

Places for Everyone

Natural Environment Topic Paper

July 2021



Contents

1 Introduction.....	3
GMSF to Places for Everyone (PfE).....	2
2 Policy Context.....	6
25 Year Environment Plan.....	6
Urban Pioneer.....	8
Greater Manchester Five Year Environment Plan	10
Green Infrastructure.....	12
Landscape Character.....	13
Accessible Natural Greenspace.....	13
Biodiversity and Geodiversity Conservation.....	14
Soil Resources.....	17
River Valleys.....	17
Flood Risk and Water Management.....	19
Canal Network	21
3 Summary of Evidence.....	23
Green Infrastructure	23
Priority Green and Blue Infrastructure Study	23
Development of an ecological network for Greater Manchester	25
Greater Manchester’s Tree and Woodland Strategy	32
Landscape Character	33
Accessible Natural Greenspace.....	35
Biodiversity and Geodiversity Conservation.....	38
Soil Resources.....	40
River Valleys.....	43
Strategic Priority Green Infrastructure Study	47

Natural Course47

Flood Risk and Water Management 50

Canal Network..... 53

4 Summary of Consultation..... 53

5 Summary of Integrated Assessment..... 60

List of Figures

Figure 1: Priority Green Infrastructure Network for Greater Manchester25

Figure 2: Strategic opportunity areas and sites for green infrastructure enhancement29

Figure 3: Greater Manchester landscape character types.....34

Figure 4: Water Framework Directive Cycle 2 classifications 201647

List of Tables

Table 1: 25 Year Environment Plan objectives.....7

Table 2: Components of the Priority Green Infrastructure Network.....24

Table 3: List of strategic opportunity areas and sites for green infrastructure enhancement29

Table 4: targets for upland habitats30

Table 5: targets for woodlands and trees31

Table 6: targets for major parks and greenspace31

Table 7: North West River Basin Management Plan catchments45

Table 8: Summary of Natural Environment comments received on the Revised Draft GMSF 201955

1 Introduction

- 1.1 To help explain the Places for Everyone (PfE) Joint Plan , a series of topic papers has been prepared. This is to explain the reasons for the policies in the draft **PfE**.
- 1.2 Each topic paper summarises and cross-references the relevant evidence and explains how this has informed the draft **PfE**. Each topic paper summarises the previous consultation comments that are relevant to the topic. The topic papers explain how the draft PfE policies and allocations have been derived based on the evidence, consultation comments and Integrated Assessment.
- 1.3 The Greater Manchester Combined Authority (GMCA) has chosen to prepare topic papers to be transparent in how the PfE has been prepared and to provide a more understandable summary of the background technical information.
- 1.4 This topic paper is about the natural environment, which includes: green infrastructure, including the strategic habitat types across the plan area; landscape character; accessible natural greenspace; biodiversity and geodiversity conservation, soil resources; river valleys; flood risk and water management; and canals.

GMSF to Places for Everyone (PfE)

- 1.5 In November 2014, the AGMA Executive Board recommended to the 10 Greater Manchester local authorities that they agree to prepare a joint Development Plan Document (“Joint DPD”), called the Greater Manchester Spatial Framework (“GMSF”) and that AGMA be appointed by the 10 authorities to prepare the GMSF on their behalf.

- 1.6 The first draft of the GMSF DPD was published for consultation on 31st October 2016, ending on 16th January 2017. Following substantial re-drafting, a further consultation on the Revised Draft GMSF took place between January and March 2019.
- 1.7 On the 30 October 2020 the AGMA Executive Board unanimously agreed to recommend GMSF 2020 to the 10 Greater Manchester Councils for approval for consultation at their Executives/Cabinets, and approval for submission to the Secretary of State following the period for representations at their Council meetings.
- 1.8 At its Council meeting on 3 December Stockport Council resolved not to submit the GMSF 2020 following the consultation period and at its Cabinet meeting on 4 December, it resolved not to publish the GMSF 2020 for consultation.
- 1.9 As a joint DPD of the 10 Greater Manchester authorities, the GMSF 2020 required the approval of all 10 local authorities to proceed. The decisions of Stockport Council/Cabinet therefore signalled the end of the GMSF as a joint plan of the 10.
- 1.10 Notwithstanding the decision of Stockport Council, the nine remaining districts considered that the rationale for the preparation of a Joint DPD remained. Consequently, at its meeting on the 11th December 2020, Members of the AGMA Executive Committee agreed in principle to producing a joint DPD of the nine remaining Greater Manchester (GM) districts. Subsequent to this meeting, each district formally approved the establishment of a Joint Committee for the preparation of a joint Development Plan Document of the nine districts.
- 1.11 Section 28 of the Planning and Compulsory Purchase Act 2004 and Regulation 32 of the Town and Country Planning (Local Planning) (England) Regulations 2012 enable a joint plan to continue to progress in the event of one of the local authorities withdrawing, provided that the plan has 'substantially the same effect' on the remaining authorities as the original joint plan. The joint plan of the nine GM districts has been prepared on this basis.

- 1.12 In view of this, it follows that PfE should be considered as, in effect, the same Plan as the GMSF, albeit without one of the districts (Stockport). Therefore “the plan” and its proposals are in effect one and the same. Its content has changed over time through the iterative process of plan making, but its purpose has not. Consequently, the Plan is proceeding directly to Publication stage under Regulation 19 of the Town and Country Planning (Local Planning) England Regulations 2012.
- 1.13 Four consultations took place in relation to the GMSF. The first, in November 2014 was on the scope of the plan and the initial evidence base, the second in November 2015, was on the vision, strategy and strategic growth options, and the third, on a Draft Plan in October 2016.
- 1.14 The fourth and most recent consultation on The Greater Manchester Plan for Homes, Jobs and the Environment: the Greater Manchester Spatial Framework Revised Draft 2019 (GMSF 2019) took place in 2019. It received over 17,000 responses. The responses received informed the production of GMSF 2020. The withdrawal of Stockport Council in December 2020 prevented GMSF 2020 proceeding to Regulation 19 Publication stage and instead work was undertaken to prepare PfE 2021.
- 1.15 Where a local planning authority withdraws from a joint plan and that plan continues to have substantially the same effect as the original joint plan on the remaining authorities, s28(7) of the Planning and Compulsory Purchase Act 2004 provides that any step taken in relation to the plan must be treated as a step taken by the remaining authorities for the purposes of the joint plan. On this basis, it is proposed to proceed directly to Publication stage under Regulation 19 of the Town and Country Planning (Local Planning) England Regulations 2012.
- 1.16 A comprehensive evidence base was assembled to support the policies and proposals in the GMSF 2020. Given the basis on which the Plan has been prepared, this evidence base remains the fundamental basis for the PfE 2021 and has remained available on the GMCA’s website since October 2020. That said, this evidence base has been reviewed and updated in the light of the change from

GMSF 2020 to the PfE2021 and, where appropriate, addendum reports have been produced and should be read in conjunction with evidence base made available in October 2020. The evidence documents which have informed the plan are available via the GMCA's website.

2 Policy Context

2.1 This section summarises the key pieces of national policy, legislation, plans and programmes about the natural environment that the PfE will need to respond to. Many of the policy requirements for plan making come from the revised National Planning Policy Framework (NPPF), last updated in June 2019.

2.2 The policy context for the majority of this section is organised by the themes below:

- Green infrastructure
- Landscape character
- Accessible natural greenspace
- Biodiversity and geodiversity conservation
- Soil resources
- River valleys
- Flood risk and water management
- Canal network.

25 Year Environment Plan

2.3 The Government's 25 Year Environment Plan¹ sets out the Government's action to deliver its aim to improve the natural environment within a generation so that it

¹ HM Government (2018), *A Green Future: Our 25 Year Plan to Improve the Environment* – available at

is in a better state than when it was inherited. It aims to deliver cleaner air and water in our cities and rural landscapes, protect threatened species and provide richer wildlife habitats. Six key areas of focus have been identified in the table below.

Table 1: 25 Year Environment Plan objectives

Chapter	Objectives
Chapter 1: Using and managing land sustainably	Embedding an 'environmental net gain' principle. Improving/incentivising land management. Improving soil and protecting peatland. Supporting large scale woodland creation Reducing flood risk (through resilience, natural flood management and wider uptake of sustainable drainage systems)
Chapter 2: Recovering nature and enhancing the beauty of landscapes	Protecting and recovering nature as well as enhancing natural beauty Reforming water abstraction, increasing supply and incentivising efficiency
Chapter 3: Connecting people with the environment to	Helping people improve their health and wellbeing by using green spaces

improve health and wellbeing	<p>Encouraging children to be close to nature, in and out of school</p> <p>Greening our towns and cities</p> <p>Making 2019 a Year of Action for the environment</p>
Chapter 4: Increasing resource efficiency, reducing pollution and waste	<p>Maximising resource efficiency and minimising environmental impacts at end of life</p> <p>Reducing pollution</p>
Chapter 5: Securing clean, productive and biologically diverse seas and oceans	<p>Introducing a sustainable fisheries policy and achieving good environmental status</p>
Chapter 6: Protecting and improving the global environment	<p>Providing international leadership and leading by example</p>

Urban Pioneer

2.4 In 2018, the Department for the Environment, Food and Rural Affairs (DEFRA) created four pioneer projects to inform the development and implementation of the 25 Year Environment Plan. Greater Manchester was selected as the ‘Urban’

pioneer and was tasked with testing the following objectives and emerging thinking from the 25 Year Environment Plan:

- Applying a natural capital approach to decision making;
- Developing innovative funding opportunities;
- Demonstrate integrated approaches to planning and delivery; and
- Building our understanding of ‘what works’ in practice.

2.5 Through the Urban Pioneer, Greater Manchester partners made a commitment to embed a biodiversity net gain approach to the planning system across Greater Manchester and explore and demonstrate how this will deliver wider natural capital net gains and benefits to people’s health, wellbeing, prosperity and growth.

2.6 A natural capital account² has been developed for Greater Manchester to measure the benefits provided by the city region’s natural assets so we know what we have and they can be monitored over time. The current asset value of the natural capital is estimated to be £28bn over the next 60 years and the annual value of services provided by these is estimated to be in the region of £1bn. Managed in the right way these assets can provide sustained benefits to society. Equally where there are deficiencies in these assets (either through condition of provision) that this is recognised in future decision making. Through the Natural Course (EU Life funded programme) Greater Manchester pioneered the creation of the first Natural Capital Investment Plan (NCIP) for a UK city region to identify new opportunities to secure sustainable investment in its natural capital assets. A Greater Manchester Environment Fund is now being developed which will provide a mechanism to develop and implement these opportunities and unlock new and existing investment sources.”

² <https://naturegreatermanchester.co.uk/resource/gm-natural-capital-accounts/>

Greater Manchester Five Year Environment Plan

2.7 The Greater Manchester Combined Authority (GMCA) has produced a Five Year Environment Plan³ to address the major environmental challenges that threaten the future health and prosperity of the Greater Manchester. The challenges are mitigating climate change; air quality; production and consumption of resources; natural environment; resilience; and adaptation to the impacts of climate change.

2.8 To meet these challenges, the Five Year Environment Plan outlines the urgent actions that need to take place in Greater Manchester in the next five years, these are:

- Energy supply:
 - Priority 1: Increasing local renewable electricity generation, adding at least a further 45MW by 2024.
 - Priority 2: Decarbonising how we heat our buildings, adding at least a further 10TWh of low carbon heating by 2024.
 - Priority 3: Increasing the diversity and flexibility of our supply, adding at least a further 45MW of diverse and flexible load by 2024.
- Transport and Travel:
 - Priority 1: Increasing use of public transport and active travel modes.
 - Priority 2: Phasing out of fossil-fuelled private vehicles and replacing them with zero emission (tailpipe) alternatives.
 - Priority 3: Tackling the most polluting vehicles on our roads.
 - Priority 4: Establishing a zero emissions bus fleet.
 - Priority 5: Decarbonising freight transport and shifting freight to rail and water transport.
- Homes, workplaces and public buildings:
 - Priority 1: Reducing the heat demand from existing homes focussing on initiating a fundamental shift in whole house retrofit by retrofitting homes by 2024.

³ <https://www.greatermanchester-ca.gov.uk/what-we-do/environment/>

- Priority 2: Reducing the heat demand from existing commercial and public buildings.
- Priority 3: Reducing the heat demand in new buildings.
- Production and consumption of resources:
 - Priority 1: Producing goods and services more sustainably, moving to a circular economy.
 - Priority 2: Becoming more responsible consumers.
 - Priority 3: Managing our waste as sustainably as possible.
 - Priority 4: Reducing unnecessary food waste.
- Natural environment:
 - Priority 1: Managing our land sustainably, including planting 1m trees by 2024.
 - Priority 2: Managing our water and its environment sustainably.
 - Priority 3: Achieving a net gain in biodiversity for new development.
 - Priority 4: Increasing investment into our natural environment.
 - Priority 5: Increasing engagement with our natural environment.
- Resilience and adaptation to climate change:
 - Priority 1: Embedding climate change resilience and adaptation in all policies.
 - Priority 2: Increasing the resilience of and investment in our critical infrastructure.
 - Priority 3: Implementing a prioritised programme of nature-based climate adaptation action.
 - Priority 4: Improving monitoring and reporting.

2.9 The GMCA will report annually on progress to deliver the priorities against a set of key indicators.

2.10 In order to deliver the environmental vision and aims that the Five Year Environment Plan sets out and to close the gap between what is needed and where we are now, different approaches are required for the following:

- Supporting innovation in technology.
- Taking new approaches to finance and funding.

- Building on existing partnerships between the public, private and voluntary, community and social enterprise organisations.
- Showing leadership.
- Engaging and educating residents, communities and businesses.
- Upskilling our workforce.

Green Infrastructure

National Planning Policy Framework

2.11 On plan making, in Chapter 3, Section (d) of Paragraph 20 states that strategic policies should make sufficient provision for the conservation and enhancement of the natural environment, including green infrastructure to address climate change mitigation and adaption.

2.12 Green infrastructure is also referred to in Chapter 15:

- Paragraph 171 states that plans should take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure;
- Section a) of Paragraph 174 states that to protect and enhance biodiversity and geodiversity, plans should identify and map components of the local ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity, wildlife corridors and stepping stones that connect them and areas identified by local partnerships for habitat restoration or creation; and
- Section b) of Paragraph 174 states that to protect and enhance biodiversity and geodiversity , plans should promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species and identify and pursue opportunities for securing measurable net gains for biodiversity.

Landscape Character

National Planning Policy Framework

- 2.13 On plan making, Paragraph 20(d) states that landscape should form part of the strategic policies of a plan in relation to the natural environment. This is in addition to climate change mitigation and adaption, conservation and enhancement of the natural, built and historic environment and green infrastructure.
- 2.14 Paragraph 127 (c) states that planning policies and decisions should ensure that developments respond to local character and history, including the surrounding built environment and landscape setting, whilst not preventing or discouraging appropriate innovation or change (such as increased densities).
- 2.15 Paragraph 170 (a) states that planning policies and decisions should contribute and enhance the natural and local environment by protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan).
- 2.16 Paragraph 170 (b) states that planning policies and decisions should contribute and enhance the natural and local environment by recognising the intrinsic character and beauty of the countryside, amongst other considerations cited in the paragraph.

Accessible Natural Greenspace

National Planning Policy Framework

- 2.17 Chapter 8: 'Promoting healthy and safe communities' of the NPPF relates to the provision of accessible natural greenspace because:
- Paragraph 91(c) states that planning policies and decisions should aim to achieve healthy, inclusive and safe places which enable and support healthy lifestyles, especially where this

would address identified local health and well-being needs— for example through the provision of safe and accessible green infrastructure, sports facilities, local shops, access to healthier food, allotments and layouts that encourage walking and cycling.

- Paragraph 92(a) states that to provide the social, recreational and cultural facilities and services the community needs, planning policies and decisions should plan positively for the provision and use of shared spaces, community facilities (such as local shops, meeting places, sports venues, open space, cultural buildings, public houses and places of worship) and other local services to enhance the sustainability of communities and residential environments.
- Paragraph 96 states that access to a network of high quality open spaces and opportunities for sport and physical activity is important for the health and well-being of communities. Planning policies should be based on robust and up-to-date assessments of the need for open space, sport and recreation facilities (including quantitative or qualitative deficits or surpluses) and opportunities for new provision. Information gained from the assessments should be used to determine what open space, sport and recreational provision is needed, which plans should then seek to accommodate.

Biodiversity and Geodiversity Conservation

National Planning Policy Framework

2.18 The Government's planning policy on conserving and enhancing the natural environment is contained in Chapter 15. The key plan making

considerations from that chapter relating to biodiversity and geodiversity conservation are outlined below.

- 2.19 Paragraph 170 (a) states that planning policies and decisions should contribute to and enhance the natural and local environment by protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan).
- 2.20 Paragraph 170 (b) states that planning policies and decisions should contribute to and enhance the natural and local environment by recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland.
- 2.21 Paragraph 170 (d) states that planning policies and decisions should contribute to and enhance the natural and local environment by minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.
- 2.22 Paragraph 171 states that plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies the NPPF; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.
- 2.23 Paragraph 174 (a) states that to protect and enhance biodiversity and geodiversity, plans should identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the

hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation.

2.24 Paragraph 174 (b) states that to protect and enhance biodiversity and geodiversity, plans should promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

2.25 Elsewhere in NPPF, net gains in biodiversity and net environmental gains are referenced the following paragraphs:

- Paragraph 32 states that a plan's sustainability appraisal should demonstrate how environmental net gains, as well as net gains the economy and society, have been addressed.
- Paragraph 72 (a) implies that there are opportunities for net environmental gains when planning for large housing developments, such as urban extensions and new settlements; and
- Paragraph 102 (d) stipulates that transport issues should be considered from the earliest stages of plan-making so that environment impacts of transport infrastructure can be considered, including opportunities for environmental net gain.

Soil Resources

National Planning Policy Framework

2.26 The protection and enhancement of soil resources and agricultural land through plan making are outlined in Chapter 15: 'Conserving and enhancing the natural environment'.

2.27 Paragraph 170 (a) and (b) state that planning policies and decisions should contribute to and enhance the natural and local environment by protecting soils and recognising the economic benefits of the best and most versatile agricultural land as a form of ecosystem service.

2.28 Paragraph 171 states that plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.

River Valleys

National Planning Policy Framework

2.29 Paragraph 170 (e) states that the planning system should contribute to and enhance the natural and local environment by preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of water pollution.

2.30 To prevent such unacceptable risk, Paragraph 180 is clear that planning policies and decisions should ensure new development is appropriate for its location and the effects (including cumulative effects) of pollution on the natural environment or general amenity, and the potential sensitivity

of the area or proposed development to adverse effects from pollution, should be taken into account.

2.31 Paragraph 170 (e) advises that development should, wherever possible, help to improve local environment conditions such as water quality, taking into account relevant information. The paragraph explicitly references River Basin Management Plans (RBMP). For Greater Manchester, the North West RBMP⁴ is the over-arching strategy which contains information on current water body status and required measures to meet the Water Framework Directive⁵. The EU Water Framework Directive applies to surface water and groundwater and requires member states to protect, enhance and restore water bodies to 'good' status.

2.32 Paragraph 3 of the National Planning Practice Guidance on Water Supply, Wastewater and Water Quality⁶ references the DEFRA policy framework⁷ which encourages the wider adoption of an integrated catchment-based approach to improving the quality of the water environment and inform decision making. Paragraph 6 also advises that plan making may need to consider:

- How to help protect and enhance local surface water and groundwater in ways that allow new development to proceed and avoids costly assessment at the planning application stage. For example, can the plan steer potentially polluting development away from the most sensitive areas, particularly those in the vicinity of potable water supplies (designated source protection zones or near surface water drinking water abstractions).

⁴ Environment Agency (2016), *Water for life and livelihoods, North West River Basin Management Plan* – available at <https://www.gov.uk/government/publications/part-2-river-basin-management-planning-overview-and-additional-information>

⁵ Available at https://ec.europa.eu/environment/water/water-framework/index_en.html

⁶ Available at <https://www.gov.uk/guidance/water-supply-wastewater-and-water-quality>

Available at available at

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/204231/pb13934-water-environment-catchment-based-approach.pdf

- The type or location of new development where an assessment of the potential impacts on water bodies may be required.
- Where particular types of sustainable drainage systems may not be practicable.

Flood Risk and Water Management

The National Planning Policy Framework

2.33 Paragraph 155 is clear that in appropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk, whether existing or in the future. The paragraph goes on to state that where development is necessary in the highest risk areas, the development should be made safe for its lifetime without increasing flood risk elsewhere.

2.34 Paragraph 156 states that strategic policies should manage flood risk from all sources, be informed by a Strategic Flood Risk Assessment (SFRA) and should consider cumulative impacts in, or affecting, local areas susceptible to flooding, and take account of advice from the Environment Agency and other relevant flood risk management authorities, such as lead local flood authorities and internal drainage boards.

2.35 Paragraph 157 states that all plans should apply a sequential, risk-based approach to the location of development – taking into account the current and future impacts of climate change – so as to avoid, where possible, flood risk to people and property. The paragraph goes into state that plans should do this, and manage any residual risk, by:

- Applying the sequential test and then if necessary, the exception test.
- Safeguarding land from development that is required, or likely to be required for current or future flood management.
- Using opportunities offered by new development to reduce the causes and impacts of flooding (where appropriate through the use of natural flood management techniques).
- Where climate change is expected to increase flood risk so that some existing development may not be sustainable in the long-term, seeking opportunities to relocate development, including housing, to more sustainable locations.

The Sequential Test

2.36 Paragraph 158 explains the sequential test. The aim of the test is to steer new development to areas with the lowest probability of flooding. Development should not be allocated if there are reasonably available sites appropriate for the proposed development in areas with a lower risk of flooding. The sequential approach should be used in areas known to be at risk now or in the future from any form of flooding.

The Exception Test

2.37 Paragraph 159 and 160 explain the exception test. It states If it is not possible for development to be located in zones with a lower risk of flooding (taking into account wider sustainable development objectives), the exception test may have to be applied. The need for the exception test will depend on the potential vulnerability of the site and of the

development proposed, in line with the Flood Risk Vulnerability Classification set out in national planning guidance.

2.38 For the exception test to be passed it should be demonstrated that:

- The development would provide wider sustainability benefits to the community that outweigh the flood risk; and
- The development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall.

2.39 Paragraphs 163 and 165 set out the requirements for development to incorporate sustainable drainage systems (SUDS):

- All new development permitted in areas at risk of flooding, subject to passing the sequential and exception tests, should incorporate sustainable drainage systems unless there is clear evidence that this would be inappropriate; and
- Major development (regardless of its location) should incorporate sustainable drainage systems unless there is clear evidence that it would be inappropriate.

Canal Network

National Planning Policy Framework

2.40 Canals are considered to be within the definition of 'open space' within the NPPF. Paragraph 96 advises that access to high quality open space can make an important contribution to the health and well-being of our communities. Paragraph 97 outlines a presumption against building on open space unless

demonstrated to be mitigated or alternative provision is provided. Paragraph 170 makes reference to the benefits from natural capital and ecosystem services, which would include the canal network.

- 2.41 The majority of Greater Manchester's industrial heritage is associated with the canal network. Paragraph 127 (c) states that planning policies and decisions should ensure that developments respond to local character and history, including the surrounding built environment and landscape setting.

- 2.42 Some of the canal network across Greater Manchester is also protected through European Designations (e.g. Rochdale Canal SAC), National (Huddersfield Narrow Canal SSSI) and many are referenced as Sites of Biological Importance (e.g. Bridgewater Canal). Consequently, many of the NPPF plan making considerations to protect and enhance biodiversity, that were outlined previously in the chapter, apply to the canal network.

- 2.43 Canals are also part of the waterbody network that is measured under the requirements of the Water Framework Directive (as referenced in the river valley section in this topic paper).

3 Summary of Evidence

3.1 The GMCA and its partners have commissioned a number of studies and reports to provide evidence on which to formulate the PfE planning policies about the natural environment, in order to deliver requirements and objectives of NPPF and other policies and legislation. The studies are summarised below.

Green Infrastructure

Priority Green and Blue Infrastructure Study

3.2 The Greater Manchester Ecological Unit (GMEU) identified and mapped a strategic priority green infrastructure network for Greater Manchester⁸. The study has built on a range of existing data and previous studies.

3.3 Strategic priority green infrastructure is green infrastructure that delivers the most important ecosystem services. The study considers these to be: surface water and fluvial flood management; carbon storage and sequestration; water quality management; habitat and wildlife conservation; and public recreation and sustainable travel. Although the term 'green infrastructure' is used, it also includes 'blue' infrastructure including rivers, canals, lakes and other waterbodies.

3.4 In addition to the priority green infrastructure network mapping, the study also:

- Develops an ecological network in Greater Manchester, as a subset of the wider network of green infrastructure;
- Identifies strategic opportunity areas and sites to enhance green infrastructure, including habitat enhancement; and
- Explores how targets and standards to improve green infrastructure in Greater Manchester to deliver net gains in biodiversity and green infrastructure could be set.

The Priority Green Infrastructure Network

⁸ The full report is available at <https://www.greatermanchester-ca.gov.uk/gmsf>.

3.5 The priority green infrastructure network is displayed in Figure 1, which has been extracted from the study. It comprises of the land designations, habitats and land uses that are connected and are listed in Table 2. The majority of the connections between sites are via river and waterway, which highlights their strategic value. The network does not include small isolated sites, however their exclusion does not mean that their green infrastructure value is unimportant at a more local level.

Table 2: Components of the Priority Green Infrastructure Network

Component
Blanket Bog Priority Habitat
Lowland Raised Bog Habitat
Sites of Biological Importance
Sites of Special Scientific Interest
Special Areas of Conservation
Strategically important parks and countryside for recreation
Special Protection Areas
Local Nature Reserves
Protected species
Priority species
Woodlands
Lowland wetland habitat
Main rivers and waterways
Greenspace in flood zones
Habitats vulnerable to climate change
Peat soils

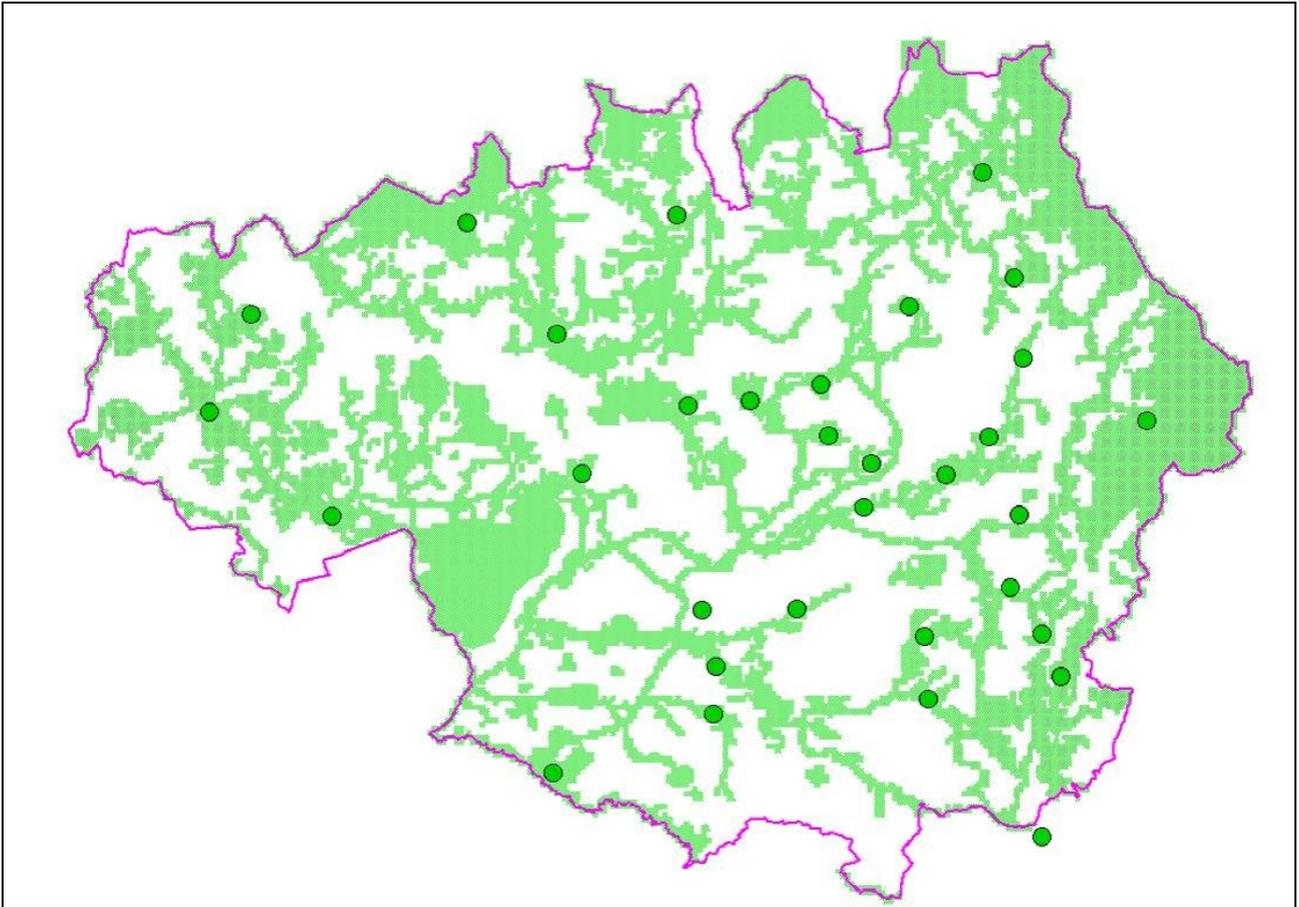


Figure 1: Priority Green Infrastructure Network for Greater Manchester

Development of an ecological network for Greater Manchester

- 3.6 The study has constructed an ecological network for Greater Manchester, based on broad habitat types, which also form part of the priority green infrastructure network, that are considered to be the most important in Greater Manchester. The broad habitats type areas are outlined below.

Uplands

- 3.7 This area includes the South and West Pennines, part of the Pennine ridge of hills, lying between the Peak District National Park and the Yorkshire Dales National Park. The area contains internationally important mosaics of moorland habitats and peat soils. The priority ecosystem services that the uplands provide are: carbon storage and sequestration; water storage, water quality management; and recreation. The opportunities for ecosystem service enhancement in uplands are: restoration of peat

bogs; improvement of upland meadows for wildlife; and improvement of public access and promotion of enjoyment of the landscape.

River valleys and canals

- 3.8 River valleys and canals form very important corridors of semi-natural habitats and natural greenspace throughout Greater Manchester – with open grassland, woodland and wetland all being closely linked to the water courses – linking urban centres with open countryside. Important river valleys include those of the Mersey, Irwell, Roch, Tame, Etherow, Goyt, Medlock, Irk and Bollin. The Manchester Ship Canal, included in this priority area, follows in places the original routes of the Rivers Mersey and Irwell. The Manchester Ship Canal, the Bridgewater Canal, the Leeds and Liverpool Canal, and the Rochdale Canal are all inter-connected, linking the Manchester conurbation with surrounding areas.
- 3.9 The priority ecosystem services provided by river valleys and canals are: surface water and fluvial flood management; water quality management; public recreation and sustainable travel routes; and wildlife and habitat conservation.
- 3.10 The opportunities for ecosystem service enhancement in the river valleys and canals are: improving water quality; re-naturalising rivers and waterways; improving public access to waterways; and improving opportunities for sustainable travel along waterways.

Woodlands and trees

- 3.11 The Greater Manchester Tree Audit, which was co-ordinated by Red Rose Forest in 2011, estimated that there are 12 million trees in Greater Manchester covering on average 10 per cent of the land area on average, just above the national average. Woodland provides a valuable wildlife resource, and many important woodlands have been designated for their nature conservation interest.

3.12 The priority ecosystem services provided by woodlands are: recreation; carbon storage and sequestration; and flood mitigation. The opportunities for ecosystem services in the woodlands are: new tree planting; positive woodland management; and management of recreational pressures and provision of new opportunities for recreation.

Lowland wetlands

3.13 This character area includes the large areas of remnant mossland across areas of Salford and Wigan and the wetlands associated with past industrial activity in Wigan.

3.14 The mosslands includes areas of lowland raised bog and areas that were formerly bogs, but which have now been converted to farmland. Undamaged raised bogs support a range of bog mosses (sphagnum), together with cotton grasses, cross-leaved heath, bog rosemary and sundews. They also support a range of invertebrates.

3.15 In Wigan in particular, extensive valuable wetland habitats have formed on many former industrial sites where undermining has resulted in the formation of many subsidence flashes and ponds. The Wigan Flashes are particularly significant for their variety and quality of habitats present, including open water, fen, swamp, woodland and grassland.

3.16 Much of this 'character area' is within the Great Manchester Wetland Nature Improvement Area.

3.17 The priority ecosystem services provided by the lowland wetlands are: carbon storage and sequestration (the most important); flood mitigation; public recreation and sustainable travel; and habitat and wildlife conservation. The opportunities for ecosystem services are: restoration of lowland raised bog habitats and enhance opportunities for open access.

Major parks and greenspaces

- 3.18 Publicly accessible parks and open greenspaces provide people with the opportunity to be physically active, facilitate social interaction, reduce stress and enhance a sense of well-being and provide opportunities for people to experience biodiversity first-hand. There are formal parks and gardens like Wythenshawe Park, historic parklands like Dunham Massey and large, open upland areas like Dovestones. All are of high value for use by people for active and passive recreation, but they also perform a wide range of other ecosystem services such as flood risk management and provision of wildlife habitats.
- 3.19 The priority ecosystem services provided by major parks and Greenspace are: public recreation and green travel routes (the most important; surface water and fluvial flood management; water quality management; and wildlife and habitat conservation.
- 3.20 The opportunities for ecosystem services enhancement are: investment in improving access for all and investment in management.

Strategic opportunity areas and sites for green infrastructure enhancement

- 3.21 The study identifies strategic opportunity areas and sites for the creation and improvement of biodiversity habitats. These areas and sites are also locations for green infrastructure improvement, in general, as habitat creation and enhancement inevitable benefits a range of ecosystem services.
- 3.22 The strategic opportunity areas and sites have been chosen because they of a strategic scale and capable of delivering strategic-scale improvements to the delivery of ecosystem services for large areas of Greater Manchester. The study explains that sites and areas are not (necessarily) constraints on built development, as the development of grey infrastructure and built

development within opportunity sites and areas may facilitate the delivery of improvements in some areas.

3.23 Figure 2 'Strategic opportunity areas and sites for green infrastructure enhancement', extracted from the study, and Table 3 'List of strategic opportunity areas and sites for green infrastructure enhancement' illustrates the strategic opportunity areas and sites.

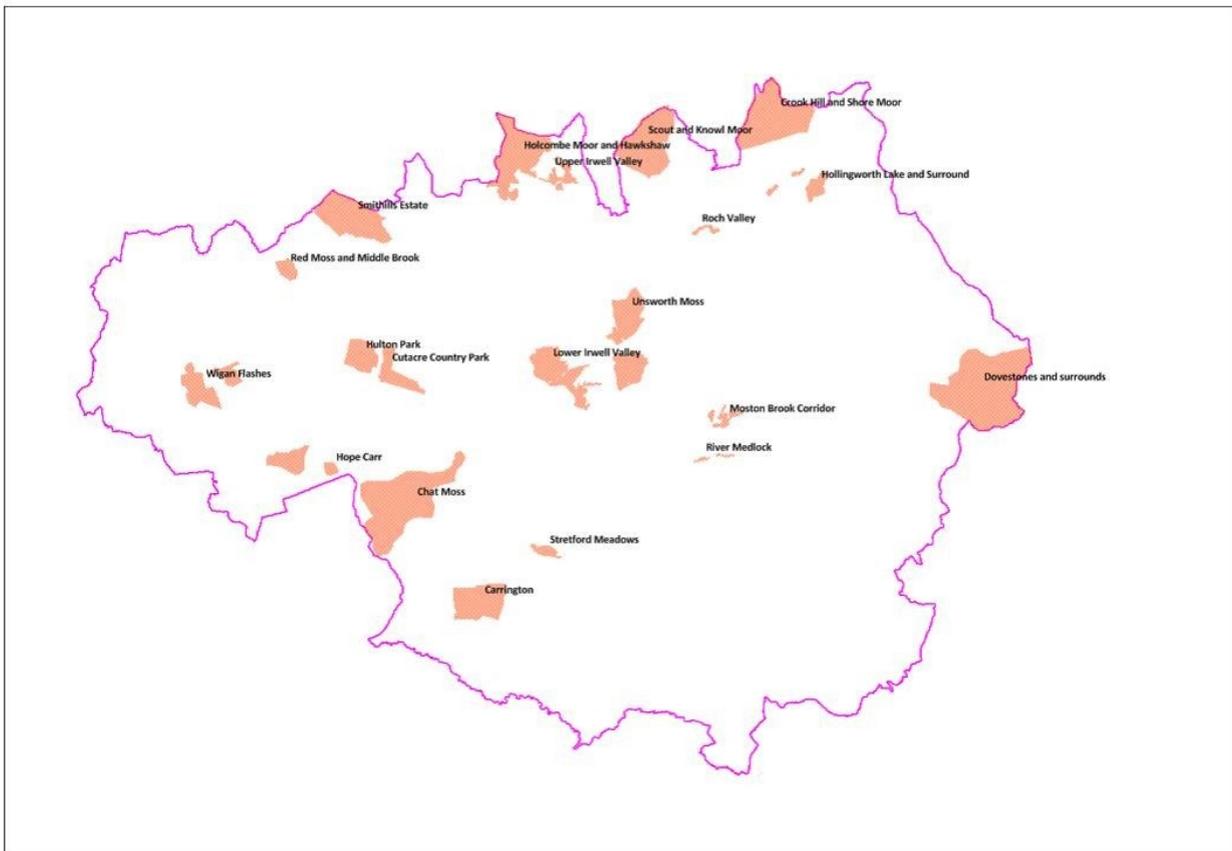


Figure 2: Strategic opportunity areas and sites for green infrastructure enhancement

Table 3: List of strategic opportunity areas and sites for green infrastructure enhancement

District(s)	Strategic opportunity areas and sites
Wigan / Salford / Warrington	Greater Manchester Wetlands Improvement Area
Wigan	Hope Carr
Salford/Wigan	Chat Moss Heartland
Wigan	Wigan Flashes
Bolton/Salford/Bury	Lower Irwell/ City Forest Park

Bury/ Salford/ Manchester	Lower Irwell Valley, including former Rhodes Farm Waste Water Treatment Works
Wigan	Greenheart
Oldham/ Tameside/ Rochdale	South Pennine Moors
Rochdale	Crook Moor and Shore Moor
Rochdale	Scout and Knowl Moors
Oldham	Dovestones and surrounds
Bolton/ Bury	West Pennine Moors
Bury	Holcombe Moor and Hawksshaw
Bolton	Smithills Estate
Stockport/ Manchester/ Trafford	Mersey Valley
Trafford	Stretford Meadows
Manchester/ Oldham	Brook Corridor
Manchester	Lower Medlock Valley
Rochdale	Roch Valley
Bolton	Red Moss and Middle Brook Valley
Bury	Unsworth Moss/ Whittle Brook potential flood basin
Manchester	Heaton Park
Bolton	Hulton Park

Targets and Standards

3.24 The study has identified how targets could be developed for each broad habitat type/ green infrastructure theme, the: uplands, woodlands and trees, river valleys and canals, lowland wetlands and major parks and greenspace. The targets are outlined below, that have been extracted from the study.

Uplands

Table 4: targets for upland habitats

Objective	Target	Extent (Ha)
Maintain extent	Maintain the existing extent of GM upland habitat resource	4,000
Maintain extent of substrate and abiotic condition for future restoration	Ensure no further loss of abiotic factors (e.g. peat deposits)	4,000

Achieve favourable condition	Rehabilitation of existing raised bog resource to favourable condition	500
Restore	Restore lowland raised bog on suitable areas of peat	500

Woodlands and Trees

Table 5: targets for woodlands and trees

Objective	Target	Extent (Ha)
Maintain extent of woodland	Maintain the existing extent of GM lowland broadleaved, upland oak and wet woodlands.	3,500
Achieve favourable condition	By appropriate management, restore the diversity of structure and species to favourable condition	2,500
Expand woodland habitat	Through natural regeneration and woodland planting	480
Maintain extent of hedgerows		2,700 km
Plant new hedgerows		20 km
Plant new trees	By woodland planting and all other tree planting	1 million trees.

Rivers and Canals

3.25 Achievement of ‘good’ condition for all major waterbodies within the lifetime of the Plan.

Major Parks and Greenspace

Table 6: targets for major parks and greenspace

Objective	Target	Extent (Ha)
Maintain extent of major (priority) parks and greenspaces		TBC
Improve condition of major (priority) parks and greenspace	By appropriate management, restore and improve the capacity of major parks and greenspaces to deliver ecosystem services.	

Greater Manchester's Tree and Woodland Strategy

3.26 City of Trees, the ten districts of Greater Manchester, Natural England, the Woodland Trust and the Forestry Commission have produced 'All Our Trees: Greater Manchester's Tree & Woodland Strategy'⁹. The strategy provides the basis for the protection and expansion of Greater Manchester's forest canopy, assisting the planning process, and setting out defined actions that need to be taken, based on clear evidence about the current tree resource. It also describes where new tree planting should be targeted, and how to make sure new and existing trees and woodlands continue to provide key benefits.

3.27 The aims and objectives of the strategy are listed below:

- More trees in the right place:
 - To plant at least 3 million trees within 25 years – of which 1 million trees to be planted by 2024, and a further 2 million by 2050 – to help Greater Manchester meet its CO2 reduction commitments.
 - We will direct our tree planting strategically – using the opportunity mapping presented with this strategy to guide planting to where there is the greatest need for the benefits from trees.
 - New trees planted to higher standard, with establishment support to reduce failure and potential conflict with existing infrastructure.
 - More plantable land identified and released for planting.
 - More native trees and bigger species in green spaces – more native broadleaved woodlands to support biodiversity.
 - National urban tree canopy of 16% exceeded.
- Existing trees and woodlands managed and protected:

⁹ Available at https://www.cityoftrees.org.uk/sites/default/files/8082_All_our_trees_report_Dr8_MW.pdf

- Protection and management of our trees encouraged to deliver more benefits for longer.
- Fewer trees removed by developers, and replacements based on appropriate valuation of benefits lost.
- Better use made of existing mechanisms to protect valuable mature trees and woodlands.
- Restoration and expansion of heritage and new orchards and hedgerows across Greater Manchester.
- Engage our citizens with the natural environment:
 - At least 2,000 hectares of woodland are brought into active management within the next 25 years.
 - More opportunities created for citizens in the planting and caring for our trees and woodlands.
 - Better understanding among our citizens and policy makers of the benefits of our trees and woodlands.

Landscape Character

Landscape Character and Sensitivity Assessment

3.28 The GMCA commissioned LUC to complete a landscape character and sensitivity assessment across Greater Manchester. The assessment:

- Provides an evidence base for the landscape character/sensitivity of Greater Manchester which takes account of changes in land use, pressures for change including characterisation of the landscape, identification of sensitive and non-sensitive areas.
- Contributes towards the development of the Greater Manchester Spatial Framework by bridging the Natural England National Character Area profiles, North West Regional Character Framework and character assessments undertaken by individual districts.
- Considers cross boundary matters, in particular views from the Peak District National Park and Natural Improvement Areas and identifies anomalies and discontinuities as well as potential enhancements and improvements.

- Provides guidance and advice to help shape the scope of more detailed area specific assessments where required.

3.29 The Assessment identifies ten different landscape character types across the conurbation listed below and shown in the map in Figure 3 that has been extracted from the Assessment:

- Broad Urban Fringe Valleys
- Historic Parks and Wooded Estate Farmland
- Incised Urban Fringe Valleys
- Mosslands and Lowland Farmland
- Pennine Foothills (West-South Pennines)
- Pennine Foothills (Dark Peak)
- Reclaimed Land / Wetlands
- Unenclosed Uplands and Fringes (West-South Pennines)
- Unenclosed Uplands and Fringes (Dark Peak)
- Urban Fringe Farmland

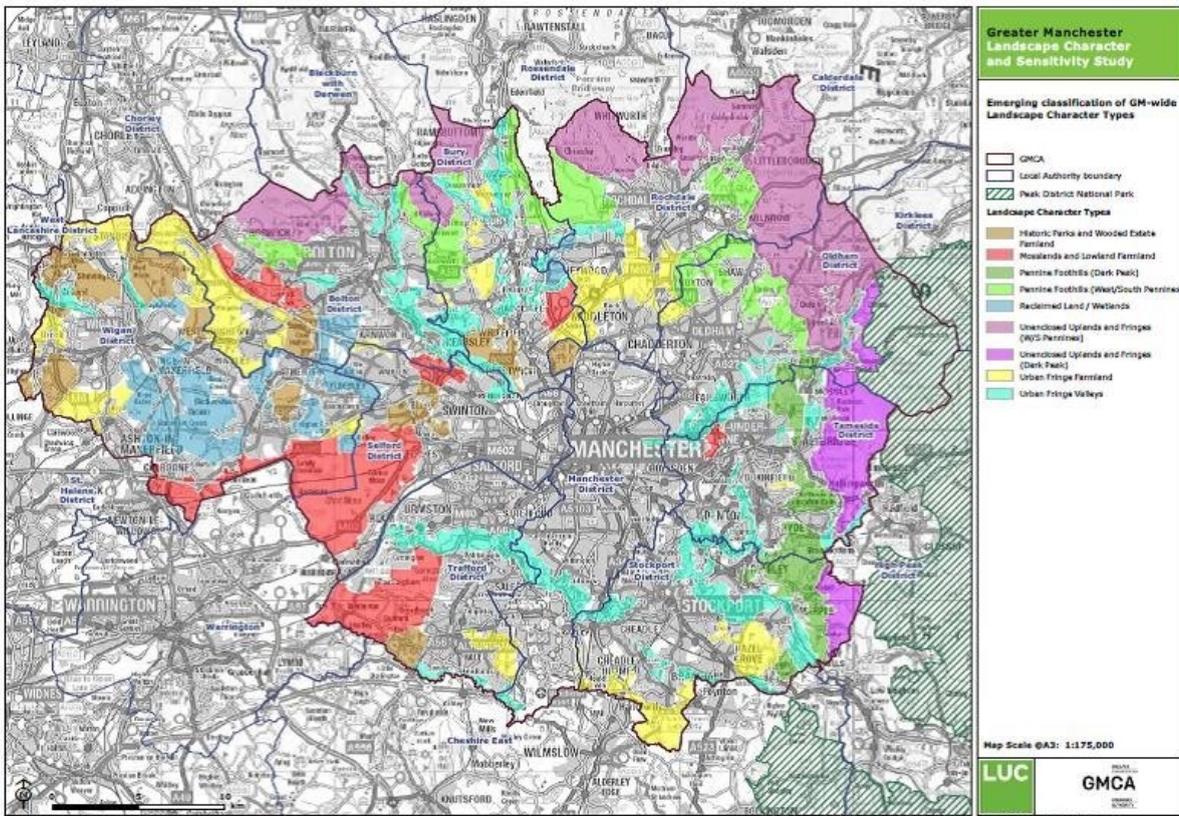


Figure 3: Greater Manchester landscape character types

3.30 For each landscape character type the assessment considers the:

- Key characteristics of the landscape.
- Intactness and condition of the landscape.
- Sensitivity of the landscape to change, including from development, and then based on the findings of the stages above.
- Guidance for opportunities for future development and landscape management/
- enhancement.

Accessible Natural Greenspace

Greater Manchester Accessible Natural Greenspace Analysis

3.31 The GMCA commissioned Natural England, supported by Ordnance Survey, to undertake a Greater Manchester Accessible Natural Greenspace Analysis. The study complements the existing greenspace audits and strategies that have been produced by the ten districts of Greater Manchester to support their own district Local Plans by considering and identifying a consistent evidence base for accessible greenspace. This will enable a strategic overview of greenspace provision in Greater Manchester.

3.32 The study:

- Identifies deficiencies in accessible natural greenspace using Natural England's Accessible Natural Greenspace Standards.
- Identifies the areas of deficiency in accessible natural greenspace that are located in areas of multiple deprivation, using the Index of Multiple Deprivation.
- Compares the accessibility of natural greenspace to people's homes across Greater Manchester, and by demographic group.
- Compares the quality of accessible natural greenspace in each medium super output area across Greater Manchester.

- Compares the 'greenness' of neighbourhoods including both accessible and inaccessible green infrastructure.

3.33 From these pieces of work, the study contributes towards delivering the following outcomes:

- More and better quality, better managed and better used accessible greenspace, especially in areas of greenspace deficiency and environmental, social and economic deprivation.
- Improved use of greenspaces leading to increased health and wellbeing, physical activity, walking and cycling, mental wellbeing, and contact with nature.
- Better connected and joined up Greenspace e.g. joined up into green infrastructure/ ecological and walking and cycling networks.
- Support for the case for more greenspace and green infrastructure investment.
- Delivery of the Defra 25 Year Environment Plan through the Urban Pioneer pilot in Greater Manchester.

Study Findings

Accessible Natural Greenspace Standards (ANGST) level: 2 hectares with 300 metres

3.34 Approximately 44% of residents in Greater Manchester live within 300 metres from an accessible natural greenspace of at least 2 hectares in area.

3.35 The variation across deciles of Index of Multiple Deprivation does not appear to show any significant correlation between areas of multiple deprivation and low levels of accessible natural greenspace by comparison with areas of least deprivation.

3.36 However, maps from the study show where there are areas of greenspace deficiency in areas of multiple deprivation and these are areas that are a priority for greenspace enhancement and creation to provide more benefits for local people including health and wellbeing, outdoor learning, children's play, urban cooling, flood risk management and local economic growth.

ANGST level: 20 hectares with 2 km

3.37 Approximately 79% of residents in Greater Manchester live within 2 km from an accessible natural greenspace of at least 20 hectares in area.

3.38 The neighbourhood areas of compliance and non-compliance with the ANGSt standard extend across GM, and the performance of individual boroughs is shown in Figure 2 of the study.

3.39 The mapping of Index of Multiple Deprivation shows a slight trend towards more households (approximately 85%) in areas of greatest deprivation having access to 20 hectares of greenspace than households in the least deprived (IMD 10), approximately 58%.

ANGST level: 100 hectares with 5 km

3.40 Approximately 74% of residents in Greater Manchester live within 5 km from an accessible natural greenspace of at least 100 hectares in area.

3.41 The areas of compliance and non-compliance with the ANGSt standard extend across GM, and the performance of individual boroughs is shown in Figure 3 in the study.

3.42 The variation across deciles of Index of Multiple Deprivation does not show any significant correlation between areas of deprivation and lower levels of accessible natural greenspace.

ANGST level: 500 hectares within 10 km

- 3.43 Approximately 61% of residents in Greater Manchester live within 10 kilometres from an accessible natural greenspace of at least 100ha in area.
- 3.44 The areas of compliance and non-compliance with the ANGSt standard extend to the south and west of Greater Manchester, and the performance of individual boroughs is shown in Figure 4 in the study.
- 3.45 The variation across deciles of Index of Multiple Deprivation does not show any significant correlation between areas of deprivation and lower levels of accessible natural greenspace.

Greenness Grid

- 3.46 This grid gives a comparison of the amount of vegetation cover in each of the 250 metre square grids across Greater Manchester. When identifying priorities for investment, the lower the proportion of greenness in a grid, the higher the need for greenspace creation and enhancement – for example areas with private gardens will have a higher greenness score.

Biodiversity and Geodiversity Conservation

Biodiversity Net Gain

- 3.47 The GMCA is working closely with Natural England to ensure that the city region is ready to implement biodiversity net gain requirements in new development, recognising that the National Planning Policy Framework already requires biodiversity net gains to be demonstrated in development proposals and that the forthcoming Environment Bill will make biodiversity net gain in development a mandatory requirement.

3.48 To date, a Biodiversity Net Gain Roadmap has been produced in 2019 which was developed to coordinate a range of activities to propel Greater Manchester towards implementing Biodiversity Net Gain. The objectives of the road map were:

- Establish Task Group to oversee the Roadmap on behalf of the Local Nature Partnership (LNP)
- Agree Roadmap and scope of Strategy with Task Group and Districts
- Agree key principles of approach
- Build partnership and consensus for the approach to embedding net gain
- Develop standard metric and methodology for assessing biodiversity net gain
- Establish sound policy context at GM level
- Develop example policy for local planning authorities (LPA)
- Demonstrate and test net gain on example developments
- Develop a biodiversity net gain strategy for GM
- Run a phased roll out – to NSIPs, EIA developments, other developments

3.49 In addition, a Biodiversity Net Gain Guidance was produced in May 2019 which recommends the processes to embed biodiversity net gain into planning for development including:

- The various stages of the biodiversity net gain process: feasibility and scope; impact assessment; design; construction; and maintenance and monitoring.
- A method to calculate biodiversity net gain, pre and post development.
- Engaging stakeholders in the process
- Setting out the potential routes that can be take to set up agreements for maintenance and compensation either on or off-site.
- How local planning authorities can review and assess biodiversity net gain assessments.

3.50 Currently, the GMCA is working with Natural England on a Greater Manchester Biodiversity Net Gain Implementation Action Plan. The action plan will set out the key activities required to get Greater Manchester ready for biodiversity net gain in development as a legal requirement. It has been informed by the outputs of a Greater Manchester local planning authority roadshow, which was a series of meetings held individually with relevant officers from each of the 10 Greater Manchester councils to explore the context and circumstances for each authority, within which the implementation of biodiversity net gain for development will need to be embedded.

Greater Manchester Local Nature Recovery Strategy Pilot

3.51 The development of a Nature Recovery Network across England is embedded in the Government's 25 Year Environment Plan. To help achieve this, in August 2020 Greater Manchester was selected as one of five areas to pilot a draft prototype Local Nature Recovery Strategy. The objectives of local nature recovery strategies are to drive a more coordinated, practical and focused action to help nature by channelling and prioritising investment, align efforts across partners and introducing report reporting requirements which will increase transparency. Therefore, the pilot in Greater Manchester will seek to agree the priorities for nature's recovery in the city region, map the existing most valuable habitat and map proposals for creating/ improving habitat for nature and wider benefits. The pilot will also identify how the benefits could be delivered, including through strategic planning and new innovative funding models. The pilot is projected to finish in April 2021 after which the Government will use the pilots to inform secondary legislation and guidance to implement the requirements on local nature recovery strategies.

Soil Resources

3.52 During the preparation of the GMSF, the GMCA engaged Natural England for advice on how the joint plan should plan positively for soil resources. Natural England's advice is replicated below. Although it refers to the GMSF, the advice remains valid for the PfE.

3.53 *“The GMSF should give appropriate policy weighting to the important role soils play in providing a wide range of ecosystem services and natural capital benefits in Greater Manchester. The GMSF Soils Policy should seek to safeguard areas of high environmental value that includes deep peaty soils, as well as recognise the natural capital benefits soils provide across a landscape scale. The natural capital benefits of these soils should be valued as a finite multi-functional resource, which underpins Greater Manchester’s wellbeing and prosperity. Decisions about development should take full account of the impact on soils, including their intrinsic character and the sustainability of the many ecosystem services they deliver. To summarise, there are three policy recommendations for the GMSF Soil’s Policy:*

3.54 *The plan should:*

- *Safeguard the long term capability of Best and Most Versatile (BMV) agricultural land (Grades 1, 2 and 3a in the Agricultural Land Classification) (i) as a resource for the future.*
- *Avoid development that would disturb or damage other soils of high environmental value (Specifically areas of Deep Peaty Soils that contribute towards a functioning ecological network for Greater Manchester’s Uplands and Lowlands, which provides natural capital benefits such as carbon sequestration and storage).*
- *Ensure soil resources are conserved and managed in a sustainable way (Soil is a finite resource that fulfils many important functions and services (ecosystem services), as well as proving natural capital benefits; for instance as a growing medium for food, timber and other crops, as a store for carbon and water, as a reservoir of biodiversity and as a buffer against pollution. It is therefore*

important that the soil resources are protected and used sustainably).

3.55 The above policy recommendations are reflected in the NPPF (paragraphs 109 and 112)[now paragraphs 170 and 170 of the revised NPPF published in July 2018) that specifies how the planning system should contribute towards protecting and enhancing soils and advises LPA's to avoid development on high quality agriculture land, as well as encouraging conservation and sustainable management of soils. As a starting point, the NPPF (paragraph 109) provides a robust policy baseline for the GMSF that can be expanded to incorporate the use of the Defra Construction Code¹⁰ and advocate the use of soil surveys for any development that will impact on BMV agricultural land and soils of high environmental value.

3.57 When considering the impacts of development on soils of high environmental quality (Deep Peaty soils particularly in a Greater Manchester context) the permanency of the impact on soils is an important consideration. The impact from development on soils (soil sealing) has a major and usually irreversible adverse impact on soils. Avoiding loss of BMV agricultural land and soils of high environmental quality (i.e. Deep Peaty soil) should be a priority, as mitigation is rarely possible. However, where mitigation is the only option the aim is to minimise soil disturbance and to retain as many ecosystem services as possible through careful soil management during the construction process.

3.58 The GMSF Soils Policy should take full account of the impacts on land and soil resources and recognise the wide range of vital functions (ecosystem services) and natural capital benefits soils provide. In demonstrating some of the ecosystem services and natural capital benefits soils provide at a Greater Manchester landscape scale, the GMSF Soils Policy should recognise the wider role of soils in providing ecological connectivity. In

¹⁰ Available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/716510/pb13298-code-of-practice-090910.pdf

particular the role of soils of high environmental value, such as Deep Peaty Soils that act as wetland and carbon stores supporting Greater Manchester's Uplands and Lowland Wetland networks.

3.59 *The net gain principle should be a key component of the GMSF Policy on Soils. Paragraph 152 [Paragraph 8] of the NPPF emphasises that LPA' should seek opportunities to achieve all three economic, social and environmental dimensions of sustainable development, with net gains across all three. The GMSF Soils Policy should seek to incorporate the above net gain principle of achieving sustainable development, when considering how to harness the natural capital benefits of soils at a landscape scale and avoiding development that would disturb or damage soils of high environmental value”.*

Defra Peatland Pilot

3.60 A new pathfinding peatland restoration pilot has been launched in Greater Manchester. The programme explains how local stakeholders can work together to improve the condition of English peatlands to help wildlife, people and the planet now and into the future. The pilot is one of five such initiatives across England supported by DEFRA designed to play an important part in developing a new England Peat Strategy (EPS). This EPS will guide the delivery of an innovative national approach to peatland restoration.

3.61 The pilot builds understanding of how barriers to restoration can be overcome and highlights the growing recognition of the importance of peat and contributes to the objectives of the Greater Manchester 5-Year Environment Plan. The partners in the pilot will investigate the role of peat in carbon management within the city region and help to show how peatland restoration can contribute to the city region's ambitious carbon reduction targets. The pilot will focus on two key areas: an upland area in the West Pennine Moors above Bury & Bolton, and a lowland area on the Chat Moss in Salford.

River Valleys

North West River Basin Management Plan

3.62 The purpose of the Water Framework Directive (WFD), which was transposed into English Law by the Water Environment Regulations (2003), is to deliver improvements across Europe in the management of water quality and water resources through the statutory framework set by the River Basin Management Plans. Greater Manchester is included within the North West RBMP¹¹.

3.63 The Environment Agency (EA) is responsible for monitoring and reporting on the objectives of the WFD on behalf of Government. The second management cycle of the WFD¹² has begun and the second RBMPs were completed in 2015, building upon the first set completed in 2009. RBMPs are designed to address the pressures facing the water environment in the RBMP districts and identify the actions to address them. The plans set out required objectives and measures to protect and improve the water environment over the next 20 years and aim to achieve WFD targets from 2015 to 2021. Within the NW RBMP district, the main issues limiting the uses of the water environment and managing it in a sustainable way are identified as:

- Physical modification – affecting 50% of all waterbodies.
- Pollution from wastewater - affecting 24% of all waterbodies.
- Pollution from towns, cities and transport - affecting 13% of all waterbodies.
- Changes to natural flow and level of water - affecting 2% of all waterbodies.

¹¹ Available at <https://www.gov.uk/government/collections/river-basin-management-plans-2015#north-west-river-basin-district-rbmp:-2015>

¹² Available at http://ec.europa.eu/environment/water/water-framework/info/timetable_en.htm

- Negative effects of invasive non-native species - affecting <1% of all waterbodies.

3.64 The NW RBMP district contains information on each water management catchment.

The majority of Greater Manchester drains into the Irwell and Upper Mersey Management catchments but also includes some of the Douglas and Lower Mersey Management Catchment. The North West RBMP Part 1 document¹³ lists the priorities for these catchment and are replicated in the Table 7 below.

Table 7: North West River Basin Management Plan catchments

Management Catchment	RBBP Priorities
Irwell	Diffuse urban pollution, physical modification and contamination from sewage treatment
Upper Mersey	Diffuse pollution (urban and rural), pollution from waste water and physical modifications.
Lower Mersey (Mersey Estuary)	Physical modifications, urban diffuse pollution and pollution from waste water.
Douglas	Physical modifications, pollution from rural areas and urban sources, including waste water. Promoting community cohesion

3.65 Within Greater Manchester the majority of main rivers are failing their objectives with most being at ‘moderate’ or below (see Figure 3 below). Addressing these issues will require a wide range of measures.

¹³ Available at

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/500468/North_West_RBD_Part_1_river_basin_management_plan.pdf

3.66 The main responsibility for GMCA is to work with the Environment Agency to develop links between river basin management planning and the development of local authority plans, policies and assessments. In particular, the general programme of actions (measures) within the RBMPs highlight the need for:

- Water Cycle Studies (WCS) to promote water efficiency in new development through regional strategies and local development frameworks.
- SWMP implementation (Greater Manchester Surface Water Management Plan, 2013).
- Consideration of the WFD objectives (achieving good status or potential as appropriate) in the spatial planning process, including Local Development Documents and Sustainable Community Strategies.
- Promoting the wide scale use of sustainable drainage systems in new development.

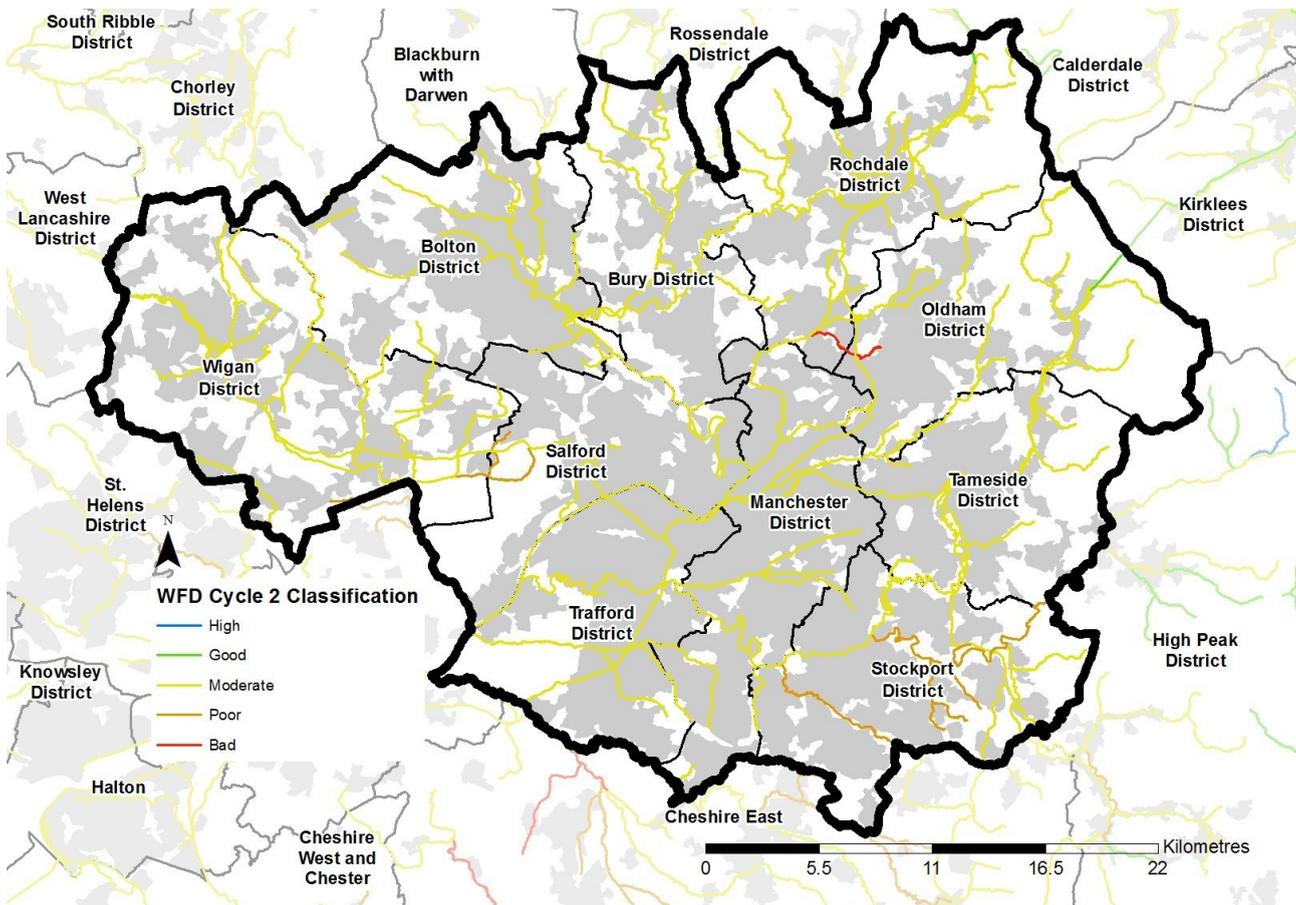


Figure 4: Water Framework Directive Cycle 2 classifications 2016

Strategic Priority Green Infrastructure Study

3.67 The Strategic Priority Infrastructure Study undertaken by the Greater Manchester Ecological Unit was discussed previously, however, rivers and waterways weigh heavily in the analysis of this report as they are considered to form an essential part of a green infrastructure network, playing a crucial role in flood risk mitigation. They also form the most important wildlife corridors across Greater Manchester, and important routes for sustainable travel. The report advised that the GMSF should seek to embed targets from the Water Framework Directive as the overarching legislation in relation to the quality of our waterbodies. This advice remains valid for the PfE.

Natural Course

3.68 Natural Course is an EU LIFE Integrated Project aimed at integrated water management through accelerating delivery towards the objectives of the EU Water Framework Directive (WFD) i.e. improved water quality, improved flood risk management and increased biodiversity and habitat value of our watercourses. The project spans the North West England River Basin District, with an early focus on the River Irwell catchment. Natural Course is delivered by a partnership comprising the EA, United Utilities, the GMCA (with Salford City Council acting as lead authority), the Rivers Trust and Natural England.

3.69 Because of the scale, complexity and in some cases the high cost of WFD delivery, Natural Course focuses on integration; both between the project partners and more widely among organisations and sectors that can contribute to integrated water management. Natural Course promotes an integrated catchment approach, working through the established network of 'catchment partnerships' and employs a 'natural capital' approach to tackling the challenges presented by the WFD and increased flood risk management where possible. Natural Course began in October 2015 and will run for 10 years with budgets and work programmes split into four phases.

3.70 The initial phases of Natural Course include the development of an integrated water management framework through a series of 'preparatory actions' including:

- A desk top collection and analysis of existing data, or evidence, from the River Irwell catchment and development of a programme of works, or measures to address the challenges presented by the WFD (Irwell Evidence and Measures Report, APEM Ltd 2017).
- Collation and sharing of ecological and environmental information about the River Irwell catchment working with volunteers to conduct

surveys aimed at filling gaps in knowledge about the ecology of the catchment.

- Modelling the River Irwell catchment to understand the potential value and impact of Natural Flood Risk Management (NFRM) interventions to contribute to reduced flood risk across the catchment (Irwell Natural Flood Management Mapping, JBA Consulting / Rivers Trust 2017).
- Understanding and mapping the opportunities to restore and re-naturalise “heavily-modified” waterbodies so as to provide maximum ecosystem service benefits across the River Irwell catchment (A Natural Capital Account and Ecosystem Services Opportunities Mapping for the Irwell Management Catchment, TEP / Vivid Economics - finalised April 2018).
- Identifying and understanding the synergies between water management challenges and sources of investment from different sectors and opportunities to align investment to enhance and accelerate delivery of multiple water management benefits for the River Irwell catchment.

3.71 The development of the GMSF provides an opportunity to set an integrated water management approach in the wider economic, social, growth and infrastructure plans for the conurbation.

3.72 More recently to help deliver wider objectives for the Urban Pioneer, a Natural Capital Investment Plan has been developed through the Natural Course project. A Greater Manchester Environment Fund is now being developed to develop and implement opportunities identified for investment. Lancashire Wildlife Trust have been appointed to set up and run the fund. The University of Manchester have recently been commissioned to carry out a two-year research project to increase the

understanding and evidence base around micro-plastic pollution in the rivers of GM. Natural Flood Management measures have also been completed at the Smithills Estate, Upper Roch valley and at New Mills in Derbyshire.

IGNITION

3.73 IGNITION is a new project that aims to develop innovative financing solutions for investment in Greater Manchester's natural environment. This investment will help to build the city region's ability to adapt to the increasingly extreme impacts of climate change. Working with nature, solutions such as rain gardens, street trees, green roofs and walls and development of green spaces can help to tackle socio-environmental challenges including an increase in flooding events, water security, air quality, biodiversity and human health and wellbeing. This project, backed by €4.5 million from the EU's Urban Innovation Actions (UIA) initiative, brings together 12 partners from local government, universities, NGOs and business. The aim is to develop the first model of its kind that enables major investment in large-scale environmental projects which can increase climate resilience.

Flood Risk and Water Management

Greater Manchester Level 1 Strategic Flood Risk Assessment and Strategic Flood Risk Management Framework

3.74 The GMCA commissioned JBA to undertake a level 1 strategic flood risk assessment (SFRA) for Greater Manchester. The SFRA is a requirement of Paragraph 156 of the NPPF which states the strategic plan policies should be informed by an SFRA.

3.75 The SFRA provides a strategic overview of flood risk from all sources across Greater Manchester, including impacts of climate change and will deliver the following activities:

- Undertakes the sequential test (as required by Paragraph 157 of the NPPF) by assessing the risk of flooding to the baseline supply of future housing and employment land, the proposed GMSF development allocations and the sites submitted to the GMSF Call for Sites exercise.
- Identifies which sites will need to pass the exception test (also outlined in Paragraph 157 of the NPPF) and, consequently, where more detailed flood risk assessments might be required to determine whether a site can pass the exception test, through a Level 2 SFRA.
- Identifies 'opportunity areas for critical drainage management' as a first step to refine the existing critical drainage areas in Greater Manchester.
- Update the extent of the functional floodplain (flood zone 3b).
- Considers the cumulative impacts development on flood risk.
- Considers the location of natural opportunities flood management in GreaterManchester.
- Based on the findings of the SFRA, identifies planning policy recommendations and recommendations for future work.

3.76 The Greater Manchester SFRA also includes a Strategic Flood Risk Management Framework. The framework provides a spatial framework for flood risk management across Greater Manchester, highlighting the key

strategic flood risks, including cross-boundary issues within and outside the city region and then recommend key priorities for intervention taking account of previous, existing and planned interventions by key stakeholders. The overall aim of the framework is to manage current and future flood risk to enable the sustainable development of Greater Manchester by adopting a catchment-based approach and working with natural processes where possible.

Greater Manchester Level 2 Strategic Flood Risk Assessment

3.77 Following the Level 1 SFRA, a Level 2 SFRA was undertaken to complete a more detailed flood risk analysis to support the proposed GMSF 2020 allocations, sites in the GM baseline housing land supply and to support the wider framework to manage flood risk in Greater Manchester. Although the Level 2 SFRA was intended to support the publication version of the GMSF 2020, it still remains a robust evidence base to support the PfE and the proposed allocation within it. The project outputs are:

- A series of detailed flood risk appraisals of sites that the Level 1 SFRA identified as needing to pass the Exception Test. These included some GMSF allocations and GM baseline housing land supply sites. The appraisals assessed whether sites would pass the Exception Test.
- Broadscale flood risk modelling on 14 GMSF allocations to fill gaps in the current understanding of flood risk on these sites.
- A series of Flood Risk Reviews on 14 GMSF allocations that were subject to assessment in the SFRA. The reviews summarized the flood risks to the sites.
- The identification of potential areas for further flood risk management in Greater Manchester.

- A methodology to update the existing Critical Drainage Areas in Greater Manchester.

Canal Network

3.78 A considerable canal network runs through the plan area that is owned and maintained by the Canal & River Trust. The Manchester Ship Canal and the Bridgewater Canal, however, are privately owned by the Peel Group.

3.79 The Canal and Rivers Trust has developed a short publication *Waterway and Wellbeing, Building the Evidence Base*¹⁴ which sets out a broad outcomes measurement framework to measure the broad social, economic and environmental impacts that our waterways and our activities have on the communities they serve. It includes strategic policy objectives which should be considered within spatial planning and overarching principles for policy formulation. In addition, Appendix 1 to the Canal and River Trust's publication *Policy Advice Note: Inland Waterways unlocking the Potential and Securing the future of inland Waterways through the Planning System*¹⁵ advises of how spatial development strategies and local plans can incorporate planning policies to protect and enhance the multifunctional benefits of inland waterways.

4 Summary of Consultation

4.1 This section of the report provides a summary of the issues raised by respondents in relation to policies within the Greener GM Chapter and Sustainable and Resilience Chapter of the Revised Draft GMSF (2019)

¹⁴ Available at <https://canalrivertrust.org.uk/news-and-views/news/first-outcomes-report-published>

¹⁵ Available at <https://canalrivertrust.org.uk/media/original/30984-planning-advice-note-inland-waterways.pdf?v=624b8f>

that relate to the natural environment. The section summarises the responses to the issues raised from the GMCA and GM local authorities, setting out how the issues raised have been addressed either through changes to the plan or an explanation as to why the issue has not resulted in any changes.

- 4.2 A landscape approach to biodiversity enhancement and spatial development was strongly supported. The policies around Green Infrastructure were also supported although greater clarification of terms used was requested. Some respondents were of the view that the approach set out in this chapter was undermined by the allocation policies.
- 4.3 The biodiversity net gain approach was supported however it was considered that the policy would be strengthened greater detail around if a clear target, or phased targets, to deliver net gain for biodiversity in any development (10% or greater), using the latest Defra metric was included.
- 4.4 More detailed comments in relation to specific elements of the policies are summarised in Table 8 below.

Table 8: Summary of Natural Environment comments received on the Revised Draft GMSF 2019

Landscapes
<ul style="list-style-type: none"> • Strongly support a landscape approach to biodiversity enhancement and spatial development. • Welcome the policy’s approach of seeking biodiversity net gain and landscape enhancement to be done in conjunction. Believe that the draft net gain policy should have a similar approach. • The net effect of the PfE should be a substantial improvement in the ecological network of Greater Manchester and surrounds but cannot see this emerging from some of the current individual allocation policies. • Specific reference to tree planting is included as a specific point, based on the benefits highlighted by the Climate Change Commission for reducing CO2 levels and helping the UK meet current and future Carbon Budgets going forward.
Green Infrastructure Network
<ul style="list-style-type: none"> • A priority for the Green Infrastructure Network should be to look at deficiencies in the quality of biodiversity and access to nature and green, open space. • “Priority Green Infrastructure” needs to be clarified. • Biodiversity enhancement should not be traded-off against other environmental public goods that are easier to deliver. • Green Infrastructure should use native wildflower species except where changing climate, air pollution challenges and promotion of human health and wellbeing justifies other species. • Ecological functions of Green Infrastructure needs to be made clear. • Green Infrastructure mapping is more a map of ecology. • Need to avoid conflict between Green Infrastructure for recreation and Green Infrastructure for ecological purposes – they are not always compatible • Brownfield land has been blanket identified as suitable for development – several Sites of Biological Importance and even Sites of Special Scientific Interest are on brownfield land. • Take a natural capital approach to assessing the value of existing Green Infrastructure on each allocation; it can help flooding, heat moderation, exposure to air / noise pollution and the physical and mental wellbeing of future users. • Existing key Green Infrastructure should be retained, integrated and protected within any future development plans and in particular established woodlands and landmark trees.

- Increasing the use of canals and waterways for active travel needs to ensure that sensitive habitats and species are protected.

River Valleys and Waterways

- Support that open character is to be retained and that public enjoyment of river valleys and waterways will be promoted. It is right that the mosaic of semi-natural habitats, and areas of tranquillity are protected.
- Importance role and special requirements of Canals needs more emphasis.
- Contribution of watercourses / waterways in urban environment needs to be recognised
- Should refer to safeguarding of the line of the Manchester Bolton & Bury canal for restoration or as infrastructure.
- Increasing the use of canals and waterways for active travel needs to ensure that sensitive habitats and species are protected.

Lowland Wetlands and Mosslands

- Recommend an additional priority to create/expand this priority habitat across the whole of GM, rather than just around the single Nature Improvement Area
- Emphasize carbon storage, importance to species and avoid inappropriate vegetation e.g. trees and hedgerows
- 8.27 states that some sections of undeveloped mossland are considered appropriate for future development – this is disputed and should be deleted.
- Expanding public access across the area should be managed in a way that avoids damage to sensitive habitats and disturbance to wildlife.

Uplands

- Agree with policy and welcome new commitment to avoid Green Belt release in the uplands

Urban Green Space

- The phrase “existing urban green space protected and enhanced in balance with other considerations” suggests economic considerations might be seen to outweigh such protections in some circumstances. Clarification should be given as to what is meant by “in balance with other considerations”.
- Urban Green Space statement of ‘an appropriate scale, type, quality and distribution of urban green space’ needs to be defined and targets established and cross-referenced to specific targets in the housing section.
- PfE should clarify that once brownfield land has a value for green space, it should cease to be recorded as brownfield and should be given policy protection as an Urban Green Space.

- Urban Greenspace should be favourable to wildlife.
- Existing greenspaces should be enhanced through the development process
- Canals should be recognised as having an important role as Urban Green Space

Trees and Woodland

- Protection of Ancient and Semi-Natural Woodland needs to be stronger
- Requires a more nuanced approach about where it is, and where it is not, appropriate to plant trees.
- Tree planting should be avoided on grassland and pasture where priority bird species such as Lapwing and Skylark nest.
- Consider targeting tree planting in areas of greatest need
- Consider expanding specific policy on Trees and Woodland to include Hedgerows
- The draft Greater Manchester Tree & Woodland Strategy and GM Tree Audit should be referenced with respect to any future decisions that may affect this tree cover.
- Consider creating new woodlands on larger site allocations due to climate change resilience, biodiversity, physical and psychological benefits.

Green Infrastructure Opportunity Areas

- Green Infrastructure Opportunity Areas are not adequately protected by allocations policies.
- Similar to the Lower Medlock valley, recommend that the Irk Valley is included within the main policy given the significant ambitions that Manchester City Council has around its Northern Gateway regeneration area seeking to deliver a new park around the River Irk and the potential improvements that will be provided to the priority Green Infrastructure network. The Environment Agency is also developing a vision strategy for the River Irk to identify appropriate actions to work with partners and address catchment issues for Water Framework Directive objectives.

Standards for a Greener Greater Manchester

- The wording ‘green infrastructure’ should be replaced with ‘accessible natural green space’ to avoid confusion.
- Strongly support the standards proposed for a “Greater Manchester Green Factor”.
- Support policy but need to distinguish between the different types of green infrastructure

A Net Enhancement of Biodiversity and Geodiversity

- Net “enhancement” rather than “net gain” is not in line with national policy
- Agree with the general principles of a net enhancement of biodiversity and geodiversity, however would like to see:

- Robust evidence requirements to ensure the proposed mitigation hierarchy has been followed

- Stronger requirements for the use of applicable native species in habitat creation
- Suggest that a target for biodiversity net gain is set out in policy e.g. +10%.
- The proposed Greater Manchester Biodiversity Metric should be compatible the proposed Defra 2.0 metric, whilst potentially going further to ensure the best outcomes for species and habitats
- Disagree with use of DEFRA metric
- DEFRA metric is still too vague and reliant on lots of elements working together (which cannot be guaranteed to do so).
- Broadly agree but crucially important considerations are missing, namely:
- National policy (net gain) requirements are met;
 - Existing biodiversity assets are protected and enhanced as a first resort;
 - A positive impact on the integrity of ecological networks;
 - A positive impact on the recovery of priority species populations;
- No baseline for ecological network
- PfE should require development to include features to enhance biodiversity e.g. swift bricks.
- Biodiversity enhancement policy is insufficient to cope with scale of loss due to development.

Flood Risk and the Water Environment

- More investment is needed in flood prevention and concern over loss of green space and the consequent increase in flood risk
- The policy is considered to be vital, especially in light of climate change but there is concern that any policy will not be enforced.
- The Framework should set out how development can achieve a significant volume reduction in surface water discharge with no surface water discharging to the existing public combined sewerage network.
- It would be appropriate to split managing flood risk and surface water management into two policies. This approach will appropriately embed the intentions of national policy with respect to meeting the requirements of the surface water hierarchy as referenced in the National Planning Policy Framework.

- It is critical for early phases of development to provide the drainage infrastructure to ensure the discharge of drainage for any later interconnecting phases of development.
- The design of new development should consider the inclusion of water efficiency measures in the construction of new buildings. New development should encourage water efficiency measures including water saving and recycling measures to minimise water usage.
- Development on any of the allocations within the PfE should include a policy requirement that they are informed by allocation-wide strategies for infrastructure including an allocation wide strategy for foul drainage, surface water drainage and clean water supply.

Response to Comments:

- Positive support for this chapter and associated policies is noted.
- Agree with taking a landscape scale approach and have reflected via a reference to nature recovery strategies.
- Agree that brownfield land can be equality important for nature. This is why the Plan includes specific policies on urban green space and green infrastructure standards.
- Agree that the Green Infrastructure policies could be clarified and the policies have been amended, including a focus on natural capital.
- Agree that net “enhancement” should be replaced with “net gain” to ensure alignment with national policy.
- Have referenced the Greater Manchester Woodland Strategy
- Disagree that some sections of undeveloped mossland are considered inappropriate for future development as they are well-located to make a notable contribution to delivering more balanced and inclusive growth. Such areas will only be developed where they are shown to be of limited ecological value and the development can be delivered without compromising the green infrastructure role of the wider area.
- Agree that canals have an important role as urban greenspace (blue space) and are referenced in the overarching Green Infrastructure policy and a specific policy on River Valleys and Waterways.
- Policy JPS-5 covers a number of approaches to manage flood risk raised from the consultation including: using natural flood management approaches to prevent flooding by slowing the speed of water drainage; and expecting developments to manage surface

water runoff through sustainable drainage systems, and on large sites with different phases of development, delivered in a holistic and integrated manner.

- Policy JPS-5 has been amended to refer to the inclusion of water efficiency measures in new development.

5 Summary of Integrated Assessment

5.1 An Integrated Assessment was commissioned to support the GMSF 2020 and was updated to support the PfE 2021. The Integrated Assessment is a key component of the PfE evidence base, ensuring that sustainability, environmental, equality and health issues are addressed during its preparation. The Integrated Assessment combines the requirements and processes of the Sustainability Appraisal, Strategic Environmental Assessment, Equality Impact Assessment and the Health Impact Assessment into one document (the Habitat Regulation Assessment of the GMSF was completed separately by GMEU). The Integrated Assessment carries out an assessment of the draft PfE policies by testing the potential impacts, and consideration of alternatives are against the plan's objectives and policies. This ensures that the potential impacts from the plan on the aim of achieving sustainable development are considered, in terms of the impacts, and that adequate mitigation and monitoring mechanisms are implemented.

5.2 The Integrated Assessment framework is made up of a series of objectives and assessment criteria which have been developed specifically for the PfE. The framework is used to identify the likely social, economic and environmental effects and guide mitigation and policy development. Using assessment criteria to appraise policies and sites helps the assessor to arrive at a conclusion about potential impacts in a methodical and consistent manner, and helps stakeholders to understand the reasoning behind the assessment.

5.3 The remainder of this Chapter summaries the outcome of the Integrated Assessment for the policies in the Greener Places Chapter of the PfE and the Flood Risk and Water Management policy and Soil Resources policy in the Sustainable and Resilience Chapter of the PfE. Together these policies make up the natural environment theme of this topic paper. The summaries below, copied from the Integrated Assessment, identify how the policies have been amended or not as a result of the Integrated Assessment appraisals.

JP-G 1 (formerly GMSF 2019 Policy GGM 8) – Valuing Important Landscapes

2019 IA – recommended enhancement and mitigation

5.4 The policy could be enhanced by specifying how access will be achieved and which modes of transport will be encouraged for access. Health benefits are likely to be seen from landscape improvements so reference should be made to health and well-being within the policy. Also, if community social infrastructure will be included, this should be referenced in the policy. The importance of greenspace in mitigating air pollution should be highlighted and also in ensuring resilience to the effects of climate change and mitigating flood risk. Although the policy is focused on valuing landscapes, there is no reference to further establishing new landscapes or green infrastructure.

2021 updated position

- 5.6 No amendments have been made to the policy wording to reference sustainable travel (objectives 1, 3, 9 and 11) . However, GMCA note this is addressed by policies within chapter JP-C: Connected Places. Additionally, no amendments were made to reference the health benefits of GI however GMCA noted this is covered by JP-P 1 which covers creating sustainable places (objective 6).
- 5.7 Similarly, the policy text has not been amended to reference social infrastructure for sports and recreation which GMCA consider to be

covered by JP-P 7 (objective 7). No amendments were also made regarding the impact of green space on air quality as GMCA noted this was covered in policy JP-S 6 (objective 10).

- 5.8 There is also no amendment to include establishing new landscapes and green infrastructure. GMCA note this was addressed by Policies JP-G 2 and JP-G 10 which cover the green infrastructure and GM Green Belt. No amendments were also made relating to the benefits of GI to improve resilience as GMCA noted this is covered in policy JP-S 4 covering resilience (objective 12).
- 5.9 No amendments have been made to policy wording to reference flood risk and green infrastructure. However, GMCA note this was addressed by policies JP-S 5, JP-G 2 and JP-Strat 13 which cover flood risk and the water environment and green infrastructure (objective 13). No amendments have been made for reference to utilising remediated land as it was noted by GMCA this was covered in JP-S 1 and JP-P 1 which cover sustainable development and creating sustainable places.

**JP-G 2 (GMSF 2019 policies GM 2 and GM G10 have been merged with GMSF 2019 policy GM-G 8 in the PFE 2021) – Green Infrastructure Network
2019 IA – recommended enhancement and mitigation**

- 5.10 The policy should specify the GI requirements in new developments and allocations. This should include providing specific examples of the types of mitigation which could be used, for example, on urban cooling and flood risk reduction. The policy should also reinforce existing guidance on flood risk, specifically mentioning avoiding, where possible, developing on areas at risk of flooding. Consideration should be given to including referencing to the Water Framework Directive as an aim. In addition, the importance of housing stock being resilient should be stressed particularly considering urban heat islands and development in greenfield areas.
- 5.11 Further enhancements could be made by stressing the benefits of recreation facilities and active travel for improving health and wellbeing.

2021 updated position

- 5.12 No amendments have been made to the policy wording to reference GI requirements or ecosystem services (objective 1) . However, GMCA note this is addressed by Policies JP-G 8 and relevant allocation policies. Additionally, no amendments were made to reference the health and resilience benefits of GI however GMCA noted this is covered by JP-C 5 and JP-S 2 which covers energy and carbon use and active travel modes (objectives 6 and 15).
- 5.13 Similarly, the policy text has not been amended to reference active travel (objective 9) which GMCA consider to be covered by Chapter GM-C – Connected Places. No amendments were made regarding the impact of green space on air quality as GMCA noted this was covered in Policy JP-S 6 (objective 10).
- 5.14 There is also no amendment to include the Greater Manchester Green Factor. GMCA note this was addressed by Policies JP-G 2 and JP-G 10 which cover the green infrastructure and the Green Belt (objective 11).
- 5.15 No amendments have been made to policy wording to reference flood risk and green infrastructure. However, GMCA note this was addressed by policies JP-S 5, JP-G 2 and JP-Strat 13 which cover flood risk and the water environment and green infrastructure (objective 13). No amendments were also made for reference to water resource management as it was noted by GMCA this was covered in JP-S 5 which covers the water environment.
- 5.16 It is noted that the policy does not reference accessibility standards in outdoor spaces. Whilst there is some reference to this specific objective in thematic policies and / or supporting text, it is considered that explicit reference to accessibility standards would strengthen the policy further (Objective 5).

JP-G 3 (formerly GMSF 2019 Policy GGM 3) – River Valleys and Waterways

2019 IA – recommended enhancement and mitigation

5.17 Greater emphasis could be placed on increasing access and connectivity in areas which have historically been deprived and isolated. With regards to transport and active travel, enhancement could be made through references to health and wellbeing benefits when discussing active travel and public enjoyment. Clarity should be made over whether all transport modes supported by the policy have an aim of supporting sustainability. Reference should be made to the air quality benefits of habitat protection and the policy should specifically specify its support of climate change mitigation, particularly in relation to flood risk alleviation. Regarding flood risk, references should be made to restricting development in sensitive flood zones or catchment areas, and the Water Framework Directive should be referenced as a strategic aim. When discussing water quality, reference should also be made to the water consumption guidance as a method for improving the availability of water resources.

2021 updated position

5.18 The policy has been strengthened to reference opportunities for active travel with health and wellbeing benefits (Objective 6). No amendments have been made to the policy wording to reference increased accessibility and connectivity in historically deprived and isolated areas (objective 4) . However, GMCA note this is addressed by Policies JP-P 1. Additionally, no amendments were made to reference sustainable transport modes however GMCA noted this is covered by GM Policy Chapter GM-C (Connected Places) which covers sustainable transport (objective 9). No amendments have been made regarding the impact of green space on air quality as GMCA noted this was covered in policy JP-S 6 (objective 10). No amendments have been made to policy wording to reference flood risk,

water management and climate change mitigation. However, GMCA note this was addressed by policies JP-S 1 and JP-S 4 which cover sustainable development and resilience (objectives 12, 13 and 14). There is also no amendment to reference sustainable travel. GMCA note this is addressed by Policy GM-C 1 which covers the integrated network over the plan area (objective 15).

JP-G 4 (formerly GMSF 2019 Policy GGM 4) – Lowland Wetlands and Mosslands

2019 IA – recommended enhancement and mitigation

- 5.19 The policy could further elaborate on the types of recreational opportunities created when implemented.
- 5.20 The policy could also mention specific air quality benefits of the wetlands and mosslands in consideration of their proximity to urban areas.
- 5.21 In relation to climate resilience, the policy could specify that development should be strategically located, for example, avoiding building upon flood plains or other areas which could cause potentially adverse environmental effects. It could also mention the Water Framework Directive as another strategic aim. Additionally, the policy could refer to future proofing developments so that they accommodate future climate effects.
- 5.22 The policy could also be further improved by providing more detail on ways it will ensure land resources are used in an efficient and sustainable manner, for example, through the remediation of land when protecting semi-natural habitats.

2021 updated position

- 5.23 No amendments have been made to the policy wording to reference recreation opportunities (objective 7) . However, GMCA note this is addressed by Policy JP-J 7. Additionally, no amendments were made to reference sustainable transport modes however GMCA noted this is

covered by GM Policy Chapter JP-C which covers sustainable transport (objective 9).

- 5.24 No amendments have been made regarding the impact of mosslands on urban areas as GMCA noted this was covered in Policy JP-S 6 (objective 10).
- 5.25 No amendments have been made to policy wording to reference flood risk, water management and climate change mitigation. However, GMCA note this is addressed by Policies JP-S 1, JP-S 4 and JP-S 5 which cover sustainable development, resilience and flood risk and the water environment (objectives 12, 13 and 14).
- 5.26 There is also no amendment to reference previously developed land and the protection of semi-natural habitats to regard to land remediation. GMCA note this was addressed by Policies JP-S 1 and JP-G 9 which cover sustainable development and biodiversity and geodiversity (objectives 17 and 18).

JP-G 5 (formerly GMSF 2019 Policy GGM 6) – Uplands

2019 IA – recommended enhancement and mitigation

- 5.27 The policy could be enhanced for IA objective 6 as the policy does not mention promoting access to these areas and the benefits, they can bring for health. The policy should refer to providing access to green spaces for both physical and mental health and link to the potential recreation functions.
- 5.28 The policy could be enhanced through mentioning the benefits that upland Green Infrastructure presents in combating the heat island effect given off by GM.
- 5.29 Further improvements could be enhanced through cross-referencing guidance on flood risk and Green Infrastructure and including the Water Framework Directive as a strategic aim.

2021 updated position

- 5.30 The policy has been strengthened to reference physical and mental health benefits (Objective 6).
- 5.31 No amendments have been made to reference sustainable transport modes however GMCA noted this is covered by GM Policy Chapter JP-C (Connected Places) which covers sustainable transport (objective 9).
- 5.32 No amendments have been also made regarding the impact of green infrastructure on the urban area to combat the heat island effect as GMCA noted this was covered in policy JP-Strat 13 and JP-G 2 (objective 12).
- 5.33 No amendments have been made to policy wording to reference flood risk and water management. However, GMCA note this is addressed by policies JP-S 5, JP-Strat 13 and JP-G 2 which cover flood risk and the water environment and green infrastructure (objectives 13 and 14).

JP-G 6 (formerly GMSF 2019 Policy GGM 7) – Urban Green Space

2019 IA – recommended enhancement and mitigation

- 5.34 The policy could be enhanced through emphasising the health benefits of incorporating GI into new and existing development. Further benefits of reducing greenhouse gas emission and improving air quality should be mentioned.
- 5.35 Blue infrastructure should be referenced in addition to GI. Further enhancements could be made through mentioning wildlife in conjunction with allowing 'naturalness' to predominate greenspace.
- 5.36 Reference should be made to the importance of considering local surroundings when developing greenspaces and the benefits of using green infrastructure to decrease flood risk and decrease surface run off.
- 5.37 Further enhancements could be made to reference remediation of land to maximise the available greenspaces for GI functions.

2021 updated position

- 5.38 No amendments have been made to reference the benefits of sustainable transport modes however GMCA noted this is covered by PfE Policies Chapter JP-Strat 13 and JP-G 2 which cover green infrastructure, S1 which covers creating sustainable places and JP-C 5 which covers active travel (objective 6).
- 5.39 No amendments have been made regarding incorporating green infrastructure and the benefits of it as GMCA noted this was covered in policies JP-Strat 13 and JP-G 2, JP-S 1 and GJP-S 4 which cover green infrastructure, creating sustainable places and resilience (objectives 10 and 12). Additionally, no amendments were made to include wildlife within the policy. GMCA noted that policies JP-Strat 13, JP-G 2 and JP-G 9 cover green infrastructure and biodiversity and geodiversity (objective 11).
- 5.40 No amendments have been made to policy wording to reference flood risk and water management. However, GMCA note this was addressed by Policies JP-S 5, JP-Strat 13 and JP-G 2 which cover flood risk and the water environment and green infrastructure (objectives 13 and 14).
- 5.41 Additionally, no amendments have been made to reference the benefits to greenhouse gas emissions as GMCA noted this was covered by Policies JP-S 1 and JP-S 2 which cover sustainable development and carbon and energy (objective 15). Similarly, there were no amendments to include that green infrastructure should be accessible as GMCA highlight this is covered by Policy JP-P 1 (objective 16).
- 5.42 No amendments have been made to reference that green space should take into consideration its local surroundings or regarding utilising remediated land. GMCA noted these were covered in Policies JP-J 1 and JP-S 1 which relate to sustainable development and creating sustainable places.

JP-G 7 (formerly GMSF 2019 Policy GGM 5) – Trees and Woodland 2019 IA – recommended enhancement and mitigation

- 5.43 The policy mentions green infrastructure functions but could expand further upon this in relation to the on-site provision of trees, for example, their potential use for cooling an urban heat island. Linking to green infrastructure, the policy could also state how such infrastructure will encourage active transport and benefit health.
- 5.44 The policy could also make explicit the potential benefits/ synergies with climate change resilience, in particular, flood risk and reducing run-off rates (which links to water resources/quality as well as flood risk), as well as potentially mentioning the Water Framework Directive as another strategic aim.
- 5.55 Furthermore, the policy could add reference to recreation/amenity/tranquillity in ensuring access to green infrastructure, especially ancient trees, which will strengthen local character.

2021 updated position

- 5.56 The policy has been strengthened to reference the benefits of urban cooling from green infrastructure, active travel, the potential for tree planting on land in need of remediation and to support woodland conservation with the sustainable use of timber (Objectives 1, 6, 15, 17 and 18).
- 5.57 No amendments have been made to reference the benefits of sustainable transport modes however GMCA noted this is covered by JP Policies Chapter J1 which covers creating sustainable places and JP-C 1, JP-N 3 and JP-C 5 which covers sustainable travel (objective 9).
- 5.58 No amendments have been also made to reference ecology with habitat diversity as GMCA noted this was covered in policies JP-G 9 which covers biodiversity and geodiversity (objective 11). Additionally, no amendments

were made to include reference to the recreation, tranquillity and amenity of woodlands. GMCA noted that policies JP-Strat 13, JP-G 2, JP-G 6 and JP-G 8 cover green infrastructure (objective 11).

5.59 No amendments have been made to policy wording to reference flood risk and water management. However, GMCA note this was addressed by Policy JP-H 2 which covers heritage (objective 16).

JP-G 8 (formerly GMSF 2019 Policies GGM7 and GM G9) - Standards for a Greener Greater Manchester

2019 IA – recommended enhancement and mitigation

5.60 The policy could be enhanced through emphasising the health benefits of incorporating GI into new and existing development. Further benefits of reducing greenhouse gas emission and improving air quality should be mentioned.

5.61 Blue infrastructure should be referenced in addition to GI. Further enhancements could be made through mentioning wildlife in conjunction with allowing 'naturalness' to predominate greenspace.

5.62 Reference should be made to the importance of considering local surroundings when developing greenspaces and the benefits of using green infrastructure to decrease flood risk and decrease surface run off.

5.63 Further enhancements could be made to reference remediation of land to maximise the available greenspaces for GI functions.

2021 updated position

5.64 No amendments have been made to reference the benefits of sustainable transport modes however GMCA noted this is covered by GM Policies Chapter JP-Strat 13 and G2 which cover green infrastructure, S1 which

covers creating sustainable places and C5 which covers active travel (objective 6).

- 5.65 No amendments have been also made regarding incorporating green infrastructure and the benefits of it as GMCA noted this was covered in policies JP-Strat 13 and JP-G 2, JP-S 1 and JP-S 4 which cover green infrastructure, creating sustainable places and resilience (objectives 10 and 12). Additionally, no amendments were made to include wildlife within the policy. GMCA noted that policies JP-Strat 13, JP-G 2 and JP-G 9 cover green infrastructure and biodiversity and geodiversity (objective 11).
- 5.66 No amendments have been made to policy wording to reference flood risk and water management. However, GMCA note this was addressed by policies JP-S 5, JP-Strat 13 and JP-G 2 which cover flood risk and the water environment and green infrastructure (objectives 13 and 14). Additionally, no amendments were made to reference the benefits to greenhouse gas emissions as GMCA noted this was covered by Policies JP-S 1 and JP-S 2 which cover sustainable development and carbon and energy (objective 15).
- 5.67 Similarly, there have been no amendments to include that green infrastructure should be accessible as GMCA highlight this is covered by JP-P 1 (objective 16). No amendments have been made to reference that green space should take into consideration its local surroundings or regarding utilising remediated land (objective 17). GMCA noted these were covered in policies JP-J 1 and JP-S 1 which relate to sustainable development and creating sustainable places.

JP-G 9 (formerly GMSF 2019 Policies GGM 1 and GM G10) - Biodiversity and Geodiversity

2019 IA – recommended enhancement and mitigation

- 5.68 The policy could be enhanced by specifying the ways in which access to the natural environment can promote healthier lifestyles by improving air quality. It could also mention the recreational opportunities which could be implemented alongside improved access. Similarly, the policy could also mention the benefit of creating multifunctional green spaces in terms of amenity and/or tranquillity.
- 5.69 The policy could refer to the Water Framework Direction to provide more detail on how it may improve water quality and availability.
- 5.70 Finally, the policy could also make reference to the role of biodiversity and geodiversity in maintaining and strengthening local character and distinctiveness, with focus on the landscape, open spaces and public realm. A reference could also be included to highlight the preference for development on previously developed land over land of higher.

2021 updated position

- 5.71 No amendments have been made to reference increased access to nature will support healthier lifestyles however GMCA noted this is covered by Policy JP-J 1 which covers creating sustainable places (objective 6). Additionally, no amendments were made regarding recreation opportunities as GMCA noted this was covered in policies JP-J 7 which cover sports and recreation (objective 7).
- 5.72 Additionally, no amendments have been made to reference active travel within the policy. GMCA noted that policies JP-J 1, JP-C 3 and JP-C 5 which cover GM's integrated network, public transport and active travel (objective 9). No amendments have been also made in relation to the benefits of biodiversity enhancement on air quality (objective 10). GMCA noted this was covered by JP-S 6 which covers clean air.
- 5.73 Additionally, no amendments have been made to include reference to the recreation, tranquillity and amenity of woodlands. GMCA noted that

policies JP-Strat 13, JP-G 2, JP-G 6 and JP-G 8 cover green infrastructure (objective 11).

5.74 No amendments have been made to policy wording to reference flood risk and water management. However, GMCA note this was addressed by policies JP-S 5, JP-Strat 13 and JP-G 2 which cover flood risk and the water environment and green infrastructure (objective 14).

5.75 Similarly, there have been no amendments to include reference landscapes, open spaces and public realm as GMCA highlight this is covered by JP-Strat 13, JP-G 2 and JP-G 6 (objective 16). No amendments have been made to reference the role of biodiversity and geodiversity to enhance local character (objective 16). GMCA noted this was covered by Policy JP-H 2 which covered heritage. Also, no amendments were made to reference that previously developed land (objective 17). GMCA noted these were covered in Policy JP-S 1 which relates to sustainable development.

JP-S 5 (formerly GMSF 2019 Policy GMSUS 4) – Flood Risk and the Water Environment

2019 IA – recommended enhancement and mitigation

5.76 The policy could be improved by referring to the Water Framework Directive as an overarching, strategic aim. It could also address flood risk in terms safeguarding the health and well-being of the population and reducing health inequalities.

5.77 The policy could also mention the need to promote management practices to protect water features from pollution and the need to avoid consuming greater volumes of water resources than are available.

2021 updated position

- 5.78 No amendments have been made to the policy wording to reference health benefits from addressing flood risk (Objective 6). However, GMCA notes that this topic is addressed in corresponding thematic policies JP-G 3 and JP-J 1 which covers GM's river valleys and water ways and requires development to have critical water and drainage infrastructure. The assessment against the objective remains neutral with no change.
- 5.79 The policy wording has been amended to reference the need to conserve water and maximise efficiencies. However, there is no explicit reference to climate change within the policy wording. It is considered that climate change should be made more explicit in relevant thematic policies within the Sustainable and Resilient chapter.
- 5.80 No amendments have been made to the policy wording in relation to referencing water resource management (Objective 14). However, GMCA note this is covered by Policy JP-G 3 and JP-P 1 which covers river valleys and water ways and requires development to have critical water and drainage infrastructure.
- 5.81 Whilst the majority of scores have not changed, at present, given the recommendations relating to climate change, there is some uncertainty against Objective 12.

JP-S 7 (formerly GMSF 2019 Policy SRGM 10) – Resource Efficiency

2019 IA – recommended enhancement and mitigation

- 5.82 No enhancement or mitigation included.

2021 updated position

- 5.83 There is no reference in the policy wording to climate change. However, this could be made more prominent in this policy and / or other appropriate

thematic policies due to the importance placed on the Districts' declared climate emergencies to ensure this objective is achieved (Objective 12).

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- ⁴ Environment Agency (2016), *Water for life and livelihoods, North West River Basin Management Plan* – available at <https://www.gov.uk/government/publications/part-2-river-basin-management-planning-overview-and-additional-information>
- ⁵ *Water Framework Directive* available at: https://ec.europa.eu/environment/water/water-framework/index_en.html
- ⁶ *National Planning Practice Guidance on Water Supply, Wastewater and Water Quality* available at <https://www.gov.uk/guidance/water-supply-wastewater-and-water-quality>
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- ⁸ Strategic priority green infrastructure network for Greater Manchester available at <https://www.greatermanchester-ca.gov.uk/gmsf>.
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- ¹¹ *North West River Basin Management Plan* available at <https://www.gov.uk/government/collections/river-basin-management-plans-2015#north-west-river-basin-district-rbmp:-2015>
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¹⁵ *Policy Advice Note: Inland Waterways unlocking the Potential and Securing the future of inland Waterways through the Planning System* available at <https://canalrivertrust.org.uk/media/original/30984-planning-advice-note-inland-waterways.pdf?v=624b8f>