptation of agricultural systems, ‘slowing the flow’ schemes and better management of soil health are examples of interventions with such benefits.

The returns from investing in GI can be calculated in economic, social and environmental terms, measurably improving our ‘natural capital value’. Those investing to derive economic returns will look to GI to lower environmental risks through flood risk mitigation, for example.

Those investing to secure social returns will expect GI to improve the health and well-being of local people in addition to increased community ownership and resilience.

Those investing to deliver environmental returns will want GI to improve local biodiversity, air and water quality and help to lock up atmospheric carbon dioxide in soil, wetlands and woodlands.

However, by its nature, GI is multifunctional. So, whichever primary outcome is sought, it will deliver a wider range of complementary benefits.

#### Purpose of the Green Infrastructure Plan

This Green Infrastructure Plan has been commissioned by Cheshire East Council as a road map for a more comprehensive and connected GI to meet the needs of people and nature in the 21<sup>st</sup> century and to pass on a better environment to the next generation.

The Plan can be used by Cheshire East Council, its residents, partners, landowners and developers to develop projects that deliver a net gain in GI. The Plan provides a framework to guide future decision-making, investment and action. It is intended to be of use to partners and influencers in GI delivery and management, rather than only for Cheshire East Council. It envisages a place-based collaborative approach.

The Plan also provides evidence that will support Local Plan policies, including the policies within Local Plan Part 2 which sets out the approach to planning up to 2030 and beyond. The local planning system will continue to support the context for investment in GI over the coming years. The planning system has

several important “levers” to stimulate GI e.g. through policy in areas of:

- Design guidance;
- GI standards for new development;
- Biodiversity net gain; and,
- Green Belt management.

The local planning system can stimulate creation, enhancement and management of GI in areas of new development and infrastructure.

Once delivered, GI needs appropriate and sensitive management. To be effective, on-going stewardship of the resource needs to be factored in from the outset, in terms of delivery mechanisms and the funding required over the medium to long-term.

However, the level of ambition for GI across the borough, and the limitations of public funding, means additional funding approaches need to be developed for implementation, operation, ongoing management and maintenance. The GI Plan will therefore suggest ways to diversify the investment funds used for GI capital and revenue expenditure, in order to ensure that sufficient investment is available without an over-reliance on any one funding source.

## 2 CHESHIRE EAST'S STRATEGIC PRIORITIES

Cheshire East Council has already identified a series of priorities and policies that relate to any consideration of Green Infrastructure. This section describes a number of the Council's key documents and examples of other relevant policy contexts.

### Cheshire East's Local Plan Strategy (2017)

The Local Plan sets out a vision and strategic priorities for development, alongside detailed planning policies and proposals for specific sites. Good quality green infrastructure is essential to realise the Local Plan vision (see box below):

The vision for Cheshire East in 2030 is for an economically prosperous area, with a skilled population benefitting from strong and diverse employment. It will benefit from strategic location near to Greater Manchester and the Potteries and adjoining the Peak District National Park. Quality of place will continue to make Cheshire East a desirable area to live, influenced by heritage and culture.

New employment and housing will be characterised by quality of place, and will be arranged to reduce the need to travel. New development will be directed towards the principal towns of Crewe and Macclesfield, to support regeneration, and also to key service centres which provide a range of services and facilities.

Cheshire East's population will enjoy a high quality of life with good access to learning, work, services, shops and public transport. People will lead healthy lives benefitting from improved access to sport facilities and the GI network. The GI network will also improve wellbeing and will support flora and fauna.

Cheshire East will make a significant contribution to reducing carbon emissions and tackling climate change through the efficient use of energy, sustainable patterns of development and travel. Mineral resources will be extracted sustainably and waste will be reduced. Conservation and enhancement of the GI network will be a priority for the benefit of future generations.

### Environment Strategy (2019-2024)

The Council published its Environment Strategy (2019-2024) in September 2019 for public consultation (until November 2019). The Strategy responds to the climate emergency as well as the Council's Corporate Plan and its key aim is that Cheshire East is a green and sustainable place.

As part of its aim of helping the Council to become carbon-neutral, the Strategy will seek to offset carbon and improve air quality through the development of GI and the way the Council manages its estate. The Council's commitment to carbon-neutrality will require an appraisal of opportunities to increase carbon-storage on its own landholdings; through tree-planting, habitat creation and soil conservation.

Cheshire East's rural and urban character is to be protected and enhanced through sensitive development, environmental management, transport and waste disposal policies.

### Economic Strategy

The Council's five-year Economic Strategy 2019 – 2024 and associated Action Plan will support the area's economic proposition, setting out their growth ambition and key priorities for delivery. It is complementary to the work being undertaken at sub-regional level to prepare a Local Industrial Strategy. The

strategy recognises the need to ensure that a balanced approach to growth is obtained, environmental improvements keep pace with the growth ambition and the need to protect and enhance the quality of place and environment that is so important to the character of Cheshire East.

### Health and wellbeing

Cheshire East Council and its health partners have produced a number of plans and strategies relating to health and wellbeing. For example, the Cheshire East Health and Care Partnership has written a Five-Year Plan setting out ambitions to improve the health and wellbeing of the people of Cheshire East. The Health and Wellbeing Board has developed a local 'Joint Health and Wellbeing Strategy' (2018 -2021), based on their Joint Strategic Needs Assessment. The Board aims to make sure that local services are in line with this Strategy.

Alongside these strategies, the Connected Communities strategy identifies how the Council will support and engage with communities including the voluntary, community and faith sector and the many active volunteer based partnerships. GI can support positive life chances and choices, supporting measures to address health inequalities and open up community engagement opportunities.

### The Quality of Place Strategy

The Quality of Place Strategy prepared by Cheshire and Warrington Local Enterprise Partnership (LEP) is another companion document to this GI Plan.

It emphasises how 'place' is a crucial part of the attractiveness of the area. Without a commitment to place-making, it will be impossible to retain and attract well qualified, creative and entrepreneurial talent or to sustain the best conditions for businesses and people to flourish.

The Strategy celebrates the diversity of Cheshire East's places and its leisure and cultural offer, and emphasises that place management must be at the heart of the many new development and infrastructure schemes which will come forward over the next decade; indeed that these schemes can and must drive positive change in quality of place.

The Strategy recognises that the natural environment is as important a factor in Quality of Place as the built environment and addresses the need to review the implications of the Government's new 25 Year Environment Plan for the sub-region. It also commits the LEP to develop proposals in collaboration with the Cheshire and Warrington Local Nature Partnership for establishing a Natural Capital Plan for the sub-region.

### Landscape Scale Partnership Strategy (2016)

Cheshire East Council and the National Trust led on a landscape scale study which grew out of recognition that the National Trust and Cheshire East Council own significant areas of land in the north of the Borough. Working together can enable better site management, effective responses to opportunities and increase the benefits for communities.

The aims and objectives of the project included identifying a local distinctive landscape; defining 'essence' or 'spirit of place'; identifying opportunities and threats; and informing decision making.

Cheshire East Greenspace Strategy (2019 update)

The Strategy reflects much of the Council's thinking about how urban and country parks, green spaces, trails, canals, river valleys and places of interest should be managed and interconnected to maintain health and wellbeing and biodiversity. It provides a complementary and important part of the evidence base for the Local Plan.

Northern Forest

Cheshire East lies within the 'halo' area of the Northern Forest, a long-term vision of the community forest movement to establish 50 million trees across the North of England for the purposes of improving wellbeing, reducing carbon footprints, creating quality places and enhancing the rural and visitor economy. Its proximity to the Northern Forest provides opportunities for Cheshire East to become part of the target area and contribute to its own tree planting ambitions. Recent research<sup>2</sup> estimated that a worldwide planting programme could remove two-thirds of all the emissions that have been pumped into the atmosphere by human activities. It also identified this part of England as one with greater potential for tree planting.

25 Year Environment Plan (2018 onwards)

The Government's 25 Year Environment Plan sets out government action to help the natural world regain and retain good health. It aims to deliver cleaner air and water in the UK's cities and rural landscapes, protect threatened species and provide richer wildlife habitats. It calls for an approach to

agriculture, forestry, land use and fishing that puts the environment first.

Alongside the 25 Year Environment Plan, the UK government has a target to bring all greenhouse gas emissions to net zero by 2050. GI has a potential to store large amounts of carbon, and indirectly it can encourage people to leave the car at home and walk or cycle, working towards the net zero target.

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<sup>2</sup> Bastin, Finegold, Garcia, Mollicone, Rezende, Routh, Zohner and Crowther (2019) The Global Tree Restoration Potential, published in *Science*

### Our strategic themes

To help realise our Local Plan vision and other environmental or place-making goals, the GI Plan maintains a clear focus on strategic themes, which can be summarised under four headings:

#### **ECONOMY**

Promoting economic prosperity by creating conditions for business growth and recognising the value of 'Quality of Place' in development.

#### **LIFE CHANCES AND CHOICES**

Creating sustainable communities, where all members are able to contribute and where all the infrastructure required to support the community is provided.

#### **ENVIRONMENT**

Protecting and enhancing the quality of the built and natural environment.

#### **CONNECTIVITY AND MOVEMENT**

Reducing the need to travel, managing car use and promoting more sustainable modes of transport and improving the road network and enhancing wildlife corridors.

These strategic themes are used to guide the GI analysis and planning, highlighting areas where investment in GI can bring multiple benefits and/or transformative change.

### 3 SETTING THE SCENE

Cheshire East is a predominantly rural area covering approximately 1,100 sq km with a population of 372,100. A number of strategic transport corridors cross the borough including the M6, M56 and the West Coast main line railway network.

The towns of Crewe and Macclesfield form the primary urban areas in the borough. Crewe, situated in the south west of the borough is the larger of the two towns and forms a significant railway interchange in the north-west. Macclesfield lies on the River Bollin, in the north east of the borough. It is close to the border of the Peak District to the east and Greater Manchester to the north.

With its strategic position in between Greater Manchester and Stoke on Trent, and good communication links, the borough has many growth opportunities and pressures.

The landscape of Cheshire East is characterised by the contrast between the lowland rural landscape with the distinctive sandstone ridge to the west and the rising Pennine foothills in the east. The varied geology, land use and strong industrial heritage of the borough have resulted in distinctive physical landscapes.

#### Economy

Cheshire East is home to a diverse and vibrant economy, providing 7% of the economic output in the North West<sup>3</sup>. The rural nature of the borough is reflected in the relatively high number of

people employed in agriculture and related industry. In terms of other large employment sectors, employment in the 'knowledge economy' drives the region<sup>4</sup>. The proximity of the borough to Manchester Airport provides access to international markets and provides jobs, contributing to substantial economic benefits.

The Cheshire and Warrington LEP Quality of Place report indicated that quality of place is an important driver for business investment. With 36,000 additional homes<sup>5</sup> planned in the borough by 2040, and 56,000 more people predicted to be living in Cheshire East, maintaining and enhancing the quality of environments across the area can bring a competitive advantage. There are some exemplar business parks and employment sites in Cheshire East set in high quality GI including Alderley Park, Jodrell Bank, Radbrooke Hall and Booths Park (both near Knutsford).

The visitor economy is an important contributor to the Cheshire East economy. There are many green and blue infrastructure assets such as the Peak District National Park and the extensive canal network, while green infrastructure (GI) provides an important setting to Jodrell Bank and other rural attractions. There are 14 National Trust properties in Cheshire East providing high quality visitor attractions comprising a range of green and blue infrastructure types. These include Tatton Park (managed by Cheshire East Council), the southern part of Dunham Massey Estate, Lyme Park, Quarry Bank Mill, Alderley Edge, Hare Hill, the Cloud, Bickerton and Bulkeley Hills, Little Moreton Hall, Nether Alderley Mill and a number of smaller National Trust sites.

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<sup>3</sup> Regional GVA (Income Approach), Office for National Statistics December 2013

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<sup>4</sup> Annual Population Survey, October 2012-2013, ONS, NOMIS

<sup>5</sup> Cheshire East Local Plan Strategy 2010-2030 (Adopted 2017)

### Life chances and choices

The Borough is generally considered as an affluent area, though there are significant differences in income levels. Seven towns have a mean income below the Cheshire East average; Alsager, Congleton, Crewe, Nantwich and Sandbach in the south and Handforth and Macclesfield in the north. In contrast, high incomes are prevalent in the north of the borough; Knutsford, Poynton and Wilmslow are all above the Cheshire East average<sup>6</sup>.

The population is concentrated in the borough's two principal towns and nine key service centres. The health and wellbeing of the residents of Cheshire East is generally good though there are some stark contrasts<sup>7</sup>. There is a concentration of health deprivation in Crewe, with particularly high levels of obesity and other illness in comparison to the rest of the borough and England. Pockets of health deprivation exist elsewhere, such as in areas of Middlewich and Macclesfield, showing a trend of poorer health in urban areas.

Despite the high levels of health and wellbeing across the borough as a whole, there is opportunity to support more people to have healthy and active lifestyles and resolve the issue of health inequality. GI provides an opportunity to encourage social interaction between residents of all ages, which is likely to become increasingly important as the population of Cheshire East rises.

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<sup>6</sup> Cheshire East 2010 Paycheck Data

<sup>7</sup> Joint Health and Wellbeing Strategy for the Population of Cheshire East (2018-2021)

Cheshire East has good numbers of people engaging in regular active exercise<sup>8</sup>. However, this is not uniform across Cheshire East and there are areas that need more focused attention, to facilitate or encourage more people to get outdoors easily.

The borough is also preparing for an ageing population, with the number of people aged 65 and over expected to increase by more than 50% by 2029. Enabling older residents to maintain healthy and active lifestyles is a key part of planning for GI.

### Environment

93% of Cheshire East is GI, 74% of which is agricultural land. The Best and Most Versatile Land Report (2016) found that 47% of agricultural land across Cheshire East was Best and Most Versatile Land (BMV), which is regarded as a national asset. It is therefore important that planning for GI at the strategic level has a focus on the role of agricultural land in delivering services and benefits.

Farmers and land owners already play a key role in safeguarding the environment across Cheshire East. At a wider scale, in September 2019, the National Farmers Union unveiled its vision for British Farming to achieve net zero greenhouse gas emissions by 2040<sup>9</sup>, with three pillars of activity:

- Improving farming's productive efficiency
- Improving land management and changing land use to capture more carbon
- Boosting renewable energy and the wider bio-economy.

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<sup>8</sup> Sport England Active Lives Survey (2018)

<sup>9</sup> National Farmers Union (2019) Achieving Net Zero: Farming's 2040 Goal



Across Cheshire East where farming is a key sector, it is possible to work towards these aims, through activities such as increasing the ability of farmers to capture more carbon through woodlands, trees and hedgerows and conserving existing carbon stores in soils, grassland and pasture.

There are many types of GI across the borough including parks, private gardens, woodland and water bodies, although agricultural land dominates the borough. There are approximately 10,000ha of tree canopy in Cheshire East, including woodland and street trees. Tree canopy cover in the north of the borough is significantly more substantial than in the south. Existing woodland is also under threat from pests and diseases, including ash dieback which is likely to result in significant loss of hedgerow and roadside trees over the next decade.

With woodland cover at only 7%, Cheshire East is less well-wooded than England which has 10% cover. To attain the English average, a further 3,500 hectares of new woodland would need to be planted. Over a 50 year timeframe, that is 70 hectares a year or the equivalent of 110 football pitches!

Cheshire East is home to an extensive network of waterways and six main rivers; River Dane, River Bollin, River Dean, River Croco, River Weaver and the River Wheelock. The borough lies largely within the Weaver-Gowy and Upper Mersey catchments, which incorporate many Local Wildlife Sites (LWS) and Sites of Special Scientific Interest (SSSI).

The borough also boasts a significant canal network which is enjoyed by visitors, anglers, walkers and cyclists for their historic interest and canal side scenery. Six waterways pass through Cheshire East including the Macclesfield Canal; the Trent and Mersey Canal; the Shropshire Union Canal; the Middlewich Branch of the Shropshire Union Canal; the Llangollen Canal; and

the Peak Forest Canal. The Cheshire Ring Canal Walk follows the towpaths of the Macclesfield and Trent and Mersey Canals, as well as part of the Llangollen Canal towpath, providing connections to many historic town centres. The Shropshire Union Canal Middlewich Branch towpaths are also public rights of way. The Macclesfield Canal runs through Congleton and Macclesfield and the Trent and Mersey Canal runs from Alsager to Middlewich.

The mosses and meres in Cheshire East are an important part of the natural water management system of the borough and have very high ecological value. This chain of bogs, marsh and fen wetlands of international importance, spill out from Cheshire into Shropshire, Staffordshire and parts of north Wales. Much of Cheshire's most important wildlife is associated with its meres and mosses. Peatlands in the Peak District are also of great significance and along with the mosses are essential for carbon capture.

Flood risk and poor water quality are issues faced by some parts of the borough. Enhancing flood zone habitat diversity and creating on-line and off-line wetlands can help reduce flood risk, along with other "natural flood management" techniques such as leaky dams and river-restoration schemes which reengage rivers with floodplains. In general, these schemes are highly effective in smaller upper catchments and are included in approaches being developed by the South west Peak Landscape Scale Partnership.

Several waterbodies have been identified by the Environment Agency as having bad and poor ecological quality including the Croco, Wheelock and parts of the River Dane. The Weaver and Bollin rivers have poor ecological quality. This bad or poor ecological quality is due principally to diffuse source pollution and siltation from agriculture and urban land uses, exacerbated by local barriers to fish passage caused by weirs and culverts. Restoration of heavily modified waterbodies and changes to land

management to reduce sediment run-off can help to improve water quality and ecology in line with Water Framework Directive objectives. In rural areas, this would involve measures to “roughen” the landscape by removing watercourses from culvert, creation of hedges, retaining uncultivated field margins and un-grazed buffer strips and enhanced riparian habitat. In urban areas, reduction of sealed surfaces through tree-planting, swales, urban greening and even green roofs will slow overland flows. Natural buffer zones should be retained between watercourses and urban development, with an undeveloped buffer zone of eight metres in proximity of a main river.

Cheshire East has defined its ecological network, based on “core areas” for biodiversity which encompass designated sites and surrounding habitats. In terms of designated sites there are nine Ramsar sites - wetlands of international importance, 33 Sites of Special Scientific Interest (SSSI) - covering almost two per cent of the total land area, over 400 Local Wildlife Sites, 23 Regional Important Geological Sites and numerous statutory and non-statutory nature reserves. The network also has “corridors and stepping stones” and “restoration areas” which require better quantity and quality of habitats to sustain populations and movement of protected and priority species. The Cheshire Wildlife Trust has mapped detailed wildlife corridors for approximately 25 Neighbourhood Planning areas in Cheshire East<sup>10</sup>.

Development and climate change challenge the viability of many species, notably invertebrates and amphibians which are important for agriculture and biodiversity. A more resilient and diverse ecological network will help such species adapt to such challenges.

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<sup>10</sup> <https://www.cheshireeast.gov.uk/planning/neighbourhood-plans/completed-neighbourhood-plans.aspx>

### Connectivity and movement

Existing major road and rail infrastructure has resulted in fragmentation of access between towns and rural areas, particularly in the south of the borough, affected by the M6, the A500, other major roads and the West Coast main line.

With plans for HS2 and other transport infrastructure comes an opportunity through mitigation to increase GI provision along these arterial routes, HS2 brings anticipated growth around Crewe and the southern part of the borough. The restructuring of the infrastructure network and the new development areas should also aim to stimulate improvements in non-car access to parks, greenspaces, employment areas and the countryside.

The comprehensive and connected nature of GI can contribute to extending walking and cycling, providing attractive routes, reducing car dependency and congestion and ameliorating carbon emissions.

Cheshire East has a good network of public rights of way (PRoW), canal towpaths and cycle trails and quiet country lanes, but continued investment in maintenance, signage, road-traffic calming and connections across infrastructure and rivers will be essential to maximise the opportunities for residents to get outdoors easily. This is promoted by Cheshire East’s Rights of Way Improvement Plan (ROWIP 2011-2026). Stakeholder consultation and the ROWIP have highlighted that the bridleway network, which can be used by walkers, horse riders and cyclists, is not as well developed in coverage as the footpath network.

Many of the borough’s places of interest are GI assets in rural locations, (for example the 14 National Trust properties, Macclesfield Forest, the Sandstone Ridge, or the Peak District and its fringes), so consideration of access, including by car, will

remain an essential part of ensuring that residents can enjoy the health and wellbeing benefits of good connections with large natural spaces.

Connectivity must also consider how habitats are connected. Wildlife corridors and natural links are critical for the maintenance of ecological processes including allowing for the movement of animals and the continuation of viable populations.

## 4 MAPPING AND EVIDENCE

The GI typology mapping from the GI Assessment (2018)<sup>11</sup> shows the extent and distribution of different types of green and blue infrastructure. Agricultural land comprises 74% of GI in the borough, with woodland at 7.5%, private domestic gardens at 5.8% and grassland, heathland, moorland and scrubland at 4.6%. Types of GI include:



<sup>11</sup> Green Infrastructure Assessment of Cheshire East (2018) prepared by the Mersey Forest Team for Cheshire East Council

# A Green Infrastructure Plan for Cheshire East 2019 to 2030

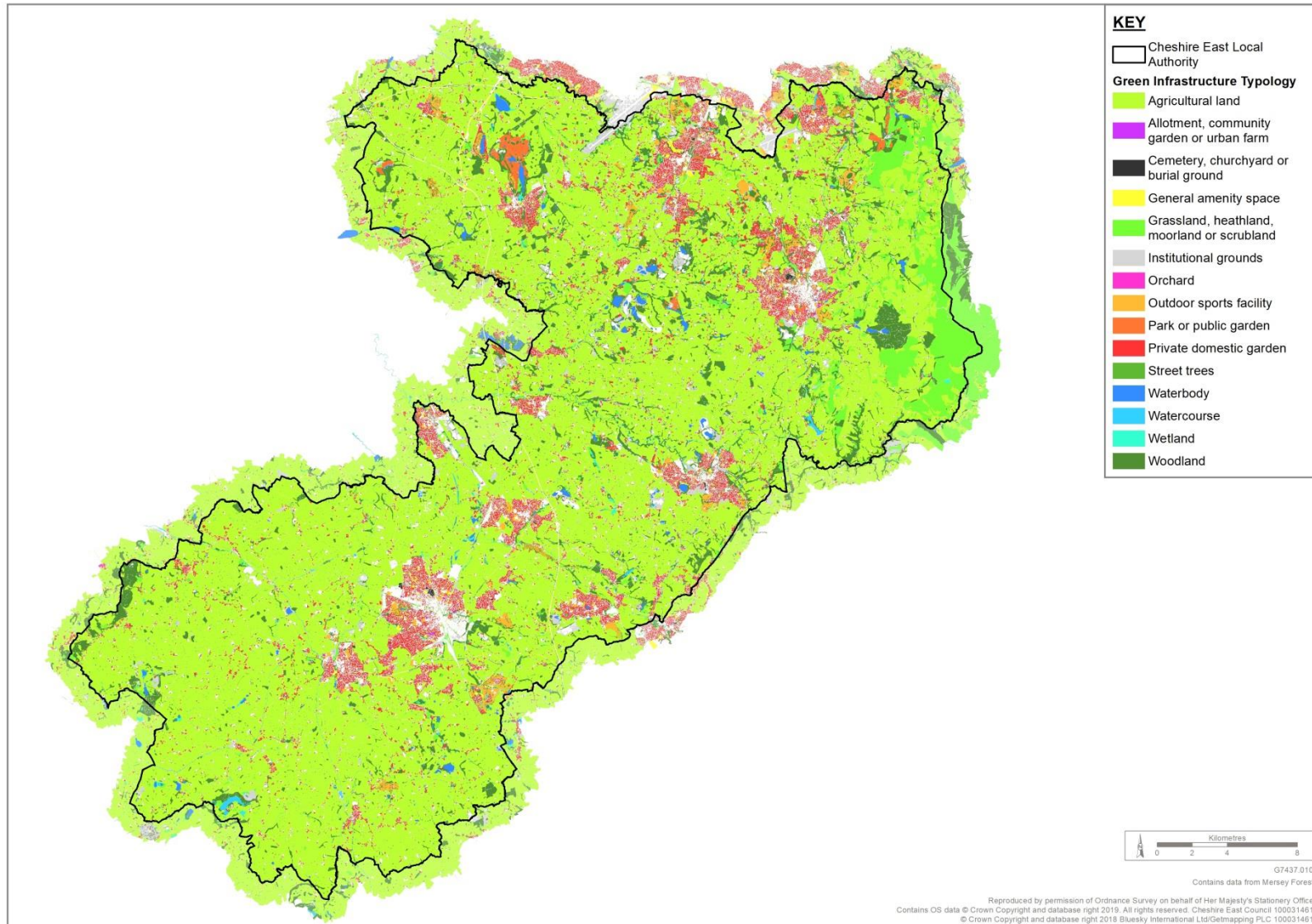


Figure 1: GI Typology Map for Cheshire East

### Multifunctionality

Using GIS software, multifunctionality of GI has been mapped across Cheshire East. The approach is factual, objective, and quantitative using nationally recognised criteria applicable to Cheshire East. There is potential for a GI asset to deliver up to 28 functions, such as recreation, shading from the sun, habitat for wildlife, storm water interception and mental wellbeing.

The multifunctionality plan is a 'heat' map providing a useful indication as to where the most multifunctional GI is located.

GI in the north of the borough delivers more functions than in the south. There are many reasons for this, not least the more varied topography, the more fine grained mix of land uses, greater woodland cover, multiple heritage assets and good connectivity between towns and surrounding countryside.

GI in the south of the borough is generally less functional, partly because there is lower density of trees, woodlands, watercourses and heritage assets and partly because there is less connectivity between towns and countryside.

In general terms, analysis<sup>12</sup> shows that woodland delivers the most functions, with agricultural land and private domestic gardens delivering relatively few. Through appropriate land management there are usually opportunities to increase the functionality of most types of GI, for example by improving public access, by planting trees, or by diversifying habitats.

As a general principle, increasing functionality of GI is desirable because a multifunctional asset is likely to have more users, be more resilient to environmental changes and be regarded as a community or economic asset. However, some functionalities are not always compatible where, for example, increasing access for people may not be desirable in sensitive wildlife sites or where tree planting might destroy a sensitive area of mossland. Such sensitivities must therefore be considered throughout GI planning.

Given the multifunctionality of Cheshire East's landscape, visible on the map, it is assumed that this has been a strong driver for the relatively high levels of participation in recreational exercise and a great diversity of volunteers and neighbourhood groups who engage in the local environment.

Through the GIS analysis it is possible to focus in on specific locations in order to inform decision making. For example, the multifunctionality plans for Macclesfield and Crewe (see Part B) reveal areas of high and low functions together with locations where GI is absent. In both examples the town centres and employment areas demonstrate a relative absence of GI and residential properties with private domestic gardens delivering a more limited number of functions.

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<sup>12</sup> Cheshire East GI Plan (2019), GIS analysis

# A Green Infrastructure Plan for Cheshire East 2019 to 2030

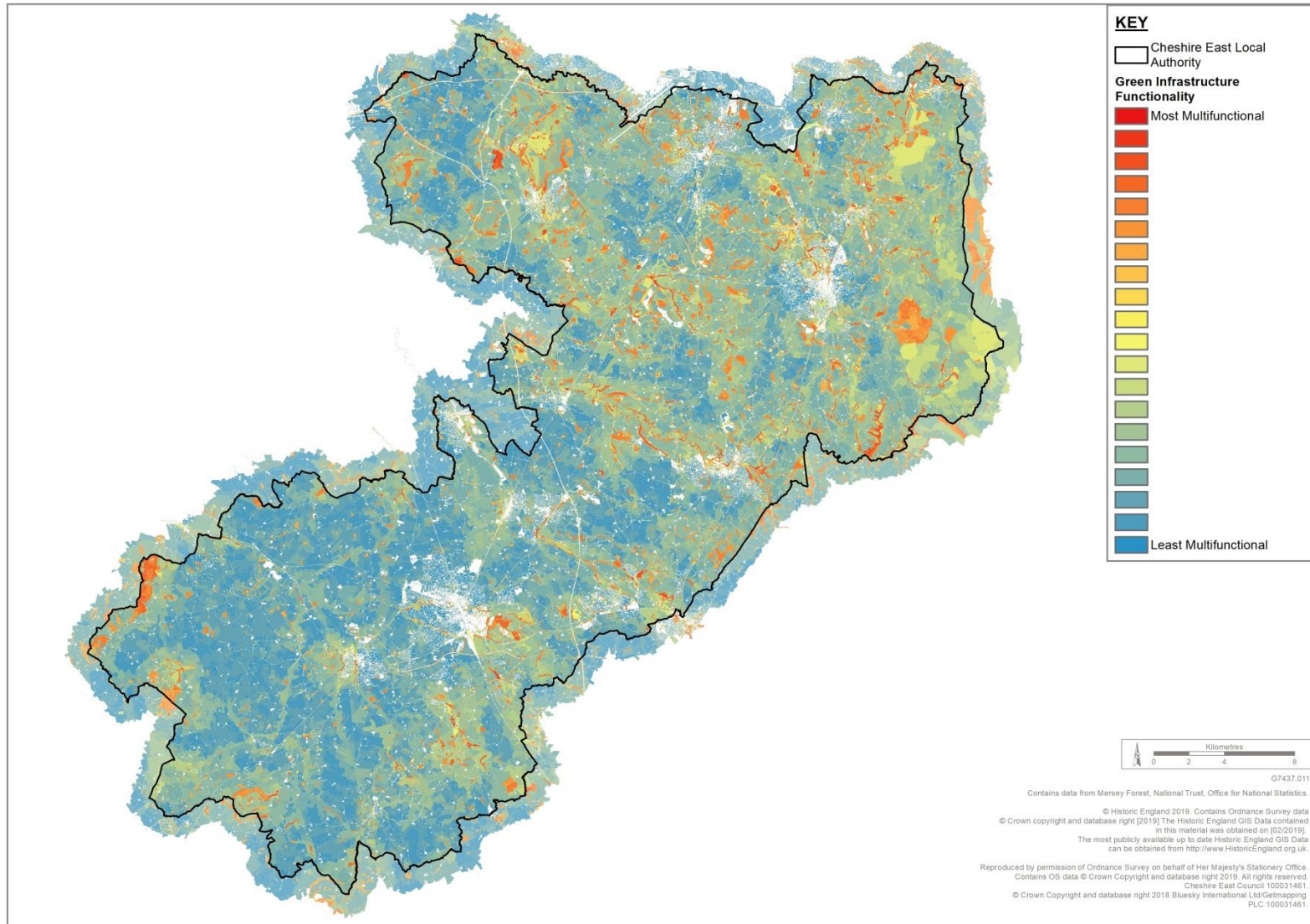


Figure 2: Cheshire East GI Functionality Map

### Quality of Green Infrastructure

The multifunctionality maps show that high functionality is often associated with high environmental quality, for example the high functionality of areas such as the Peak District fringes, Tatton Park, the Bollin Valley and the Sandstone Ridge.

However, low GI functionality does not necessarily mean that land is of low value or quality. Some GI assets may inherently be capable of delivering only a limited number of functions, and yet may be very important to local need and be of significant natural capital value.

A highly-functioning environment is more likely to be widely valued and hence well-managed, but site-based quality assessment would still be required to assess whether particular sites are managed as well as they could be, bearing in mind local needs.

Quality, and its relationship with delivering GI benefits, needs to be addressed at all stages, including design, planning conditions, delivery and long-term management. Even well designed GI will not deliver the full range of benefits unless its long-term management is fully addressed from the outset.

There are various quality assessment techniques and benchmarks applicable to GI, but as yet, there are no nationally adopted GI quality standards at present.

In respect of GI provision and usage, a quality assessment can include benchmarking against England-wide data, particularly if this is available for local authority areas with similar character. Provision and usage measures might include the proportion of the population which falls short of accessible natural greenspace

standards including the proportion of people who regularly engage in outdoor exercise and the proportion of volunteers involved in such spaces.

In respect of the recreation and health-related functions of GI, site based assessment could follow the Green Flag criteria to establish how welcoming a space is for people in terms of visual appearance, standards of maintenance and ease of access.

In respect of biodiversity functions, site based quality assessment could follow the Defra criteria used for Biodiversity Net Gain and for farm environment planning i.e. habitat condition, habitat distinctiveness, connectivity and whether designated sites are under active management.

In respect of water and air quality functions of GI, there is good evidence about where there are ongoing quality failures. , For example, the Environment Agency's assessment of Cheshire's rivers and lakes against Water Framework Directive (WFD) targets shows which waterbodies are failing to achieve their water environment objectives and there are established techniques for assessing land condition and management issues which contribute to failure of these waterbodies against WFD objectives.

It is beyond the scope of this Plan to carry out a borough-wide quality assessment for GI and identify specific quality targets or current shortfalls. Nevertheless, stakeholder consultation has identified projects which tackle known GI quality deficiencies. Natural England is developing national GI standards which will include quality measures. Once published, these could be adopted for use in development planning, alongside other quality-oriented measures such as the Cheshire East Design Guide.



The commitment by the LEP in its Quality of Place Strategy to develop a Natural Capital Plan for the sub-region offers another opportunity to develop measurable approaches to identifying the value of GI. That will offer another aspect of identifying the qualities and benefits inherent in GI and guiding future priorities.

These approaches and standards, along with schemes such as the 'Building with Nature Benchmark'<sup>13</sup>, make it easier for those charged with designing, delivering and maintaining GI to deliver the quality and benefits sought for the long term.

### Setting Priorities for Investment in Green Infrastructure

The aim of the Plan is to set out how and where investment in GI will support strategic themes that help articulate some of the benefits that can be accrued from good GI. This is described in a key diagram that draws together the evidence derived from examining each of the four themes in turn:

- Economy
- Life chances and choices
- Environment
- Connectivity and movement

Appendix A provides evidence about priority areas for investment in GI for each of the above themes and, crucially, where investment will help to deliver improvements.

The prioritisation process, articulated at Appendix A, uses objective spatial analysis, informed by stakeholder consultation, to

identify assets and "pinch points", which help set GI investment priorities.

The concept of assets and pinch points was set out in the Green Infrastructure Assessment of Cheshire East<sup>14</sup> and is illustrated in the matrix diagram. Assets are found where socio-economic or environmental needs and GI functioning overlap, whereas pinch points occur where needs are inadequately met by the existing GI. An area may be an asset or a pinch point in relation to single or multiple issues; and investment is highest priority where there are multiple issues at play i.e. where a GI activity area can deliver multiple public benefits and draw in funding and collaborations from multiple sources.

Investment in existing assets is important to safeguard and enhance their functioning and their quality in the face of population increase, climate change and other pressures. For example, the Bollin and Dean valleys, and the nearby registered parks and gardens, many owned by the National Trust, form a landscape-scale asset which already delivers numerous GI functions that meet local and wider needs for the benefits that GI brings.

Enhancing the accessibility of these landscapes, whilst protecting their biodiversity and resilience to climate change, will help ensure their continued value. This will support Cheshire East's quality of place, economy, environment and the life chances and choices of its residents.

Investment in GI at pinch points is needed because otherwise growth could be unsustainable or peoples' life chances and choices would continue to be unnecessarily constrained.

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<sup>13</sup> [www.buildingwithnature.org.uk](http://www.buildingwithnature.org.uk)

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<sup>14</sup> Green Infrastructure Assessment of Cheshire East (2018 CEC/Mersey Forest)

Pinch points are typically found where existing environmental conditions are poor and/or where significant economic growth is anticipated. For example, some of the inner urban areas of Macclesfield and Crewe have high business densities or relatively deprived communities in areas where GI is absent and/or low-functioning.

Investment to create and enhance GI is necessary to uplift quality of place and value, to enhance public health and physical and mental health wellbeing, bringing long-term benefits to people and business and to contribute to the climate agenda.

The spatial analysis in Appendix A is borough-wide and cannot fully capture local nuances and priorities. Thus when a GI investment is being made, local knowledge will be important in project design to optimise the response to local needs and opportunities.

The prioritisation techniques (detailed at Appendix A) can also be applied at a local level to identify GI projects which may be important in particular areas.

### Key diagram

Cheshire East's strategic GI investment priorities are brought together and articulated on a key diagram (see page 28). This captures the following:

### Clusters of pinch points

Some areas have many "pinch points". Some are economic, some related to life chances and choices, some are environmental and some are related to connectivity and movement. Each "pinch point" has a reference number and is considered in more detail in Part B (from page 32). GI investment

is a priority to tackle multiple needs and to ensure future growth and development is implemented so it addresses existing environmental deficiencies and uplifts quality of place. The GIS analysis at Appendix A allows detailed targeting of particular GI activity areas to specific neighbourhoods or areas of environmental deficit or to areas that will experience major development.

Particular benefit will arise when GI activity areas are combined to tackle multiple issues and draw together partnerships across several sections of the local community.

Urban pinch point clusters are found in and around the principal towns of Macclesfield and Crewe and several key service centres. Rural pinch points are found in some river systems characterised by water quality problems, low tree cover, relatively poor public access and threats of fragmentation from development and infrastructure. The HS2 corridor is also considered as a "pinch point", since it will affect environmental quality and cause severance but also requires good GI provision to ensure it delivers sustainable development and to ensure that its surrounding environment is resilient to future climate change pressures which might threaten the infrastructure itself.

In terms of Manchester Airport any GI proposals will need to take account of the 13km safeguarded zone around the facility. The Airport is able to advise which habitat types are appropriate within that zone.

### Assets and the linkages between them and population centres

The Peak District National Park, the National Trust properties, the canal network, major town and country parks and trails are GI assets of borough-wide importance. Their safeguarding and enhancement in the face of climate change and population growth

is important, as is the need to improve linkages between them and nearby population centres. Where development and subsequent population rise increases the usage of assets and their linkages, such as canal towpaths, enhancement is needed to make sure they are suitable and welcoming assets.

### Landscape and ecological networks

Some river valleys, catchments and landscape tracts are particularly multifunctional and are key parts of the Cheshire Ecological Network, so sensitive land management is critical. For example, the meres and mosses catchment buffer zones are drainage basins which affect the ecological quality and carbon-storage ability of the cluster of Cheshire's meres and mosses.

Some are also linked to urban "pinch points" in respect of life chances and choices and can therefore play an important role in improving quality of life. Examples are the Bollin and Dean Valleys, the Peak District fringe, the Dane Valley and the Sandstone Ridge.

### General priorities

Not all GI priorities can be visually represented through a key diagram. The following are generic priorities that will in some cases be addressed through individual areas of activity shown on the key diagram. Their priorities include:

- **Increasing public engagement with the outdoors through exercise, recreation and education.** Cheshire East Council's Ranger Services, Everybody Sport and Recreation, the Canal & River Trust and the National Trust are among those active in public engagement. This will need to be sustained in the future and be responsive to the predicted growth in population.

- **Increasing tree and woodland cover towards the national average.** Any proposed tree planting requires being responsive to the needs identified in the GI Plan and not conflict with other habitat priorities such as species-rich grassland, heathland or the meres and mosses.
- **Enhancing the whole ecological network.** The Cheshire East Ecological Network<sup>15</sup> promotes the preservation, restoration and recreation of priority habitats and networks through five main components: core areas, corridors and stepping stones, restoration, buffer zones and sustainable land use areas. Appropriately managed and created GI will help to underpin the ecological network.
- **Encouraging soil conservation and carbon-sequestration** by avoiding deep ploughing, reducing tillage, cover cropping and providing buffer strips next to watercourses.
- **Developing planning policy and standards for high quality GI.** The GI Plan identifies areas of need and a number of projects which will enable the Council to draft and adopt effective criteria based policies or supplementary guidance to complement existing plans and strategies. The NPPF currently requires compensatory improvements to GI when areas of land are removed from green belt (this covered in more detail in Part B).
- **Supporting farmers and landowners to respond to change.** This evidence base and framework can assist landowners to adapt to policy, market and climate change. For example there is potential for a policy shift towards new Environmental Land Management Schemes (ELMS) which is intended to provide 'public money for public goods'.

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<sup>15</sup> Cheshire East Ecological Network (2016)

Another priority that cannot be mapped and is not fully addressed by this Plan is the quality of on-going management. Whether existing, enhanced or newly created GI, to be effective in delivering potential GI benefits, the resource must be managed appropriately over the short, medium and long terms. This implies that effective planning policies must be in place to ensure this requirement is effectively and robustly addressed for new developments. It also requires effective management planning, delivery mechanisms and funding to ensure that the existing resource or original investment in new infrastructure realises the intended benefits

# A Green Infrastructure Plan for Cheshire East 2019 to 2030

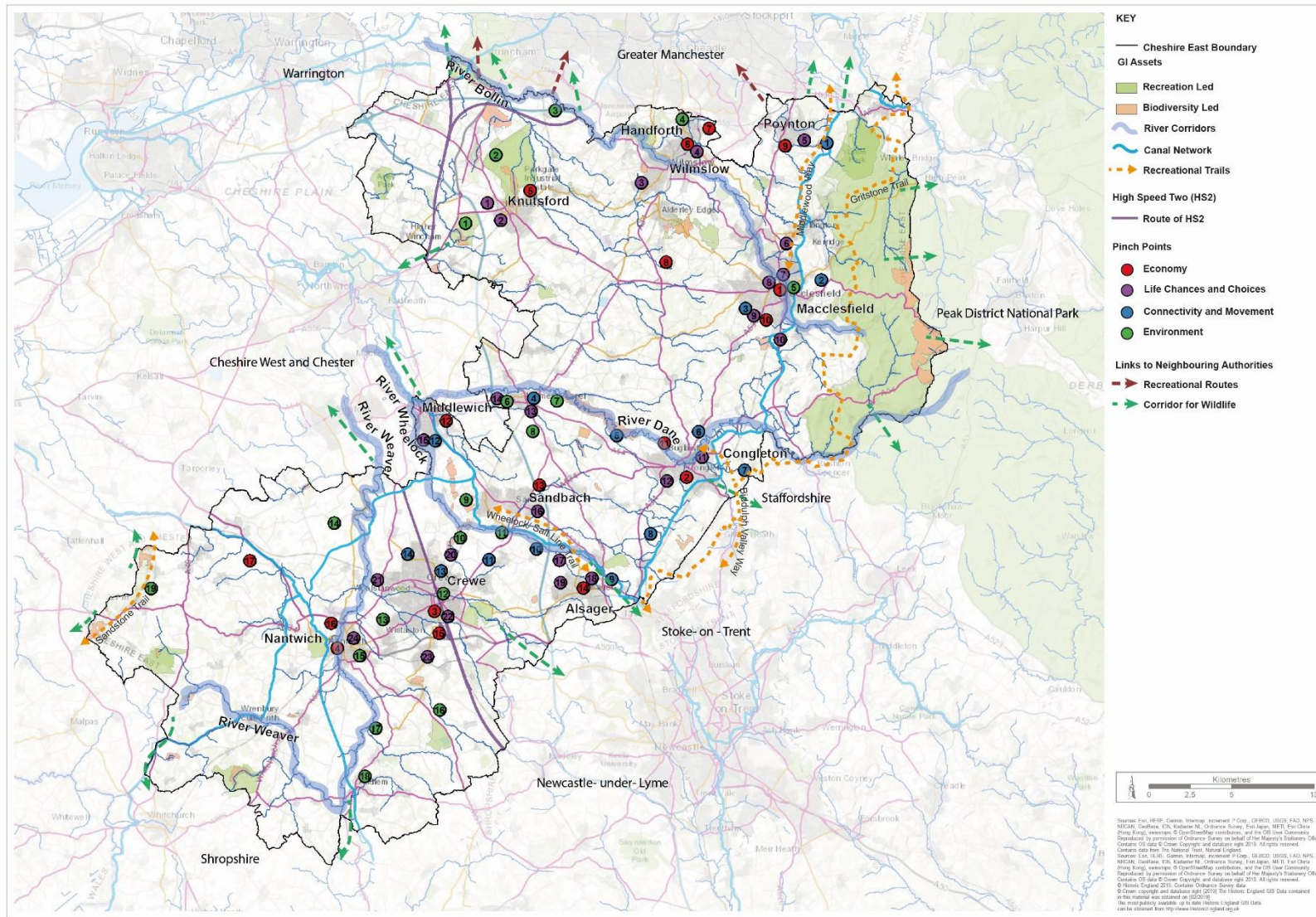


Figure 3: Key Diagram

## 5 GI Activity

The GI Plan has been arranged into nine GI activities, each of which is aligned with particular interest groups.

For example, urban greening projects will generally be planned, designed and implemented by planners, developers, town centre managers, housing providers, town councils and civic society groups. River, waterway and valleys projects will be delivered by the Council, countryside management partnerships, river catchment partnerships, landowners, developers, the Environment Agency and the Canal & River Trust, also working alongside local trusts and volunteers.

It is important to note that certain groups would align with more than one activity, due to the multifunctional nature of GI assets. For example, the Canal & River Trust would align with most of the below activities as canals are potential ecological corridors, conservation areas with many listed structures whilst providing attractive and accessible settings for businesses and opportunities for environmental enhancements and active travel routes.

- **Urban greening** – creating and maintaining vibrant, healthy and inspiring places where people want to live and work.
- **Getting outdoors easily** - engaging people and improving community access to, and enjoyment of, GI for health and wellbeing.
- **Rivers and valleys** – restoring river systems and waterways to their near natural conditions as possible and implementing catchment-wide activity to improve water quality, natural flood management, re-naturalisation and

tranquil enjoyment of watercourses and waterways. Maximising opportunities for access and enjoyment, and protecting the structural integrity of canals.

- **Thriving nature** – creating and safeguarding well-connected networks of habitats across urban and rural landscapes and continuously delivering biodiversity net gain through development and land management.
- **Working alongside major infrastructure** – integrating GI into major new infrastructure projects and retrofitting GI alongside existing infrastructure, especially where this has historically fragmented accessibility or ecological networks.
- **A distinctive place for culture, heritage and tourism** - enhancing the setting of and access to heritage, landscape and outdoor recreational assets.
- **Environments for business** – creating an attractive and accessible setting for centres of employment and economic activity, both in towns and the countryside.
- **Farmland and soils** – enabling land management which conserves and restores soil productivity and improves carbon sequestration.

A ninth GI activity is also required to stimulate a step-change in the delivery of the above eight activities:

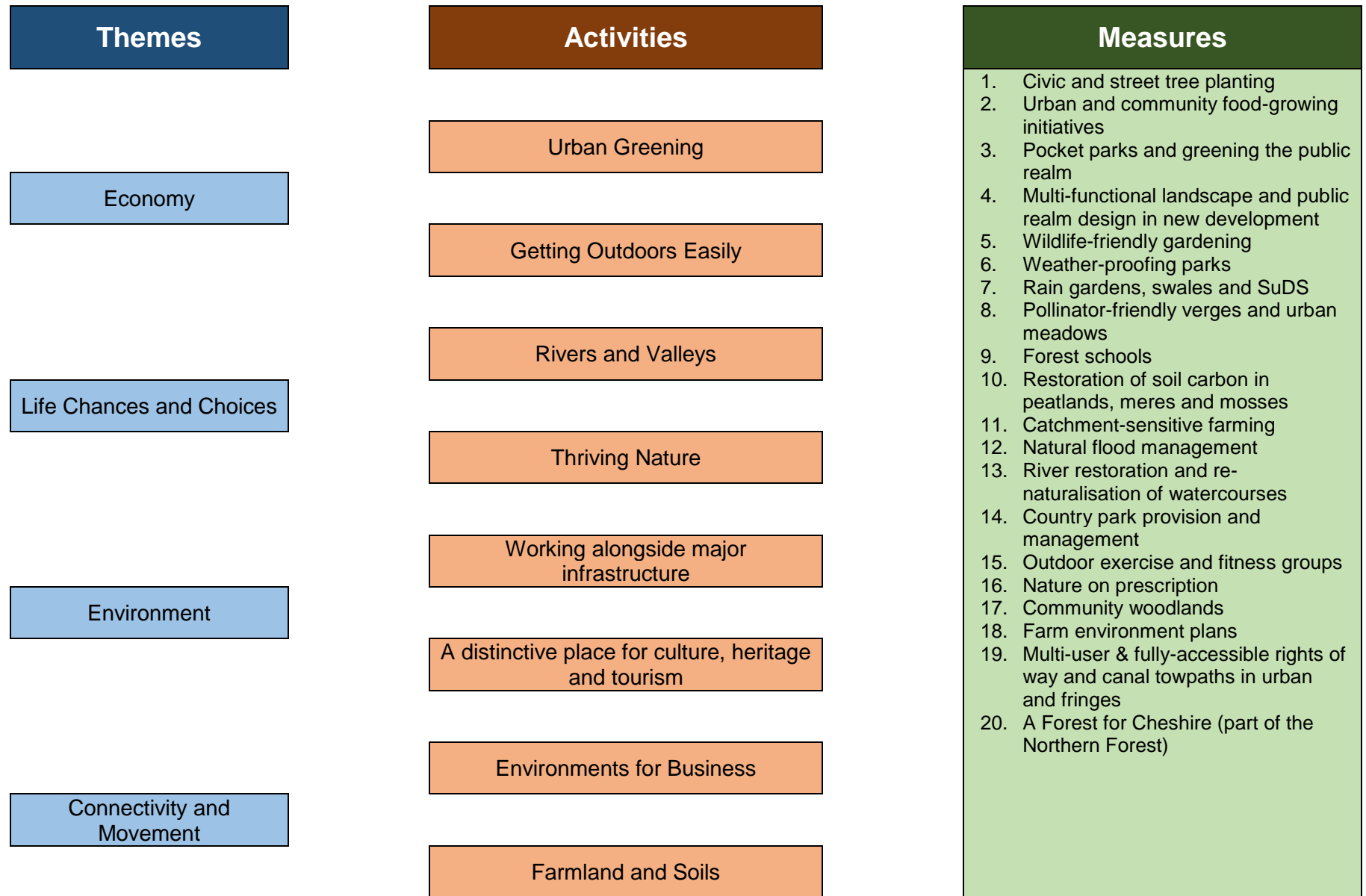
- **Stepping up investment** – creating a diverse stream of investors and funding mechanisms for GI projects.

## A Green Infrastructure Plan for Cheshire East 2019 to 2030

These GI activities relate to the four strategic themes, as shown in the graphic overleaf. On the ground implementation will be through GI measures i.e. capital and revenue projects.

Part B of the Plan discusses which GI activities are most appropriate for the investment priorities.

Part C of the Plan considers how delivery of the Plan, including funding, can be stepped up from the existing levels.





## **Part B: The Plan**

This part of the Plan focuses on the “where” and the “how” aspects of safeguarding, managing and enhancing Cheshire East’s GI.

For each investment priority area, the key issues are summarised from asset and pinch point analysis detailed at Appendix A. The most appropriate GI activities are then described. It must be appreciated that the summary and recommendations are of necessity brief, and that local consultation, detailed analysis and project design is essential before moving to implementation.

This section starts with “landscape-scale” projects in urban fringe and rural areas followed by urban projects in the principal towns and key service centres, as defined in the Cheshire East Local Plan.

### **Landscape Scale Projects**

Management and enhancement of GI in urban fringes, river and lake catchments and rural landscapes is important to Cheshire East’s overall quality of place and environmental resilience.

Appendix A demonstrates that many of the borough’s most important GI assets are in urban fringes and along river valleys.

Environmental “pinch points” relate to catchments with low quality water environments, rivers where flood risk is heightened, and fragmentation of the ecological network by infrastructure.

Connectivity pinch points primarily relate to urban fringes where there is relatively poor access from towns to major GI assets, for

example due to public rights of way and other access routes being constrained or fragmented by infrastructure or difficult topography.

There is an over-arching general vulnerability across Cheshire East to climate change pressures, arising from relatively low tree canopy, the preponderance of soils where carbon-storage is not actively promoted and pressures on the ecological network arising from fragmentation and hydrological change associated with warmer and more extreme weather patterns.

A set of landscape-scale projects have been identified, each of which addresses multiple priorities. Delivery of these projects will require collaboration with many landowners and a step-change in funding for enhancements to the rural environment. However, stakeholder consultation has identified considerable appetite for progress and prospects for drawing in new sources of investment from biodiversity and carbon offsetting and co-investment in catchment-scale water quality improvements.

### **Peak District National Park and Peak Fringe**

The Peak District National Park comprises an upland area at the southern end of the Pennines, and intersects with the north eastern section of Cheshire East. The National Park encompasses areas such as Kettleshulme and Rainow in the north and Wildboarclough and Danebridge in the south. The South West Peak encompasses the part of the National Park that falls within Cheshire East. This section of the Peak District is a diverse upland landscape, with large areas of moorland and blanket bog and wide-ranging areas of farmland. The rivers Bollin, Dane and Dean all have their sources in the South West Peak.

West of the National Park, the Peak Fringe comprises the eastern edges of the urban areas of Macclesfield and Congleton, where

the farming is generally more intensive. Nevertheless, the Peak Fringe is a transitional landscape and is a Local Landscape Designation Area as identified in the Local Plan. The Peak Fringe shares many of the special qualities associated with the National Park and forms a buffer between the urban areas of Macclesfield and Congleton and the National Park.

The South West Peak and Peak Fringe have a strong sense of place formed by the contrast between the upland landscape of the South West Peak and the lowlands of the Cheshire plain to the west. The South West Peak Landscape Partnership is a group of organisations working to restore, protect and improve the landscape. The Partnership has been awarded funding from the Heritage Lottery Project and is working towards maintaining and building the relationship between people and the landscape and restoring key habitats.

The South West Peak has a range of existing GI assets. It is important for recreation and tourism due to the extensive open access areas, dense network of footpaths (connectivity and movement theme), wide-ranging views and a sense of tranquillity. Outdoor recreation in this area is also centred on honeypot sites including National Trust's Lyme Park (economy and environment themes) and Tegg's Nose Country Park, as well as the Gritstone Trail (connectivity and movement theme). The car park at Wildboarclough forms part of a network of small car parks created by the National Park Authority's programme to improve access opportunities. This range of opportunities for leisure and recreational pursuits in turn has social and economic benefits to the surrounding local areas (economy theme). The Peak District Biodiversity Action Plan (2011-2020) outlines actions and opportunities for the South West Peak including small scale projects, focusing on moorland fringes and enhancing woodlands.

Across the Peak District the moorlands are undergoing significant programmes of restoration through the Moors for the Future Partnership, for multiple benefits including carbon capture and storage and rewetting. The objectives of the partnership focus on raising awareness of the value of the moors to encourage responsible use, to protect and conserve the important moorland habitats and developing expertise around sustainable management.

The Peak District National Park authority's Recreation Strategy 'Active in the Outdoors 2010-2020,' identifies Macclesfield as a 'Gateway Town,' a settlement on the periphery of the National Park which can channel visitors or contain local populations who use the National Park as their local green space.

A range of GI assets also lie within the Peak Fringe, many relating to the connectivity and movement strategic theme. The 16km traffic-free Middlewood Way stretches from Macclesfield to Marple, following the length of the former Macclesfield, Bollington and Marple Railway (connectivity and movement). The Middlewood Way is managed by the Countryside Ranger Service and volunteers. From Higher Poynton, footpaths link the route to Lyme Park and Lyme Hall, and there are numerous footpaths linking the Middlewood Way with the Peak District foothills in the east. The Middlewood Way is a significant biodiversity asset.

Macclesfield Forest, close to Macclesfield, Langley and Wildboarclough villages, is partly in the South West Peak and is a significant GI asset in this priority area. The forest is owned by United Utilities and is home to four reservoirs which provide important drinking water resources for Macclesfield and the wider area. The forest is also significant for recreation and biodiversity.

There are connectivity and movement pinch points in the South West Peak involving the sustainable management of access so

that visitor and recreational activities retain a sense of tranquillity, which is a valued asset, whilst biodiversity continues to be managed and protected.

Much of the highest land in the upland part of the South West Peak is covered by deposits of blanket peat. Blanket bogs play a vital role in tackling climate change by absorbing carbon from the atmosphere and storing it in peat. This GI asset requires effective long-term management to sustain and rebuild its carbon stores in the face of a warming climate and recreational pressures.

Development pressures in the Peak Fringe and South West Peak lie mainly within or on the fringes of settlements including Bollington and Macclesfield (ref: 10E). Environmental pinch points include mitigating and adapting to the effects of climate change which will alter the special qualities of the South West Peak and the continued management of species-rich moorland and grassland.

Drawing on the existing assets and pinch points across this landscape scale priority area, a GI Plan can be grouped into the following broad programme activities:

- Getting Outdoors Easily
- Thriving Nature
- A Distinctive Place for Culture, Heritage and Tourism
- Farmland and Soils

#### Getting Outdoors Easily

The South West Peak Partnership, utilising a Heritage Lottery Fund grant, is working to deliver 18 individual projects, working with the local community to build stronger connections with the landscape to encourage stewardship.

Improvements to the Gritstone Trail fall are being delivered under the Twin Trails project, the vision of which recognises the role that high quality recreational routes can play in delivering rural visitor economy and health and wellbeing benefits. Future projects should ensure well-maintained and enhanced connectivity from settlements onto the Gritstone Trail to enable local connectivity and long distance walking.

Future projects should follow the recommendations for enhanced provision for recreation and access, set out in the Peak District National Park Authority's Recreation Strategy 'Active in the Outdoors 2010-2020.' For example the Rights of Way Improvement Plans for the National Park and adjacent areas recognise that the bridleway network is generally more fragmented than the public right of way (PRoW) network available for walkers. Future projects within this landscape priority area could work to create a more integrated network of routes suitable for a range of users, providing cycling and walking connections between the South West Peak and urban areas in the Peak Fringe, such as Macclesfield and Congleton.

Within the 'gateway town' of Macclesfield, future projects could encourage appropriate facilities and information to enable people to sustainably access the nearby National Park. There is currently a limited PRoW network to the east of Macclesfield, representing an opportunity for improvement in the Peak Fringe area.

The National Park Authority is currently reviewing its approach to sustainable transport, looking to promote non-car borne trips while continuing to work closely with its partners to promote the roll out of cycling infrastructure following the National Park Cycling Strategy. Key pinch points are identified within this Plan where improvements could address 'getting outdoors easily', such as addressing the limited sustainable transport links to the east of Macclesfield. It is recognised that promoting linkage to the wider

National Park offers opportunities to maximise the potential health benefits of assets on our doorstep.

Identifying hubs for active recreation across the landscape area, such as Macclesfield Forest can help ensure that investment is targeted at the most appropriate places. Further development of hubs for active recreation can increase peoples' understanding and enjoyment of the landscape. The National Park Authority is seeking to refresh its partnership approach to the area and visitor management around Macclesfield Forest, representing an important opportunity for stakeholder involvement where appropriate.

The Peak Forest Canal runs through Cheshire East for a 3km stretch passing to the north of Disley, running through the landscape to the edge of the Peak District and forming part of the Cheshire Ring. The canal towpath represents an opportunity to encourage active recreation and travel routes given its links to the Macclesfield Canal passing through both urban and more rural areas.

### Thriving Nature

An Ecosystem Approach forms a key principle of the South West Peak Landscape Conservation Area Action Plan (LCAP). Creating resilient landscapes which support fully functioning ecosystems will require a collaborative approach.

One of the largest blocks of woodland in the area are the extensive plantations around the Macclesfield Forest. This Local Wildlife Site (LWS) should be safeguarded and enhanced, for both nature conservation as well as recreational opportunities.

### A Distinctive Place for Culture, Heritage and Tourism

With changes in agricultural practice, key landscape features associated with the historical agricultural land use have fallen into disrepair. In line with the strategy of the LCAP for the South West Peak which includes the protection and management of the distinctive historic character of landscapes, future work in the South West Peak should hope to identify, promote and protect fading heritage features such as barn buildings reflecting the cultural importance of the farming heritage in the area.

The Peak District Sustainable Tourism Strategy endorses an approach of increasing the economic value of tourism in the Peak District by focusing on overnight stays rather than day visits.

### Farmland and Soils

Where farming is more intensive on the fringes of Macclesfield and Congleton, positive engagement with farmers and land managers will be important in delivering landscape benefits.

As blanket bogs in poor condition release more carbon than they absorb, the revegetation and long-term management of peatlands across the South West Peak is vital. Future projects or investment should work alongside the existing 'Moors for the Future partnership' which has to date transformed over 32 sq km of degraded peat.

### **Bollin Riverlands**

This landscape area consists of the Bollin and Upper Goyt catchments as well as the Sinderland Brook in Trafford, including tributaries such as the River Dean and the Birkin Brook. It is a programme of work led by a partnership with the National Trust and the Environment Agency; it covers groundwater, rivers and the land that drains into them, and related species and habitats. It

includes the arc of historic properties and registered parks and gardens that run from Dunham Massey, Tatton Park and Arley Hall in the west, through Alderley Edge to Lyme Park in the east. It encompasses the urban areas of Knutsford, Wilmslow, Handforth, Poynton and Macclesfield. The purpose is to work with partners using an integrated catchment management approach to support delivery of more environmentally sustainable management of land and water. The aim is to deliver river-restoration schemes, improvement in land management practices and water quality and associated habitat enhancement and creation, by targeting issues identified within the Water Framework Directive and which provide 'natural capital' and social benefit.

The area has a long and proud history of GI initiatives, notably the Bollin Valley Partnership, led by Cheshire East Council, BEACON (Bollin Environmental Action and Conservation, led by the Mersey Rivers Trust) and the emerging Riverlands project, led by the National Trust.

This priority area has numerous GI assets across all the strategic themes, notably the National Trust properties (economy, life chances and choices and environment and connectivity and movement), the numerous urban and country parks (life chances and choices), several core biodiversity areas including Rostherne Mere SSSI and Tatton Meres (SSSI), both part of the Meres and Mosses international RAMSAR site, Alderley Edge SSSI (environment) and the Macclesfield Canal (connectivity and movement). The Alderley Edge SSSI is designated for its geological interests, though the beechplantation woodland on the site is not in comparable condition to the geological interests on site, with some woodland in poor condition.

Climate change and population growth pressures mean that safeguarding and enhancement of these assets is critical to

maintaining GI multifunctionality, environmental resilience and quality of place.

The priority area also has several pinch points across all the strategic themes. There are several 'Economy' and 'Life Chances and Choices' themed 'pinch points' in Wilmslow and Handforth (ref. 6E and 4L) and Macclesfield (ref. 7E, 8E and 4E) near to the Rivers Bollin and Dean. These are discussed later in relation to GI priorities for the principal towns and key service centres.

Under the 'environment' theme, tackling a bad water environment in the Birkin Brook and Mobberley Brook catchment, which feeds into the Bollin, is an Environment Agency and United Utilities priority, including measures to reduce point source and diffuse source pollution (ref. 14W). There are also flood risk and poor water environment issues affecting the River Dean.

There are connectivity and movement pinch points at Macclesfield in terms of links from the residential areas to the Peak District (ref. 1C) and in terms of ensuring that new development in south west Macclesfield has access to GI (ref. 2C). Existing road infrastructure introduces severance of easy east-west movement between the arc of historic properties, and this may also be an issue in the future arising from implementation of HS2.

In response, a GI Plan for Bollin Riverlands can be grouped into five broad activities:

- Getting outdoors easily
- Rivers and valleys
- Thriving Nature
- A distinctive place for culture, heritage and tourism
- Farmland and soils

### Getting outdoors easily

The Bollin Valley Way (BVW) follows the course of the River Bollin from the northern edge of Macclesfield town centre to the Manchester Ship Canal, south of Partington. Sections of the BVW have a high level of footfall, usually where the route passes near to towns such as Macclesfield and Wilmslow. More remote sections appear to be less well used and wayfinding and the quality of the footpath surface are variable along some of these sections. The quality of road crossings along the BVW is also variable. Addressing these constraints would enable easier and legible access to the countryside, encourage more people to be active and could relieve pressure on some of the more popular parks and open spaces.

The Middlewood Way and Bollin Valley Way meet at the northern edge of Macclesfield town centre. These two routes are established and there would be longer term opportunities to form a continuous circuit by the creation of a 'Dean Valley Way' following the River Dean from the confluence with the River Bollin west of Wilmslow north through Stanneylands and then east towards the Middlewood Way allowing increased access to Handforth Station for residential areas along the route. This potential 'Dean Valley Way' would be particularly accessible for residents of Wilmslow, Stanneylands, Handforth and Handforth Garden Village.

The National Trust is seeking to open its estate to a broader demographic including children and young people so that they can enjoy the GI environment for outdoor play and learning. The National Trust is also keen to reach out to adults who would not usually visit their estate but might benefit from outdoor recreation for enjoyment or as part of social prescribing for health and wellbeing.

### Rivers and Valleys

The River Bollin is one of the earliest River Valley partnership approaches in the country to managing GI. The local authorities and other organisations have experience in delivery of a river valley and landscape style approach to area management.

The National Trust Riverlands project works at a catchment scale aiming with the aim of improving water quality and enabling river restoration working alongside natural flood management and habitat creation approaches.

The aim of the rivers and valleys activity area is to restore river systems to their best feasible ecological status, while also implementing catchment-wide activity to improve water quality and river ecology, natural flood management and tranquil enjoyment of watercourses and waterways.

The natural flood management approach seeks to re-engage the river with the floodplain and there are specific proposals to do this with the River Bollin along the northern Cheshire East boundary at Dunham Massey and also in a landscape scale area around Wilmslow including Quarry Bank, the Dean Valley, the Carrs upstream to Wilmslow Weir. Smaller interventions to other watercourses in the Bollin catchment include re-profiling of river banks, tree planting, 'slow the flow' initiatives and pond and habitat creation.

The Council assessed the opportunities for land in their ownership along the River Dean corridor to the north western fringes of Wilmslow. The land currently is in agricultural use, has a varied topography and includes a network of wooded corridors but has limited public access. Another factor is the low lying agricultural land next to the river which is prone to flooding. The Council's study concluded that while the primary use of land should remain

as agriculture it should be managed in a more environmentally friendly way. Working with farmers and landowners on the lowest ground will be essential to ensure that the natural floodplain can be reintroduced and a riparian habitat for wildlife, whilst maintaining productivity for farmers. Productive farming and biodiversity net gain can co-exist by adopting a balanced, co-operative approach which focuses the right actions in the right place.

Access provision would be enhanced by this section of the potential “Dean Valley Way” and a network of permissive routes and opportunities for education and community involvement.

Water quality problems in the Bollin catchment, particularly in Birkin Brook and Mobberley Brook, impact of development and discharge from Waste Water Treatment Works, could be addressed to a significant degree through catchment-sensitive farming, although this would only be effective in reducing sediment and chemical run-off from land into watercourses if it was delivered at landscape scale, with the majority of landowners engaged. If this could be achieved, the ecosystem benefits would be wider than just water quality improvements; biodiversity and carbon-storage would also increase.

Given the Bollin Valley’s long history of collaboration on environmental projects and the leadership of major organisations such as Cheshire East Council, United Utilities, the Environment Agency and the National Trust, there is a potential opportunity for a catchment-centred co-investment plan which achieves water and ecological quality improvements required by the Environment Agency and United Utilities through incentivising landowners and tenant farmers to engage in catchment-sensitive farming.

As mentioned earlier, waterways fall under the “Rivers and Valleys” theme. The Bollin Riverlands landscape area is crossed by the canal network including the Macclesfield Canal in the east

and the Trent and Mersey Canal in the west, both followed by the Cheshire Ring Canal Walk. Enhancing and improving GI along the length of the canals in the Bollin Riverlands will have benefits spanning a range of priority themes such as enhancing biodiversity and waterside habitats, enhancing character and heritage of the canal network and providing attractive sustainable transport links. For example, the Macclesfield Canal was built in 1831 from locally quarried materials and contains 112 Listed Structures along its length<sup>16</sup>. Using GI to make our heritage assets more attractive, and improve the landscapes in their settings, can preserve their features for years to come. The Canal is also of primary importance for its role as an interconnected wildlife corridor through what is primarily a developed farming landscape. As supported by the Canal and Rivers Trust, soft bank protection along the length of canals should be prioritised where suitable to the location, to support species such as water voles, and providing breeding habitats for other species.

### Thriving Nature

In spatial terms, 62% of the non-agriculture GI in the borough is north of the River Dane, falling within the Bollin Riverlands landscape area. The growing demand for housing and associated infrastructure creates pressure on wildlife and biodiversity, with it becoming increasingly important to ensure habitats and wildlife corridors remain connected.

Significant development pressures in the Bollin Riverlands area, including major infrastructure projects already planned such as HS2, upgrade of the M56 present opportunities as well as

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<sup>16</sup> Canal and Rivers Trust (2017) Macclesfield Canal Green Flag Management Plan

challenges for planning to increase biodiversity, providing well-connected habitats and wildlife corridors.

Low GI cover in Handforth could be combatted through a street tree planting programme and urban greening projects (see later details for Handforth). There are many high functioning areas in terms of biodiversity in the area, with many of the National Trust estates, and sections of the many brooks in the area performing multiple functions beneficial to biodiversity including habitat. Many of the high functioning sites are disconnected by infrastructure such as the M56; linking these areas through wildlife corridors would reduce habitat fragmentation, increase food resources and reconnect fragmented and isolated populations.

The National Trust's Tatton Park is home to a rich variety of biodiversity, thriving in the 500 acres of woodland on the site, in its Park grassland and its Meres. There may be potential to achieve further parkland restoration would include the restoration on tenanted farmland with the benefit of habitat enhancement for wider GI benefits such as carbon capture, soils, water quality and health and wellbeing. Outreach through nature trails and educational events, building on the existing community engagement programme will also increase stewardship in this area.

Dunham Massey, in neighbouring Trafford, to the north of Tatton Park is subject to development pressures from the north, with approximately 11,000 new homes proposed in the area. Cross-border dialogue with Trafford will be necessary to ensure existing wildlife corridors are not fragmented, and instead contribute to a thriving network of biodiversity. The Riverlands project is also developing proposals to re-naturalise sections of the Sinderland Brook which to a large degree forms the boundary between NT property and development sites.

Riverlands is also proposing a partnership approach to interventions along the River Bollin corridor between the Carrs in Wilmslow and Quarry Bank Estate, where there is potential to improve riparian habitat which will also have wider landscape scale benefits such as flood plain restoration, filtration and carbon storage.

The Thriving Nature activity area must closely accompany the Rivers and Valleys activity area for the Bollin Riverlands landscape area, in order to ensure that the River Bollin and its tributaries are rich in wildlife, healthy and clean. Engagement with farmers for floodplain restoration, and habitat creation is essential in the Bollin Riverlands to create a wider understanding of diffuse water pollution and improved habitats and the restoration of flood plains.

#### A distinctive place for culture, heritage and tourism

The distinctiveness of the River Bollin valley is captured in the Cheshire East Landscape Character Assessment<sup>17</sup> where it highlights the valued landscape features of the River Valley landscape character type. These include: the steeply enclosed valley slopes often occupied by dense woodland; the semi-natural habitats including wetland grassland and meadow; remnant historic field pattern delineated by hedgerows; the valued location of the river valley for recreation and tranquil refuge from urban areas; funnelled views along valleys with occasional glimpses towards Pennine uplands and a strong sense of enclosure due to topography and woodland.

Beyond the River Valley landscape character type, the landscape is characterised by a broadly undulating landscape containing

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<sup>17</sup> Cheshire East Landscape Character Assessment (2018), LUC



focal points of wooded backdrops and locally varied topography. There are a number of historic estates with undulating land, mature trees and distinctive pastoral and parkland character.

### Farmland and soils

A partnership led by the National Trust is encouraging farmers in Riverlands to consider how their practices impact on water quality and ecology. Farmers are being encouraged to engage in agri-environment schemes and to curtail their livestock's access to watercourses through buffer strips and where appropriate fencing.

As discussed under "Rivers and Valleys", this activity area could form the embryo for a catchment-wide approach to soil conservation and water quality improvement with consequent benefits to biodiversity

The carbon-storage properties of peatlands, meres and mosses are relevant to this priority area, with soil conservation measures such as reducing tillage, re-wetting and drain-blocking being feasible.

The potential for some "re-wilding" of areas of relatively marginal farmland could be explored, particularly if this was aligned to biodiversity net gain projects arising from development in the Riverlands project, as it could bring water quality and biodiversity benefits as well as soil conservation.

### **Wade and Smoker Brooks**

The Core Biodiversity Area is focused around the Wade and Smoker Brooks, both tributaries of the River Weaver. The Wade runs north east of Northwich and south of Lostock Gralam, within the Cheshire West and Chester Council's administrative boundary. The Smoker Brook runs north west of Plumley, within

Cheshire East. The cross border link within this opportunity area represents an important opportunity for landscape scale, cross border management with the neighbouring authority and Northwich population for wider scale benefits.

This landscape scale area suffers poor water quality due to high sediment loads and nutrients which are present in fertilisers, manure and domestic sewage (ref: 1E). These pollutants not only affect water quality, but also impact negatively on local biodiversity.

The Smoker Brook's banks are heavily wooded, comprising the Smoker Wood, linking to Leonard's Wood. The Smoker Brook in particular has a declining fish population owing to the poor water quality. This contrasts with Tabley Mere which lies west of Smoker Brook, and is designated as a SSSI, nationally recognised for its aquatic biodiversity. Mapping shows a connectivity and movement pinch point around Higher Wincham, where there is less access to public rights of way than the surrounding area.

In response to the key characteristics of the landscape area, the GI Plan for the Wade and Smoker Brooks can be grouped under the following activities:

- Thriving Nature
- Rivers and Valleys
- Farmland and Soils
- Getting Outdoors Easily

### Thriving Nature

The Wade and Smoker Brook is identified as a Biodiversity Opportunity Area, where habitat restoration can be most

beneficial. Ashton's and Neumann's Flashes in Wincham are on the border with Cheshire West and Chester, so cross border dialogue for sustainable use and management is important. The Flashes form part of the Northwich Woodlands, a reclaimed area with an industrial heritage; the unique site allows many species to thrive.

### Rivers and Valleys

The importance of landscape scale river management is highlighted in this landscape area, in order to reap the benefits both in Cheshire East and Cheshire West. Re-engaging the river with the wider landscape along the Wade and Smoker Brooks and their tributaries can provide multiple benefits for biodiversity, economy and quality of life.

For example, where it flows north east of Northwich around Marbury Country Park, the area surrounding Wade Brook has a high probability of flooding. Re-naturalising the wider landscape area comprising the catchments of the Wade and Smoker Brooks and reconnecting watercourses to the flood plain can help to reduce flood risk and bring water quality and ecological benefits.

### Farmlands and Soils

Poor water quality from farming practices in this landscape area can be tackled through landscape scale interventions into farming practices and land use including maintaining buffer strips near watercourses and cover cropping. Wetland conservation and restoration around the Flashes for example can contribute to wider water quality benefits across the administrative border.

### Getting Outdoors Easily

There is an opportunity to increase connectivity around the Higher Wincham area to enable the sustainable movement of people from settlement to countryside. There is noticeable lack of public rights of way and cycle routes in this area, which could be rectified through working with landowners to provide routes which are legible and yet take advantage of green and blue spaces such as Tabley Mere, the network of brooks in the landscape area and the Plumley Lime Beds Nature Reserve.

### **Dane Valley and the Southern Peak Fringe**

The River Dane, a meandering tributary of the River Weaver, flows from its source in the Peak District, north-west through the southern fringes of the Peak District, through Congleton and close to Holmes Chapel, before joining the Weaver near Northwich. The Southern Peak Fringe comprises the town of Congleton as well as smaller settlements such as Bosley, North Road and Oakgrove.

The Upper Dane extends from Congleton to Holmes Chapel, meandering through a well defined valley. The valley floor is devoted to pasture land and much of this section of the river is inaccessible to walkers. Large expanses of linear woodlands follow contours on both sides of the valley; a significant area of the woodland throughout the Dane Valley is ancient woodland.

The Lower Dane, from Holmes Chapel to Northwich, is a very gently rolling, low-lying landscape. Transport is a key feature of the river valley, with key crossing points over the River Dane in a number of places including the M6 to the west of Holmes Chapel and the A53 at Middlewich.

In Holmes Chapel and Middlewich, typology mapping has shown particularly poor access to green spaces over 20 ha (ref: 4C, 12C). 'Life chances and choices' pinch points in the landscape area include poor mental health in Holmes Chapel (ref: 13L) and

high levels of deprivation concentrated in Middlewich town centre (ref: 13L). Opportunities for recreation in the Dane Valley should be considered to help address some of these issues. A high risk of air pollution in Holmes Chapel (ref: 14L) results from the town's close proximity to the M6 and multiple other converging A roads. This can be addressed partly through tree planting schemes near to the road infrastructure.

The lower reaches of the River Dane run to the north of Middlewich which lies in the Dane Valley. Middlewich, a Key Service Centre within Cheshire East, is subject to multiple development pressures. In particular a large area is designated for employment use to the east of the railway line, linking to the future Middlewich eastern bypass. Other housing sites are proposed to the south of the borough (ref: 12E), all representing opportunities to integrate GI for improved quality of life and biodiversity enhancements.

The Trent and Mersey Canal enters the Dane Valley at Middlewich, with a strong presence as it passes through a relatively open landscape into Cheshire West and Chester. The Cheshire Ring Canal Walk follows the Trent and Mersey Canal towpath, representing a key asset for delivering benefits of human interaction with blue infrastructure.

The Dane Valley Way extends from the Pavilion Gardens in Buxton to the confluence of the River Dane with the River Weaver at Northwich and represents a key connectivity and movement asset within the landscape. The Dane Valley Way links with the Gritstone Trail and the Cheshire Ring Canal Walk, representing a key GI connectivity asset, which must be maintained. Biodiversity assets in the landscape area include the Local Wildlife Site either side of Davenham Road. From Holmes Chapel through Congleton to the boundary of the Peak District National Park the river valley is designated as a Local Wildlife Site, the

longest in Cheshire. A section of the Dane to the east of Holmes Chapel is designated as the River Dane SSSI, important for its meanders, terraces and wildlife value. To the north of Davenport, a 700m stretch of the Dane SSSI is in unfavourable condition.

One of the largest areas of lowland heath in the county is located on Bosley Cloud, managed by the National Trust and supporting a wide range of specialist and nationally rare flora and fauna. This important biodiversity asset extends in patches southwards from the Cloud and along Congleton Edge; however most of the patches are no longer grazed or managed and are succeeding to woodland, threatening the long term survival of the heathland specialist species in this area.

Congleton Moss was once one of the largest peatlands in the region, supporting a range of biodiversity. However, the habitat has seen severe degradation in the past decade and only a remaining fragment is now designated as a Local Wildlife Site.

In response to the key characteristics of the landscape area, the GI Plan for the Dane Valley and Southern Peak Fringe can be grouped under the following activities:

- Rivers and Valleys
- Thriving Nature
- Environments for Business
- Farmland and Soils
- Getting Outdoors Easily

#### Rivers and Valleys

Most of the Dane river corridor lies in Flood Zone 3, an area at high risk of flooding, including the corridor as it passes through Congleton. GI interventions upstream of Congleton along this corridor should include 'slow the flow' measures to mitigate the impacts of flooding downstream.

The generally good re-wilding of the River Dane can be maintained through continued engagement with farmers and landowners over best practices, for catchment-wide management to aim to get the River to as near natural conditions as possible.

The Dane Valley and Southern Peak Fringe is crossed by the Macclesfield Canal in the east and the Trent and Mersey Canal to the west. There are opportunities for enhancing and improving GI along the length of the canals and this is presented in more detail at page 37.

### Thriving Nature

The woodland to the east and north-east of Congleton comprises high quality ancient woodland. The designated Clough woodlands including Madams Wood SSSI and several Local Wildlife Sites including large tracts along the River Dane require enhancement. Areas of ancient woodland can also be linked by wildlife corridors for wider benefits. The Dane Valley woodlands are also identified as a priority for positive action by the RSPB and the Forestry Commission. The management of the woodlands should involve local people, particularly school children, to widen community understanding and involvement in the importance of their conservation.

At Congleton Moss, the peatland flora and fauna have now largely disappeared as the habitat has dried out and trees have encroached. Peatlands are an important asset for carbon sequestration, and a priority in this area must be the restoration of the landscape for both climate change and biodiversity objectives.

Cheshire Wildlife Trust identifies three areas around Congleton – the River Dane corridor, woodlands at Bath Vale, Dane-in-Shaw and Timbersbook and the ridge between Congleton and Bosley Cloud - which require more integrated ecological connections to

ensure they retain their wildlife value in the long term, and increase resilience to environmental change. Weak spots include the culverted sections of the Dane through Congleton and the weir at Mill House Havannah, both restricting ecological connections.

The improvement of wildlife corridors is a key component for providing connectivity between areas of high wildlife value enabling species to move between them to feed, migrate or reproduce.

### Getting Outdoors Easily

There is opportunity to improve sustainable public access between Congleton and Holmes Chapel along the River Dane, where currently access is limited.

Increasing connectivity to heritage and GI assets from the Trent and Mersey Canal is an opportunity to encourage users to engage in the wider environmental setting. Signposting and well-maintained paths to such assets is an approach to achieving this as well as community-led projects.

The town of Congleton, in the Southern Peak Fringe, is in close proximity to the Peak District National Park. Development of well-maintained, signposted and sustainable travel routes to reach Bosley Cloud and beyond, to the National Park, is a chance to encourage residents and visitors to immerse themselves in a larger scale landscape and become involved in many of the learning opportunities available.

### Environments for Business

The proposed delivery of 70 hectares of employment land (Site LPS 44 in the Cheshire East Local Plan) to the east of Middlewich

must ensure the effective integration of GI into future development. Features such as rain gardens, street trees, green walls and roofs, and open spaces can all contribute to a green public realm within the future development. The River Croco, which runs to the north of the allocated site must be safeguarded with effective ecological mitigation. With accessibility to large areas of urban green space currently a pinch point in Middlewich (ref: 12C), the strategic employment site is an opportunity to also provide wider community and environmental benefits, providing open green space with wider cycle and footpath connections.

## River Wheelock

The River Wheelock drains water from land between Sandbach and Crewe, flowing north to join the River Dane at Middlewich. The landform of the River Wheelock and its catchment is more incised than the surrounding Cheshire plain. There are linear bands of deciduous vegetation along the riverbank and its tributaries. Vegetated drainage channels along the Wheelock are of nature conservation value and some areas of the Wheelock's banks are designated as Local Wildlife Sites.

A large proportion of the pinch points along the River Wheelock are concentrated around Middlewich. There are high levels of deprivation (ref: 15L) in the centre of Middlewich and allocated sites within the Local Plan adjoining the River Wheelock (ref: E12) present development pressures; both present opportunities to link green and blue infrastructure sensitively within development for health and wellbeing benefits.

The Wheelock crosses a landscape where there are several connectivity and movement pinch points. For example, overcoming poor connectivity between Sandbach and Crewe (ref: 11C) and over the Wheelock bypass (ref: 10C) could both

incorporate the Wheelock valley to encourage interaction with blue infrastructure.

The Trent and Mersey Canal runs parallel to the Wheelock through much of its length, which is an important tourism and recreational resource. The canal is designated as a Conservation Area, an important feature being its cultural and heritage assets.

The farmed pasture along the Wheelock Valley is generally of poor GI value. The catchment of the Wheelock waterbody and Hassall Brook represents a pinch point (ref: 9E) due to poor water quality, with better management presenting an opportunity for wider landscape scale benefits.

In response to the key characteristics of the landscape area, the GI Plan for the Dane Valley and Southern Peak Fringe can be grouped under the following activities:

- Rivers and Valleys
- Thriving Nature
- Farmland and Soils

### Rivers and Valleys

Better management of the farmed pasture along the River Wheelock would comprise catchment sensitive farming to deliver reduced water pollution and biodiversity benefits. Overall economic benefits would save farmers money by planning more carefully for pesticides, for example. Working across landscape areas, including the adjacent Bollin Riverlands can help to tackle the numerous, individual sources across the landscape for more integrated benefits.

### Thriving Nature

The Sandbach Flashes, designated as a SSSI, lie adjacent to the source of the River Wheelock comprising Elton Flashes, Watch

Lane Flash and the Moat Nature Reserves. The Flashes comprise rare saline habitats, which require continued effective management. The Flashes offer a large water storage potential, therefore with the ability to contribute to storm water management.

Connected wildlife corridors along the River Wheelock can overcome habitat fragmentation as well as contributing to slowing the flow downstream where the river meets Middlewich. Re-naturalising the Wheelock around Middlewich can help to mimic natural water management. Trees and SuDS can contribute to the interception of rainfall, allow for infiltration and store water temporarily during times of increased rainfall.

### Farmlands and Soils

Soils are an important carbon stock, and through farming practices we can actively increase their role as a carbon store. The farmed pasture along the Wheelock is an ideal place to encourage such practices. Some practices relate to farm management practices such as reduced tillage, improved crop rotations and improved fertiliser application. Other practices concern farmland vegetation; the management of buffer strips, existing hedgerows and habitat restoration can all contribute to soil potential as a carbon store, whilst also having significant benefits for wildlife and water quality.

### **Weaver Valley**

From its source in Cheshire West and Chester, just south of Peckforton Castle, the River Weaver flows for 80km, initially it takes a south westerly course towards the border with Shropshire before flowing approximately northwards across the Cheshire plain. The lower reaches of the River Weaver flow through

Cheshire West and Chester, crossing the administrative boundary at Lea Green. There was a proposal to create a Weaver Valley Regional Park along the River weaver from Frodsham to Audlem, encompassing Middlewich Sandbach and Crewe.

Nantwich is the first significant town along the River's course. The Nantwich Riverside Walk runs on both sides of the River Weaver through Nantwich representing a key GI asset to the town. Housing and employment allocations in Nantwich represent a pinch point in this area, as well as an opportunity to provide linkages to GI assets and the river corridor through green corridors and sustainable transport links. Other housing and employment allocations in the Weaver Valley, creating pressures and opportunities for the effective integration of GI are located on the urban fringes of Crewe and Sandbach (economy, environment) (ref: 13E, 15E, 16E).

Across the Weaver Valley, 900 homes are in Flood Zone 2 and 3000 homes are within 100m of it (Mersey Forest, 2017)<sup>18</sup>. The River Weaver flows west of the Nantwich town centre. The southern outskirts of Nantwich in particular have been subject to multiple flooding events, leaving some urban areas submerged as a result of the River Weaver overtopping its banks.

Crewe lies in the west of the Weaver Valley, the River Weaver passing approximately 1km to the east of Crewe's settlement edge at its nearest point. There is a lack of GI in central and east Crewe as well as between north Nantwich and south of Crewe.

The River Weaver Core Biodiversity Area is a key asset for wildlife; the Core Biodiversity Area represents a framework to conserve and enhance biodiversity at a landscape scale.

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<sup>18</sup> [https://www.merseyforest.org.uk/Report\\_to\\_Natural\\_England.pdf](https://www.merseyforest.org.uk/Report_to_Natural_England.pdf)

Outdoor pursuits are popular on the River Weaver including fishing, though opportunities for accessing the river's edge are more limited in parts. A key connectivity and movement asset in the Weaver Valley is the Crewe and Nantwich Circular Walk, which connects the towns and villages surrounding the two towns, and taking in the Sandbach Flashes Wetlands, designated as an SSSI. The Flashes is nationally recognised for its wildlife and provides an important water store and flood management mechanism.

The Shropshire Union Canal crosses the Weaver Valley landscape area north of Crewe, providing recreational opportunities. The Crewe and Nantwich Circular Walk takes users onto the Shropshire Union Canal towpath for a short distance.

There are many areas of high business density within the Weaver Valley landscape area, including central Nantwich and central Crewe including the 67 acre Crewe Business Park. Although there are exceptions, areas of high business density in Crewe and Nantwich are generally associated with low GI coverage, representing pinch points in the Weaver Valley (ref: 3E, 4E). Effective planning for GI can have a wide range of social and health benefits for employees in these areas as well as reducing the 'urban heat island' effect and providing shading.

Life chances and choices pinch points across the Weaver Valley include Crewe, where there is a high risk of poor mental health (ref: 21L) alongside high levels of deprivation (ref: 20L) and poor access to green space (ref: 22L). Sandbach has a high prevalence of air pollution (ref: 16L) particularly around a number of properties at the junction of A534 and A5022 and a stretch of Middlewich Road through the town centre, both designated as Air Quality Management Areas (AQMAs). Poor levels of mental health in Nantwich (ref: 24L) represent a pinch point, where

opportunities for increasing interaction with the natural environment present themselves.

Despite access to many long distance trails within the valley, there are some specific areas where connectivity and movement is more of a priority for enhancement. For example, to the north west, north east and south of Crewe, there is a more limited network of public rights of way (ref: 13C, 14C).

The River Weaver runs through the largely rural Weaver Gowy river catchment. The Weaver Gowy Catchment Partnership unites relevant organisations across Cheshire to deliver catchment scale projects to build the blue economy in line with local policy and the UK's 25 Year Environment Plan. The vision of the Weaver Gowy Catchment Partnership approach is for *'all water bodies of the Weaver Gowy catchment to be clean and healthy, supporting abundant wildlife, valued by people and enabling sustainable economic growth.'*

In response to the above, the GI Plan for the Weaver Valley can be grouped under the following activities:

- Rivers and Valleys
- Thriving Nature
- Working Alongside Infrastructure

### Rivers and Valleys

Natural flood management techniques to slow the flow on the Weavers approach into Nantwich, will reduce the prevalence of flood events. Land management practices on the agricultural land outside of the urban area form part of the Weaver Gowy Catchment partnership approach, and can mitigate flooding downstream and improve the ecological quality of the river. Interventions such as buffer strips, better soil management and

planting farm woodland can all contribute to this approach. The partnership can provide a platform for engagement with farmers and landowners, as well as the support needed to implement such measures.

The Weaver Valley is crossed by the Shropshire Union Canal (Main Line) in the south and the Shropshire Union Canal (Middlewich Branch) to the north west of Crewe. There are opportunities for enhancing and improving GI along the length of the canals and this is presented in more detail at page 37.

### Thriving Nature

It is important that as part of future development, the river corridor is safeguarded and enhanced. Woodland planting, catchment-sensitive farming and addressing point source pollution can all contribute to improved water quality along the river.

To preserve and enhance an existing ecological asset in the valley, the management and restoration of Sandbach Flashes must involve mechanisms to ensure that hydrological connections with the Sandbach Flashes do not have an adverse impact on the fine balance of the ecology.

### Working alongside infrastructure

HS2 is planned to be routed through the Weaver Valley catchment area, north of Crewe. A number of the aims of HS2, including environmental change, resilience, contributing to good design and promoting healthy communities, relate to GI concepts and therefore this offers an opportunity to integrate GI for maximum benefits, while mitigating against loss.

Planning for GI along the HS2 route in the Weaver Valley, in Crewe and beyond can contribute to high quality networks of multifunctional GI, contributing to habitat creation while mitigating against detrimental impacts.

New developments on the outskirts of Crewe include Leighton West, Basford East and West and South Cheshire Growth Village are likely to come forward in the time frame of this plan. Additional sites are allocated on the settlement fringes of Sandbach and Nantwich. New developments should include tree planting, greenspaces, and safe, secure pedestrian and cycle routes integrated into the development proposal, whilst connected to the surrounding GI and road network.

There is opportunity to increase cycle connectivity between Crewe and Sandbach, drawing on and connecting to existing assets such as the Wheelock Rail Trail and Salt Line, and integrating existing GI assets into such a network including the Sandbach Flashes. The route is important for recreation and employment opportunities, drawing residents into Crewe town centre with a range of consequent economic benefits.

### **Sandstone Ridge**

The Sandstone Ridge straddles the border between the administrative areas of Cheshire East and Cheshire West and Chester, covering a total of 220 sq km. It runs for 30km between Frodsham and Helsby in the north to Malpas in the south. The south western extent of the Sandstone Ridge lies along the south eastern boundary of Cheshire East, encompassing the settlements north of Malpas such as Egerton Green, Bickerton, Peckforton and Spurstow.



The Sandstone Ridge is essentially rural in character and encompasses an area of complex rolling hills and sandstone escarpments.

The wider area is home to numerous GI assets, covering several strategic themes including the meres and mosses of the north-west Midlands (environment) which lie adjacent to the ridge and form a geographically discrete series of nationally and internationally important lowland open water and peatland sites, supporting extensive plants and species.

Also falling under the environment strategic theme, large areas of lowland heath survive at Bickerton Hill, designated as Raw Head SSSI. An Iron Age fort and Scheduled Monument of national importance, Maiden Castle, lies at the highest point of the hill, representing a significant heritage asset for the landscape area. Bickerton Hill is also designated for its Triassic environment and neighbouring Bulkley Hill is a local SBI for its woodland interest. The River Weaver rises in the Peckforton Hills which form the local watershed. The Weaver and Gowy rise within 500m of each other just south of Peckforton Village on the plain at the foot of the ridge. Peckforton Woods SSSI retains the largest tract of sessile oak in Cheshire, and is one of the largest wooded areas of the Sandstone Ridge itself.

Mersey Forest's ongoing work across the ridge in the neighbouring administrative area of Cheshire West and Chester involves planting a network of new community woodlands, is further strengthening the character of the Sandstone Ridge.

Under the connectivity and movement strategic theme, the Sandstone Trail begins in Whitchurch and stretches to Frodsham in the north, forming a GI asset. The national long-distance footpath follows the higher ground and provides elevated views across the ridge and beyond. There are four million people who live within 20 miles of the ridge as a whole, highlighting great

potential to increase access and participation in outdoor activity among a wider audience.

The Shropshire Union Canal passes to the west of Nantwich and through Audlem, running through the fringe of the Sandstone Ridge. This section of the canal is a wide waterway which crosses the Cheshire Plain, popular with walkers and home to abundant biodiversity.

A number of locally distinctive landmarks punctuate the ridge; those in Cheshire East include the Grade I Listed historic Peckforton Hall which lies in the south eastern section of the Sandstone Ridge. The priority area also has several pinch points across all the strategic themes. There are connectivity and movement pinch points in that the good links between the Sandstone Ridge and the wider road network mean that this is a desirable place to live for those seeking a rural lifestyle with access to key services. To date, there is limited housing development identified in our Local Plan in this area, though future development must ensure good development management and biodiversity net gain policy to provide opportunities to create high quality, multifunctional built environments which link developments to the rural area.

In terms of Rivers and Valleys, the Gowy cuts through the Sandstone ridge (from east to west) at the Beeston Gap in CWAC. The Sandstone Ridge forms a watershed between the Weaver and the Dee south of the Beeston Gap. The source of the River Gowy is in the Peckforton Hills, in the south east of the Sandstone Ridge. Under the Water Framework Directive, the ecological and water quality of the River Gowy from source to Milton Brook is 'poor'. The reasons behind this include sedimentation, channel modifications and diffuse pollution arising from fertilisers, pesticides and discharges from septic tanks.

In response, a GI Plan for the Sandstone Ridge can be grouped into five broad activities:

- Getting outdoors easily
- Rivers and valleys
- Thriving Nature
- A distinctive place for culture, heritage and tourism
- Farmland and soils

### Getting Outdoors Easily

Alongside the Gritstone Trail, the Sandstone Trail is included in the Twin Trails project which aims to deliver multiple objectives relating to connectivity and path infrastructure improvements, to allow the parallel trails to contribute further to the visitor economy.

Project work includes:

- Delivering path infrastructure improvements to a consistent high quality
- Increasing accessibility through easy way-finding and broadening interpretation

The Twin Trails project aims to attract new visitors for the benefit of rural businesses, whilst converting day visitors to overnight visitors.

Within new developments, the creation of new or extended public access could be encouraged, to improve connectivity between settlements and to the rural areas, as well as providing sustainable access onto the Sandstone Trail.

### Rivers and Valleys

The Rivers and Valleys activity area is relevant to the Sandstone Ridge due to the Weaver and Gowy crossing the plain at the foot of the ridge. To tackle the water and ecological quality problems near the source of the River Gowy and the River Weaver, a cross-

boundary, collaborative approach with partners in Cheshire West will be required.

The Gowy Catchment Partnership works with various organisations to tackle pollution and working with communities, businesses and farmers to improve the water environment.

The 'Call of Nature' campaign is already active in Cheshire to address issues with septic tank contamination. There is scope to increase awareness of septic tank pollution across Cheshire East especially among rural communities.

### Thriving Nature

Though the international and national designations across the part of the ridge within Cheshire East form a significant proportion of the area, over half of the area of the Bickerton Hill SSSI is in unfavourable condition. In 1992, the National Trust embarked on the first of a series of three, ten-year DEFRA funded agri-environment schemes, designed to facilitate the restoration of lowland heath through removal of birch. Large-scale birch scrub removal initiatives using rangers, contractors and volunteers, together with the reintroduction of traditional grazing have begun to re-establish sustainable heathland communities which had largely been lost following cessation of grazing after Second World War.

In the meres and mosses area in the south west of Cheshire East, the management of water is critical as periods of drought can degrade peat soils, leading to habitat loss. The range of habitats present at Wybunbury Moss is part of the suite of Meres and Mosses Ramsar sites and is a Special Area of Conservation supporting many nationally and locally rare invertebrate species. The contribution of such Mosses to carbon capture is also of importance.

Recent work at Bickerton Hill has hugely increased the area of lowland heath habitat through felling of birch and restoration of arable land to heathland. And a regime of bracken control, traditional cattle grazing and scrub management will ensure the sustainability of heathland communities. Opportunity for further restoration of nearby pasture should be sought.

The work of the Mersey Forest in the adjacent borough of Cheshire West and Chester is continuing to link the existing fragmented patches of ancient broadleaved woodland into an integrated network of woodland habitat. Future management should ensure that this growing woodland network is protected against damage from development.

The ridge as a whole is visited by more than one million people each year. The Sandstone Ridge Trust has identified that the area would benefit from a clearer and stronger identity as a place, increasing awareness of the Ridge outside of Cheshire<sup>19</sup>.

A long term goal of working towards a national accolade which recognises the quality and value of the landscape, such as a landscape designation, would require an integrated approach to focus the interests and efforts of all stakeholders. The Sandstone Ridge Strategic Plan 2019-2024 states that a key aim is to pursue AONB designation for the Sandstone Ridge.

The Twin Trails Project, introduced under *Getting Outdoors Easily*, aims to improve the infrastructure of Cheshire's Twin Trails, whilst widening the offer to new markets through increasing accessibility. The Sandstone Trail can be walked over three days. The work is set to encourage longer distance walking while also promoting the visitor economy in the area.

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<sup>19</sup> Delivery Model Options Appraisal for the Sandstone Ridge Trust (May 2018)

### Farmlands and Soils

At a landscape scale, across the whole of the ridge, the Sandstone Ridge provides a living for over 400 farmers. The Sandstone Ridge Trust are working with farmers and land managers to establish a Sandstone Ridge Farmer Network to improve the Ridge's landscape, habitats, watercourses and historic features. Future projects and programmes should link with the Network for wider landscape benefits and land owner engagement, also drawing on local knowledge.

The steep slopes of the ridge largely comprise thin acid soils supporting concentrations of woodland. The farmed landscape has great potential to increase the carbon sequestration potential of soils, and protect soils for their provision of nutrients and water as a biodiverse resource. Practices focusing on farmland vegetation would be suitable on the ridge, including management of existing hedgerows, farmland trees, buffer strips and restoration of degraded land.

### **The Northern Forest**

Cheshire East is in the 'halo' or southern fringe of the Northern Forest with over two million trees targeted for planting in the borough. 'A New Northern Forest'<sup>20</sup> – Northern Forest Manifesto sets out the vision for planting 50 million new trees across the M62 corridor over the next 25 years. 'A New Northern Forest' sets

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<sup>20</sup> New Northern Forest (2017), City of Trees, Creative Concern, HEYwoods, Mersey Forest, White Rose Forest, Woodland Trust.  
<http://media.onthepatform.org.uk/sites/default/files/Northern%20Forest%20Prospectus%20January%202018.pdf>

out an indicative spatial plan for locating any new tree planting in the community forests and fringe areas. It is informed by where trees can bring the most benefit to people and nature including economy, health, biodiversity and landscape character.

Although tree planting is recommended for many parts of the borough, examples from the prospectus that could be identified as priority focus for planting could be:

- A556 corridor between Mere and Rostherne
- Land in the vicinity of Peover
- Wilmslow and Handforth
- Macclesfield and land towards Alderley Park
- Land to the south of River Dane, including Crewe and key service centres (Middlewich, Sandbach, Congleton, Alsager and Nantwich)

More specific recommendations for locating potential tree planting are provided later in Part B under principal towns and key service centres.

### **High Speed 2 Rail Corridor**

HS2 is expected to bring significant economic benefits to the North West region. However the infrastructure has specific demands in terms of lateral and vertical alignments and there is risk that these requirements will cause some severance to the existing GI network in terms of access for people and nature. The environmental impact assessment process seeks to mitigate the loss of habitat and severance caused to GI for people and nature. Opportunities are being considered through environmental net gain and improvement to the GI network with no net loss of biodiversity. As the scheme offers a chance to build in well designed and permanent GI elements that will benefit the local population. Developing mitigation plans that will help to alleviate

potential damage to the environment is an opportunity that should not be missed. For example the permanent retention of temporary construction roads to provide ready-made GI routes is one way of enabling durable benefit from a long period of construction disruption.

As an example, work is being undertaken for potential environmental net gain for connections between the Dunham Massey and Tatton Park estates. The area, which is popular with walkers and cyclists, presents opportunities to connect both assets in support of recreation and tourism. In terms of biodiversity there is the Rostherne Mere SSSI, and a number of habitats and corridors that are home to several protected wildlife species. This area is already severed by the M56 and A556 road infrastructure and this could be further compounded by the HS2 proposals.

The Dunham to Tatton link project proposes a number of off-road routes for pedestrians and cyclists recognising crossing points to existing infrastructure, proposed crossings to HS2 and opportunities for overcoming severance in other locations. As part of HS2, there is a commitment to no net loss of biodiversity across the whole scheme, though no commitments yet to biodiversity net gain.

## Principal Towns and Key Service Centres

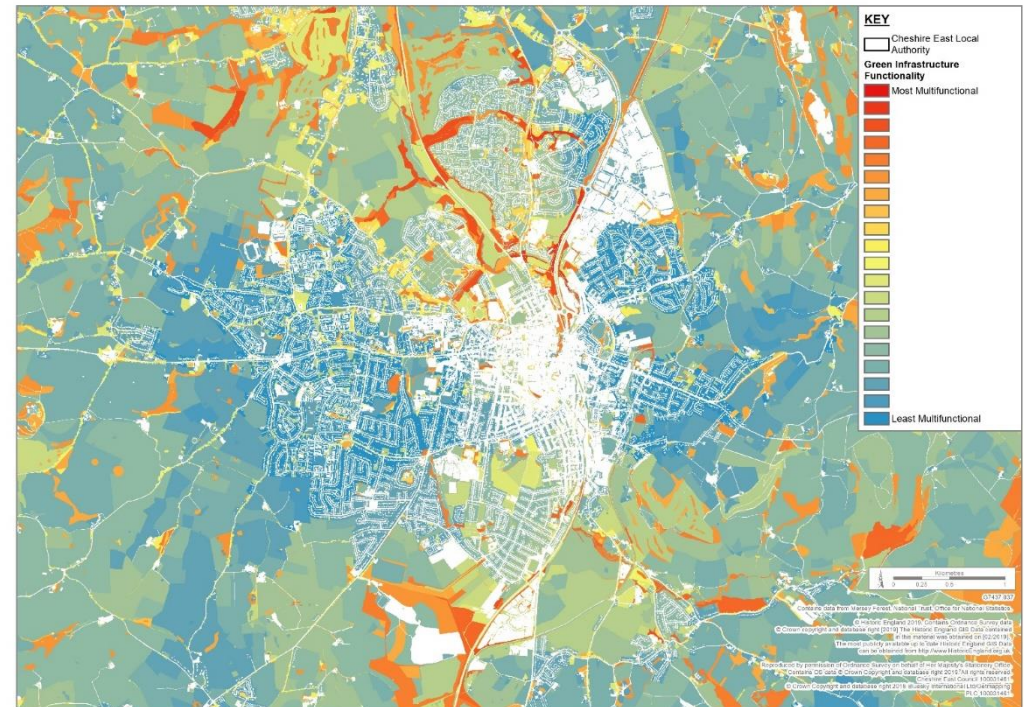
The principal towns are Macclesfield and Crewe. These are the largest towns with a wide range of employment, retail and education opportunities and services, serving a large catchment area with a high level of accessibility and public transport.

Key service centres (KSC) are towns with a range of employment, retail and education opportunities and services and good public transport. The KSCs are Alsager, Congleton, Handforth, Knutsford, Middlewich, Nantwich, Poynton, Sandbach and Wilmslow.

For each of these urban areas, a brief summary of the GI assets, pinch points and enhancement proposals is given in the following sections. Multifunctionality plans are provided for Macclesfield and Crewe illustrating where multifunctional GI is located and where GI is absent.

### Macclesfield

In Macclesfield the most multifunctional land areas are the wooded edges and open spaces in the Riverside Park extending from north of the town centre in a north westerly direction following the course of the River Bollin. Land to the south east, including Tegg's Nose Country Park, also delivers a high number of functions. This contrasts with agricultural land to western fringes of the town which delivers a low number of functions. GI is absent in parts of the centre of the town (see Figure 4).



**Figure 4 - Macclesfield GI Functionality Map**

The town has several “pinch points”, reflecting local needs for better GI. In terms of economy, central Macclesfield has high business density (ref. 1E) requiring high quality of public realm. The centre has an environmental pinch point in respect of low tree canopy and much sealed surface rendering it vulnerable to climate change (ref. 5T). South West Macclesfield is a growth area, including new housing and major road and drainage infrastructure (ref. 10E), so good GI provision is critical for quality of place.

Several parts of the town have pinch points in respect of life chances and choices and connectivity, due to areas of poor public

health, exposure to relatively poor air quality, propensity to poor mental health and lack of ready access to greenspace (pinch points 6L, 7L, 8L, 9L, 10L, 2C and 3C).

The most important assets for good functioning of GI across Macclesfield are Riverside Park, South Park, the Macclesfield Canal and the Middlewood Way. Other parks, such as West Park and Victoria Park are also important local assets especially where they can meet local needs in respect of physical and mental health.

In response, a GI Plan for Macclesfield can be grouped into three broad activities:

- Urban Greening
- Getting Outdoors Easily
- Working Alongside Major Infrastructure

The GI recommendations for Macclesfield's urban should be implemented alongside those for the Bollin Riverlands, described earlier.

### Urban greening

The aim of urban greening activity is to create vibrant, healthy and inspiring places where people want to live, work and invest.

Central Macclesfield near Churchill Way (ref. 1E) is an area with potential to benefit from GI due to high business density. Some of this area has very little functioning GI and is characterised by dense built form with pavement fronting buildings, buildings with large footprints, a number of surface car parks and few street trees. However, South Park at the southern edge of this area along with West Park and Macclesfield Cemetery at the north

western edge are both major GI assets in the vicinity that can be protected, enhanced and connected with Central Macclesfield.

Given the constrained nature of the area, any urban greening interventions would need to be retrofitted into the existing urban environment. Perhaps the greatest opportunities lie along the Churchill Way corridor which forms the main route through the area and is highly visible. There are a number of vacant sites and surface car parks fronting Churchill Way where the edges could be planted with street trees, hedges and shrubs. In other areas of Central Macclesfield are more constrained but there may be opportunities that can be taken when public realm works are undertaken within the central area, allowing consideration of further urban greening to be included.

A quieter street, such as Brown Street and/or Poplar Street, could be promoted as a pedestrian priority route linking the business area to South Park. Measures would include enhanced road crossings points, wider pavements and street planting. Prestbury Road could be promoted as a pedestrian priority route to West Park, with improved crossings over the A537 to reduce the perception of severance.

Localised treatments to business areas could include retrofitting 'greening' of site frontages, green walls and green roofs where feasible.

At a slightly broader scale, parts of central Macclesfield are amongst the most vulnerable to future climate change due to high proportion of sealed surfaces and low tree canopy (ref. 5T).

Investing in a project 'Greening Central Macclesfield Businesses' should attract inward investment and retain high calibre businesses. GI proposals should align with the Macclesfield Town Centre Strategic Regeneration Framework (SRF - draft 2019).

The areas of north east Macclesfield (north of Hurdsfield Road, ref. 7L) and south west Macclesfield (in vicinity of Earlesway, ref. 9L) are highlighted as neighbourhoods in the 10% most deprived in Cheshire East, with poor health concerns. They are characterised by post-war housing, some high density, with some areas of open space (road verges, buildings set in areas of mown grass) with an apparent lack of role and function.

There are opportunities to increase the GI functions of these spaces through street tree planting to verges, habitat creation to the edges of open spaces and SuDS schemes. These spaces would also benefit from being managed to be more welcoming and clean, encouraging use by local residents.

Investing in a 'Greening Macclesfield Neighbourhoods' project would create a network of open spaces, delivering more GI functions and improving quality of place. It would also present an opportunity for community engagement in GI provision.

### Getting Outdoors Easily

The aim of this GI activity is to engage people and improve community access to, and enjoyment of, GI for health and wellbeing.

An area at the northern edge of the town (Tytherington, near Manchester Road ref. 6L) and an area to the southern edge of the town (London Road ref. 10L) are identified as having a high risk of poor mental health.

The focus for these areas should involve 'social prescribing' where health and community services help to signpost and facilitate activities in outdoor spaces for local people. In addition,

continued focus on areas such as West Park and access to such assets offers significant potential.

The eastern edge of Macclesfield (Hurdsfield and Buxton Road, ref. 2C) is highlighted for its more limited PRow network and connections to neighbouring GI assets. The Macclesfield Canal flows along the eastern edge of the town but access to the towpath is limited in places. Improved connections with ramps from roads or footpaths, with signposting, would improve accessibility and use of this asset.

The eastern edge of Macclesfield is characterised by steep slopes rising east towards the Peak District National Park. Improved signs and wayfinding from the local network of street would enhance access to the PRow network and the countryside.

Investing in a 'Routes to the Canal and the Peaks' project would enable more people to gain access to the outdoors.

### Working Alongside Major Infrastructure

The aim of these activities is to integrate GI into major new development and infrastructure projects and retrofit GI alongside existing infrastructure, especially where this has historically fragmented accessibility or ecological networks

The central area of Macclesfield (ref. 8L) is bound by the highly trafficked routes including Chester Road, Congleton Road, Park Lane, Silk Road and Buxton Road. The proximity of central Macclesfield to these busy routes means that the area suffers from air pollution levels which are within the highest 10% of air pollution exposure in Cheshire East.

Where space allows, trees, hedges and shrubs should be retrofitted near to these road corridors under the project 'Cleaner

Air in Macclesfield'. Trees can act as air filters and can capture gases such as nitrogen dioxide and ozone through the stomata of leaves and thereby improve air quality.

The central core of Macclesfield (ref. 5T) has very low tree canopy coverage and the area extending north east from core towards the employment area at Hurdsfield is characterised by high sealed surfaces. The former area should also prioritise street trees increasing future climate change resilience in the central core and supporting 'Cleaner Air Macclesfield'. The Macclesfield SRF highlights the opportunity for improvements to the Station Gateway as an initial welcome to train passengers arriving in the town. The Macclesfield SRF proposes street tree planting to assist in articulating space and a contribution to visual amenity. Street tree planting would also contribute to air quality and to slow rapid surface water run-off following rainfall.

There is some existing 'greening' of the employment area at Hurdsfield. However there are available roadside verges and grassed areas within sites that could be retrofitted with planting and SuDS infrastructure to increase future climate change resilience and to reduce the risk of rapid surface water run-off from buildings and surfaces.

The strategic housing and employment allocation sites (10E and 3C) are on land of low multifunctionality with poor connectivity to existing assets such as the Riverside Park and Tegg's Nose Country Park to the north-west and east respectively (see earlier Macclesfield GI multifunctionality map).

In terms of the planning and development of the sites, they should be designed to provide a network of GI that delivers the highest level of multifunctionality including recreation, green travel, evaporative cooling, habitats for wildlife and water interception.

Infrastructure for pedestrians and cyclists should also be provided creating orbital routes to the western and southern edges of the town connecting the allocated sites with the Riverside Park and Tegg's Nose Country Park.



## Crewe

Crewe's most multifunctional land is also associated with watercourse corridors including the Valley Brook and Wistaston Brook in the western part of the town. Land at Crewe Hall, at the south eastern edge, delivers a high number of functions, although the grounds are not accessible to the public. Agricultural land to the northern, western and southern fringes of the town delivers the lowest number of functions. Areas around the town centre, the railway station and employment areas to the south east and west, indicate an absence of GI.

The town has several “pinch points”, reflecting local needs for better GI. In terms of economy, central Crewe has high business density (ref. 3E) requiring high quality of public realm. The centre has an environmental pinch point in respect of low tree canopy and much sealed surface rendering it vulnerable to climate change (ref. 12T).

The Crewe HS2 Hub Draft Masterplan Vision (2017) sets out the opportunities for the town with the arrival of HS2 to Crewe in 2027. It envisages the delivery of a green corridor that will integrate the station hub into Crewe and link it with the town centre.

Several areas of the wider town have pinch points in relation to housing and employment sites (ref. 15E) and life chances and choices and connectivity, due to areas of poor public health, exposure to relatively poor air quality, propensity to poor mental health and lack of ready access to greenspace (pinch points 20L, 21L, 22L, 14C and 15C).

Crewe has several GI assets of borough-wide significance. These include Queens Park and the wooded grounds of Crewe Hall (though site not accessible to the public). Other assets include the

Valley, Wistaston, Basford and Leighton Brooks with associated green spaces which form important local assets that can meet some local needs. See Figure 5.



**Figure 5 – Crewe GI Multifunctionality Map**

The GI Action Plan for Crewe, forms part of the Local Plan evidence base, was prepared in 2013 and sets out the spatial priorities and detailed GI measures. In light of the effect of planned urban expansion, HS2, increased population growth projections and further evidence on health and wellbeing benefits of urban GI, the action plan should be updated.

Case Study – GI Action Plan for Crewe

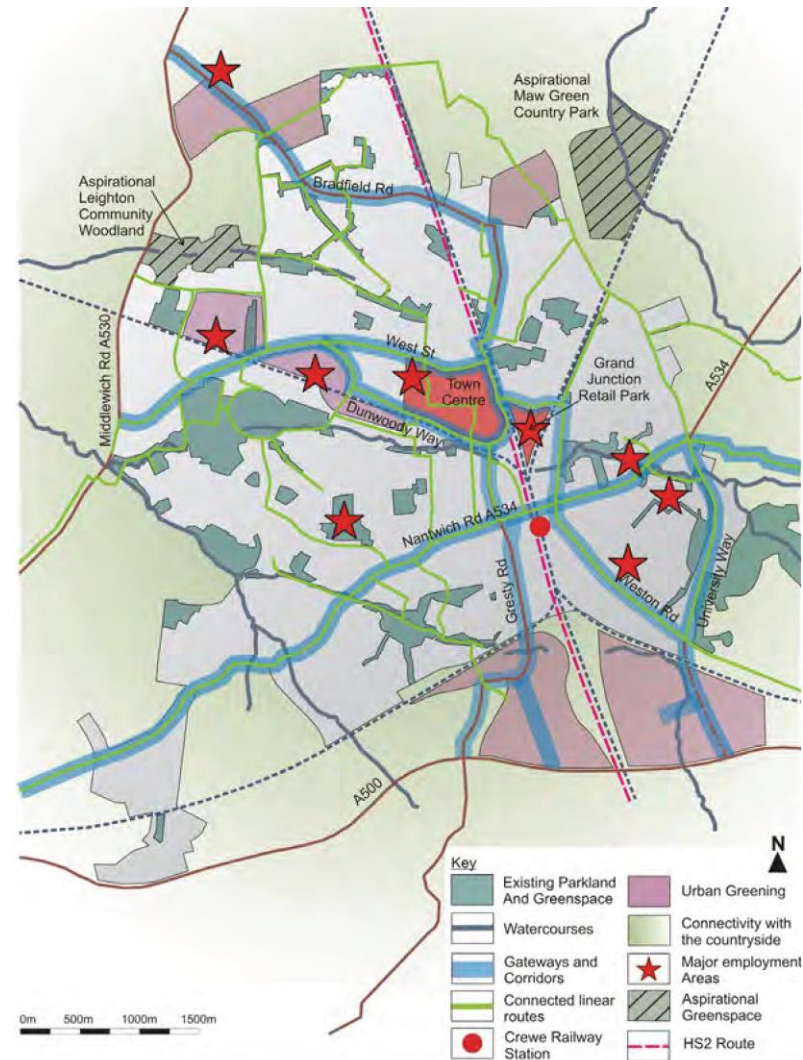
The GI Action Plan sets an ambitious vision for a comprehensive and connected network of GI to drive forward the economic renaissance and physical regeneration of Crewe (see key diagram overleaf). It recognises the existing assets and seeks to extend them to address the severance caused by the railway infrastructure and challenges of health deprivation and shortfalls of greenspace.

Crewe’s river corridors can be re-invigorated with opportunities for recreation, providing a setting for building form and connected corridors for nature. Another unrealised asset is the countryside surrounding Crewe, although there is a need for restoring its character to provide a quality setting for the town.

One of the principles of the GI Action Plan is to retrofit GI into existing development while integrating GI into future masterplans and regeneration schemes.

An updated GI Plan for Crewe would be address three broad activities and provide further detail in respect of:

- Urban Greening and Environments for Business
- Getting Outdoors Easily
- Working Alongside Major Infrastructure



**Figure 6: Key Diagram - Green Infrastructure Action Plan for Crewe**

## A Green Infrastructure Plan for Cheshire East 2019 to 2030

The GI recommendations for Crewe's urban area should be considered alongside those for Nantwich, the Weaver Valley and the HS2 corridor, described elsewhere.

### Urban Greening

The town centre and areas near to Nantwich Road and Dunwoody Way are areas of need for GI due to high business density (ref. 3E). The area is characterised by dense built form arising from the town's Victorian era with pavement fronting buildings and a grid network of streets, with very limited GI. The Valley Brook corridor is a GI asset, passing next to the southern edge of the town centre but with very limited frontage or access for people.

The layout of the town centre is constrained but the Memorial Square is a good example of high quality public realm with GI retrofitted into the space. The contribution of good quality GI should be considered at the design stage in future public realm schemes or in the refurbishment of other squares and the network of pedestrian priority streets in the vicinity.

The area around Dunwoody Way has good connections towards the Valley Brook corridor along the grid network of streets. However the frontages to the Valley Brook need to be improved to increase its presence in the locality. This could be achieved by improving connections through adjacent sites.

Nantwich Road is an important approach road into Crewe with a mix of business uses. It has relatively wide footways and would benefit from comprehensive street tree planting to support inward investment and improve quality of place.

Common with other towns in Cheshire East, the central area has large floorplate development with access roads, car parks and

hardstanding. Where feasible, localised treatments to business sites could include retrofitting the 'greening' of site frontages, green walls and green roofs. Some existing business locations already benefit from a GI setting, such as Crewe Business Park which was one of the UK's first Green Business Parks. However even there are further opportunities to enhance these credentials.

Investing in a 'Greening Spaces in Central Crewe' project could attract inward investment arising from HS2.

The areas of north west and north east Crewe and near Gresty Road (ref. 20L) are highlighted as neighbourhoods in the 10% most deprived in Cheshire East, also with poor health concerns and poor access to greenspace (ref. 22L). North west Crewe is characterised by Victorian terraced housing with limited open space. Given the density of development and limited space, any areas of open space would need to deliver a greater number of functions to include play and food growing. Intensive use of these spaces would also require a greater degree of management.

North east Crewe and Gresty Road are characterised by inter- and post-war housing, with some areas of open space (road verges, buildings set in areas of mown grass) with an apparent lack of role and function. There are opportunities to increase the GI functions of these spaces through street tree planting to verges, habitat creation to the edges of open spaces and SuDS schemes. These spaces would also benefit from being managed to be more welcoming and clean, encouraging use by local residents.

Investing in a 'Greening Crewe Neighbourhoods' project would create a network of open spaces, delivering more GI functions and improving quality of place.

## A Green Infrastructure Plan for Cheshire East 2019 to 2030

The current town centre regeneration plans and the Crewe Station Area Action Plan proposals both offer potential to improve GI values and to incorporate GI at the design stage within public realm and the built environment.

### Getting Outdoors Easily

The aim of this GI activity is to engage people and improve community access to, and enjoyment of, GI for health and wellbeing.

Several areas of the western edge of the town (Woolstandwood, and Wistaston ref. 21L) are identified as having a high risk of poor mental health. The focus for these areas should involve 'social prescribing' where health and community services help to signpost and facilitate activities in outdoor spaces for local people. There are a number of convenient GI assets in the vicinity including Queens Park, the Wistaston Brook corridor and the Connect 2 Crewe to Nantwich Greenway which provides easier access to recreational activities. There is also potential for green links represented in the original 'GI Action Plan for Crewe' along with new opportunities such as transforming the Maw Green former waste site into green space, which could provide links for north Crewe and potential to link towards the Sandbach flashes.

### Working Alongside Major Infrastructure

The aim of this activity is to integrate GI into major new development and infrastructure projects and retrofit GI alongside existing infrastructure, especially where this has historically fragmented accessibility or ecological networks.

The Crewe HS2 Hub Draft Masterplan Vision (2017) envisages that GI is drawn into the centre of Crewe along the Valley Brook corridor. Valley Brook connects two of the most significant parks

and gardens, Crewe Hall and Queens Park and Crewe 'Green' Business Park. The two parks and gardens have wider connection to the Cheshire countryside. As referred to in an earlier paragraph, the frontages to the Valley Brook will need to be improved to maximise its presence and accessibility.

The current town centre regeneration plans and the Crewe Station Area Action Plan (AAP) 2019 Draft for Consultation includes an approach to improve GI values and to incorporate GI at the design stage within public realm and the built environment. The AAP includes Crewe Hub Station, Crewe Commercial Hub and land extending to Gresty Road and Mill Street to the west, Manchester Bridge to the north and Gateway to the east. Policy 'IN4 Green Infrastructure' sets out requirements for GI including identifying features of local character, integrating sustainable drainage and delivering biodiversity net-gain.

The Basford East sites (ref. 15E) south of the town are being developed and promoted partly as employment and partly for housing. The sites should be designed to deliver a high quality GI setting for building form, provide space for recreation and showcase features such as Gresty Brook.

Mixed use development is proposed to the north west of Crewe near to Leighton Hospital. GI should be given prominence and be integrated within the development. The GI network will include a wide overhead line corridor with an opportunity to link with Leighton Hospital providing benefits for patients and staff. However a set of design guidelines should be prepared to minimise the linearity of the space and adverse visual effects from the existing pylons.

## Alsager

The town has three “pinch points” covering economy and life chances and choices.

In terms of assets there is the converted ‘Salt Line’ former railway providing pedestrians, cyclists and horse-riders with some off road access to the countryside to the west of the town and connecting with the Wheelock Rail Trail near Sandbach and the Cheshire Ring Canal Walk (Trent and Mersey Canal).

In response, a GI Plan for Alsager can be grouped into three broad activities:

- Getting Outdoors Easily
- Thriving Nature
- Working Alongside Major Infrastructure

### Getting Outdoors Easily

One area to the east of the town (18L) is identified as having a high level of multiple deprivation, with another area to the west (19L) having a high risk of poor mental health. There is a high presence of GI in the town so the focus for these areas should involve ‘social prescribing’ where health and community services help to signpost and facilitate activities in outdoor spaces for local people. There would also be opportunity for better links to the Salt Line and Cheshire Ring Canal Walk (further infrastructure improvements described below).

### Thriving Nature

As referred to on page 15, the Cheshire Wildlife Trust has mapped detailed wildlife corridors for approximately 25 Neighbourhood Planning areas in Cheshire East. The published neighbourhood

plan for Alsager includes policies and proposals based on recent ecological surveys and mapping<sup>21</sup>.

### Working Alongside Major Infrastructure

Various types of development (14E - housing and employment) are proposed on a former factory site to the eastern edge of the town, with several other sites proposed at the western edge of the town. GI investment should be focussed on extending the Salt Line along the dismantled railway east of Sandbach Road North, along the northern edge of Alsager towards the Trent Mersey Canal west of Kidsgrove. The length of the potential extension would be 3km and would provide an excellent opportunity for further recreation and active travel and could form an ‘off road’ circuit in combination with the canal network.

Improvements to the PRoW network to the western edge of the town should also be prioritised to enable access to the Salt Line to the north.

A large area of the western part of the town is identified as having high exposure to air pollution with its proximity to the M6. The intervening agricultural land between the M6 and the town has limited tree cover although there is a network of managed hedgerows with some hedgerow trees. Priority should be given to tree planting on some of this agricultural land to assist in capturing pollutants while there would also be opportunity to contribute to the wider Cheshire East Ecological Framework.

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<sup>21</sup> <https://www.cheshireeast.gov.uk/planning/neighbourhood-plans/neighbourhood-plans-a-f/alsager-neighbourhood-plan.aspx>

## Congleton

The town has several “pinch points”, reflecting local needs for better GI. In terms of economy, the centre has high business density (ref. 2E) and major growth is expected in North Congleton (ref 11E). In respect of life chances and choices, some parts of the town experience high levels of deprivation and propensity to poor mental health (ref. 11L and 12L).

Connections to greenspaces are generally good, but there is a connectivity pinch point for north Congleton where the PRoW network is limited (ref. 3C)

The River Dane and its flood zone are an environmental pinch point in respect of flood risk (ref. 11W)

The town has several GI assets, including the River Dane and the Macclesfield Canal, Congleton Park and Astbury Mere Country Park.

In response, a GI Plan for Congleton can be grouped into three broad activities:

- Urban Greening
- Getting Outdoors Easily
- Working Alongside Major Infrastructure

### Urban Greening

In common with other Cheshire East towns, the central area of Congleton (ref. 2E) has a high business density. This area of need has limited functioning GI although it is near to the wooded River Dane corridor and Congleton Park.

Mountbatten Way is a four lane road, with central reservation and provides the main approach to the town centre. It severs the central area and presents a large area of sealed surface.

Investing in ‘Greening Mountbatten Way’ could provide a highly visible change to the central part of Congleton and there are a number of areas of hard surfacing forming part of the road infrastructure that could be planted with street trees, hedges and shrubs. This could be supplemented with the planting of edges of vacant sites and car parking fronting the road.

Localised treatments to business premises either side of Mountbatten Way could include retrofitting ‘greening’ of site frontages, green walls and green roofs. This intervention would be particularly important for the site on the southern edge of Congleton Park to improve the park’s setting.

An area east of Congleton town centre (ref. 11L) is highlighted as a neighbourhood in the 10% most deprived in Cheshire East. It is characterised by inter- and post-war housing, with some areas of open space (road verges, buildings set in areas of mown grass) with an apparent lack of role and function. There are opportunities to increase the GI functions of these spaces through street tree planting to verges, habitat creation to the edges of open spaces and SuDS schemes. These spaces would also benefit from being managed to be more welcoming and clean, encouraging use by local residents.

The neighbourhood is also next to the northern end of the Biddulph Valley Way and there are opportunities for better connections with this asset, so residents have easier access for recreation.

### Urban Greening and Working Alongside Major Infrastructure

North Congleton (ref. 11E) is highlighted as an area under development pressure with a number of allocated sites in the Local Plan and the construction of the northern bypass due for completion towards the end of 2020.

The GI functions mapping indicates some areas of high multifunctionality in the vicinity of the River Dane corridor, including the Forge and Radnor ancient woodlands and Westlow Mere compared with very limited GI at the Radnor Park Trading Estate, Congleton Business Park and the Eaton Hall sand and gravel quarry to the north east.

The footprints of the bypass and allocated sites will require the loss of some GI and the development could sever some existing GI networks.

The North Congleton Masterplan, commissioned by the Council in anticipation of the bypass and development, also proposes a multifunctional open space network with each space having a clear role and function including: formal recreation, play areas, wildlife corridors, habitats and orchards. Strategic planting proposals include buffer planting next to the bypass for noise absorption and trapping air pollutants, additional woodland planting to reinforce the Forge and Radnor ancient woodlands and enhancements to the retained network of landscape features.

The Masterplan recognises areas of landscape quality and sensitivity such as the River Dane corridor and Westlow Mere by proposing additional species rich planting and improved access for pedestrians and cyclists. It also recommends that any proposed development fronting these areas follows an informal building line, with appropriate landscape treatment and is low in density.

However, there appears to be little reference to the severance created by the bypass and the importance of north-south linkages. This would need to be addressed with the bypass' detailed landscape strategy.

### Getting Outdoors Easily

Two areas in the western part of Congleton are identified as having a high risk of poor mental health. The focus for these areas should involve 'social prescribing' where health and community services help to signpost and facilitate activities in outdoor spaces for local people. Both areas are near to Astbury Mere Country Park so there is good accessibility for potential activities as well as the Macclesfield Canal which runs through the town.

The draft neighbourhood plan and other proposals identify the opportunities for improving cycling and walking routes around Congleton. Where plans are developed, this can provide opportunities to generate wider GI benefits using the natural environment.

### **Handforth**

The town has several "pinch points", reflecting local needs for better GI. In terms of economy, major growth is expected from the Garden Village at Handforth (ref. 7E) to the north eastern edge of the town and next to the boundary with Greater Manchester. In respect of life chances and choices, some parts of the town experience high levels of deprivation (ref. 4). The northern part of the town is noted for its low tree canopy coverage (ref. 4T).

The town benefits from the River Dean corridor, which forms the boundary with neighbouring Wilmslow and multiple neighbourhoods in Stockport such as Woodford.

## A Green Infrastructure Plan for Cheshire East 2019 to 2030

In response, a GI Plan for Handforth can be grouped into three broad activities:

- Urban Greening
- Getting Outdoors Easily
- Working Alongside Major Infrastructure

### Urban Greening

In response to the low tree canopy coverage the in the northern part of the town there are number of sites for potential tree planting including the Wilmslow Road (B5358) corridor, Stanley Hall Park (see also ref. 4L below) and Meriton Road Park.

Wilmslow Road provides the main approach to the town centre and there are opportunities along the southern section for street tree planting into the wide footways, including the hard surfaced area to the Paddock Shopping Centre. The section north of the Paddock Shopping Centre is characterised by a wide green verge along the western side of the road and there are opportunities to supplement the existing tree planting.

An area to the north east of the town centre (ref. 4L) is highlighted as a neighbourhood in the 10% most deprived in Cheshire East. It is characterised by inter and post-war housing, with some areas of open space (road verges, buildings set in areas of mown grass) with an apparent lack of role and function, including Stanley Hall Park. There are opportunities to increase the GI functions of these spaces through street tree planting to

### Getting Outdoors Easily

There would be longer term opportunities to form a continuous circuit by the creation of a 'Dean Valley Way' following the River

Dean from the confluence with the River Bollin west of Wilmslow north through Stanneylands and then east towards the Middlewood Way allowing increased access to Handforth Station for residential areas along the route. This potential 'Dean Valley Way' would be particularly accessible for residents of Wilmslow, Stanneylands, Handforth and Handforth Garden Village.

### Working Alongside Major Infrastructure

An area of land of 114ha to the east of the A34 is allocated as the Garden Village at Handforth and will provide 1,500 homes and extensive areas of connected GI. The development of the land will follow the requirements of the Garden Village at Handforth Supplementary Planning Document (SPD) 2018<sup>22</sup> and it sets a high standard and example for other potential development sites in Cheshire East to follow by integrating multifunctional GI with the development footprint from the outset. Connectivity from Handforth to the Garden Village through off road pedestrian and cycle connections should be promoted, as proposed in the SPD, to mitigate the severance effect of the A34.

### **Knutsford**

The town has good GI and business investment is not constrained by environmental quality. There are strategic developments proposed where good GI planning will be needed to safeguard existing features and ensure an attractive and sustainable setting (pinch point ref. 5E).

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<sup>22</sup> [The Garden Village at Handforth SPD](#)



## A Green Infrastructure Plan for Cheshire East 2019 to 2030

The town is rich in GI assets and has good connections for a number of users to Tatton Park, one of the borough's key rural GI assets and this is covered in more detail earlier in Part B under Bollin Riverlands. However, there are two neighbourhoods with a high propensity to poor mental health (pinch point ref. 1L) or vulnerability to air quality problems (ref. 2L)

The GI activities most relevant to Knutsford are

- Urban Greening
- Environments for Business
- Getting Outdoors Easily
- Working Alongside Major Infrastructure

### Urban Greening and Environments for Business

Although there is some existing 'greening' of the employment at Parkgate Industrial Estate, there are also available roadside verges and grassed areas within sites that could be retrofitted with planting and SuDS infrastructure to increase future climate change resilience and to reduce the risk of rapid surface water run-off from buildings and surfaces.

Around Knutsford there are a number of examples of business environments that have been created in the grounds of former estates. Sites such as Booths Hall, Toft Hall and Radbrooke Hall all provide high quality environments that illustrate the value of GI to business and investment.

### Getting Outdoors Easily

An area at the northern edge of the town (ref. 1L) is identified as having a high risk of poor mental health.

Knutsford has good access to open spaces and so the focus for these areas should involve 'social prescribing' where health and community services help to signpost and facilitate activities in outdoor spaces for local people. With access to Tatton Park on the doorstep, this represents a significant GI asset for Knutsford as well as for visits to the Park from further afield.

### Working Alongside Major Infrastructure

The western part of Knutsford (ref. 2L) is identified as having high exposure to air pollution with its proximity to the M6. The intervening agricultural land between the M6 and the town is characterised by arable farming with evidence of field amalgamation, limited tree cover and hedgerows. Priority should be given to tree planting on some of this agricultural land to assist in capturing pollutants while there would also be opportunity to contribute to the wider Cheshire East Ecological Framework.

### **Middlewich**

The town has several 'pinch points' including economy with large allocation sites for employment and housing (ref. 12E), some multiple deprivation to the south west of the town (ref. 15L) and poor access to green space over 20ha (ref. 12C).

In terms of GI assets, the town is at the meeting points of the Trent and Mersey Canal and the Shropshire Union Canal (Middlewich Branch). The River Wheelock passes to the western edge of the town, while the River Dane passes to the north. Despite their attributes connectivity (wayfinding and legibility) from the town to the canal towpath network could be improved, access to the canal corridor and sections of the towpath surface are of poor quality. The river corridors have visual interest with varied landform in the vicinity and some wooded areas but very limited public access.

In response, a GI Plan for Middlewich has two closely related activities:

- Getting Outdoors Easily
- Working Alongside Major Infrastructure

The description above highlighted disconnection between the town and the potential of the neighbouring waterways. A programme of linking the waterway corridors to the town centre and residential areas through a wayfinding system and provision of accessible access points to the canal corridor would aid both the resident population and visitors to engage with the canal system and enjoy the health benefits of exercising in a high quality environment.

An extensive area to the western and southern fringes of the town is allocated for employment and housing. This land should include a multifunctional open space network with connections to the canal towpath network and river network so that the GI assets have greater presence in the town and ultimately a 'GI loop' to the perimeter of Middlewich. The extent of the proposals should also address the limited access to larger green spaces. Where possible development should address canal corridors, embracing the value of the waterside environment and connect to the canal towpath.

Any of the above proposals should include connections to the area of multiple deprivation giving residents easier access for recreation.

The GI recommendations for Middlewich should also be implemented alongside those for the landscape scale projects for Dane Valley, River Wheelock and Weaver Valley, described earlier.

## **Nantwich**

The town has several "pinch points" covering economy with high business density (ref. 4E) in the town centre.

Several areas of the wider town have pinch points in relation to housing and employment sites (ref. 16E) and life chances and choices and environment, due to propensity to poor mental health (ref. 24L) and low tree canopy cover and a high proportion of sealed surface (ref. 2T) rendering parts vulnerable to climate change.

The town has some GI assets including the Nantwich Riverside Park which forms a green corridor along the River Weaver and the western edge of the town. The Park is in the process of being extended northwards along the River Weaver towards Reaseheath Hall. To the eastern edge of the town there is the Connect 2 Crewe to Nantwich Greenway forming a recreational and sustainable commuting link between the two towns.

In response, a GI Plan for Nantwich can be grouped into three broad activities:

- Urban Greening
- Getting Outdoors Easily
- Working Alongside Major Infrastructure

### Urban greening

The centre of Nantwich is an area of need for GI due to high business density. Some of this area has very little functioning GI as the town centre follows a typical historic pattern of dense built form with pavement fronting buildings, a number of surface car parks and few street trees. However, the Nantwich Riverside Park at the western edge of this area is a major GI asset in the vicinity.

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Given the constrained nature of the area, any urban greening interventions would need to be retrofitted into the existing urban environment. There are a number of vacant sites and surface car park where the edges could be planted with street trees, hedges and shrubs. Localised treatments to business areas could include retrofitting 'greening' of site frontages, green walls and green roofs. The areas of high business density also align with areas with a high proportion of sealed surfaces and so the greening measures would also help to assist with addressing surface water run-off.

Water Lode (A534) forms a line of severance between the town centre and the Riverside Park. Improvements to the existing crossings, supplemented by additional crossings, would provide easier access to the green corridor for workers in the town centre.

The residential area of south east Nantwich is identified as having low tree canopy coverage. One of the main streets through the area, Hawksey Drive, has a grass verge next to a cycleway where there would be opportunities for tree planting. There are also grass verges available for planting along Peter Destapleigh Way which forms the southern edge to the area.

### Getting Outdoors Easily

An area at the northern part of the town (near London Road ref. 24L) is identified as having a high risk of poor mental health.

The focus for these areas should involve 'social prescribing' where health and community services help to signpost and facilitate activities in outdoor spaces for local people. There would be opportunity for cycling and walking along the Connect 2 Crewe to Nantwich Greenway and better physical links to this asset from the London Road neighbourhoods should be prioritised. The Shropshire Union Canal passes through Nantwich, well located for accessing facilities on the western edge of the town. Increasing legibility and

signposting to encourage use of the towpath would be beneficial for engaging local residents.

### Working Alongside Major Infrastructure

Mixed use development is under construction to the north west of Nantwich at Kingsley Field. GI investment should be given priority along the River Weaver corridor adjacent to the development with onwards connections north of the A500 following the watercourse. Any further development sites in the town should contribute to this strategic GI corridor.

### **Poynton**

In terms of 'pinch points', the town has several allocated sites for employment and housing (ref. 9E) and a high risk of poor mental health to the eastern part of the town (ref. 5L).

The town benefits from Poynton Park and proximity to the Middlewood Way and Macclesfield Canal to the eastern fringes of the town. Both the Middlewood Way and Macclesfield Canal cross into High Lane in Stockport's administrative area, representing cross border assets.

In response, a GI Plan for Poynton can be grouped into two broad activities:

- Urban Greening
- Getting Outdoors Easily

### Urban Greening

The allocated sites in Poynton are comparatively small in the Cheshire East context, however, development proposals should follow the same principles described elsewhere by retaining and

reinforcing existing landscape features on greenfield sites. Open spaces networks should be connected and multifunctional and links to the wider countryside should be strengthened through wayfinding and crossing points at busy roads.

### Getting Outdoors Easily

The aim of this GI activity is to engage people and improve community access to, and enjoyment of, GI for health and wellbeing.

Physical access to GI in this part of the town is good with pedestrian routes connecting to Poynton Park and the Middlewood Way.

The focus for the area of high risk of poor mental health should involve 'social prescribing' where health and community services help to signpost and facilitate activities in these outdoor spaces for local people.

The GI Plan for Poynton should also make links with the Bollin Riverlands landscape scale project.

### Thriving Nature

As mentioned earlier, the Cheshire Wildlife Trust has mapped detailed wildlife corridors for Neighbourhood Planning areas in Cheshire East, including Poynton. The published neighbourhood plan for Poynton includes policies and proposals based on recent ecological surveys and mapping<sup>23</sup>.

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<sup>23</sup> <https://www.cheshireeast.gov.uk/planning/neighbourhood-plans/neighbourhood-plans-n-z/poynton-neighbourhood-plan.aspx>

## **Sandbach**

The town has a pinch point in relation to a large housing and employment site (ref. 13E) to the eastern edge of the town, a high risk of air pollution (ref. 16L) along the eastern fringes due to proximity of the M6 and relatively low tree cover (ref. 11T) on land to the east, south and west of the town's perimeter.

In terms of GI assets the town has the Wheelock Rail Trail and Trent and Mersey Canal that provide a network of linear routes for people and nature to the southern edge of the town and east towards Alsager.

In response, a GI Plan for Sandbach can be grouped into two broad activities:

- Working Alongside Major Infrastructure
- Thriving Nature

### Working Alongside Major Infrastructure

The eastern fringes of the town, including the M6 corridor, are identified above as a pinch point for a number of needs. Tree planting should provide a particular focus for the allocated sites both in the streetscape, wider GI network proposals and with buffer planting next to the M6. To further address air quality issues, tree planting should be encouraged along field boundaries on the agricultural land east of the town and next to the M6. Where feasible, landowners should be encouraged to plant trees on smaller fields and plots of land, to form tree buffers along the motorway corridor.

### Thriving Nature

Land to the south and west of the town is identified as being part of the wider Cheshire East Ecological Network, including the River

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Wheelock corridor, while also having relatively low tree cover. A range of structure planting should be encouraged near to the river corridor providing diverse habitats for nature and providing an overall increase in tree cover. The range of planting would include woodland, woodland edge and grassland.

The GI Plan for Sandbach would link with the River Wheelock landscape scale project.

The published neighbourhood plan for Sandbach includes policies and proposals based on recent ecological surveys and mapping<sup>24</sup>.

### **Wilmslow**

In terms of 'pinch points', the town has several large allocated sites for employment and housing (ref. 6E) and poor access to greenspace from the southern part of the town (ref. 3L).

Wilmslow benefits from the River Bollin corridor which maintains a connected green corridor across the town and passing near to the centre. The Wilmslow Neighbourhood Plan Green Links Map highlights the connected nature of the River Bollin Way and the opportunities for a similar approach along the River Dean which connects with the River Bollin and then flows to the northern edge of the town. It also highlights some of the ecological assets around the area.

In response, a GI Plan for Wilmslow can be grouped into two broad activities:

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<sup>24</sup> <https://www.cheshireeast.gov.uk/planning/neighbourhood-plans/neighbourhood-plans-n-z/sandbach-neighbourhood-plan.aspx>

- Urban Greening
- Getting Outdoors Easily
- Thriving Nature

### Urban Greening

The allocated sites will largely occupy greenfield land and developers should be encouraged to retain and reinforce existing landscape features such as hedgerows, copses and watercourse corridors. These retained networks should connect with the wider countryside. Any proposals should include multifunctional open space networks with each space having a clear role and function including: formal recreation, play areas, wildlife corridors, habitat areas and orchards. Some of the allocated sites in Wilmslow have boundaries with major roads or the rail network, so pedestrian and cycling links should also be considered to address severance.

### Getting Outdoors Easily

The southern part of the town has limited access to greenspace so any new development site should seek to address this deficiency. This area of town is close to the countryside, so opportunities for better links to the local PRoW network should be considered. This could include better way-marking and defined pedestrian crossings across busier roads to improve accessibility.

The GI Plan for Wilmslow links directly with the Bollin Riverlands landscape scale project and the River Dean corridor. Earlier reference to 'Riverlands' and to the proposed Dean Valley Way are of direct relevance to getting outdoors easily in Wilmslow.

### Thriving Nature

The large natural landscapes in Wilmslow including the river valleys, heathlands and mire habitats at Lindow Common, and the

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mossland and habitat mosaic in the wider Lindow Moss landscape, are complex ecosystems. Improving ecological connectivity between sites, maintaining and enhancing their habitat value and taking account of the potential for carbon storage in mosslands and woodlands are all important priorities. Lindow Moss is also important for its wider historic and cultural value and it is this assemblage of historical and ecological assets which makes this landscape particularly important to conserve.

The published neighbourhood plan for Sandbach includes policies and proposals based on recent ecological surveys and mapping undertaken by Cheshire Wildlife Trust<sup>25</sup>.

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<sup>25</sup> <https://www.cheshireeast.gov.uk/planning/neighbourhood-plans/neighbourhood-plans-n-z/wilmslow-neighbourhood-plan.aspx>

## Part C Delivering the GI Plan

Excellent GI in Cheshire East is a priority for many people, businesses and communities. As a “common good”, held in trust for future generations, GI needs a multi-stranded approach to implementation, involving many partners.

This part of the GI Plan talks about how it can be delivered. The Plan provides an evidence base and framework for like-minded organisations or individuals who share a vision for excellent GI. While it has been commissioned by Cheshire East Council, it will be delivered through collective contributions, with leadership shared and distributed across the delivery mechanisms highlighted below:

Partnership

Assets

Communities

Landowners

Development

Infrastructure

Strategies

Finance

The Next Generation

## Partnership

*“Leading like-minded organisations in creating and managing GI”*

Cheshire East has a long and proud history of partnership-working in planning, creating and managing GI. In the course of this GI Plan there is a need to develop new, and to maintain existing, strong partnerships with all those who can contribute to, use and rely on GI.

There is much common ground on issues of environmental quality, and an opportunity to work together in planning and delivery of GI, or to advocate for GI in the formulation of forward plans.

Cheshire East Council is already taking a lead, by commissioning this Plan, incorporating policies in the Local Plan and bringing forward an Environment Strategy to address the threat of climate change. While the Council may maintain a commitment to leadership, it cannot deliver this agenda on its own. Therefore, existing or new partnership arrangements should be considered to take this Plan forward. While various project groupings may already exist, there is an advantage in leading a coordinated approach. This could be through an existing mechanism such as the Local Nature Partnership, unless there is a need for a specific arrangement for a new GI Partnership for Cheshire East.

## Assets

*“Managing our own GI assets so our land is resilient to climate change and environmental quality improves to the benefit of local people”*

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Organisations responsible for GI assets are collectively responsible for much open land, such as parks, amenity spaces, farmland, woodlands, natural sites and civic spaces. Stakeholders do not have full agency over all assets due to tenancies, easements, covenants and other legal agreements. A continuous review of assets would be needed to actively implement opportunities to plant trees, create wetlands and wildlife zones, open new public access, reduce pollution and rebuild carbon-rich soils. This would help deliver Cheshire East's Environment Strategy and the Council's pledge to become carbon-neutral.

For partners such as the National Trust and United Utilities, this approach would help deliver charitable and corporate environmental objectives and make their assets more resilient to climate change.

Collectively a GI asset management approach would increase investor confidence that Cheshire East has a forward-looking approach to the protection of environmental quality.

### **Communities**

*"Empowering people to make a difference in their local area"*

Cheshire East has a huge network of trusts, volunteers, parish and town councils, outdoor activity providers, park friends, Transition Town champions and local businesses who care passionately about the quality of their local environment. Many of the Neighbourhood Plans promote GI, including wildlife corridors mapped by Cheshire Wildlife Trust.

Volunteers and community groups can be helped to build on their GI activity through measures such as:

- Making land and assets available for GI activity
- Promoting and celebrating successful GI work
- Encouraging networking, coalition-building and sharing of good practice
- Providing training and templates for funding bids and writing of Local GI investment portfolios

Community resilience is a form of social wealth. Focus for most corporate support will be towards the priority areas where there are deep-seated problems with environmental quality, mental health risk or social deprivation (refer to the Life Chances and Choices pinch points in Appendix A). Nevertheless we will always celebrate and promote exemplary county-wide GI activity

### **Landowners**

*"Helping landowners safeguard and create GI"*

Cheshire has many public bodies, private individuals, estates, corporate bodies, associations and trusts who own and manage land including:

- Farmers
- Smallholders
- Schools, hospitals
- Sports and leisure providers
- Businesses
- Gardeners

Much of the GI is in agricultural use and farmers have seen continuous changes in the way that GI is funded. The constantly-changing funding landscape, coupled with significant uncertainty



over the future of agri-environment schemes, continues to hold back investment in GI. But there is an over-arching trend towards public funding being directed towards projects that sustain and enhance ecosystem services. In the context of the climate emergency and the Government's 25 Year Environment Plan; soil conservation, and recovery of biodiversity, water and air quality are the highest priorities.

Stakeholders should work with all like-minded landowners to promote and develop projects which enhance rural GI. There is no 'one size fits all' and landowners have a menu of approaches that can be adapted for their circumstances:

- Woodland and hedgerow tree-planting
- "Roughening" the landscapes for surface water flow, (buffer strips, field margins, new wetlands)
- Natural flood management
- Re-wilding
- Lowered intensity of grazing, mowing or pesticide use
- Public access and educational projects
- Restoration of landscape character and natural beauty

Farmland owned or managed by the public and third sectors may offer opportunities for demonstration sites and 'leading by example'. Should Cheshire East become a target area, the Northern Forest will offer a rallying-point for landowners to obtain advice, best-practice guidance and possibly funding for GI. Nevertheless it is recognised that certainty over agri-environment incentives is needed before a step-change in delivery of rural GI is likely.

## Development

*"Ensuring new development creates places that people are proud of, and at the same time, recognises, offsets and reduces adverse environmental impacts"*

Changes in land use, population and traffic increases present challenges to Cheshire East's GI, on and near new development areas. Local Plan policy will thus be a major means of implementing the GI Plan, which is a material consideration in planning decisions.

There is a fast-changing body of evidence and guidance regarding GI and development, so Local Plan policy may require review mid-Plan period. GI implementation through development policy will occur in the following ways:

### Location and Nature of Intervention

Appendix A catalogues the GI priority areas and themes, showing evidence about assets and pinch points. For new development, policy requires a GI assessment to consider effects on local GI quantity, functionality, quality and accessibility and take opportunities to safeguard assets and address pinch points.

Offsetting and mitigation of adverse effect will be guided in locational terms by evidence in Appendix A.

GI principles are embedded in the Cheshire East Design Guide and can be embedded in site-specific development briefs, Area Action Plans and town centre masterplans. These set out minimum expectations in respect of GI and, coupled with emerging environmental net gain practices, will help uplift quality of GI on site,

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and enable transfer of mitigation funds to GI projects in priority areas.

### GI Standards

Local Plan policy promotes an objective and qualitative approach to GI in development. There are some external standards and many sources of guidance, but over the period of 2019 and 2020, a national set of GI standards is likely to be issued by Government. At the same time there is increasing adoption of quantitative tools such as “Green Space Factor” or “Urban Greening Factor” which require development to deliver at least minimum quantities of on-site GI.

This will include standard-setting for governance and maintenance of GI to ensure it is adequately funded and managed over the long-term.

The Local Plan GI policy will be reviewed during the period of the Plan to take account of the emerging standards and guidance. Documents such as the Cheshire East Design Guide will be reviewed at an appropriate time. In the meantime, emerging GI standards and guidance will be applied to planning decisions. These will not only need to take account of the creation or enhancement of GI, but also its quality, value and on-going maintenance.

### Green Belt Compensation

NPPF (at para. 138) requires compensatory improvements to environmental quality and accessibility when areas of land are removed from the green belt. These GI improvements must be delivered on remaining Green Belt land. The intention is that

development does not lead to net loss of public benefits provided by the overall resource of Green Belt land.

This policy offers an opportunity to transfer resources for capital and management GI works to GI priority areas shown at Appendix A. This will require a joint approach between the Council, developer and landowners. This GI Plan can assist the Council and developers to define the required compensatory measures.

Cheshire East GI stakeholders have a role to play through making its land assets available for compensatory GI measures associated with Green Belt release.

### Biodiversity Net Gain (BNG) and Natural Capital

Where BNG policy applies (as mandated at national level and delivered through local planning decisions), offsetting contributions should be targeted towards biodiversity led GI creation and enhancement at pinch points shown in Appendix A. These can be regarded as strategic priority areas which developers are encouraged to divert offsetting resources towards.

There is sufficient diversity of pinch points to allow flexibility. Where appropriate the Council and other like-minded members of the Cheshire East GI partnership will review their landholdings to enable BNG policy to be delivered. Delivery of BNG will need to be ‘measurable’ as set out in national policy.

The BNG approach is likely to be extended to include other ecosystem services, notably carbon sequestration, flood risk regulation and contribution to public health, through the process of “natural capital assessment”. Wider environmental net gain (ENG)

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offsets arising from development can also be delivered at relevant pinch points shown at Appendix A. For example, if a development cannot provide sufficient public health uplift to deliver ENG on-site, there are opportunities to uplift public health through GI activity in nearby “Life Chances and Choices” pinch points.

### Northern Forest

A community forest plan is a material consideration in planning decisions. Should Cheshire East be accepted as a target area, the Northern Forest Plan can be taken into account by developers and planners, especially when major development is considered.

If the eventual Northern Forest plan does not prioritise Cheshire East, it is still possible for a GI Partnership to draw up a community forest plan, especially given the climate emergency and the significant benefits arising from tree and woodland planting in lowland Cheshire.

### **Infrastructure**

*“Ensuring our existing and planned infrastructure is supported by the GI needed to keep it resilient to a changing climate”*

Cheshire East hosts much nationally important “grey infrastructure”, including sections of the M6, the West Coast main line, the HS2 safeguarding zone, Manchester Airport and electricity network connections. Its water supply, drainage and transport infrastructure is also critical for the regional economy. All are somewhat vulnerable to the effects of climate change in terms of higher inspection and maintenance costs and increased risk of catastrophic failures. The presence of linear infrastructure usually

results in fragmentation or degradation of environmental quality, either as a direct result of barriers to human and wildlife movement, or through emissions to water and air, or through restrictions on trees, woodlands and wetlands near the infrastructure, or through adverse effects on landscape character.

GI can increase the resilience of grey infrastructure to flooding, pollution and overheating. GI can also help assimilate grey infrastructure into the receiving environment.

GI stakeholders will need to work with existing grey infrastructure providers and managers to identify where GI can increase resilience and reduce adverse environmental effects. Stakeholders can help develop projects to enable offsetting of unavoidable impacts, reduction in fragmentation and overcoming of historical barriers. Stakeholders should promote the role of GI in asset management planning and identify opportunities for co-investment.

Subject to the realisation of its future plans, HS2 is likely to have a significant effect within its safeguarded zone. Delivering its commitment to environmental assessment, design quality and environmental mitigation will be essential to maintain or enhance overall GI value, minimise adverse effects and rebuild and restore landscape quality and connectivity.

### **Strategies**

*“Scanning the horizon to ensure GI is considered in, and adds value to, plans, strategies and initiatives for Cheshire East”*

Strategies, plans and policies are continuously evolving and there are opportunities for organisations to use the Plan to ensure the importance of GI is recognised in all relevant documents.

This includes strategies relating to river basin planning, neighbourhood planning, transport, public rights of way, enterprise, energy, waste, tourism, culture, heritage, town centres, public health and wellbeing, education and infrastructure. In planning terms, there may also be value in developing Supplementary Planning Guidance for Green Infrastructure using the evidence base that now exists.

Stakeholders will also need to work with the private and third sectors to add value to their plans. For example, estate development plans may benefit from consideration of how GI can enhance land values or provide access to funding sources that would not normally be considered by the private sector acting alone. Where businesses in Cheshire East have corporate responsibility or sustainability plans, stakeholders can assist by signposting to case studies of exemplary GI activity and by providing opportunities to implement environmental schemes in the area.

Stakeholders will need to always look to add value to others' plans, because excellent GI is often a shared objective and adds resilience to economic activity.

## Finance

*“Achieving a step-change in GI Investment to deepen and broaden support beyond traditional public and philanthropic sources”*

Stakeholders in Cheshire East have a good track record in raising funds for GI and already have innovative mechanisms of using their land and corporate resources to improve the environment. For example Everybody Sport and Recreation is a not-for-profit arms-length body which leases Council sports and leisure facilities to deliver improved participation levels in sport and activity.

Cheshire East benefits from close neighbourly collaboration with the Mersey Forest and Greater Manchester where significant new thinking is emerging in relation to financing of GI. Much of the following narrative leans on the Greater Manchester Natural Capital Investment Plan<sup>26</sup> and the Mersey Forest Plan<sup>27</sup>.

A full list of active funders across Cheshire East is found below:

<http://www.cheshireaction.org.uk/our-services/grants-funding/>

### Blended Finance

Figure 7 shows a range of possible investors. Public funds and philanthropy are and will remain the bedrock of GI investment. However, post-2010 austerity and reduction of capacity within the public sector and economic uncertainty have significantly reduced this investment pipeline, although there has been a general increase in targeted charitable giving relating to social and

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<sup>26</sup> Eftec (2019), Greater Manchester Natural Capital Investment Plan.

<sup>27</sup> Mersey Forest (undated) More from Trees

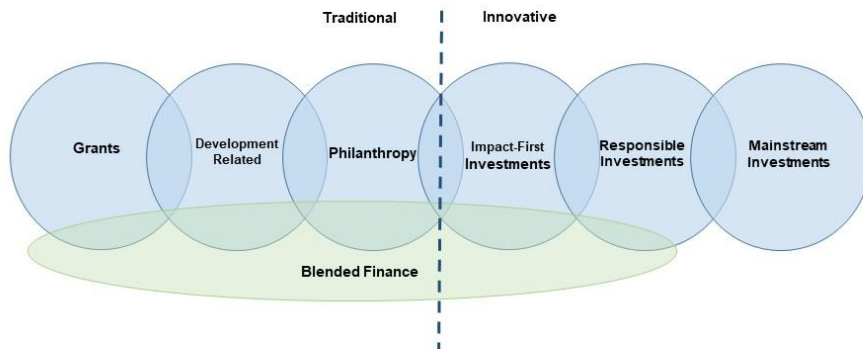
environmental responsibility both amongst individuals and corporations. Development-related funding mechanisms continue to evolve to capture a proportion of land value uplift and to offset adverse effects of development.

management, quality of place, improved health outcomes and habitat banks that can be used for development and carbon-offsetting.

Table 1 lists the broad classes of investor and the types of GI most likely to be of interest to each. Achieving a step-change in funding and implementation will require blending of approaches. For example, in Cumbria, United Utilities is considering funding landowners to make improvements to farm practices and riparian habitats to reduce waterborne phosphorus, using a “flexible permitting regime” acceptable to the Environment Agency. United Utilities is also working with Nestle, dairy farmers and the Rivers Trust to establish a ‘co-investment’ scheme whereby farmers and riparian landowners are encouraged to make environmental improvements including tree and hedgerow planting, buffer strips, and wetlands which increase dairy supply chain resilience, reduce flood risk and improve water quality. Such a scheme could also be relevant to Cheshire.

The Council could pump-prime some of this activity by establishing a Green Infrastructure Fund investing in key initiatives to unlock potential or in leveraging additional funding or engagement. However, to achieve scale, a new financing model would eventually have to be found over time in order to draw together some of the other resources and funding streams that could be applied to GI. An extended Green infrastructure Fund could provide a mechanism to draw in private sector or philanthropic funds alongside public sector investment. To address such a new funding model, consideration would have to be given to actual or perceived conflicts of interest as part of the governance model with distinct accountabilities and oversight.

## Funding



**Figure 7 - Blended Finance Diagram<sup>28</sup>**

GI delivers several socio-economic outcomes, some of which are readily investible, for example climate resilience, flood risk

<sup>28</sup> Adapted from Eftec (2019), Greater Manchester Natural Capital Investment Plan.

## A Green Infrastructure Plan for Cheshire East 2019 to 2030

**Table 1 Types of potential investors in GI<sup>29</sup>**

<b>Investor type</b>	<b>Investor</b>	<b>Form</b>	<b>Typical size</b>	<b>Expectation</b>	<b>Term</b>	<b>Readiness to invest</b>
Public	Central and Local Government	Project funding Capacity building De-risking other investors Dedication of land and assets	variable	Nil financial return Cost savings Public goods Delivery of statutory objectives	Variable	Yes, but budgets limited. Often have limited agency over land and assets
Philanthropist	Trusts Non-Governmental Organisations (NGOs) Funds linked to lottery/levies Individuals	Project funding Capacity building De-risking other investors Dedication of land and assets Voluntary offsetting	£5k - £2m	No expectation of financial return Potentially patient equity Publicity	Variable	High levels of interest in exploring repayable finance models and impact investment. General decline in charitable giving but uplift in offsetting
Obligated	Developers offsetting impacts, allied to voluntary Corporate Social Responsibility (CSR), Public Relations (PR) and Quality of Place funds	Project funding from obligated mitigation payments and discretionary funds	£5k - £100K	Nil financial return Publicity	3 to 5 years	Yes, but require firm proposal and audit trail from would-be beneficiaries
Impact Investor	Social Investors	Debt investment or some equity	£150k - £2m	Repayment of principal plus 2-10% return	3-5 years	Most investment in social impact projects, little track record in environmental projects
Corporate	Water companies Insurance companies Infrastructure developers Commercial companies	CSR Initiatives Voluntary mitigation payments Debt or equity investment	£100k - £20m	Repayment of principal plus 2-10% return Cost savings in delivery of statutory or corporate objectives Increased resilience of built infrastructure	3 to 10 years	Yes, but projects must meet investor-specific criteria which may be influenced by regulatory agreements as to scope of project and limit to funding
Mainstream	Pension funds Financial sector Green and charity bonds Crowdfunding High Net Worth Individuals	Debt or equity investment	£500k-£20m	Repayment of principal plus commercial returns	5 to 25 years	Limited track record in environmental projects May be more interested when project promoters have invested own assets or have an established brand that links to investor objectives.

<sup>29</sup> Adapted from Eftec (2019), Greater Manchester Natural Capital Investment Plan.

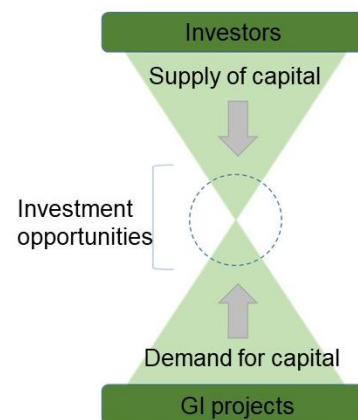
### Pipeline of Investible GI Projects

The GI Partnership in Cheshire East will work to marry up investors with project. Table 2 shows which types of Cheshire East GI projects are most investible within a short (1-5 year) timeframe and which classes of investor would be relevant. Some examples of GI priority areas (from Appendix A) are given, although this is not an exhaustive list of either priority areas or investors.

Achieving a step-change in GI investment will require an entrepreneurial and opportunistic approach to marry up projects and investors, with much reliance on publicity and networking (see diagram below).

There is also a longer-term pipeline of GI projects which may become investible. These include:

- Outcomes payments for agri-business to deliver soil conservation and carbon sequestration
- Green Business Improvement Districts
- Outcomes payments for parks and greenspaces to deliver physical and mental health improvements.



**Figure 8 - Opportunities for Investment in GI<sup>30</sup>**

### Role of a GI Partnership

Contributors to this GI Plan will have a leadership role to play alongside Cheshire East Council in making their assets and human resources available through collaboration and partnership, but it will take the efforts of the wider GI community to deliver a step-change in GI investment.

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<sup>30</sup> Adapted from Eftec (2019), Greater Manchester Natural Capital Investment Plan.

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Should a formal partnership be delivered to take this agenda forward, the following roles should be considered for a GI Partnership:

- Investment Commissioner, providing a supportive financial environment, assisting with business-planning, match-funding and general fundraising and networking
- Investment Readiness Fund to enable GI projects to present their natural capital credentials and business plans in a credible way to investors.
- Land Asset Release to enable GI projects to be implemented and managed in the long-term
- Brokering, Fundraising and Networking to develop GI projects that can harvest mitigation, offsetting and development-related funds from developers and corporate investors
- Kite-marking and Branding of GI projects in Cheshire East to demonstrate that they are well governed and make a difference to local communities, thereby increasing their attractiveness to locally-based businesses and philanthropists
- Research and Policy development, in collaboration with Greater Manchester (Natural Capital Investment Plan, 2018) and the Mersey Forest to develop blended finance models.

This model of partnership in GI investment management is used by the Mersey Forest and is estimated to have an excellent multiplier effect in terms of extra resources brought in alongside the bedrock of public sector core funds.

The Weaver Gowry Catchment Partnership, hosted by Groundwork Cheshire is another example of a delivery mechanism that could be applied to for future projects across Cheshire East. This brings

together local authorities, the Environment Agency, Cheshire Wildlife Trust, United Utilities PLC, the University of Liverpool, Northwich BID, Mersey Forest and other local community groups and volunteers.

The Local Nature Partnership offers another existing partnership, crossing borders with neighbours that presents an opportunity to support such partnership working in Cheshire East. Local Nature Partnerships (LNP) were first announced in the 2011 Natural Environment White Paper, as part of the institutional framework to promote nature conservation priorities in local areas. The Cheshire LNP's vision is: "A healthy, connected, productive natural environment richer in biodiversity, where the natural environment is embedded in decision making, managed for wildlife, supports healthier lifestyles and farming, creates attractive places and delivers sustainable economic growth."

The LNP governance comprises a Board of 18 organisations from the local authority, public, private, voluntary and academic sectors and a wider partnership network of over 160 individuals and organisations. It therefore provides a forum with potential to support this agenda as a 'community of interest; with a shared agenda.



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Table 2: Pipeline of Potentially Investible GI Projects within next 1 to 5 years

Project Type *	Public	Philan- thropy	Impact	Obligated	Corp- orate	Main- stream	Cheshire East Examples (Assets and Pinch points)
<b>URBAN GREENING</b>							
Tree-Planting and Urban habitats							Principal towns and key service centres
Urban SuDs							As above
New/Enhanced civic spaces							As above
<b>GETTING OUTDOORS EASILY</b>							
Forest Schools						?	Bollin Riverlands
Social Prescribing			?				Principal towns and key service centres
Outdoor Activity in GI setting						?	Peak Fringe
<b>RIVERS &amp; VALLEYS</b>							
River Restoration and Washland creation for flood resilience							Bollin Riverlands
Outcome payments for water quality							Dane Valley and Southern Peak Fringe
<b>THRIVING NATURE</b>							
Habitat Banks					?		
Re-wilding					?		Bollin Riverlands
<b>WORKING ALONGSIDE INFRASTRUCTURE</b>							
Outcome payments for flood mitigation			?			?	
Environmental Design Standards							The Garden Village at Handforth
<b>DISTINCTIVE PLACE</b>							
Place-based trusts							
Forest for Cheshire (Northern Forest)							
<b>FARMLAND &amp; SOILS</b>							
Peatland Restoration							Dane Valley and Southern Peak Fringe
Meres and Mosses management							Sandstone Ridge
Agri-environment support for catchment-friendly farming							River Wheelock

\* The project types have been grouped under the most relevant GI activity, but in practice most projects will deliver multiple GI activity e.g. Habitat Banks will be relevant to major infrastructure and farmland and soils activity as well.

## **The Next Generation**

*“Giving young people a voice and agency to shape environmental priorities for Cheshire East”*

Review of the history of GI in Britain shows that step-changes in policy and funding have occurred as a result of fresh thinking by relatively young people at times of socio-economic change, for example the formation of Groundwork Trusts in the 1980s and the establishment of community forests in the 1990s. That generation of environmentalists and planners is now nearing retirement. Presently there is recognition of climate emergency and significant biodiversity extinction possibilities, with high profile movements led by the younger generation.

It is important that mechanisms are found to involve young people in policy and idea-generation for delivery of GI, and provide them with agency to effect changes in the way public spaces are used and managed for health, community and environmental benefit.

## **Monitoring and Evaluation**

Monitoring and evaluation is vital to show the outcomes from investments in GI. It helps to demonstrate the difference that GI makes and to communicate and advocate for investment. It also underpins ongoing work on policy and funding, helps target specific interventions, and informs research.

The Mersey Forest has over 20 years of experience in effective monitoring and evaluation and adding value to the data it collects through use in funding and policy development. This would provide a Cheshire East GI partnership with local expertise to share and apply best practice and to develop a set of indicators and evidence points. Techniques would include:

- Regular land cover monitoring to assess increasing cover of trees, habitats and wetlands
- Collation of publicly accessible data on tree-planting, environmental stewardship schemes, agri-environment agreements, habitat banking, outdoor exercise levels etc.
- Awareness surveys amongst the public, decision-makers, influencers, developers and infrastructure providers
- Partner surveys to enable sharing of good practice and funding bids
- Research, particularly into the value of natural capital in Cheshire East and how it would be affected by development, infrastructure and compensatory GI provision.

Where practicable, stakeholders should align monitoring and reporting with Defra’s sustainable development indicators and/or the Government’s 25 Year Environment Plan and the Council’s own Environment Strategy.