

together
we are

**GREATER
MANCHESTER**

NATURE FOR ALL

A Local Nature Recovery Strategy for Greater Manchester



CONTENTS

Introduction.....	4
Why nature matters for Greater Manchester	19
Nature in Greater Manchester: Where are we now?	25
Vision and targets: Where do we need to get to?	46
Nature Network: Where is best for nature?	50
Priorities and actions: What do we need to do?	63
Delivery: How you can deliver on the strategy	104
Acknowledgements.....	117
List of appendices.....	119
References and notes.....	121

Foreword

From its beginnings as the world's first industrial city to our current status as a modern innovative and dynamic city-region, Greater Manchester has undergone profound changes in its environment, identity and economy. With a growing population and economy, Greater Manchester will continue to evolve rapidly over the decades to come.

There is no doubt that, alongside the evolution of the city-region, we are also facing a biodiversity emergency – globally, nationally and locally. Our first State of Nature Report confirmed a concerning picture of local decline in both our wildlife and our wider environment. Making space for nature, alongside skyscrapers and bustling streets, our parks, canals, nature reserves and rivers will be crucial to responding to the biodiversity emergency and providing our residents with an attractive and liveable city-region.

Our nature-rich green spaces play a hugely significant role in our health and wellbeing, offering relief from busy urban life and serving as havens for both wildlife and residents alike. Yet, despite their importance in daily life, we know that many of our residents lack access to green spaces nearby to where they live and work. We have already started to address this through our Green Spaces Fund which supports the creation of new and improved community green spaces across Greater Manchester.

We know that nature can thrive in Greater Manchester – over the last decades we have witnessed the remarkable potential of nature to return in some of our most urban spaces. Since the 1980s the area of land safeguarded for nature in Greater Manchester has increased, from around 5,000ha to over 14,000ha.

Nature has flourished on former industrial sites, such as the Flashes of Wigan and Leigh – now a National Nature Reserve. We have seen the return of species such as otters to our rivers, woodlands have been planted on former landfill sites and derelict railway bridges have been reclaimed as new gardens.

As we look towards the city-region's future, if we are to reverse biodiversity decline, it is clear that we will need to do more. We need a clear plan to help nature to thrive and become part of how the city-region grows and evolves. This strategy sets out a vision for how we can help nature recover and what actions we all need to work towards. We set out an ambitious nature network, showcasing where we can collaborate to take steps to enable connected spaces for nature and people to thrive. Our nature network is not a barrier to the growth of the city-region but represent those precious areas that we need to focus on for nature, alongside delivering our many other ambitions for the city-region. As the city-region continues to grow, this strategy aims to set us on a pathway towards a city-region where nature can thrive and our businesses and residents can enjoy the benefits of a vibrant, wildlife-rich and resilient environment.

Mapping our network for nature is just the first step – the real prize is in bringing the maps to life by delivering on nature recovery in these areas in harmony with how we grow the city-region. Everyone has a role to play in realising this vision and creating a Greater Manchester that is greener, fairer, more prosperous and liveable for all.



Andy Burnham,
Mayor of Greater Manchester



INTRODUCTION

Introduction

Why nature matters for Greater Manchester

Nature in Greater Manchester:
Where are we now?

Vision and targets:
Where do we need to get to?

Nature Network:
Where is best for nature?

Priorities and actions:
What do we need to do?

Delivery:
How you can deliver on the strategy

Acknowledgements

List of appendices

References and notes

Why do we need a Nature Recovery Strategy?

Greater Manchester is a growing, vibrant, dynamic and diverse city-region. In and around our homes, offices and businesses there are a variety of green spaces – from urban parks, community gardens and local playing fields to windswept upland moorlands and lowland mosslands, ancient woodlands, farmlands and historic parklands. Crossing these is a network of canals, rivers, lakes, wetlands and reservoirs, stretching from the peaks to the Mersey Estuary and Cheshire Plain.

All these spaces play a role in supporting local wildlife. They are equally important to our local communities, residents and businesses. Our parks, urban rivers and canals provide crucial spaces for relaxation in our busy urban spaces, helping to improve our mental health and wellbeing¹. Our woodlands, grasslands, wetlands and uplands help to store and absorb rainwater and carbon, reduce flood risk and air pollution, and help supply local food and water².

We all understand the importance of nature, but globally³, nationally⁴ and locally⁵ we are witnessing continued decline in our wildlife populations. It is clear that wildlife is struggling, with current and historic reports of falling wildlife populations caused by factors such as habitat loss, fragmentation, intensification of land use, development, invasive species and pollution. Access to nature-rich green spaces across the city-region is unequal and many people do not have access to any green spaces near to where they live and work⁵.



The loss and decline of nature impacts the essential benefits we currently enjoy. It reduces nature's ability to support our health and wellbeing, help capture air pollutants and store carbon, support food production and supply water, and can increase our risk of flooding. The loss of these benefits impacts on our everyday lives and the liveability and resilience of the city-region⁴.



In recognition of the severity of this issue, Greater Manchester declared a biodiversity emergency in 2022. We know there is huge potential for nature to thrive alongside where we live and work, and we have already witnessed examples of the potential of nature to return. Former industrial sites, such as the Flashes of Wigan and Leigh, are now National Nature Reserves, and derelict railway bridges, such as Castlefield Viaduct, have been converted into vibrant gardens. As Greater Manchester continues to evolve, we all need a strategy that sets us on a pathway towards a city-region where nature can return and thrive, and our residents and businesses can enjoy the benefits of a vibrant and resilient environment.

This Local Nature Recovery Strategy sets out a long-term vision to work towards a resilient network for nature across Greater Manchester, by connecting and enhancing wild spaces so that people and nature can thrive. To drive action, we set out headline targets to help track progress, alongside priorities and actions for different habitats and species. We all need to work towards these targets, priorities and actions, to set us all on the right pathway to help realise this vision.

Over the next decade, this will be the guiding strategy for nature across the city-region. It is the delivery of the vision, targets, priorities and actions, set out in this strategy, by local authorities, environmental non-governmental organisations (eNGOs), communities, volunteers, businesses, planners, public bodies, developers, landowners and residents, which is crucial to reverse the decline in nature over the next decade. Everyone has a role to play in delivering on this strategy and creating a Greater Manchester that is resilient, greener, and more liveable for all.



The Biodiversity Emergency

Our natural world contains a huge variety of life – the plants, animals, insects and microorganisms that live on our planet – which is collectively referred to as ‘biodiversity’. Nature (which includes biodiversity as well as geology, water and climate) is important for its own sake, the unique outcome of millions of years of evolution and natural processes. Nature is also essential for many aspects of our lives. We depend on nature to provide us with clean and plentiful water, produce food and pollinate crops, for medicines and mental health benefits, for the clothes we wear and the homes we build^{2,6}. It also holds huge cultural value as part of the places we live and enjoy, as well as for both spiritual and religious reasons.

However, globally, nationally and locally we are seeing the loss and decline of our planet’s biodiversity.

At the global level, the [Living Planet Index³](#), a measure of wildlife population size, shows that over the last 50 years we have lost 68% of our global wildlife populations.

A quarter of all species are now threatened with extinction and the current rate of **global extinction is estimated to be between 100 to 1,000 times higher than natural background extinction rates^{7,8}**.

At the national level, 1 in 6 UK species are now threatened with extinction and **over the past 500 years an estimated 200 species have likely been lost⁴**.

For mammals the threat is higher, with **1 in 4 land mammals in the UK now facing extinction⁴**.

UK populations of species of greatest conservation concern have also declined by 37% since the 1970s and **25% of all species in England are at historically low levels^{8,9}**.

The UK is now considered one of the world’s most nature-depleted countries and is at the very bottom in terms of how much wildlife survives¹⁰.

There have also been declines in key indicator species of wider ecosystem health – including a 16% decline in the average abundance in butterflies over the past 25 years and 44% in breeding birds over the past 45 years¹¹.

Mammals like hedgehogs are facing serious declines, with surveys in 2011 showing declines of between 25-40% over the previous decade¹¹.

The decline in nature we are seeing has been caused by habitats and wild spaces being lost, destroyed, fragmented or degraded, by pollution, change in land use or invasive species, or overused for industry or agriculture. In turn, these changes impact on the ability of the natural environment to provide essential services and put the benefits that we receive from nature, that underpin our economy and society, at risk.



What is a Local Nature Recovery Strategy?

As Greater Manchester grows, we need a guiding strategy to set a pathway towards a city-region where nature and people are thriving – a Local Nature Recovery Strategy.

To respond to the biodiversity emergency and to meet local aspirations for a greener, more nature friendly, future

We need a long-term vision for what a nature-friendly city-region should look like

To help us all drive action for nature and people

We need to set out how we can all work together to help nature recover

To help us all focus our efforts for nature

We need to set out the best places we can boost action for nature, a Nature Network

To track our progress

We need to set out clear targets for nature recovery and monitor these



The passing into law of the Environment Act 2021 set targets, plans and policies for improving the natural environment. This included a national 25 Year Environment Plan which aims to halt and reverse species decline in England and introduced **Local Nature Recovery Strategies**.

The Environment Act 2021 provides the Mayor, as Responsible Authority, and Greater Manchester Combined Authority (GMCA) with the statutory basis to co-produce a locally led, evidence-based **Local Nature Recovery Strategy**, to drive more collaborative action for nature. This document is our Local Nature Recovery Strategy (hereafter LNRS) for Greater Manchester, it is a statutory document and is in place **from 2025-2035**.

To drive action for nature, the strategy is a locally-led plan for habitats and species to help drive investment and action for nature across the city-region. It does this using:

- Locally agreed targets, priorities and actions for nature recovery.
- Maps of existing areas where nature needs continued protection or enhancement.
- Maps showing opportunities for creating and restoring habitats for wildlife alongside other land uses.

In summary, the strategy sets out how and where across the city-region we should be taking steps for nature recovery. Over the next ten years, this will be the guiding strategy on the most effective actions for nature recovery and set out the best locations for nature recovery across the city-region. Everyone can play a positive role in delivering on this strategy, whether that is via small scale actions in communities, streets and gardens or large-scale actions, such as the designation of new nature reserves, new parks or as part of the development of an area.

The strategy covers the whole of Greater Manchester – all ten of our local authorities (Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Stockport, Tameside, Trafford and Wigan) and those areas within them that are part of the Peak District National Park (which is a local planning authority). This strategy sits alongside a wider set of Greater Manchester policies and strategies ([see appendix 1](#)). The government have stated that LNRSs will be reviewed in three to ten years, at a time that will be determined by the Secretary of State.



Legal status and remit of Local Nature Recovery Strategies

The Environment Act 2021 sets the UK's framework for improving the natural environment. The Act includes national targets, plans and policies, including the statutory requirement for Greater Manchester to publish this strategy. The Act, regulations and associated planning guidance set out the legal status and remit of LNRSs.

Planning status

Nationally, the government has made clear that LNRSs are not intended to act as a barrier to development, or place new restrictions on developing land or making land use changes. LNRSs are a guide or evidence base to inform Local Plans and decision making. Local Plans remain the mechanism by which local planning authorities determine where and how land should be developed. Planning decisions at both the plan-making and planning application stage need to take into account all material considerations and the LNRS will be one consideration amongst many. Put simply, it will inform but not dictate planning decisions.

The planning system in England is designed to be 'plan-led' through local planning authorities' Local Plans. These Local Plans should set out a vision for the future of each area and a framework for addressing housing needs and other economic, social and environmental priorities. Given the role development can play in delivering these priorities, LNRSs have been designed to help local planning authorities plan with regard to the natural environment.

The Environment Act 2021 sets out that local planning authorities in Greater Manchester must have regard to this LNRS in their policies, including those in their Local Plans. The LNRS has been designed to help the ten local authorities and the Peak District National Park Authority address and integrate priorities relating to the natural environment in their Local Plans. This is aimed at better integrating these priorities, alongside others that these plans must address (such as housing needs).

Integrating the LNRS into Local Plans

It is the responsibility of local planning authorities to decide how they have regard for the LNRS in their Local Plans and when making planning decisions. Local planning authorities could integrate the LNRS into their Local Plan in a number of ways, including setting out:

- How the Local Plan aligns its policies with the vision, aims, targets and priorities in the LNRS.
- How development should seek to support and deliver on the vision, aims, targets and priorities in the LNRS.
- How development should seek to enhance and protect the integrity of existing core local nature sites and boost the connectivity of the Nature Network within opportunity areas.

Biodiversity Net Gain

LNRSs determine where habitat creation or enhancement for Biodiversity Net Gain (BNG) will be of 'high strategic significance' and benefit from a 15% uplift in the Defra statutory biodiversity metric. Areas mapped within the LNRS Nature Network should be used to target off-site BNG towards certain areas of the city-region that would be particularly beneficial for biodiversity.

Relationship with the legal protection and designation of land

The strategy is a guide for nature recovery across the city-region. The Environment Act 2021 did not give Responsible Authorities any new legal powers to formally, or otherwise, protect land for nature recovery through LNRS. The protection of land for nature can only be provided through statutory designations or local planning policy. The LNRS, including areas mapped as part of the Nature Network, does not propose or provide for any new protection, designation or restrictions on how land can be used or managed, or any other kind of legal designation. Over time through the headline target (set out later in this strategy) there may be more areas designated or selected for nature recovery. However, this would be achieved through the existing statutory designation process or separate approval processes within each local authority.

Relationship with land management

The LNRS, including areas mapped within the Nature Network, does not create any additional restrictions on how land can be used or managed. It does not force landowners and managers to make any changes in how their land is managed – this remains their choice. Instead, the LNRS is a guide and evidence base for how landowners could use or manage the land, or approach their operations, in a way that could support the recovery of nature – even more that they might do already. Aligning activities with the LNRS may help landowners and managers to access funding and investment opportunities for nature recovery and wider environmental benefits in the future. The strategy provides options for what landowners could do with their land and directs action to where it is most needed and where it could deliver the greatest benefits.

Requirement on public authorities – strengthened biodiversity duty

The Environment Act 2021 contains a strengthened Biodiversity Duty on public authorities. This requires local authorities, including town and parish councils, government departments and agencies and organisations managing public infrastructure such as roads and water, to conserve and enhance nature. LNRSs help inform how public authorities in Greater Manchester can meet this legal duty to conserve and enhance biodiversity. This could be through for example: managing areas of land they are responsible for in a way that supports what the LNRS proposes or using the LNRS to inform relevant decisions. However, there are many ways for public authorities to meet this duty and local authorities need to take a range of factors into account when making decisions.

LNRS and regulatory decisions

The LNRS does not determine the outcome of regulatory decisions, such as the result of Environmental Impact Assessments.



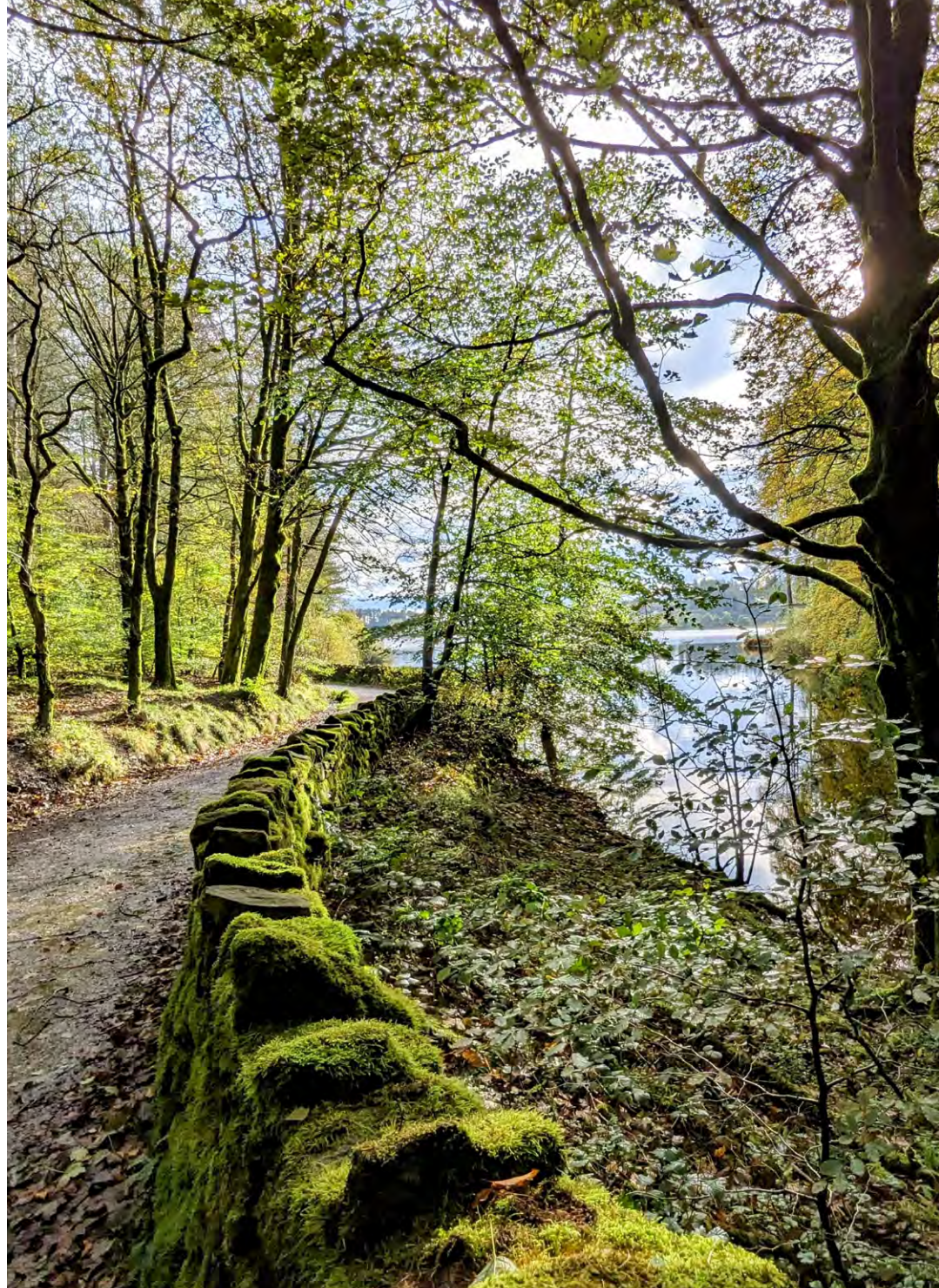
The LNRS and delivery

Delivering on the vision, targets, priorities and actions set out in this strategy, by local authorities, eNGOs, communities, businesses, planners, developers, landowners and residents, is crucial to reverse the decline in nature over the next decade. This strategy is not a delivery plan – delivery options will be produced to sit alongside the strategy over 2025 and 2026. It does not override existing plans, policies, processes, best practice and protections that are already in place for nature, nationally or locally.

No single organisation or individual is tasked with delivering it alone. Everyone can play a positive role in delivering on this strategy. For example, through volunteering work to remove invasive species, the uptake of agri-environment schemes such as Environment Land Management (ELM) by landowners or the delivery of biodiversity enhancements including BNG by developers. Public bodies should use this strategy to inform their policies and decisions, prioritise funding, and direct environmental investments. The strategy's maps and nature recovery priorities highlight the key areas where public and private investment can make the biggest difference, ensuring that projects provide maximum benefits to nature and local communities.

Review and refresh

The LNRS will be reviewed and updated as instructed by Defra. Details of how strategy delivery will be coordinated, monitored and supported will be published by the government in 2025 and 2026.



What does this strategy contain?

This strategy is made up of key components that come together to set out how and where across our communities we should all be taking action for nature.

These components include: an overarching vision, individual priorities and targets for both habitats and species, alongside a mapped Nature Network for Greater Manchester. **These key components are each shown and explained below.**



State of nature: An overview and description of our natural environment and current trends in our local wildlife and environment.



Vision: An overarching vision for what Greater Manchester could look like when the strategy is delivered.



Aims: The high-level results required to achieve that vision across the city-region.



Targets: Greater Manchester specific targets, set to help us to track progress towards the overarching vision and aims.

Priorities: These are the long-term end results that the strategy is seeking to achieve in terms of habitats and species. Our habitat priorities are divided into different broad habitat types. Our target species cover some of the most vulnerable species across Greater Manchester.

Actions: The practical actions that would make a positive contribution towards delivering our priorities (the term actions is used throughout this document in place of the statutory 'measures').

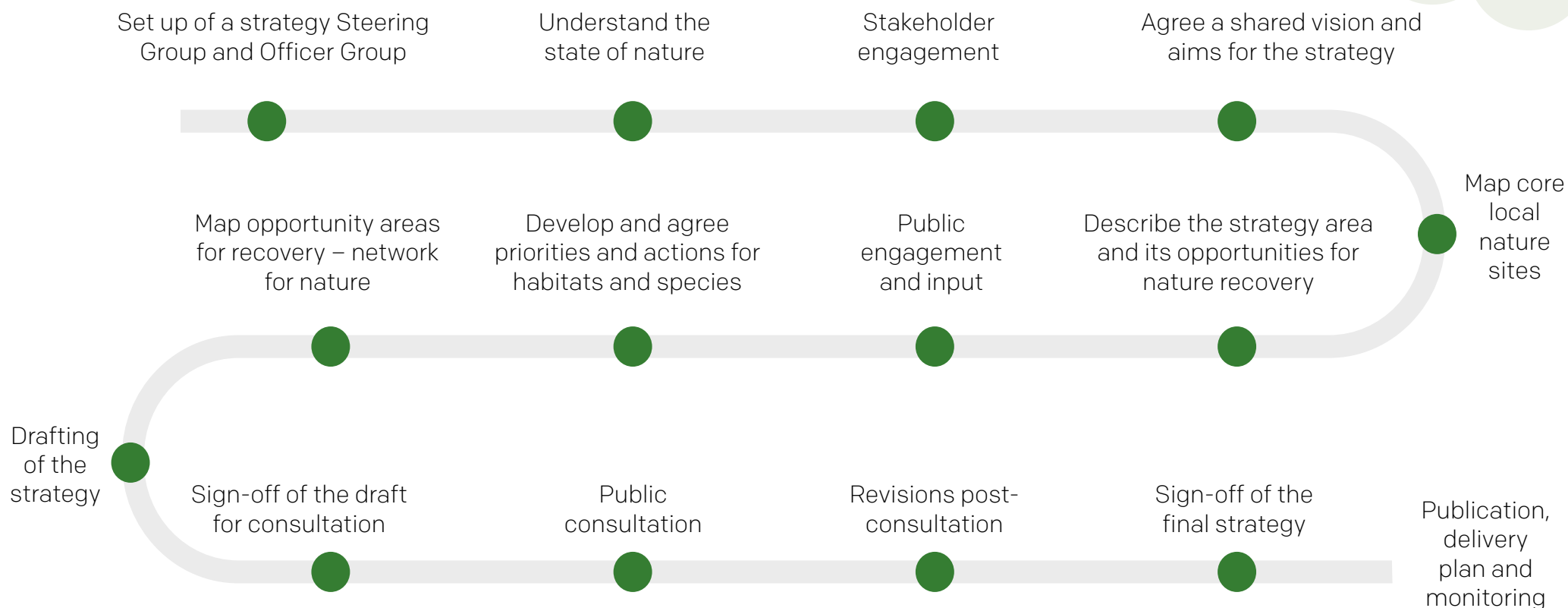
A Nature Network: Consisting of our core local nature areas and nature recovery opportunity areas.

- **Our Core Local Nature Sites** are our best remaining areas for nature across the city-region, including all our designated sites and irreplaceable habitats (*these form our 'areas of particular importance of biodiversity'*).
- **Our Nature Recovery Opportunity Areas** where the creation and restoration of habitat could have the greatest impact on nature's recovery. They represent areas where we should be more ambitious for nature alongside other land uses (*these form our 'areas that could become of particular importance for biodiversity'*).

Together the Nature Network shows how we can connect our best remaining spaces for nature across the city-region and specific practical actions within these areas (*these two components together form the 'local habitat map' for the Greater Manchester LNRS*).

How has this strategy been produced?

GMCA has led the preparation of this strategy, supported by the Greater Manchester Ecology Unit, Natural England, the ten local authorities, the Peak District National Park Authority and our steering group.



To help us get this strategy right for the local people who know and understand Greater Manchester, in preparing this strategy GMCA has:

- **Co-produced** the strategy with representatives from local environmental charities, infrastructure providers and local partner organisations (see [acknowledgements](#) and [appendix 2](#)), who have been involved in all stages of the strategy development through our Greater Manchester LNRS Steering Group.
- **Adopted an evidence-based approach** by developing Greater Manchester's first [State of Nature report](#) to inform the strategy ([appendix 3](#)). The report brings together available, open-access local environmental data to report on some of the major trends in nature.
- **Involved the public** and different sectors to ensure the strategy is **locally-led**. The strategy has been shaped not just by expert organisations but also by the public, via a public survey, public consultation and engagement events with farmers and landowners, developers, infrastructure providers, environmental professionals, businesses, community groups and residents.





Who has been involved?

- **For farmers and landowners**, we held dedicated in-person workshops, farm visits and worked with local nature champions in the agricultural sector.
- **For businesses**, we held dedicated in-person workshops and roundtables to hear views.
- **For residents and community groups**, we ran a large public survey with over 800 responses, collected views and feedback at local festivals, local events and conferences.
- **For local councillors**, we ran webinars and developed dedicated information packs.
- **For developers, social housing providers and urban regeneration experts**, we ran webinars.
- **For the NHS**, our partners ran conferences and local events to gather views.
- **For nature experts and environmental charities**, we set up workshops, online meetings, surveys and events to hear views and gather feedback.

Throughout the development of the strategy, we have sought to inform and engage residents and local organisations through regular newsletters, project blogs and social media activity, amplified by our partners and green communications challenge group – see [appendix 4](#) for further information.

Who is it for and how should it be used?

Everyone can take action for nature and play a part in local nature recovery. This strategy is for everyone, whether you are a local business owner or landowner, an environmental charity, developer or planner, a local resident, parks manager or a community group.

This strategy should be used to understand how and where action should be taken to help nature recover across the city-region. It can be used to guide and inspire action by communities, residents, charities, businesses, public bodies, local authorities, farmers and landowners. It sets out the most effective actions and a network for nature recovery for local authorities, developers, policy makers, planners and institutions. You can [read more](#) about how you can help delivery at the end of the strategy.



This strategy should be used to:

- **Drive collaborative action:** Encourage more joined-up and focused action.
- **Guide funding and investment:** Set out the best places to focus action, resources and funding (e.g. ELM, BNG, philanthropic and private funding).
- **Inform and evidence:** Boost understanding of the state of nature, the best actions to help nature recover and inform the planning process.
- **Target action for nature:** Highlight the places where action could deliver the biggest gains for nature recovery.
- **Deliver multiple benefits:** Deliver benefits for society and economy, alongside boosting nature, such as reduced flood risk, improved health, local food growth and increased visitors.
- **Connect with nature:** Encourage people to understand, engage and get involved with local nature recovery.
- **Track progress:** Better monitor how we are tackling the biodiversity emergency.



Different organisations and groups of people will be able to use this strategy in different ways:

- **Land managers and owners** can use this strategy as a guide to help plan the best actions for nature on their land, show how these actions contribute towards wider nature recovery efforts and support funding applications.
- **Environmental organisations** can use this strategy to drive coordinated action, identify areas where action for nature could be most effective and support funding applications.
- **Residents and community groups** can use this strategy to inspire local action, understand how their projects can help wider nature recovery and create more liveable spaces.
- **Local authorities** can use this strategy to plan and act on public land and estates, to meet the strengthened biodiversity duty. To inform their Local Plans and where to target the creation or enhancement of habitat for offsite BNG. To identify where and how enhancing nature can support other council services and meet cross-departmental targets.
- **Businesses** can use this strategy to inform how they take action for nature, understand their business impacts on nature, boost employee engagement in environmental issues and target corporate social responsibility efforts.
- **Planners and elected representatives** can use this strategy in the preparation of planning documents and inform planning and other decisions.
- **Developers** can use this strategy to guide how they can work towards development that embraces a nature centric approach to raising standards.

More information on how this strategy can be used by different audiences and delivery options will be published over 2025 and 2026.





WHY NATURE MATTERS FOR GREATER MANCHESTER

Introduction

Why nature matters for Greater Manchester

Nature in Greater
Manchester:
Where are we now?

Vision and targets:
Where do we need to get to?

Nature Network:
Where is best for nature?

Priorities and actions:
What do we need to do?

Delivery:
How you can deliver
on the strategy

Acknowledgements

List of appendices

References and notes

Nature is important for its own sake, the unique product of millions of years of evolution and natural processes. For many people, connecting with nature is a source of inspiration and a meaningful reminder that they are part of something bigger, that enriches their daily lives. Nature is also essential for many aspects of our lives. Natural spaces play a vital role in making the city-region an enjoyable place to live and work, providing crucial spaces for relaxation, leisure and tranquillity – helping to boost our health and wellbeing⁶. At the same time, they provide us with vital services: storing water, reducing flooding and air pollution, storing carbon and providing us with water and local food.

What does nature do for us?

Being in nature is good for you. A huge, and growing, body of evidence tells us that spending time in nature is vital for our mental and physical health¹.

Every year, Greater Manchester residents' benefit from an estimated £1bn⁶ in essential services from our natural environment. Some of these services include mental health benefits (with an avoided healthcare costs for the NHS estimated at £264m) and improved physical health (benefits of £56m); opportunities for leisure, sport and recreation (benefits of £372m) and increased amenities and property values (£174m uplift for house prices). These essential benefits are particularly important for our vulnerable groups and can help reduce critical issues across the city-region, such as health inequalities and improve the lives of people with chronic illness or mental health conditions.



However, the benefits that we receive from nature are under threat given the array of challenges facing nature in Greater Manchester and the continued decline in biodiversity we are seeing. If we do not protect, maintain and enhance nature, we will not continue to receive these benefits, with knock-on effects for society and the economy – such as possible additional costs for the NHS.

Helping nature to recover, through enhancing and safeguarding natural spaces, can deliver a range of wider benefits and help the city-region to thrive:

The benefits for people:

- A green and healthy environment to grow up, get on and grow old.
- More recreation and leisure opportunities.
- Improved air quality and less noise pollution.
- Improved physical health, including better heart health and healthy lifestyles.
- Improved mental health, including reduced stress and mental health conditions.
- More resilience and adaptation to climate change, including flooding, droughts and extreme heat.
- Less water pollution and safer opportunities for water-based recreation.
- Greater connection to our natural and historic environment.
- Stronger communities, proud of where they live and work.
- Healthier soils, ensuring long term sustainability of food supplies.
- Opportunities for more green jobs and careers.

The benefits for businesses:

- A more attractive place to work, visit and do business, encouraging local economic growth.
- Increased resilience through reduced risk of, and better adaptation to, environmental hazards.
- A healthier, happier and more productive workforce.
- Higher land and property values.
- Increased green jobs and skills.
- More visitors and sustainable tourism opportunities.
- More productive land for food security and other resources that can be grown locally.

The ecological benefits:

- Protection of rare and threatened species and habitats.
- Repaired natural cycles and natural processes.
- A greater abundance and diversity of wildlife and healthier ecosystems, reversing biodiversity decline.
- Capture and sequestration of carbon, helping tackle climate change.
- More resilience to future changes in climate.
- Greater resilience of species to pests and diseases.



How do we access nature?

We know that people like to spend time in nature.

- On average **93%** residents surveyed over a 10-year period think that having open green space close to where they live is important to them^{5,12}.
- **Over half of residents** (53%) surveyed report that they visit the outdoors for leisure at least once a week¹².
- When spending time in nature, residents reported they enjoyed exercising (70%), peace and quiet (73%), spotting wildlife (87%) and improving their wellbeing (77%)¹³.

People from all walks of life value spending time outdoors in nature, but not everyone benefits to the same extent. With nearly three million people now calling the city-region home, our public green spaces are increasingly under pressure.

We know that access to nature looks very different across the city-region. Access to nature is unequal and many people do not have access to nature near to where they live or work. This means that the health and wellbeing benefits that we all get from our natural environment are not shared equally.

- Only an estimated 40% of our population live close (within 200m) of a small green space (0.5ha or bigger)¹⁴.
- Echoing national trends¹⁴, people experiencing multiple inequalities in Greater Manchester tend to live in areas with less green space, compared to more affluent areas¹⁵.
- Communities experiencing racial inequalities are nearly twice as likely to live in areas with the least green space¹⁴.



What action do people want?

Over 800 residents, community groups, charities, businesses, farmers and landowners across the city-region have engaged with us during the preparation of this strategy (see [appendix 4 and 5](#)).

In a public survey we carried out ahead of the public consultation, one of the most common responses was a desire for a greener, cleaner, wilder city-region – with many respondents prioritising the maintenance, protection and enhancement of our existing green and blue spaces for nature as the top action they would like to see included in this strategy.

For the future, residents envision a greener, more wooded, cleaner, more biodiverse, more natural and more accessible Greater Manchester.

Views on the state of nature

Through surveys, workshops, events and webinars, we have heard what people think about the state of our natural environment.

- Although most Greater Manchester residents (69%) are proud of their local area¹⁶, 55% of survey respondents think that the natural environment where they live is getting worse¹³.
- Almost half of survey respondents said they currently think the state of nature in Greater Manchester is poor (41%) and a further third thought it was in moderate condition (37%)¹⁷.
- Residents stated that they are put off spending time in nature due to a lack of accessible quality green space (14%), a lack of biodiversity (16%), increasing need for land for housing and employment (16%) and green spaces in poor condition (18%)¹⁷.

These responses indicate a strong concern about the state of Greater Manchester's natural environment and its decline.



Views on the local actions that are already helping to support nature

- Nearly a quarter of survey respondents (24%) identified community action, projects, and volunteering as the most common actions already working to support local wildlife, followed by tree planting (9%), parks and public green and blue spaces (8%), and environmental NGOs and partnerships (7%)¹⁷.

Views on what we all need to do to best improve nature locally

- Residents expressed a desire to see action for our most vulnerable wildlife, specifically mentioning the need for action for hedgehogs, birds, bees and otters, as well as the reintroduction of lost species such as beavers¹⁷.
- The top actions residents want to be taken across the city-region include:
 - Creation and restoration of more green spaces for nature and people.
 - More wildlife-friendly development or less development.
 - Maintenance, protection, and enhancement of existing green and blue spaces.
 - Education and awareness raising.
 - More tree planting and new woodlands.
 - Improved water quality and reduced pollution.
 - More wildflower meadows and verges.
 - More support for community projects and volunteering.
 - Less litter and cleaner areas.
 - Increased habitat diversity.

I would like a more nature friendly Greater Manchester to have:

"Opportunities for communities to meet together to look after nature."

"Greener [areas] – creating valuable habitats and pockets for wildlife in an urban concrete jungle."

"Wild accessible green spaces."

"More green and blue environments with a diverse mix of species."

"Lower air and water pollution levels."

"Green architecture, with more green roofs."

See [appendix 5](#) for the full results of our survey.





NATURE IN GREATER MANCHESTER: WHERE ARE WE NOW?

Introduction

Why nature matters for Greater Manchester

**Nature in Greater Manchester:
Where are we now?**

Vision and targets:
Where do we need to get to?

Nature Network:
Where is best for nature?

Priorities and actions:
What do we need to do?

Delivery:
How you can deliver on the strategy

Acknowledgements

List of appendices

References and notes

We know nature is struggling across the city-region. In this section, we describe the existing land and habitats in Greater Manchester and the state of these habitats (detailed descriptions of our landscapes and habitats can also be found in [appendix 6](#)), along with the main trends in our species, best sites for nature and the key pressures on nature across the city-region. This section of the strategy is drawn from our [Greater Manchester State of Nature Report \(appendix 3\)](#).

Our habitats and species

In total, Greater Manchester extends over 127,600 hectares (ha) of land. The city-region is dominated by its urban and suburban areas, which cover around nearly half of Greater Manchester. Across the city-region, nature reserves and protected wildlife sites provide some of our best spaces for nature and act as vital refuges for wildlife. 11% of land in Greater Manchester, over 14,000 ha, is safeguarded in some way for nature through a variety of designations. These sites are often isolated or fragmented by urban areas and infrastructure, meaning that species can struggle to move between them.

Nature is not just confined to our protected sites and nature reserves. Within and around our built-up areas, Greater Manchester hosts a range of different habitats including woodlands, upland heath and moorlands, grasslands, lowland mosslands and other wetlands. Rivers, waterways and waterbodies, including the River Mersey and River Irwell, canals, reservoirs, lakes and ponds, cross the city-region. An estimated 30% of our land is used for agriculture, although the uptake of grants for nature-friendly farming is thought to be lower than in surrounding areas⁵.

In our urban and suburban areas our ten local authorities are custodians of a huge array of different green spaces from public parks and Local Nature Reserves to civic squares, cemeteries and riverbanks. Amenity and leisure spaces, such as public parks, school grounds, and sports pitches provide key urban green spaces.

Despite the biodiversity emergency we are facing, there are many reasons for optimism and stories of the successful return of nature across Greater Manchester. Many of these successes are due to the hard work and dedication of a committed network of local people, volunteers, organisations, partnerships and public bodies working across the city-region.

Designated sites

Overview

Many of Greater Manchester's best sites for nature are designated as protected sites and their active management supports a diverse array of wildlife. Greater Manchester has 22 nationally significant Sites of Special Scientific Interest (SSSIs) covering our particularly significant areas of semi-natural grasslands, woodlands and heath, as well as some of our wetlands of lowland raised bogs, flashes and lakes. Greater Manchester hosts five Special Protected Areas (SPAs) and Special Areas for Conservation (SACs). These range from the expansive upland moorland of the South Pennines to the Rochdale Canal. Alongside these are 533 Local Wildlife Sites (also called Sites of Biological Importance), as well as 79 Local Nature Reserves and two National Nature Reserves. Irreplaceable habitats¹⁸ are also found in Greater Manchester, including ancient woodlands and veteran trees, blanket bog and lowland fens.



State

Extent

Since the 1980s, the areas of land safeguarded for nature in Greater Manchester has increased, from around 5,000ha to over 14,000ha through the work of the Greater Manchester Ecology Unit, local authorities, Natural England, environmental charities and local communities.

Our designated sites now cover over 11% of Greater Manchester, a lower proportion than achieved in Liverpool (14%) and Lancashire (24%). Over the last decade our positive trend of increasing the amount of our land designated for nature has plateaued. Although new sites have been celebrated and designated, such as the Flashes of Wigan and Leigh National Nature Reserve and Local Nature Reserves at Springwater Park in Bury – some sites, or parts of sites, are also being lost due to lack of appropriate management and land use change.

When looked at as a network, these sites are now isolated and fragmented, meaning there are large distances between them, and they are not well-connected. Many sites are small and, with habitat loss, the area remaining under protection is not enough to support species recovery. To enable nature to recover these sites need to not only be bigger but crucially more joined up, allowing species to move between them.

Condition

Many of our best sites for nature are not in as good condition as they could be, which impacts on their potential to support nature recovery.

At present only 5% of our SSSIs (less than 300ha) are in 'favourable' condition, with a further 75% in 'unfavourable – recovering' condition. Since 2000, most of our SSSIs have improved and have moved towards being managed for recovery rather than remaining 'unfavourable – no change'. Compared to the rest of the Northwest and nationally, Greater Manchester has significantly fewer SSSIs in 'favourable' condition, but more sites recovering⁵.

Due to several factors, there is variance in data availability on the condition of our designated sites. These are the key building blocks for nature recovery, we need to know more about how many are in active conservation management and work with landowners and managers to bring more into active management to improve their condition.



Species



Despite its predominantly urban landscape, Greater Manchester has a diverse array of wildlife, including species protected by legislation like great crested newts, water voles and badgers. Even in the heart of the city peregrine falcons, swifts and swallows are known to make their homes. Six different species of bats can be found along our urban canals and rivers, while foxes use our urban gardens and tram embankments to feed and raise their cubs.

Amphibians and reptiles like newts, as well as common frog and common toad, slow worm, grass snake and common lizard, live and breed in our ponds and grasslands.

Grassland and brownfield sites are strongholds for declining insect populations, while **damselfly and dragonfly** are found across the city-region, including the banded demoiselle on many of our rivers and canals.

Mammals seen in Greater Manchester include badgers, hedgehogs, bats, stoats, weasels, foxes, otters, rabbits, brown hares and mountain hares. Roe deers are also increasingly common in many of our woodlands, whilst water voles are under threat.

Rare **plant** species can also be found in the city-region, such as carline thistle, hemp nettle and oak fern, aquatic plants like floating water plantain and several species of bog moss.

Fungi are found in all habitats, from woodland to grassland to gardens. Some of our upland and lowland sites hold nationally significant grassland fungi populations.

Birds such as herons and kingfishers are seen along our rivers and woodpeckers in some of our urban woods and parks. Our uplands support specialist moorland birds, such as curlew, golden plover and twite. Our farmlands, particularly areas of Bury, Wigan, Trafford and Stockport, support skylark, tree sparrow and barn owl. Wigan is a stronghold for the nationally rare willow tit.



We have limited data on population trends of our local species. The data that we do have available for key species of birds and mammals, echoes the wider national picture of species decline:

- Bird populations are used to provide a good indication of the broad state of wildlife across the UK. Mirroring national trends, we have seen some worrying declines in our bird species. Between 1980-2011 individual bird species populations across a range of habitat types have shown declines of between 9-40%^{5, 19}.
- Trends in population for our mammals are relatively poorly known in Greater Manchester and we are reliant on data for the whole of Northwest England. 25-year trends show us that Greater Manchester and its surrounding areas are losing not just rare but once common species, with reported declines in red foxes of -44%, rabbits -64%, brown hare -8% and hedgehog -24%^{5, 20}.

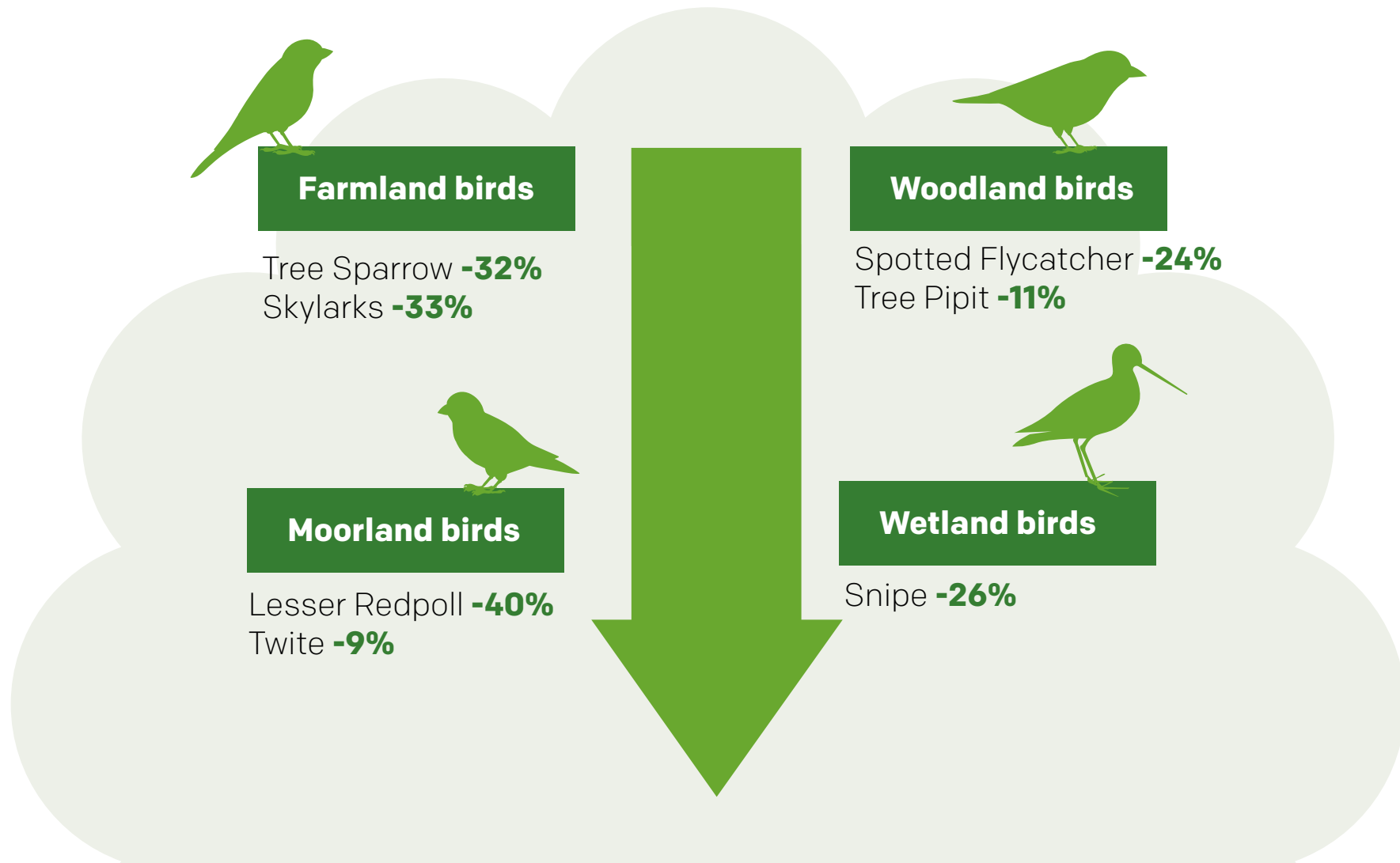
These population declines are driven by a range of different factors including habitat loss, habitat fragmentation, pressure from pollution, invasive species and urbanisation, as well as new threats like climate change.



Our birds

Bird populations are used to provide a good indication of the broad state of wildlife in the UK. Greater Manchester is home to many populations of birds. Mirroring national trends, we have seen some worrying declines in our bird populations.

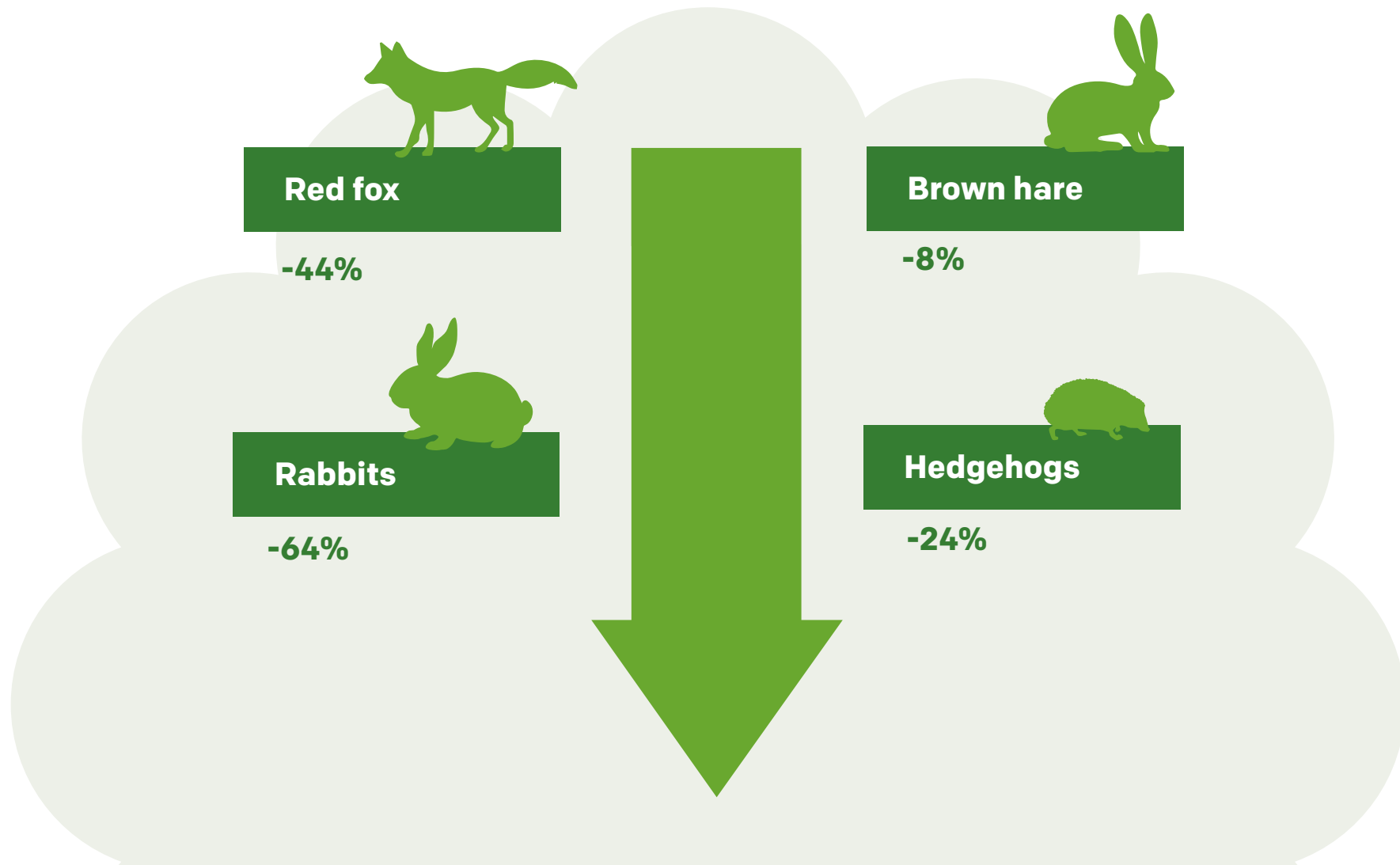
Between 1980-2011, Greater Manchester has seen the following declines in bird populations:



Our mammals

The population trends for mammals are relatively poorly known in Greater Manchester and we are reliant on data for the whole of the Northwest. 25-year trends for the Northwest show us that we are losing once common species.

Between 1995-2021, the Northwest has seen the following declines in mammal populations:



Urban and suburban green spaces

Overview

Urban and suburban areas dominate much of our city-region, from the dense city centres of Manchester and Salford to the many towns across Bolton, Bury, Oldham, Rochdale, Stockport, Tameside, Trafford and Wigan.

Across our urban areas are a variety of well-loved parks, gardens, playing fields, golf courses, cemeteries, canals and allotments, that all provide valuable open green spaces for people and refuges for wildlife. Traversing through these areas are rivers, brooks and canals, many of which have been modified and built over.

Our ten local authorities, schools and institutions including the NHS, are custodians of a huge array of green spaces. Even incidental public urban green spaces, like road verges or cemeteries managed by our local authorities, can form valuable space for wildlife across the city-region. Commercial land also provides green space for businesses and their staff to operate, ranging from the large-scale office spaces and smaller scale retail and leisure spaces.

Our residential gardens account for 15% of our land. These can be fantastic urban refuges for nature, and home to species like swifts, sparrows and hedgehogs and support pollinators like bees, wasps and hoverflies.



These spaces are hugely important for local communities, providing spaces for social interaction, relaxation and leisure. They also encourage active lifestyles, helping improve our mental and physical health and reducing the burden on the NHS. They are essential to the liveability of urban areas and improve the quality of our places. At the same time, they help manage rainwater and reduce air pollution and overheating. They also provide critical transport routes for pedestrians and cyclists for commuting and leisure.





Photo credit: Simon Wilkes Photography

State

Our urban green spaces are of huge significance to many residents on a day-to-day basis. However, the distribution of urban green spaces across Greater Manchester is by no means equal.

Our dense urban areas often host very few parks and those that do exist are often small and serve large local populations, a legacy of historic and current growth of Greater Manchester. Those urban green spaces that we do have are often under pressure from multiple competing demands on urban land, as well as restricted management due to vastly reduced public estate and park service budgets.

Access to green spaces in Greater Manchester does not currently meet national standards recommended by Natural England²¹.

- At least an estimated third of Greater Manchester's population do not live within 15 minutes of a decent sized green space, as defined by national standards⁵.
- Only an estimated 40% of our population live close (within 200m) to a small green space (0.5ha or bigger)²².

This lack of good access to green spaces compounds health inequalities across Greater Manchester and reduces the potential for these communities to benefit from these spaces.

In denser urban areas, like Manchester, 1 in 5 (20%) of all properties do not have access to a private or shared garden. Those that do have gardens are also thought to be becoming less green. Research by the Manchester Metropolitan University has revealed that, in Manchester, only 50% of the average garden is green space²³.

Successes

The importance of green spaces in our urban and suburban areas is being recognised more and more and integrated into new development and regeneration schemes and heritage projects alike:

- Opened in 2022, **Mayfield Park** in Manchester was the first new city park for 100 years. The 2.6ha parkland and new neighbourhood brought the River Medlock back to life, removing it from its concrete culverts and daylighting it for the first time in over 50 years.
- Opened in 2024, **Viaduct Park** is a key part of the regeneration of Stockport town centre. The park sits above the town centre's new bus station, providing a new green space for residents, alongside 200 new apartments and a new cycling and walking route.
- There are many smaller scale examples of green space being made a central part of new development and infrastructure. They include the opening of **Elizabeth Park** in Bolton and **Jubilee Park** and at **Broadway Green, Chadderton** in Oldham, both at the heart of areas of the town centres that are being extensively regenerated. In Manchester, the **Castlefield Viaduct**, redundant for 50 years has been transformed into an urban park. In Salford, Europe's largest living wall has been built at the 12-storey **Eden Building**. Salford has also championed the addition of raingardens in their streets, at places like Liverpool Road, while Trafford has retrofitted raingardens into Altrincham and Stretford town centres.

- Communities, volunteers and environmental charities have worked to add green spaces into our urban areas. There are examples of **alleyway greening in Manchester's Moss Side** neighbourhood, the **Ginnel Garden project in Edgeley, Stockport**. The Green Spaces Fund has supported 103 new or improved community green spaces, including projects like the **Northern Lily GROWE Community Garden in Oldham** and the **community orchard being delivered by SNUG in Longsight**. New accessible green spaces are being developed around NHS sites in Oldham and Wythenshawe.



Rivers, canals and waterbodies

Overview

Greater Manchester boasts an extensive network of rivers, canals, lakes, reservoirs and other water bodies, that weave through our communities and are deeply connected to our industrial heritage. Emerging from the Pennines and Peak District, they connect our urban centres with open countryside and our uplands and lowlands, acting as vital highways for wildlife.

Totalling over 884km of rivers, 160km of canals and 400ha of lakes, our waterways not only define the landscape but provide critical habitats supporting our wildlife. While rivers like the Irwell and Mersey are well known, countless others cross the region. Like much of the rest of Greater Manchester's environment, our rivers and waterways have been extensively modified.

People across Greater Manchester still seek out rivers, reservoirs, lakes and canals to connect with the natural environment. They play a key role in local identity, culture and heritage, and many of our canals, such as the Manchester Ship Canal and Rochdale Canal, have played important roles in our industrial past and now support nature.

State

Across the city-region an estimated 80% of our water bodies have been heavily modified by human activities and 112km of our rivers now lie buried or piped below our streets and buildings.

There are over 1,000 obstacles and barriers to species movement in our rivers. Many of our riverbanks have been modified or canalised making them less valuable as species habitats. Invasive species are also increasingly problematic — our riverbanks are often impacted by species such as Japanese knotweed and Himalayan balsam, and our waterbodies impacted by aquatic species such as mink and signal crayfish.

While our industrial heritage left many of our rivers and waterways heavily polluted, clean-up efforts beginning in the 1980s have significantly improved our river water quality, enabling fish, otters and aquatic invertebrates to return. Despite improvements over the last 40 years, none of our rivers are classed as in good ecological condition and 11% remain in poor or bad condition. As well as being a threat to aquatic wildlife, the pollution of our waterways can affect public health.

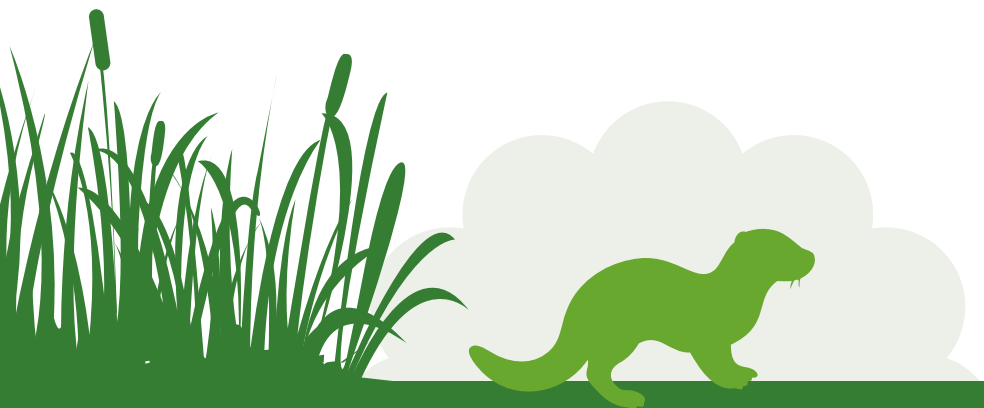
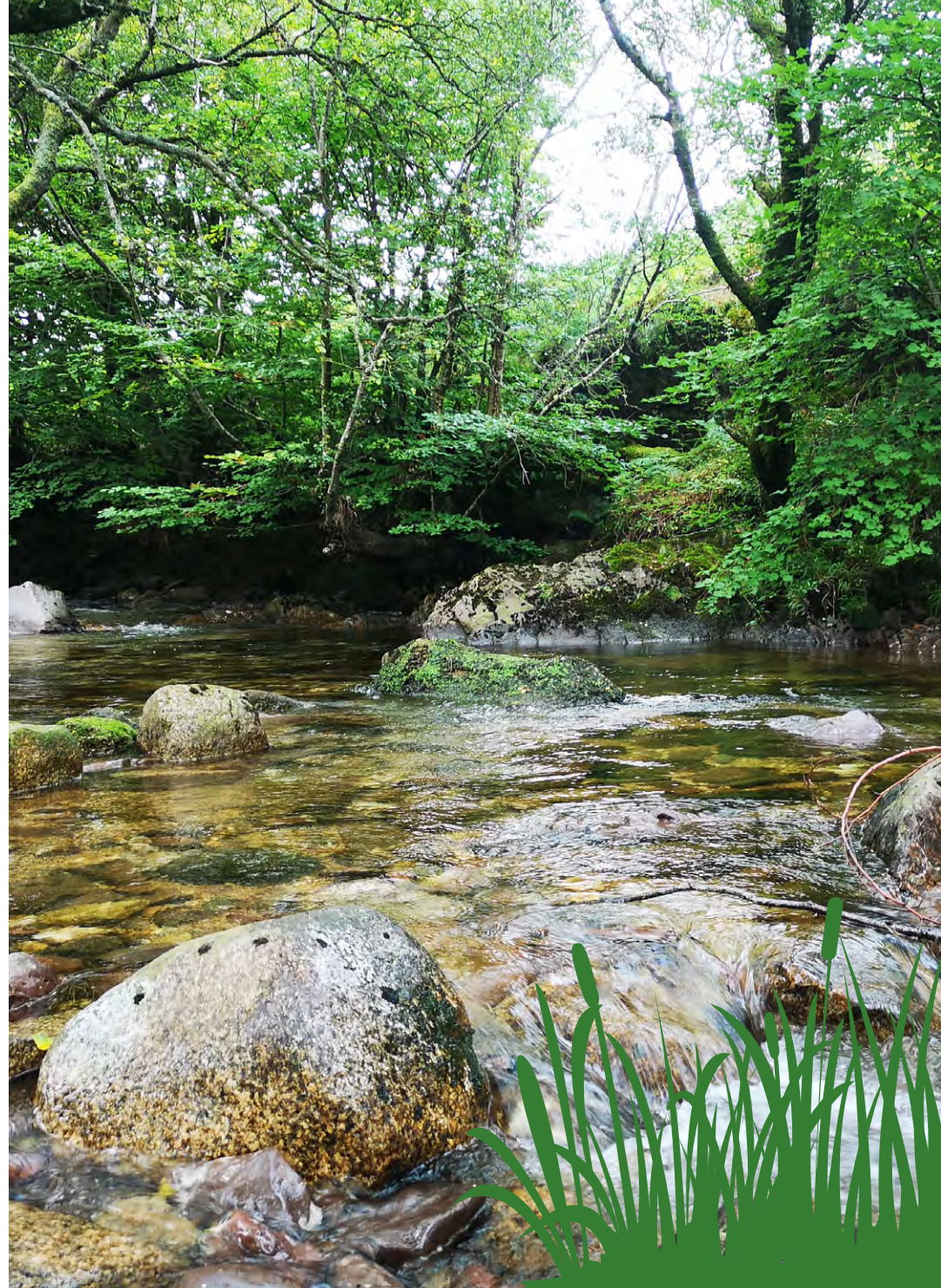
Pollution from rural areas, towns and cities, transportation, as well as the wastewater network are all drivers of poor water quality. Built in the Victorian era our sewerage system cannot always cope with the intensity and volume of rainwater runoff our changing climate and increasing urbanisation is creating, leading to polluted water spilling directly into our waterways via storm overflows. Overflows were developed to reduce the risk of sewage backing up during heavy rainfall. Greater Manchester has 793 storm overflows, roughly 30% of all storm overflows in Northwest England. These overflows spilt an estimated 21,391 times in 2022 for an average of 4.5 hours per spill.

In Greater Manchester, between 2025-2030 United Utilities are proposing to invest to improve 100 storm overflows, to protect more of the Upper Mersey and Irwell rivers and improve water quality. Further investment is proposed for sustainable rainwater management to provide more space for rainwater in our public spaces, to further reduce spills.

Successes

Despite still facing challenges, our waterbodies have improved dramatically over the past 40 years. In the 1970s and 1980s for example, aquatic life was virtually absent from the River Mersey whereas today an increasing proportion of our rivers are moving to moderate condition. Key successes include:

- **Otters** have been sighted in over half of Greater Manchester's catchment after having dwindled to near extinction – they are now known to be breeding in the city-region.
- **Fish** were equally absent from the **River Mersey** in the **1980s**, whereas they have now returned, along with mayflies, to all areas of the river.
- The **restoration of major canal routes**, including the Rochdale Canal, have created popular recreation routes from derelict under-used spaces, connecting us to our industrial heritage.
- The **Medlock Valley Nature Partnership**, led by Groundwork Greater Manchester, is working towards habitat improvements along 30ha of the Medlock River valley.
- Work to install natural flood management measures including leaky dams, used to slow the flow of water and reduce flood risk, have recently been undertaken at **Moston Brook, Crompton Moor, Brownley Brook and Smithills**.



Woodlands, trees and hedgerows

Overview

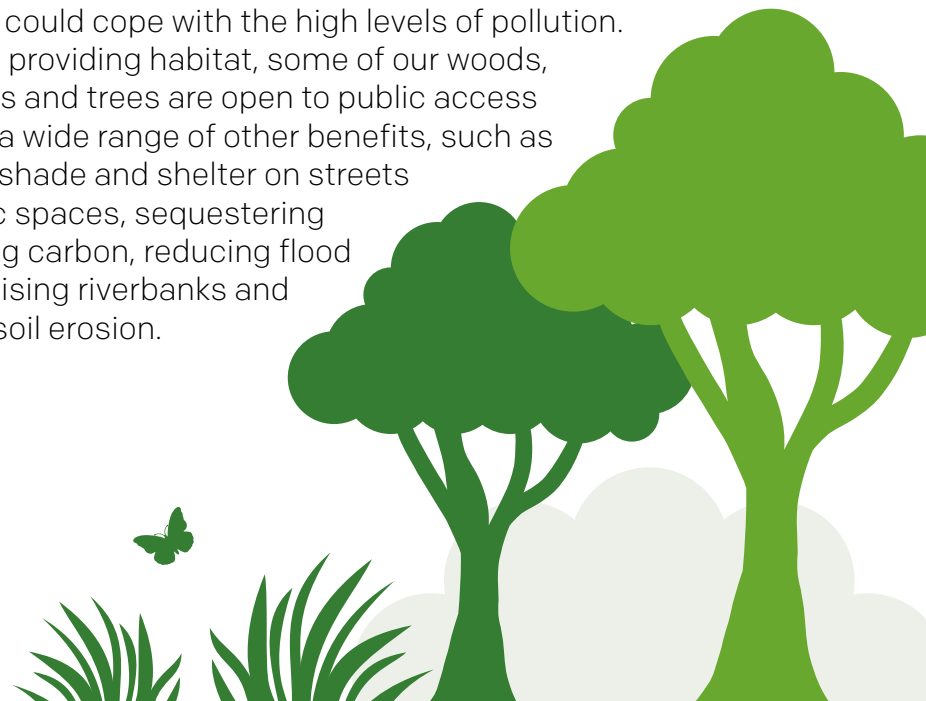
There are estimated to be over 11.3 million trees across Greater Manchester, with a combined tree canopy covering just over 15% of city-region²⁴. Our woodlands include broadleaved mixed woodlands, ancient woodlands, clough woodlands and wet woodlands, upland oak woodlands and wood pasture, alongside veteran and notable trees, newly planted trees and plantations.



Some important woodlands have been designated as SSSIs and Local Wildlife Sites, such as Cotteril Clough and Sunbank Wood, but many more woodlands are unprotected. There is also over 850ha of woodland designated as ancient in Greater Manchester. Along with a large number of ancient and veteran trees, these are considered irreplaceable habitats¹⁸.

On the whole, our woodlands are mainly broadleaved – with species such as oak, sycamore, ash, birch, willow, hawthorn, hazel and holly. There are 641ha of land managed as part of the Public Forest Estate. These provide areas of predominantly broadleaved woodland as well as extensive grassland, heathland and open water with public access for local communities to enjoy.

In urban areas, trees play a vital role in greening our streets. The city-region is also home to one of the UK's rarest native trees, the Manchester Black Poplar – its association originates from the industrial revolution, where it was found to be one of the few trees that could cope with the high levels of pollution. Alongside providing habitat, some of our woods, hedgerows and trees are open to public access providing a wide range of other benefits, such as providing shade and shelter on streets and public spaces, sequestering and storing carbon, reducing flood risk, stabilising riverbanks and reducing soil erosion.



State

At 15%, Greater Manchester's tree canopy is above the national average, but below that of other cities like London. Our tree canopy cover is not evenly distributed, and our most densely populated areas often have very low tree cover. Generally, our woodlands are fragmented, with greater concentrations along river valleys in the northwest and southeast of the city-region. There is much lower tree cover in the uplands of the South Pennines and Dark Peak, where it is generally restricted to cloughs.

Some woodlands are in good or recovering condition, however the vast majority generally remain in poor condition and funding for their long-term management is lacking. We also know that Greater Manchester has a high proportion (66%) of unmanaged woodlands. There is potential to improve the management of these woodlands to better support biodiversity and reduce the impact of key issues including disease (such as Ash dieback) and high impact invasive plants (such as Himalayan balsam).

Hedgerows in both our urban and rural areas can act as corridors for species – allowing wildlife to move across landscapes and providing food, shelter and homes for species such as birds, bats and small mammals. Over recent decades more and more of our hedgerows have been removed and replaced with fencing.

Significant efforts are being made to increase the number of trees and hedgerows being planted across the city-region. Over 900,000 trees have been planted in Greater Manchester since 2017, coordinated by City of Trees, as part of a landscape scale ambition for a northern forest²⁵.

Successes

- **Between 1991 and 2016, Red Rose Forest²⁶ and its six local authority partners, delivered over 1,200ha of new planting totalling more than 2.4 million trees.** These schemes now provide habitats for a wide range of birds, insects, mammals and have provided urban communities with the opportunity to experience wildlife on their doorsteps.
- The schemes included projects such as: **Dainewell Woods in Trafford** where a 40ha planting scheme was delivered in 1995; a 25ha woodland at **Giants Hall in Standish Wigan** and a 15ha woodland planted as part of the new **Cutacre Country Park in Bolton. New woodlands were also planted on former landfill sites** in Salford, Bolton, Bury, Manchester and Trafford, which have adapted well to the tough site conditions and are now important places for wildlife.
- Red Rose Forest became City of Trees, expanding across the rest of Greater Manchester and building on this legacy and working towards a target to plant 3 million more trees.





Lowland wetlands and mosslands



Overview

Western areas of the city-region (parts of western Salford, Trafford and parts of southeastern Wigan) are home to much of our remaining lowland wetlands and mosslands. Together with neighbouring areas, these form part of the Great Manchester Wetlands Nature Improvement Area²⁷.

‘Mossland’ is a local term for lowland raised bogs and areas that were formerly bogs, much of which have now been converted to farmland due to the highly productive underlying peat soils. They are distinctive flat, boggy, open landscapes, with remnant pockets of ecologically important lowland raised bog, alongside fen, wet woodland, wet grassland and freshwater habitats. They support a range of species, such as common lizard, brown hare, black darter dragonfly and rare sundew plants.

Greater Manchester is also home to unique wetland habitats called flashes, a result of the industrial legacy of ground subsidence following mining. These former mines, along with spoil heaps have often been reclaimed by nature, creating a network of open water and lowland wetland habitats. This mosaic of wetland habitats supports an array of rare wetland species such as bittern, willow tit, water vole, as well as great crested newts and invertebrates. A variety of other habitats are also found outside of these areas, such as wet woodlands, wet heath and grasslands, former floodplain meadows, reedbeds, ponds.

Together our lowland wetlands and mosslands form a unique and diverse landscape of water, fen, wet grassland, wet woodland and lowland raised bog and offer a rich mosaic of semi-natural landscape for wildlife.

State

These habitats were once much more extensive but much of our original lowland raised bog (an estimated 95-97%), fens and other wetland habitats have been lost or drained for conversion to agriculture, peat extraction and development.

Now only fragments of a once extensive area remain and lowland raised bog is one of Western Europe's most threatened habitats. The significance of these remaining habitats is recognised in designations, such as the Manchester Mosses Special Area of Conservation. These designated areas are often poorly connected and there are large parts where the landscape is degraded.

Around 5,000ha of peat soils are estimated to lie underneath lowland, largely agricultural areas and remaining lowland raised bogs and wetlands²⁸. Agricultural use (such as turf production, cropland, intensive grassland) on these peat soils means that these areas are estimated to be emitting around 130,000 tonnes of CO₂ equivalent per year, contributing to the climate emergency²⁸.

Successes

After years of degradation, including by heavy industry and mineral extraction, work to restore areas of our lowland wetlands and mosslands is demonstrating the power of nature to recover.

- The **Flashes of Wigan and Leigh** were formed on land that had subsided after coal mining activities. Previously a former industrial wasteland, the area is now a mosaic of wetland habitats for people to enjoy, supporting rare species such as **bitterns** and **willow tits**, and declared in 2022 as a 740ha National Nature Reserve.
- On **Chat Moss**, which spans Salford and Wigan, an area that was originally lowland raised bog (a rare and threatened habitat) has been degraded by agriculture and peat extraction. However, restoration efforts have seen nature recover in these areas, such as **Astley and Bedford Mosses**, **Cadishead Moss** and **Little Woollen Moss**. Species such as nightjar, the large heath butterfly and sundew (one of the UK's few carnivorous plants) can now be found on the mosslands. A **new National Nature Reserve** has now been declared that covers parts of Chat Moss – **Risley, Holcroft and Chat Moss National Nature Reserve**.



Upland moorlands

Overview

Upland areas extend along the northern and eastern edges of the city-region and form part of a much larger expanse of upland moorlands, stretching into the Peak District and Lancashire.

Our upland moorlands have been shaped not just by the underlying geology and location but also by centuries of historical clearance, industrial pollution and contemporary management practices, which has created a unique blend of habitats. Characterised by deep valleys and open moorland plateaus, our upland habitats include expanses of blanket bog and heath, clough woodlands, alongside acid grassland and freshwater areas. The importance of these habitats is reflected in a range of international, national and local designations.

The intense rural character and isolation of the uplands stand in striking contrast to our urban areas, offering panoramic vistas and a sense of remoteness. They are crucial spaces not just for nature but also for outdoor recreation, offering long-distance trails and popular reservoirs. They also remain working landscapes and managed places used for raising livestock or grouse and supplying water.

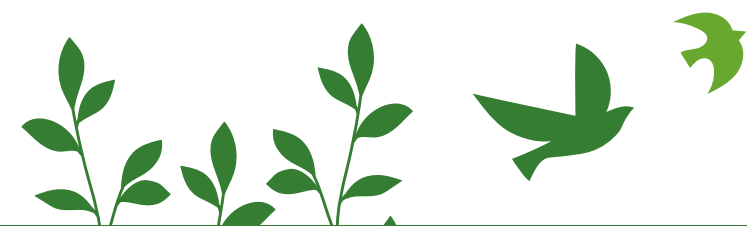
State

Our uplands have been subject to drainage, pollution, grazing, burning and management over the 20th Century. In a healthy state, many of the moors surrounding Greater Manchester would be much wetter than they are now. A high-water table is critical for blanket bog habitat to become active, and grow peat rather than losing it; this helps reduce fire risk and sequester more carbon.

At present, only 10% of upland moorlands, over deep peat, are thought to be in good condition, 66% needs improvement and 24% is in poor condition²⁸. As a result, peat soils in our uplands are emitting an estimated 60,000 tonnes CO₂ equivalent per year, rather than locking more carbon away.

Concerted efforts are being made to restore blanket bog and a diverse mosaic of other upland habitats (including upland clough and oak woodlands), not only as space for nature but also to reduce carbon emissions, improve the quality of our water supply and reduce flood risk downstream. However, the scale of the challenge is significant and there is potential to scale up efforts to deliver better habitats for nature and vital public services for people.

Our upland habitats are particularly vulnerable to climate change and more extreme weather. With our changing climate, increased risk of wildfire will put these habitats and species, like mountain hare, under more pressure.



Successes

Some upland areas were damaged by acidification during the industrial revolution. Efforts to restore them can provide spaces for nature and people to enjoy, as well as storing more carbon and water to reduce flood risk downstream.

- At **Dovestone Reservoir**, conservation work has been carried out to make the bog wetter again, blocking the gullies and revegetating the bare peat by planting sphagnum mosses with the help of local volunteers. This prevents peat being washed out into our drinking water, helps lock in carbon to tackle climate change, and also provides habitat for upland birds.
- On **Saddleworth Moor**, conservation efforts have helped bring degraded moorlands back to life by blocking gullies and revegetating bare peat to benefit wildlife and reduce flood risk in urban areas. Over 2,000 dams have been installed to stabilise the peat and help establish growing conditions for moorland plants including heather, bilberry and cross leaved heath and sphagnum.
- On **Crompton Moor**, 4,000 trees have been planted covering an area of 2ha and nearly 4,000 sphagnum plugs which will hold water back on the moor and help reduce flooding.
- On **Holcombe Moor**, local communities, upland farmers, environmental charities and universities are working together on innovative methods of peatland restoration. 3,500 bunds have been constructed, rewetting the deep peat plateau and creating favourable conditions to plant over 500,000 sphagnum plants. Benefits including increasing carbon and water storage.



Grasslands and farmland



Overview

Grasslands and farmland, including pasture for livestock and croplands, cover almost 30% of the total land in the city-region.

The vast majority of this land is heavily managed and has been altered, or modified, for other uses and could support more wildlife. Historically our agricultural land has been largely used for livestock rearing and arable businesses. Livestock farming still dominates the northern and eastern edges of Greater Manchester and maintains large areas of pasture and upland acid grassland. Arable areas and croplands are largely found along the western edges of the city-region.

There are now very few remaining species-rich semi-natural grasslands (such as neutral grasslands and marshy grassland) in Greater Manchester. Species-rich grasslands are those that have been less altered through reseeded, application of fertiliser or drainage and tend to have more flowers and wildlife. Those that do remain are often restricted to nature reserves, designated sites, and are found in areas like road verges, recreational sites, churchyards, and urban brownfield sites, often forming mosaics with other habitats. Despite this, those species-rich grasslands that do remain, such as former flood meadows along the Mersey, still support rare species such as orchids, wildflowers and fungi.



State

Our semi-natural grassland habitats and lowland heaths are considered some of the most threatened habitats in Greater Manchester. Despite their increasing scarcity, these remaining semi-natural grasslands are of high ecological value, hosting a variety of plant and animal species. They are often highly fragmented, making it difficult for species to move between them. Pressures from urbanisation, land-use or land management change, can also threaten these remaining habitats.

Most of our agricultural grasslands have been modified for livestock farming or crop production due to national policy and financial incentives over the last 70 years. As a result, these spaces have the potential to support more wildlife than they currently do, alongside food production. Greater Manchester is also known to be a historically 'cold spot' for the uptake of agricultural environment grant schemes – which pay farmers for wildlife-friendly actions. Greater uptake of these schemes could help reward farmers for more wildlife-friendly food production, supporting business and nature.

Successes

- The **South Pennines Grasslands Project**, covering Greater Manchester and Lancashire, created 50ha of new species-rich grassland and brought 200ha into positive management.
- At the **Roch Valley**, Rochdale Council and Groundwork Greater Manchester have established 8ha of new lowland hay meadows and new native hedgerows.
- Our local authorities are increasingly championing '**No Mow May**', leaving more areas of public grasslands as urban meadows. Rochdale Council has planted ten verges with a mix of annual and perennial plants to attract bees. Trafford Council has introduced better habitats for insects and pollinators by creating wildlife corridors, meadows and beds in seven parks. Stockport Council has introduced differential mowing in several urban sites to increase areas for nature.



Pressures on nature

Across the city-region there are several major pressures on our natural environment.

Urbanisation and development

Land in Greater Manchester is limited and is under increasing demand to meet the variety of needs of those that live and work here. These include the need to provide homes, commercial space, transport, utilities and energy generation, and space for recreation or leisure activities and for food growing. If these activities are not carefully planned and designed with nature at their heart, they will act to further restrict space for nature. Without careful planning and decision making, our remaining natural spaces will progressively become smaller and more isolated, preventing nature from adapting to changes in our climate. Making space for nature alongside balancing competing demands on the use of our land, and planning for nature recovery, is critical to responding to the biodiversity emergency.

Pollution and litter

Pollution from urban areas and agricultural land, including runoff from roads and other forms of contamination such as micro/macro plastics and phosphates, is a key problem for our water quality. An extensive network of combined sewer overflows also impacts our water quality. The 793 overflows in the city-region spilt an estimated 21,391 times in 2022. Poor water quality in turn impacts aquatic wildlife and can affect public health. Providing more space for water, through features like raingardens, can help capture and filter polluted water. Greater Manchester also has a significant legacy of land contamination and has large areas of land used as waste tips and issues around littering in our green spaces. Air and light pollution also have an adverse effect on sensitive wildlife, particularly nocturnal wildlife, such as bats and badgers.

Agricultural intensification

Food production is a key part of rural identity. As stewards of more than 30% of Greater Manchester's land, the agricultural sector can have a significant influence over nature recovery across the city-region. Agricultural policies, subsidies and incentives, as well as low profit margins, have encouraged the intensification of agriculture, reducing space for wildlife across many of our remaining agricultural areas. Changes to these policies and the introduction of new incentives are providing new opportunities for farmers to further enhance their land for nature.

Climate change

Rising temperatures will impact sensitive habitats and increase the vulnerability of species, whilst more unpredictable weather and increased wildfire risk may force wildlife to move. Our upland species, adapted to cool conditions, are particularly at risk³⁰. Climate change may also reduce the ability of our natural environment to provide us with benefits such as carbon storage – by reducing the area and sustainability of peat-forming bog systems. Across Greater Manchester, increased drought could also impact calcareous grasslands, especially on thin soils and may result in rivers, streams and ponds becoming more seasonal and at risk of drying up. With changing temperatures, we will also see the increasing arrival of new species.

Diseases and high-impact invasive species

High-impact invasive species, such as Himalayan balsam, Japanese knotweed and Giant hogweed, and diseases, such as Ash dieback, are found across Greater Manchester³¹ and impact upon the quality of our remaining habitats and their ability to support wildlife.



VISION AND TARGETS: WHERE DO WE NEED TO GET TO?

[Introduction](#)

[Why nature matters for
Greater Manchester](#)

[Nature in Greater
Manchester:
Where are we now?](#)

**[Vision and targets:
Where do we need to get to?](#)**

[Nature Network:
Where is best for nature?](#)

[Priorities and actions:
What do we need to do?](#)

[Delivery:
How you can deliver
on the strategy](#)

[Acknowledgements](#)

[List of appendices](#)

[References and notes](#)

Despite some progress over past decades, when looked at as a network we know that our best remaining spaces for nature are now often highly isolated and fragmented. This means that wildlife currently struggles to move between these sites, as there are often large distances between them. Many sites are also small and with habitat loss the area remaining is not enough to reverse the decline of local species. To enable nature to recover, our remaining spaces for nature need to be not only bigger and better but crucially more joined up, allowing wildlife to move between them.

Given the continued pressures facing nature, we need to plan proactively to ensure that the city-region has resilient safeguarded spaces for wildlife and people to thrive. This will help nature to bounce back and, at the same time, provide spaces that improve our health and wellbeing, reduce flood risk, improve water quality and better adapt the city-region to climate change. One of the best ways we can do this is by creating more connections between these often isolated and fragmented sites, as well as safeguarding and expanding them.

As Greater Manchester grows, we can grow a better network for nature, in and around our homes and businesses.



The Lawton Review

This approach echoes that set out in the 2010 Lawton Review, called 'Making Space for Nature'³². The Lawton Review concluded that England's wildlife sites, despite their diversity, did not comprise a coherent and resilient ecological network, let alone one capable of coping with the challenge of climate change and other pressures. To address this, the Lawton Review called for the creation of a healthy ecological network operating across the landscape as a whole, not in isolated sites. To do this, Lawton says, we need to not just create more spaces for nature but make our network of sites bigger, better and more joined up.

This means:

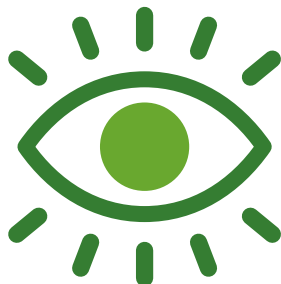
- **Protecting and enhancing** what we have, with better management.
- **Increasing** the size of wildlife sites.
- **Enhancing** connection by creating new wildlife corridors or stepping stones.
- **Creating** new sites.
- **Reducing** pressure on wildlife by improving the wider environment.

The recommendations of the Lawton Review are now being taken forward across the UK, and elsewhere in the world. It is integral to the Environment Act 2021 and has shaped current national policy government ambitions for a national nature recovery network, which this strategy will form part of.

Vision

To halt, and in time, reverse local biodiversity loss and to help nature recover, we need everyone to work together and play their part. Nature needs space to be able to recover – this means enhancing and safeguarding our best nature-rich sites and creating and restoring sites where there is opportunity. By reconnecting these sites, we can all create a network for nature and, at the same time, green spaces and recreational routes for people to enjoy.

Our collective vision for nature recovery in Greater Manchester is to work together to deliver a resilient network for nature across the city-region, connecting and enhancing wild spaces so that people and nature can thrive.



What is a nature network?

Nature recovery is about enhancing and protecting our best nature rich sites and creating and restoring sites where there is opportunity. Across the city-region many of our best remaining sites for nature are fragmented and isolated. By connecting these sites, we can all work towards corridors for nature and new green recreational routes for people to enjoy – a Nature Network.



Aims

Our collective vision for nature can only be achieved by working together across our city-region, with communities, developers, local authorities, businesses, charities and institutions all playing a part.



To deliver on this vision we need Greater Manchester to be a place where we all:

- **Enhance and protect:** Safeguard, enhance and restore wildlife-rich spaces.
- **Create and connect:** Create more wildlife-rich resilient spaces, where they will expand and connect spaces for wildlife and people.
- **Build resilience:** Manage and reduce pressures on our environment and waterways and maximise nature's role in adapting the city-region to climate change.

To achieve these aims we need to:

- **Act together:** Work together to take action for nature and embed space for nature and people to thrive across all our communities.
- **Accelerate action:** Boost the pace and scale of action for nature in response to the biodiversity emergency.
- **Improve access:** Improve local access to nature and ensure there are more opportunities to enjoy nature responsibly, in those areas which need it the most.
- **Engage and value:** Better engagement with nature and recognition of its value in our lives and economy.

Targets

To track progress towards our vision and aims, we need to set clear and monitorable targets.

Working with partners we have selected headline targets for our three key aims, to drive forward nature recovery over the decade. These will be monitored and reported on annually. Action beyond these targets is crucial but these targets will be used to focus action and enable regular reporting on progress.

You can understand more about how these targets were set and the rationale behind them by reading [appendix 7](#).

 Aim 1 – ENHANCE AND PROTECT: Safeguard, enhance and restore wildlife-rich spaces	Target 1: To increase the amount of land designated for nature by 5,000ha by 2035, growing this from 11% to 15% of the city-region. Target 2: To bring 50% of sites designated for nature into active management for nature conservation by 2035.
 Aim 2 – CREATE AND CONNECT: Create more wildlife-rich resilient spaces, where they will expand and connect spaces for wildlife and people	Target 3: To restore or create 1,800ha of new wildlife-rich land by 2035, and target delivery within the Nature Network. Target 4: To provide at least 3ha of accessible green space per 1,000 residents by 2035.
 Aim 3 – BUILD RESILIENCE: Manage and reduce pressures on our environment and waterways, and maximise nature’s role in adapting the city-region to climate change	Target 5: To reduce spills from combined sewer overflows into our waterbodies by disconnecting 150ha of land from our drainage network by 2030. Target 6: To better adapt the city-region to the impacts of climate change by expanding our tree canopy cover from 15% to 17% of the city-region by 2035.

These are the headline targets for the strategy – annual progress towards these targets will be published on an accessible dashboard on the GMCA website. To ensure accountability, progress on these targets will also be reported annually to our Natural Capital Group, Green City Region Board and Green City Region Partnership.



NATURE NETWORK: WHERE IS BEST FOR NATURE?

Introduction

Why nature matters for
Greater Manchester

Nature in Greater
Manchester:
Where are we now?

Vision and targets:
Where do we need to get to?

Nature Network:
Where is best for nature?

Priorities and actions:
What do we need to do?

Delivery:
How you can deliver
on the strategy

Acknowledgements

List of appendices

References and notes

To drive nature recovery, we need to set out the best places to act for nature across Greater Manchester. A key purpose of this Local Nature Recovery Strategy is to identify locations to create or improve habitats, where it is most likely to provide the greatest benefit for nature, communities and the wider environment. This is to enable resource to be targeted where it will have greatest impact and to encourage more coordination in habitat creation and improvement efforts.

This section outlines a long-term spatial vision for nature's recovery, showing those areas already important for nature and areas where there are opportunities to work towards a network for nature across Greater Manchester – one that connects with areas beyond our boundaries as part of the National Nature Recovery Network. Working towards the National Nature Recovery Network is central to the government's goal for improving nature by joining up our remaining natural spaces across England (as outlined in the Environment Act) and achieving the strengthened biodiversity duty.

The Greater Manchester Nature Network is based on established evidence and thinking on nature recovery in the UK, in particular the Lawton principles of 'bigger, better and more joined up'. This involves recognising our best remaining wildlife sites as the building blocks for our Nature Network and taking action to:

- 1. Improve** their quality.
- 2. Increase** their size.
- 3. Enhance** the connections between them.
- 4. Create** new sites altogether.
- 5. Reduce** pressures on nature by improving the wider environment.

The Nature Network aims to have a positive influence on the growth and development of the city-region. It can be used to target efforts by charities and partnership, help planners and developers to understand and contribute towards nature recovery, alongside the delivery of new neighbourhoods, offices and commercial spaces. The Nature Network is intended to guide and inform action; it does not introduce any new designations or restrictions on land use above those already provided by existing legislation and planning policy, nor is it a barrier to development.

Action outside of this Nature Network is just as important. Alongside the Nature Network, action can take place anywhere across the city-region to help nature recovery. There are many opportunities to do this in every community and everyone can play a part in delivering action.

You can read more about how our Nature Network was developed in [appendix 2](#).



The Greater Manchester Nature Network

What makes up the Greater Manchester Nature Network?

To put these principles into practice across Greater Manchester, our Nature Network (referred to as the Local Habitat Map under LNRS national regulations and guidance) is made up of core local nature sites and nature recovery opportunity areas, which are described in more detail below³³. Our Nature Network shows our best areas to boost ecological connectivity – where action for nature will have the biggest impact and where funding for nature recovery should be concentrated. Targeting action within the Nature Network can help build resilient spaces for wildlife and deliver new better connected green spaces for people.

You can access an interactive map of the Nature Network here.



Core local nature sites:

What are they? These are our best remaining wildlife sites across the city-region and are already recognised for their importance for biodiversity (our 'areas of particular importance for biodiversity'). Those areas eligible for inclusion in this map are tightly defined by Defra, in national LNRS regulations and guidance, and include statutory and non-statutory designated sites and irreplaceable habitats. The intention behind this approach is to establish a nationally consistent baseline map. Following national guidance, the map of core local nature sites for Greater Manchester contains:

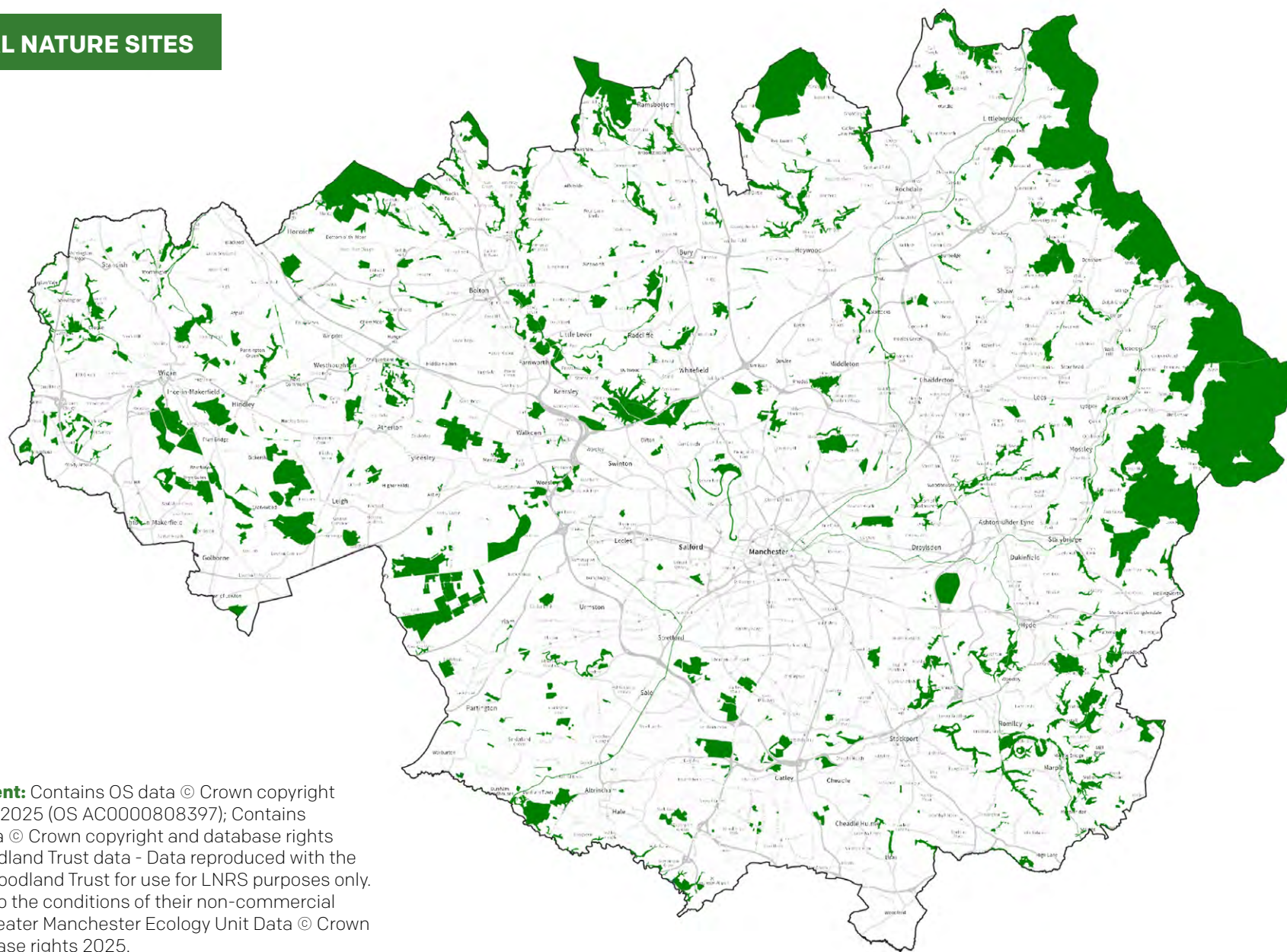
- **Nationally designated sites** for their value to nature, including: Sites of Special Scientific Interest (SSSI), Special Protection Areas (SPA), Special Areas of Conservation (SAC), National Nature Reserves (NNR).
- **Locally designated sites** for their value to nature, including: Local Nature Reserves (LNR) and locally designated Local Wildlife Sites (LWS) (called Sites of Biological Importance (SBI) in Greater Manchester).
- **Irreplaceable habitats** as defined by Defra¹⁸, in Greater Manchester this includes: ancient woodland, ancient trees and veteran trees, lowland fen and blanket bog.

When viewing the Core Local Nature Sites all input datasets were correct as of May 2025.

What we need to do? These are our most important sites for nature, core areas of our ecological network and the foundation of our Nature Network. These sites are all subject to existing national and local policies and legislation, which must be adhered to when considering any activity. They cover around 11% of Greater Manchester and are fragmented, poorly connected and often not in as good condition as they could be. We need to improve their condition, through better management. At the same time, we need to identify opportunities to expand and better connect these sites.



CORE LOCAL NATURE SITES



Attribution statement: Contains OS data © Crown copyright and database rights 2025 (OS AC0000808397); Contains Natural England data © Crown copyright and database rights 2025; Contains Woodland Trust data - Data reproduced with the permission of The Woodland Trust for use for LNRS purposes only. The data is subject to the conditions of their non-commercial licence. Contains Greater Manchester Ecology Unit Data © Crown copyright and database rights 2025.

Nature Recovery Opportunity Areas:

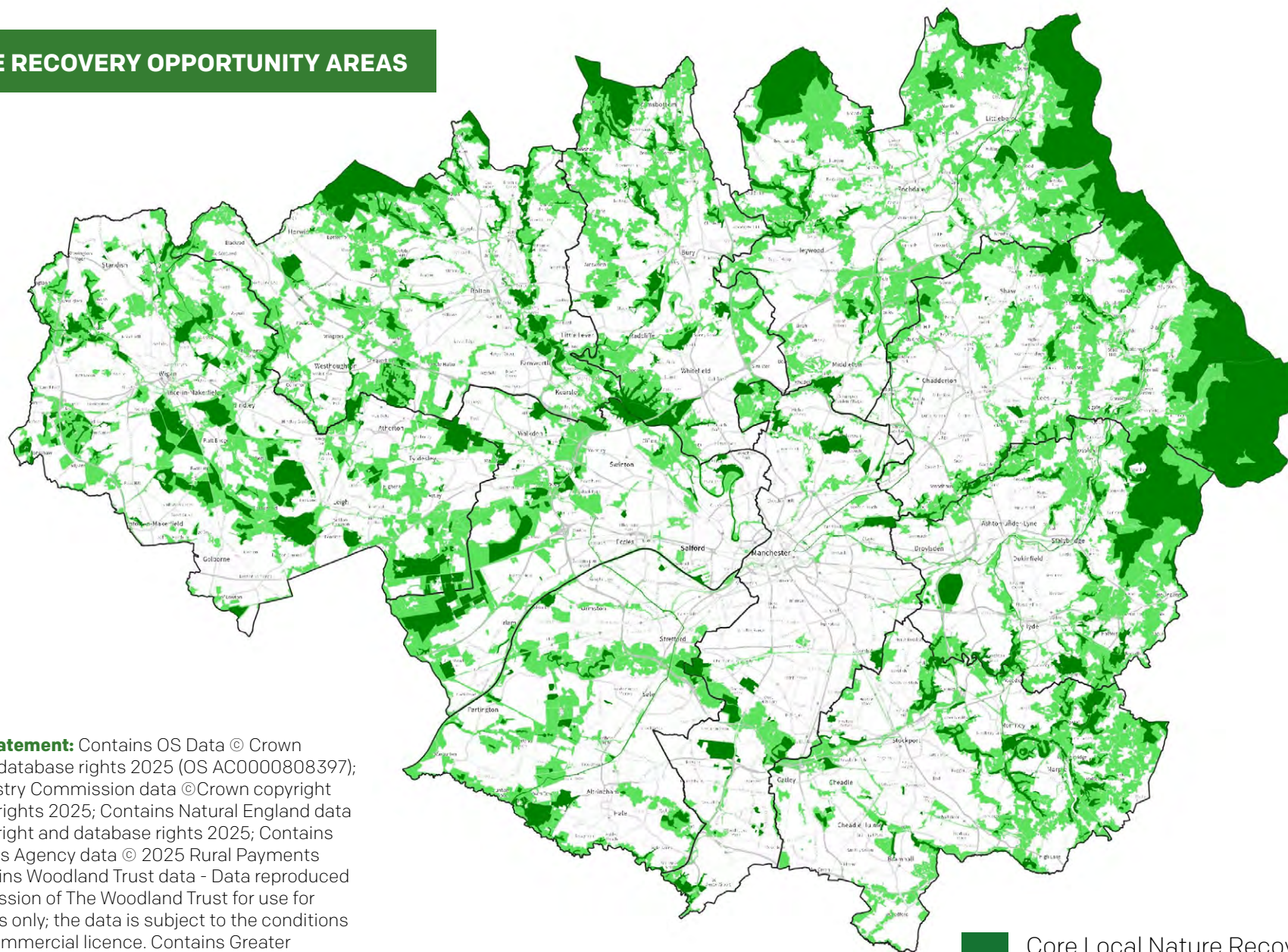
What are they? These are areas where action to enhance, restore or create different types of habitats (i.e. woodlands, grasslands, moorlands, waterbodies and wetlands) would expand and better connect our core local nature sites. These are our opportunity areas for nature recovery (our 'areas which could become of particular importance for biodiversity' under national regulations and guidance), where more ambitious action for nature should be prioritised and are where we can have the greatest impact by planning, coordinating and focusing efforts and resources. An ecological modelling approach was used as part of the basis for developing the opportunity areas, based on best available data (see [appendix 2](#)).

What we need to do? These are areas where the creation and restoration of habitat could have the greatest impact on nature's recovery. They are spaces that are often used and managed in a range of different ways and for different purposes (e.g. for food production, sports and recreation, education). They are also strategically important for the Nature Network and we need to deliver for nature alongside these other land uses, where possible, for example, by creating areas for sports or food growing that also benefit biodiversity. These opportunity areas are not designated or protected for nature, nor are they barriers to development in themselves. Some of these opportunity areas might eventually, if conditions are met, become core local nature sites.

For nature to recover, action is also still hugely important outside of the Nature Network, to make our wider urban and rural landscapes more wildlife friendly and to boost access to nature across the city-region.



NATURE RECOVERY OPPORTUNITY AREAS



Attribution statement: Contains OS Data © Crown copyright and database rights 2025 (OS AC0000808397); Contains Forestry Commission data © Crown copyright and database rights 2025; Contains Natural England data © Crown copyright and database rights 2025; Contains Rural Payments Agency data © 2025 Rural Payments Agency. Contains Woodland Trust data - Data reproduced with the permission of The Woodland Trust for use for LNRS purposes only; the data is subject to the conditions of their non-commercial licence. Contains Greater Manchester Ecology Unit Data © Crown copyright and database rights 2025.

- Core Local Nature Recovery Sites
- Opportunity Areas for Nature Recovery

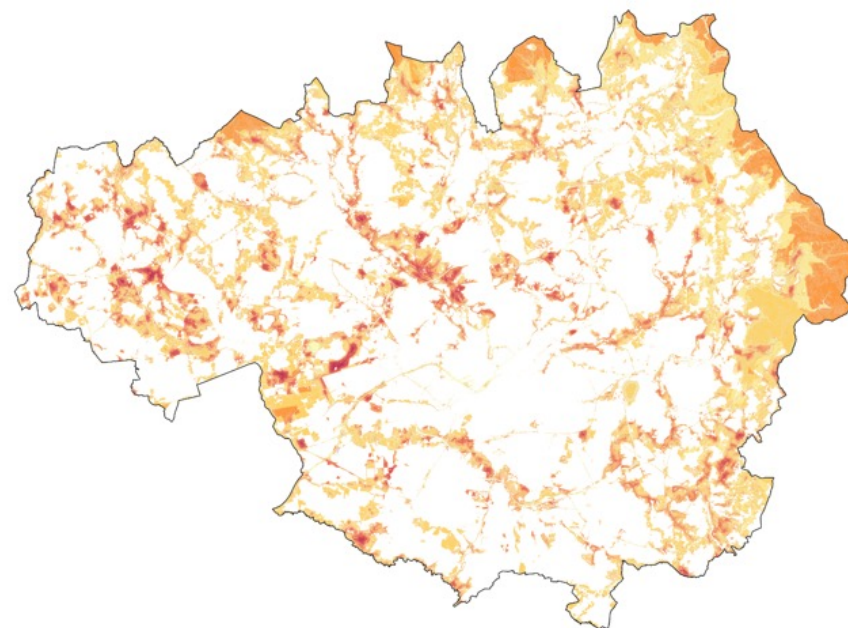
Maximising socio-economic benefits

Alongside benefiting nature recovery, delivering the Nature Network will have wider benefits for people, the economy and the environment – these benefits are often referred to as ecosystem services. These are benefits that society derives from healthy well-functioning ecosystems, such as improved health and wellbeing, food, water, reduced heat risk, improved water and air quality, carbon sequestration and noise mitigation.

There is significant overlap between the Nature Network and the areas in Greater Manchester with the greatest capacity to deliver ecosystem services. The Nature Network is particularly beneficial for delivering the following benefits: noise regulation, climate regulation (heat hazard), carbon sequestration, flood mitigation and air purification.

The image to the right is a heatmap of the areas with the greatest potential to deliver ecosystem services within the Nature Network³⁴ – this heatmap shows areas that are particularly beneficial for noise and climate regulation, carbon sequestration, flood mitigation and air purification.

HEATMAP OF ECOSYSTEM SERVICE CAPACITY OF THE NATURE NETWORK



Red and orange areas indicate higher capacity to deliver ecosystem services, yellow areas have lower capacity, derived from the EcoservR spatial tool³⁴

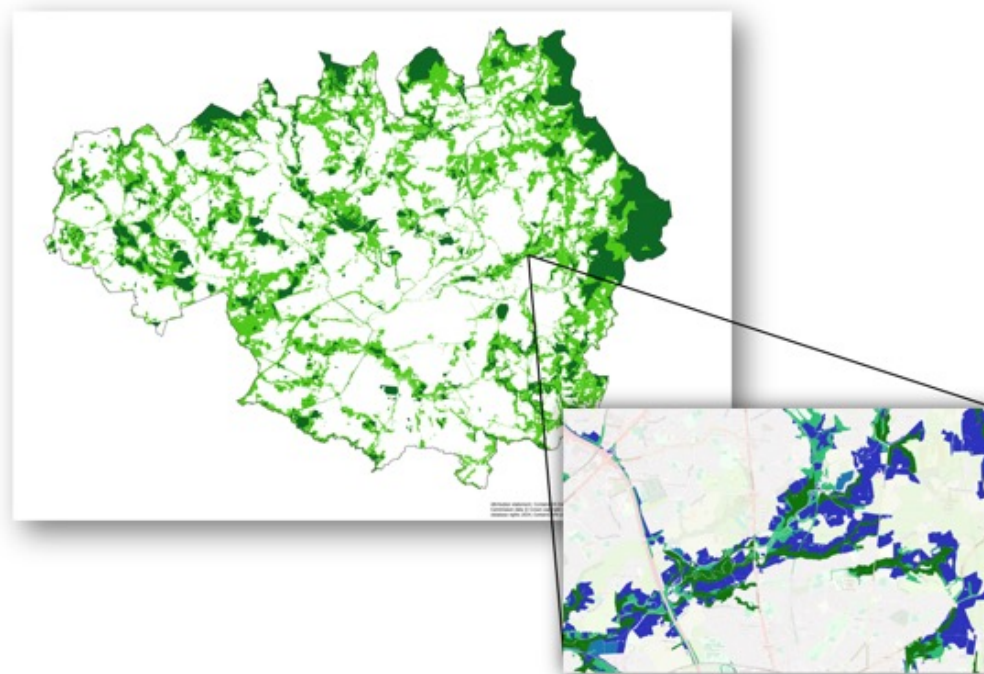


Mapped actions

To help guide delivery of the Nature Network, we have identified and mapped locations where action to enhance, restore or create different types of habitats (for example woodlands, grasslands, moorlands, waterbodies and wetlands), might be possible and most beneficial.

Only certain habitat actions have been mapped within the Nature Network (see [appendix 2](#)). This is because not all actions can be mapped spatially, as some actions are not geographically specific and would be beneficial across much of the city-region. Actions were chosen to be mapped based on a range of factors that enabled identification of those which, if implemented, could help boost ecological connectivity and enhance Greater Manchester's Nature Network (see [appendix 2](#)). For this reason, all actions have the same status everywhere, not just where they are mapped – so it is important to also refer to the full list of priorities and actions in the next section.

The image to the right shows an example of some of the detail available within the nature recovery opportunity maps for different mapped actions, using some of our woodland actions as an example. Each of the different colours shown on the image denote a different mapped action, such as action to 'safeguard and enhance ancient, long-established and designated woodlands, veteran and notable trees' or locations to 'target native woodland, hedgerow, and scrub creation, where it will connect existing woodlands across urban and rural landscapes'.



You can access an interactive map of the Nature Network [here](#).



Taking action within the Nature Network

Understanding and using our opportunity areas

- Our opportunity area maps suggest locations that are potentially suitable for carrying out different habitat actions to help achieve the priorities set out in this strategy, for example, areas have been identified for woodland habitat creation and species-rich grassland habitat enhancement and many other actions.

You can access an interactive map of the Nature Network here.



Targeting action in this way is crucial for effort and resources to be focused where they will have the greatest impact and to encourage more coordinated action.

- When using our opportunity areas, it is essential to follow our overarching principles of habitat enhancement, creation and restoration (set out in our section on [habitat priorities](#)). For example, site assessment and surveys still need to be undertaken to understand site suitability, as much of the map is based on ecological connectivity modelling.
- As space is limited in the city-region, many of our opportunity areas have the potential for the delivery of actions for multiple habitat types. This means that opportunity areas for the different habitats (i.e. woodlands, wetlands and grasslands) often overlap. Where multiple mapped actions overlap, each action should be treated as equally needed in this location. In locations that are good for multiple habitats, follow our habitat principles: undertake local site assessment; involve local

ecological experts, communities and landowners; consider patchworks (or mosaics) of different habitats rather than pursuing one to the detriment of another.

- For nature to recover, action is also still hugely important outside of the Nature Network, to make our wider urban and rural landscapes more wildlife friendly. Only certain actions have been mapped within the Nature Network – this is because many actions are not geographically specific, being possible and just as beneficial across much of the city-region³⁵.
- Areas mapped for action within the Nature Network, including both the opportunity areas and the core local nature sites, are particularly suitable for the delivery of offsite BNG and determine where habitat creation or enhancement for BNG will be of high strategic significance in terms of the Defra statutory biodiversity metric.

Permissions, consultation, permits and licences

- The opportunity areas mapped within the Nature Network do not confer permission to create or restore habitat without following appropriate existing decision-making frameworks, consultation, permissions, permits or licenses, or to in any way circumvent standard pre-existing procedures or good practice around habitat creation, restoration or enhancement.
- The opportunity areas do not create any additional restrictions on how land can be used or managed by landowners or managers. It does not force landowners and managers to make any changes in how their land is managed – this remains their choice.
- The LNRS does not determine regulatory decisions, such as the result of Environmental Impact Assessments.

Planning status

Nationally, the government has made clear that LNRSs are not intended to act as a barrier to development, or place new restrictions on developing land or making land use changes. The planning system in England is designed to be 'plan-led' through local planning authorities' Local Plans. LNRSs have been designed to help Local Planning Authorities plan with regard to the natural environment.

The Environment Act 2021 sets out that local planning authorities in Greater Manchester must have regard to this LNRS in their policies, including those in their Local Plans. The LNRS has been designed to help the 11 local planning authorities in Greater Manchester (including parts located within the Peak District National Park Authority area) address priorities relating to the natural environment in their Local Plans. Development within these opportunity areas (or where it could have an impact on these areas) should therefore seek to support and deliver on the priorities set out in the strategy and help to work towards the wider ambitions of the Nature Network.

It is the responsibility of local planning authorities to decide how they have regard for the LNRS in their Local Plans and when making planning decisions.



Local planning authorities could integrate the LNRS into their Local Plan in a number of ways, including setting out:

- How the Local Plan aligns its policies with the vision, aims, targets and priorities in the LNRS.
- How development should seek to support and deliver on the vision, aims, targets and priorities in the LNRS.
- How development should seek to enhance and protect the integrity of existing core local nature sites and boost the connectivity of the network within opportunity areas.

Biodiversity Net Gain

Areas mapped for action within the Nature Network are key target areas for the delivery of offsite BNG across Greater Manchester. Areas mapped within the Nature Network will be used to determine where habitat creation or enhancement for BNG will be of 'high strategic significance'. This means that creation or enhancement of habitat to generate biodiversity units for the purposes of BNG benefits from a 15% uplift in the Defra statutory BNG metric, if that creation or enhancement is in an area mapped in the LNRS and the action/s identified for nature recovery in that area are actioned.

Beyond the Nature Network

The Nature Network indicates where habitat enhancement, creation or restoration could be particularly beneficial to deliver nature recovery. However, that does not mean that taking this action should not be pursued in many other locations across Greater Manchester, not prioritised as opportunity areas. The opportunity areas and core local nature sites identified in this strategy should not be interpreted as the only locations where nature recovery actions should take place.

Action can take place anywhere across the city-region to help realise the priorities in this strategy. Areas that do not have actions mapped onto them are equally important. For example, the urban actions, set out in this strategy, should be pursued in all built up areas in Greater Manchester, as well as on new regeneration and development sites – as illustrated in the images on the next page.

There are many opportunities to deliver actions for nature in every community, whether this is through wildlife-friendly gardening, creating new pocket parks or greening a neglected space.

The wider environment:

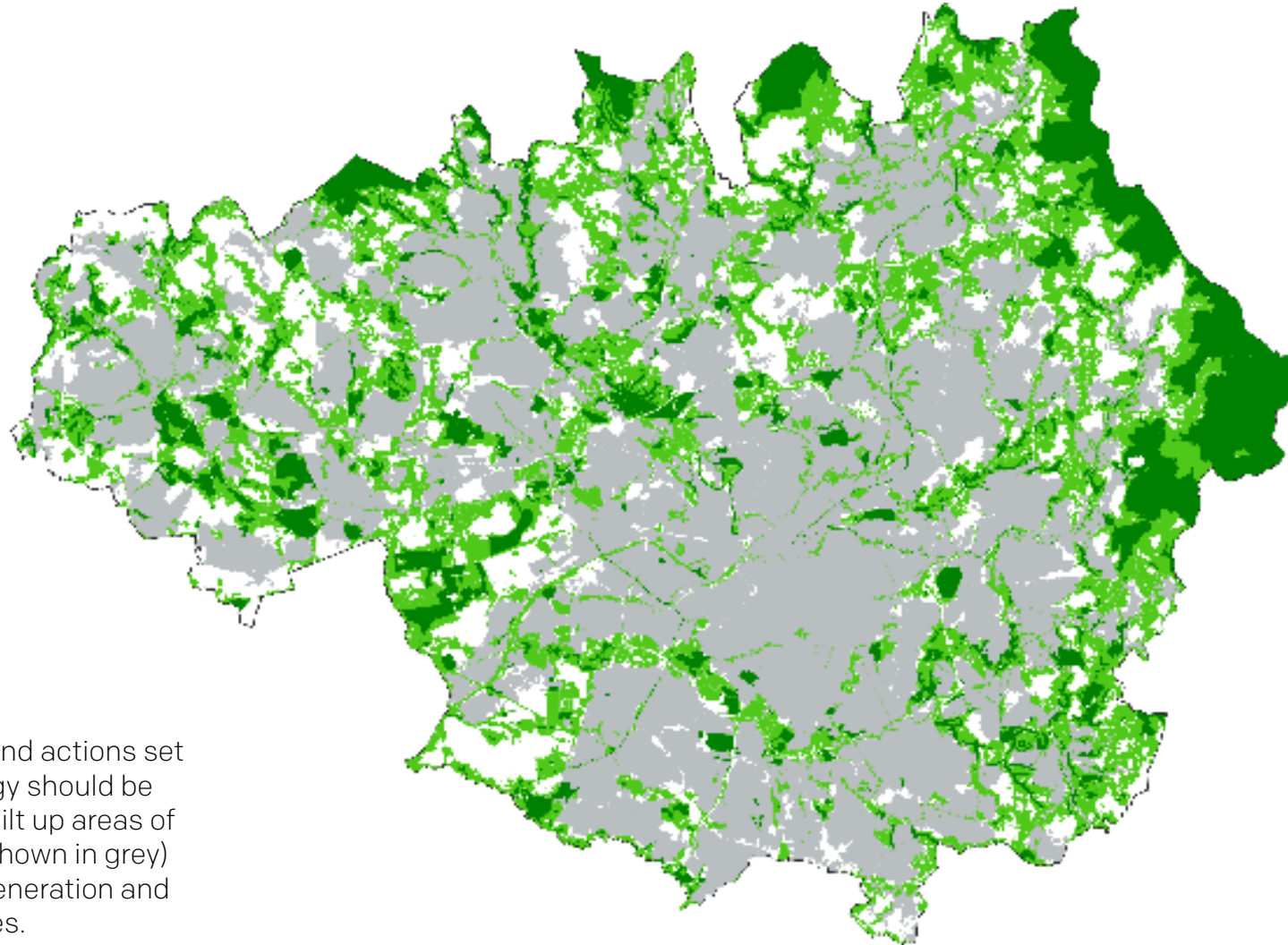
What is it? These are areas that are not mapped as part of the Nature Network. However, this does not mean action there is not just as important. In the areas that are not mapped, action is still crucial for local people and wildlife and can make a huge contribution towards delivering a more sustainable and wildlife-friendly city-region.

What we need to do? In the wider environment, we can still take action by making these areas more wildlife friendly and nature rich. Even small areas like gardens and streets can be made more wildlife friendly through planting street trees or creating ponds or new community growing spaces.



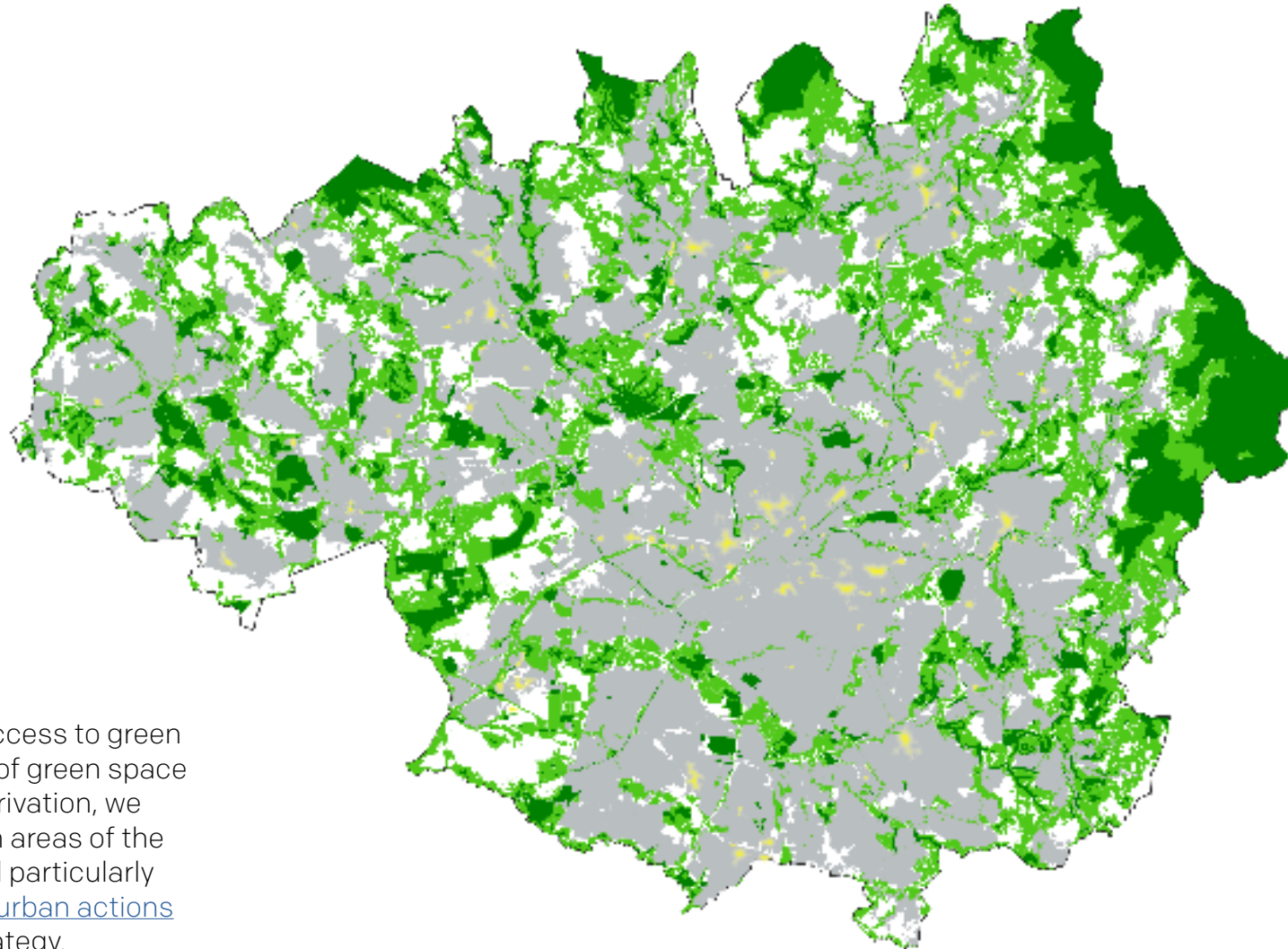
Taking action on our urban priorities

Looking beyond the Nature Network, we want delivery of the priorities and actions set out in this strategy to be considered in many locations across the city-region. This is particularly relevant for our urban priorities and actions, as almost 50% of Greater Manchester is now classed as urban. The delivery of urban priorities and actions set out in this strategy should be considered in all urban or built-up areas of the city-region as shown in grey on the map below.



[Urban priorities](#) and actions set out in this strategy should be delivered in all built up areas of the city-region (shown in grey) as well as on regeneration and development sites.

There are also some areas where we know that the delivery of the urban actions would be particularly beneficial across the city-region due to low existing levels of green space, low access to green space nearby and high levels of deprivation³⁶. When considering where to deliver urban actions these areas (shown in yellow) would be particularly beneficial.



Based on local access to green space, amounts of green space and levels of deprivation, we know that certain areas of the city-region would particularly benefit from the [urban actions](#) set out in the strategy.



PRIORITIES AND ACTIONS: WHAT DO WE NEED TO DO?

Introduction

Why nature matters for
Greater Manchester

Nature in Greater
Manchester:
Where are we now?

Vision and targets:
Where do we need to get to?

Nature Network:
Where is best for nature?

**Priorities and actions:
What do we need to do?**

Delivery:
How you can deliver
on the strategy

Acknowledgements

List of appendices

References and notes

The priorities set out in this section are the long-term end results of the strategy that we all need to work towards. Delivering on these priorities will help us to achieve the overarching vision and aims for local nature recovery.

Each priority is an outcome (i.e. what is to be achieved) and is accompanied by several practical actions – these are the activities that, if taken, would make a positive contribution towards delivering on this priority. Each priority may have several practical actions linked to it – working towards one or a number of these actions can help achieve a priority. The word ‘action’ is used throughout the Greater Manchester LNRS to refer to the statutory measures set out in the Environment Act. To help cover the different types of places and spaces across Greater Manchester, we have divided priorities by broad habitat types and priority species. We have also included priorities for the urban buildings and urban green spaces which make up nearly 50% of the city-region³⁷.

Our habitat priorities will be of huge benefit to many species, as well as delivering wider social and economic benefits. Some species, or groups of species, are particularly at risk locally and need bespoke action beyond wider habitat priorities set out in this strategy. It is these particularly vulnerable local species that require focused attention and have been selected as target species for this Local Nature Recovery Strategy.

Our technical guidance provides more information on achieving these actions and how you can work towards delivery (see [appendix 8](#)).



Habitat priorities and actions

Principles for habitat enhancement, restoration and creation

Across all our habitat priorities there are several common principles that must be followed. These principles apply to all priorities and actions, as well as the delivery of actions within the Nature Network.

Right habitat in the right place

Ensure that habitat restoration and creation proposals occupy suitable sites and are not to the detriment of existing or other quality habitats, vulnerable species, or other features of environmental importance (example: scheduled monuments), by following existing principles (example: 'right tree, right place, right reason'). Ultimately, this requires using this strategy as a starting point and then undertaking site-specific assessment for what works best on the land and the species it is important for.

Follow best practice and standards

Ensure compliance with legal requirements, standards, guidance, decision or assessment frameworks and best practice, as well as any permits and licences or existing plans when creating or restoring habitats (example: 'Decision Support Framework for Peatland Protection').

Think long term

Plan proactively for long term habitat management, maintenance and funding.

Aim high

When creating or restoring habitats – work towards achieving good condition, well-functioning habitats that support a greater abundance of species.

Tackle invasives

Minimising and managing non-native invasive species is crucial to improving the condition of all habitats found in Greater Manchester, from waterbodies to woodlands.

Build resilience

Work proactively to build resilience against climate change, future pests, invasive species and diseases.

Maximise multiple benefits

Deliver wider benefits wherever possible, such as improving health and wellbeing, storing carbon or reducing flood risk.

Involve residents and communities

Work collaboratively from the outset with local residents, communities, volunteers, partnerships and businesses towards nature recovery.

Improve responsible access

Support and work towards better access for residents and communities wherever possible and encourage responsible access to nature (example: following the [Countryside Code](#)).

Monitor success

Monitoring or tracking progress is crucial to understand success of efforts; this can be aided by involving communities and residents.

Support landowners and managers

Support, and work in partnership with, landowner and managers (example: encourage more uptake of any available agricultural environment schemes).

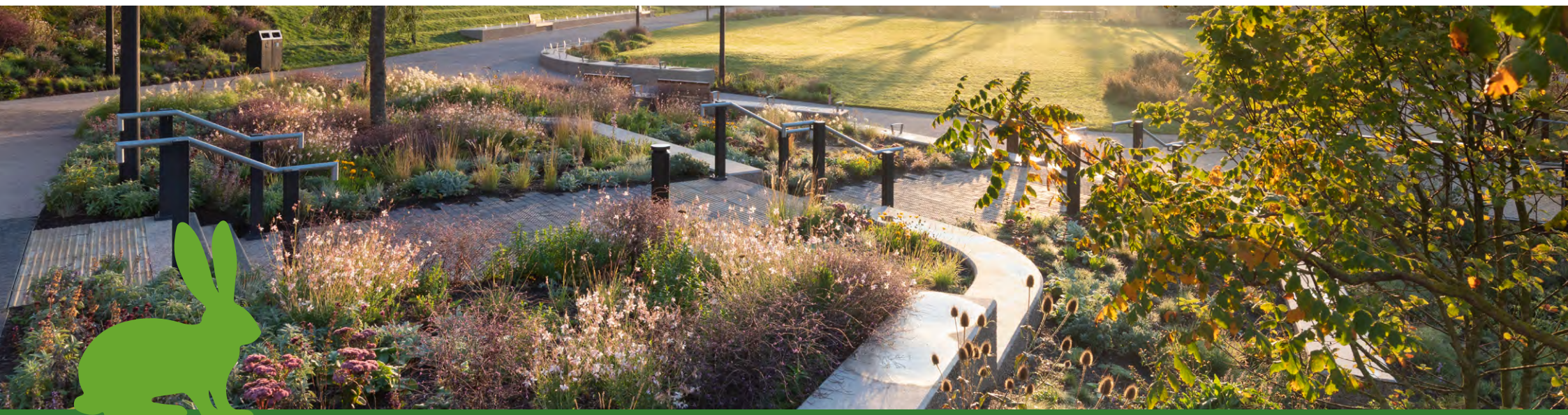
Urban green spaces and buildings

Opportunity

There are huge opportunities to make the urban areas where we live and work greener and more nature-rich. Creating space for nature has knock-on benefits in our everyday lives, improving our health and wellbeing, as well as helping to adapt the city-region to climate change. Urban green spaces already provide vital refuges for wildlife and spaces for people to relax. We need more of these spaces and for them to be better connected for people and nature. Our urban green spaces have significant potential to become more nature-rich and at the same time better adapted to climate change.

Over recent years we have seen some inspiring examples of the greening of disused spaces for nature and people, such as Castlefield Viaduct in Manchester and Elizabeth Park in Bolton, helping us to better meet national green space standards²¹. There are many more unused and unloved spaces that could be converted to new community gardens, allotments or pocket parks through community-led action, creating healthier urban spaces for our future. Installing new green spaces in our streets and public spaces will help tackle inequalities in access to green space and better adapt the city-region to climate change. As we create new infrastructure and regenerate the city-region, there is potential to also increase, expand and better connect nature-rich green spaces, at the same time as creating resilient and attractive active travel routes and new developments.

Actions at any scale, whether a street tree, swift box, community garden or a new pocket park, can make a difference for both nature and local people. Supporting and involving communities is vital to ensure the success of any newly enhanced or created green spaces.



Priorities

- More schools, hospitals, public, commercial and community buildings have nature-rich accessible green spaces, better for wildlife and people.
- Better parks and open spaces, enhanced and managed to be nature-rich and climate-adapted, with a range of habitats for wildlife supported by local communities.
- More streets, roads, pedestrian and cycle routes are greener, nature-rich and tree-lined, acting as corridors for nature and adapted to climate change.
- Town and city regeneration and development driving new and enhanced nature-rich green space creation, building more biodiverse, accessible and climate-adapted places and buildings.
- More nature-friendly and climate-adapted gardens, balconies, yards and driveways.
- More community-led creation of new nature-rich green spaces and increased opportunities for local food growing.

The term 'green spaces' is used in these priorities to cover a range of urban spaces and land including parks, gardens, playing fields, street trees, woodlands, orchards, allotments, incidental urban green spaces like road verges and other urban green spaces including cemeteries, golf courses, civic spaces and community gardens. All of these spaces can form valuable havens for wildlife across the city-region. Many rivers, canals and waterbodies pass through urban areas; these are covered by separate priorities on rivers, waterbodies and canals.

When delivering on these priorities always follow our habitat enhancement, restoration and creation principles.

Wider benefits

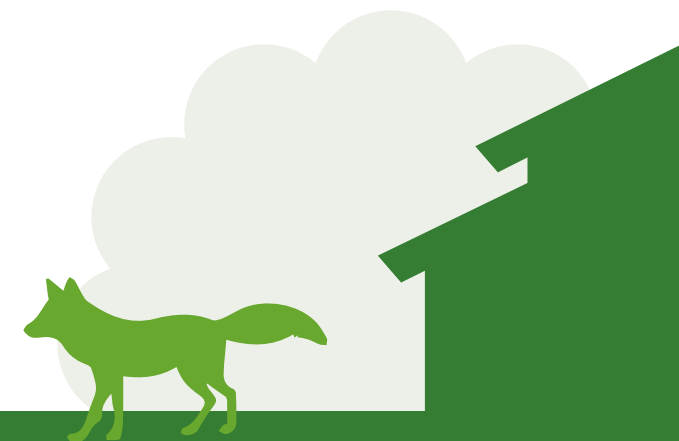
These priorities will have benefits beyond just helping nature recover including:

- Improving our health and wellbeing.
- More opportunities for social interaction and community building.
- Reducing health inequalities and creating healthy resilient places to live and work.
- Encouraging more visitors and supporting businesses.
- Better managing extreme weather events including extreme heat and more intense rainfall events.
- Increasing property values and providing quality places.
- Reducing air pollution.

Species supported

These priorities will benefit many urban species including:

- Fox.
- Hedgehog.
- Common pipistrelle bat.
- House sparrow.
- Peregrine falcon.
- Robin.
- Starling.
- Wild cherry.



Actions

Read our technical guidance for more information on achieving these actions and how you can work towards delivery (see [appendix 8](#)).

Priority	Practical actions
More schools, hospitals, public, commercial and community buildings have nature-rich accessible green spaces, better for wildlife and people	• Enhance and increase the diversity of existing green spaces and create dedicated wilder set-aside areas for nature. • Create more nature-friendly multi-use spaces, such as wellbeing gardens, community grow spaces or orchards, that provide habitats for urban species and benefit people. • Increase or expand nature-rich green spaces, where they will provide stepping stones or corridors that better connect existing green spaces and reduce barriers to species movement. • Support species by installing homes for wildlife. • Create or allow more space for water and install sustainable drainage, providing water for wildlife and adaptation to climate change. • Support and involve local communities in the creation and maintenance of spaces for nature.
Better parks and open spaces, enhanced and managed to be nature-rich and climate-adapted, with a range of habitats for wildlife supported by local communities	• Enhance and increase the diversity of existing green spaces and create dedicated wilder set-aside areas for nature. • Create and maintain longer grasses and wildflower strips. • Increase or expand nature-rich green spaces, where they will provide stepping stones or corridors that better connect existing green spaces and reduce barriers to species movement. • Support species by installing homes for wildlife. • Create or allow more space for water and install sustainable drainage, providing water for wildlife and adaptation to climate change. • Create more nature-friendly multi-use spaces, with improved access for all, such as pocket parks and community grow spaces that benefit urban species and people. • Support and involve local communities in the creation and maintenance of spaces for nature and improve public awareness of the benefits of nature recovery.

Priority	Practical actions
More streets, roads, pedestrian and cycle routes are greener, nature-rich and tree lined, acting as corridors for nature and climate-adapted	• Enhance and increase the species diversity of streets and highways verges, with longer grasses, native wildflower strips or meadows and more dedicated spaces for nature. • Increase or expand nature-rich green spaces along existing and new streets, highways and cycleways (our Bee Network). • Create or allow more space for water and install sustainable drainage along our existing and new streets, highways and cycle paths (our Bee Network). • Reduce key barriers to wildlife movement across our major highways. • Support species by installing homes for wildlife. • Support and encourage more community involvement and more community adoption of unused green spaces.
Town and city regeneration and development driving new and enhanced nature-rich green space creation, building more biodiverse, accessible and climate-adapted places and buildings	• Safeguard and enhance important local habitats and green spaces. • Restore existing local habitats and green spaces. • Create dedicated new multifunctional and inclusive green spaces as part of new development and regeneration, to meet the national Urban Greening Factor of 0.3 on commercial and 0.4 on residential development or the local authority set Urban Greening Factor³⁸. • Increase or expand nature-rich green spaces, where they will provide stepping stones or corridors that better connect existing green spaces and reduce barriers to species movement. Support species by installing homes for wildlife on and around buildings. • Create dedicated space for water and wetter habitats by installing sustainable drainage and providing sufficient space for river corridors. • Support and involve communities in the design and creation of new or regenerated green spaces.

Priority	Practical actions
More nature-rich and climate-adapted gardens, balconies, yards and driveways	• Plant gardens, yards and balconies that support local wildlife, using pollinator-friendly planting or planting size-appropriate shrubs or trees. • Support species by installing homes for wildlife and reduce barriers to species movements across and between gardens. • Manage spaces in a wildlife-friendly way by leaving areas of longer grass for wildlife in gardens or reduce mowing, reducing use of pesticides and herbicides. • Create more space for water in gardens and encourage more sustainable water use. • Boost awareness of the need for wildlife friendly gardening.
More community-led creation of new nature-rich green spaces and increased opportunities for local food growing	• Encourage or enable the creation of new community-led green spaces in our least green areas. • Increase or expand nature-rich green spaces where they will provide stepping stones or corridors that better connect existing green spaces and reduce barriers to species movement. • Enable more opportunities for community-led action and community adoption of local green spaces. • Support more opportunities for local food growing and the 'right to grow'. • Boost awareness and skills in nature recovery and connection to nature.



Woodlands, trees, scrub and hedgerows

Opportunities

Woodlands, trees, scrub and hedgerows across Greater Manchester could better support biodiversity. There are opportunities to enhance and better manage existing woodlands, orchards, hedgerows, veteran and ancient trees, so they are more resilient and in better condition. Well-managed, healthier, woodlands can deliver more benefits to people and better deal with pests, disease, invasive species and climate change.

The remaining woodlands across Greater Manchester could also be better connected. Many existing woodlands and trees are fragmented; reconnecting these by creating corridors or stepping stones of new woodlands, trees, hedgerows or scrub between them would benefit the species movement and, at the same time, create new green routes for people. More trees and woodlands along our river valleys are a particularly crucial way we could enhance connectivity for woodland species. Healthy well-managed and connected hedgerows can also play a key role as wildlife corridors, in both our rural and urban areas; they can also act as transitional habitats and help buffer habitats in dense urban areas.

In rural areas, more trees across farmed land, whether through agroforestry, low density in-field planting or more small woodlands, could help make farmed areas better for woodland species and, at the same time, improve animal welfare and support climate change mitigation and adaptation. Woodland establishment, however, can sometimes impact negatively on other habitats, particularly our remaining species-rich grassland, and should be undertaken carefully.

Our existing woodlands could also be more accessible, with better paths, signs and less high-impact invasive species, enabling more people to engage with nature nearby to where they live. Where more street trees can be introduced these can play a significant role in greening some of our dense urban neighbourhoods, improving air quality and regulating climate change by helping to better manage rainwater³⁹. Community orchards can provide habitats for local wildlife as well as multi-use, accessible, communal spaces for growing local food.



Priorities

- More existing woodlands, hedgerows, trees and scrub are safeguarded, restored and resilient.
- Bigger and better-connected woodlands, trees and scrub, integrated with patchworks of other habitats.
- New urban street trees, urban community orchards and woodlands, improving access to nature and climate adaptation.
- More native hedgerows created and maintained, linking together spaces for wildlife.
- More varied trees, scrub, parkland and woodland habitats incorporated into our farmlands and more productive woodlands delivering nature recovery.

These priorities cover trees, woodlands and forests, hedgerows, scrub and parkland, wood pasture and agroforestry.

When delivering on these priorities always follow our habitat enhancement, restoration and creation principles.



Wider benefits

Our trees, woodlands, hedgerow and scrub play a particularly critical role in not just providing habitat, but also:

- Storing carbon.
- Managing rainwater.
- Regulating temperatures.
- Reducing air and water pollution.
- Improving our health and wellbeing.
- Providing local sources of food and timber.
- Improving livestock welfare by providing shelter and shade.

Species supported

Delivering on these priorities will benefit many woodland species including:

- Badger.
- Tawny owl.
- Woodpecker.
- Bluebell.
- Birch.
- Hawthorn.
- Oak.
- Wood anemone.
- Fly agaric.



Actions

Read our technical guidance for more information on achieving these actions and how you can work towards delivery (see [appendix 8](#)).

Priority	Actions
More existing woodlands, hedgerows, trees and scrub are safeguarded, restored and resilient	• Identify, safeguard and enhance ancient, long-established and designated woodlands, veteran and notable trees. • Enhance existing woodlands, scrub, and hedgerows through positive management, diversify them and increase their resilience to pests, disease and climate change. • Promote better understanding of the value of woodland, scrub, trees, hedgerow, wood pasture and agroforestry habitats. • Encourage wildlife-friendly recreational use of woodlands.
Bigger and better-connected woodlands, trees and scrub, integrated with patchworks of other habitats	• Target native woodland and scrub creation or establishment, where it will connect existing woodlands and scrub. • Expand existing woodland, scrub and other woodland fringe and transitional habitats. • Encourage the planting or establishment of trees, woodland and scrub where they will play a role in natural flood management, control of pollution or reduce soil erosion. • Ensure new woodlands are well managed to optimise biodiversity, accessibility and support a variety of locally appropriate woodland types, mixes and scrub. • Involve local communities in new tree planting, woodland and scrub creation.



Priority	Actions
New urban street trees, urban community orchards and woodlands, improving access to nature and adaptation to climate change	• Target urban tree and woodland planting where it will increase connectivity, climate adaptation and accessibility. • Create new and enhance old or traditional orchards and urban community woodlands, and work to ensure better access for communities. • Improve woodland path networks to diversify access for all users. • Support and engage diverse local groups with local woodlands, orchards and trees and encourage positive recreational use of woodlands.
More native hedgerows and scrub created and maintained, linking together spaces for wildlife	• Safeguard, manage and restore the species diversity and structure of existing hedgerows. • Create more native hedgerows, particularly where they act as corridors between existing trees and woodlands, or where they could intercept diffuse pollution or reduce soil erosion. • Encourage more mature trees in hedgerows.
More varied trees, parkland, scrub and woodland habitats incorporated into our farmlands and more productive woodlands delivering nature recovery	• Enhance productive woodlands, parklands, scrub and orchards to maximise benefits to biodiversity alongside the production of timber, food and environmental benefits, such as flood risk reduction. • Encourage wildlife-friendly farm diversification opportunities which will enable more woodland, tree and hedgerow planting as well as agroforestry.

Rivers, canals and waterbodies



Opportunities

Improving our extensive network of rivers, streams, brooks, canals, reservoirs, lakes and ponds could help nature recover across the city-region.

These waterways and waterbodies are our remaining key nature corridors; enhancing and creating habitats along these corridors will play a crucial role in developing our Nature Network. There are a range of opportunities to improve our rivers and waterbodies and better integrate them into our urban areas. Enhancing these habitats will also act to reduce flood risk and increase their value as community assets, but the scale of the challenge is significant.

Our waterbodies have been heavily modified to accommodate urban infrastructure, there are multiple barriers across them and many are also buried under roads or buildings or covered by invasive species. Uncovering or opening-up our rivers, naturalising them where feasible and removing high impact invasives would significantly help the movement of aquatic species and give our rivers space to cope with climate change. The opening up of access to the River Medlock at Mayfield Park and the River Mersey at Stockport Interchange has provided new visitor attractions and spaces for recreation.

Cleaning our rivers and waterbodies is one of our biggest opportunities for nature recovery but also one of the most challenging. Multiple significant issues impact our water quality, including microplastics and litter, diffuse pollution from agricultural land, urban areas (such as highways) and industrial land and estates, as well as pollution from the many combined sewer overflows, forever chemicals and landfills.

Creating more spaces for water, improving water quality and better managing our rainwater, using natural flood management and sustainable drainage, can play a big role in improving the quality of water entering our waterways and at the same time reducing the risk of flooding of homes and businesses. With climate change, water scarcity may also become a challenge for Greater Manchester.

Priorities

- More accessible and visible rivers, canals and waterbodies.
- Cleaner and more resilient rivers, canals and waterbodies.
- More natural, well managed and biodiverse rivers and waterbodies.
- Increased habitat connectivity along our river corridors, canals and waterbodies.
- More space for water and natural flood management in our communities and across catchments.
- More canals restored and well managed for nature and people.

These priorities cover a range of different waterbodies, which includes rivers, streams, brooks, canals, reservoirs, lakes and ponds.

When delivering on these priorities always follow our habitat enhancement, restoration and creation principles.



Wider benefits

Our rivers, canals and waterbodies play a significant role in:

- Managing our rainwater and flood risk.
- Opportunities for leisure and recreation.
- Improving health and wellbeing.
- Regulating temperatures.
- Supplying our water.

Species supported

Delivering on these priorities will benefit many aquatic and waterside species including:

- Daubenton's bat.
- Otter.
- Common frog.
- Great crested grebe.
- Grey wagtail.
- Kingfisher.
- Atlantic salmon.
- Hawker dragonflies.
- Floating water-plantain.
- Marsh marigold.
- Yellow flag iris.



Actions

Read our technical guidance for more information on achieving these actions and how you can work towards delivery (see [appendix 8](#)).

Priority	Practical actions
More accessible and visible rivers, canals, and waterbodies	• Unblock, improve, and extend rights of way along waterbodies and improve connections between these networks and our wider ecological corridors and recreational routes. • Celebrate rivers, canals and waterbodies as part of the local identity and increase understanding of their value and management.
Cleaner, more resilient, rivers, canals and waterbodies	• Reduce point source pollution by identifying and tackling critical locations. • Reduce urban diffuse pollution, using sustainable drainage, and tackling litter and plastic pollution. • Encourage agricultural, industrial and land management practices that deliver water quality improvements and better water management.



Priority	Practical actions
More natural, well managed and biodiverse rivers and waterbodies	• Make water channels more natural and complex, re-meander channels and reconnect to floodplains where feasible. • Enhance and maintain existing habitats within our waterbodies and adjacent grassland, wetland and woodland habitats to increase species richness. • Restore and maintain more natural riverbanks, in appropriate locations, and reduce invasive species.
Increased habitat connectivity along our river corridors, canals and waterbodies	• Expansion, creation or restoration of a variety of waterside habitats, including woodlands, wetlands and meadows, where they will better connect existing habitats. • Improve mobility for aquatic creatures by removing barriers, daylighting buried or covered waterbodies or installing by-pass structures, where feasible.
More space for water and natural flood management in our communities and across catchments	• Install more sustainable drainage schemes and natural flood management schemes, in areas that will benefit nature and are most at risk of flooding. • Increase awareness and understanding of climate resilience and the role of sustainable drainage and natural flood management schemes.
More canals restored and well managed for nature and people	• Restoration and reconnection of canalside habitats, including targeted woodland creation and tree planting. • Softening manmade canal banks using natural materials and native plants. • Reduce litter and pollution in canals. • Encourage responsible recreational use of canals and maintain a good balance between more natural and diverse vegetation and keeping canals clear for recreation. • Improve mobility for aquatic creatures by removing barriers, daylighting buried or covered waterbodies or installing by-pass structures, where feasible.

Lowland mosslands and wetlands

Opportunities

Lowland mosslands and wetlands form a unique and diverse landscape of water, fen, wet grassland, wet woodland and lowland raised bog and other wetland habitats.

Much of our original lowland raised bog habitat has been converted to agriculture or lost to peat extraction or development, often leading to carbon emissions from remaining peat soils. In some post-industrial sites we have regained wetlands or flashes and wet woodlands. Working to restore more areas of degraded former lowland raised bog, fens, reedbeds, bogs, wet woodland and heath, and ponds, where viable, will provide new spaces for people to enjoy and habitats for wildlife. Restoration efforts will also act to reduce carbon emissions, in areas with underlying peat soils, and store more water helping to reduce flood risk.

As well as restoring lost habitats, we can also work to better connect our remaining habitats, by expanding (or buffering) existing sites, creating stepping stones and new corridors of habitats between them. This will enable the easier movement of species across these landscapes, particularly for small and isolated sites. Alongside habitat creation, there are also crucial opportunities to boost the resilience of these important habitats, by creating, where possible, more compatible land use surrounding them. Reducing land drainage in these surrounding areas, through the adoption of wetter farming or paludiculture, is particularly important to help maintain water levels. In turn, storing more water in these areas should help reduce flood risk to nearby communities.

Often isolated and hard to reach, our lowland mosslands are thought to be much less visited than our woodlands, rivers and uplands. Enabling more people to visit and enjoy these spaces will help encourage their management and restoration. There are opportunities to improve responsible access to them, with new cycle ways and paths allowing more people to engage with the cultural and natural heritage of these areas.

Priorities

- More lowland bogs, fens and other wetland habitats are restored and better managed for nature, able to store more water and emit less carbon.
- Bigger mosslands and wetlands, with more habitat corridors and stepping stones reconnecting and expanding remaining habitats.
- More of our historic wetlands and restorable peat are wet.
- Reconnect local communities to mosslands and wetlands, and their heritage.
- Better quality and better-connected ponds.

These priorities cover a range of wetland habitats including lowland raised bog, fen, marsh, swamp, wet woodlands, wet grasslands and ponds.

When delivering on these priorities always follow our habitat enhancement, restoration and creation principles.

Wider benefits

- Rainwater storage and improved flood resilience.
- Reduced carbon emissions and increased storage of carbon.
- Recreation and leisure.
- Improved water, soil and air quality.

Species supported

Delivering on these priorities will benefit many mossland and wetland species including:

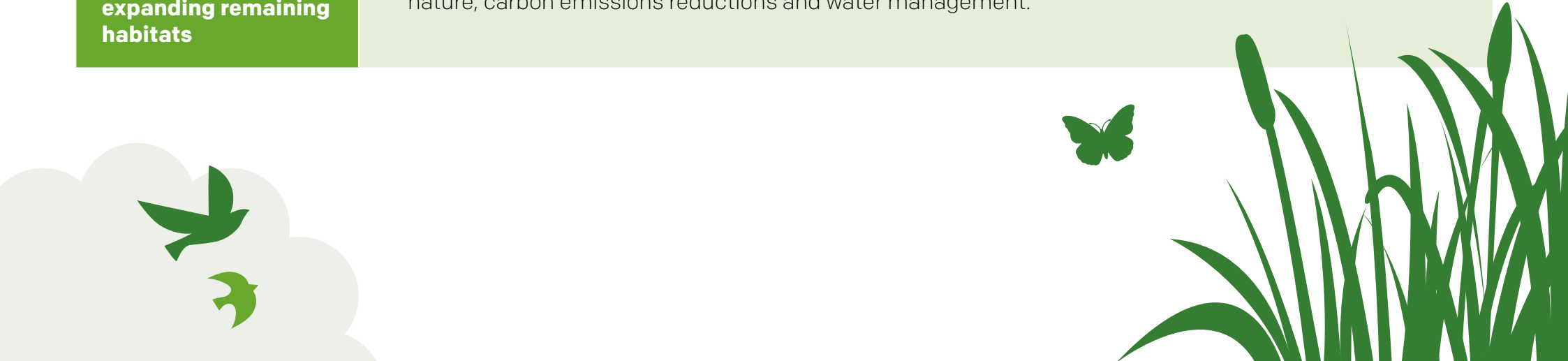
- Water vole.
- Great crested newt.
- Bittern.
- Curlew.
- Lapwing.
- Nightjar.
- Willow tit.
- Manchester argus.
- Meadowsweet.
- Sphagnum moss.



Actions

Read our technical guidance for more information on achieving these actions and how you can work towards delivery (see [appendix 8](#)).

Priority	Practical actions
More lowland bogs, fens and other wetland habitats are restored and better managed for nature, able to store more water and emit less carbon	• Enhance, maintain and manage existing and remnant areas of lowland raised bog, fens and other wetland habitats over the long term, to improve diversity. • Enhance patchworks of semi-natural habitats surrounding our remaining lowland raised bog, fens and other wetland habitats to improve resilience. • Reintroduce lost species across a range of mossland and wetland communities.
Bigger mosslands and wetlands, with more habitat corridors and stepping stones reconnecting and expanding remaining habitats	• Restore degraded wetland sites and areas of restorable deep peat, particularly where they will connect remaining wetland habitats. • Create more patchworks of wetland habitats and transitional habitats, particularly around remaining and restored lowland raised bog, fens and other wetland habitats. • Maintain and enhance restored sites and new corridors over the long term to maximise benefits for nature, carbon emissions reductions and water management.



More of our historic wetlands and restorable peat are wet	• Identify former wetland habitats and investigate their potential for restoration to contribute to climate resilience and nature recovery. • Reduce land drainage and positively manage the hydrology of land adjacent to lowland raised bog, fens and other sensitive wetland habitats, to increase climate resilience. • Encourage the uptake of wetter farming and commercial paludiculture.
Reconnect local communities to mosslands and wetlands, and their heritage	• Enable more well-managed recreational access to mosslands and wetlands. • Increase awareness of the importance and benefits of healthy mosslands and wetlands. • Enhance and extend networks and other access opportunities for walkers, cyclists, horse-riders and other outdoor recreational pursuits, in ways that are compatible with habitat enhancement.
Better quality and better-connected ponds	• Safeguard, enhance and appropriately manage existing ponds and encourage good connectivity to surrounding habitats. Create a variety of new ponds and resurrect ghost ponds, in the right places to connect existing ponds.



Grassland, farmland and lowland heath

Opportunities

Grassland and farmland covers an estimated 30% of land in the city-region. The vast majority of this land is heavily managed, has been altered and could support more wildlife through changes in land use or land management practices. Those species-rich grasslands that do remain are predominantly found outside of agricultural land in nature reserves and designated sites, but also in areas like road verges, churchyards, and urban brownfield sites.

To act for nature, we need to safeguard remaining semi-natural grasslands and lowland heaths before they are lost. We can then enhance or restore these habitats so they can support more species, such as lapwing, grasshoppers, barn owls and bees. Creating more transitional areas between grassland and other habitats can also help support our wildlife to thrive.

In rural areas, with the right incentives and support, farm businesses can be at the heart of creating healthier soils and more species-rich grasslands and croplands, alongside food production. Healthy populations of pollinators and healthy soils can in turn support food production. In our urban areas, many of our grasslands are closely mown and there are opportunities to allow areas of longer grass to flower and create wilder areas, benefiting invertebrates (including bumblebees and other pollinators) and providing more food for urban birds such as swifts.

By creating or restoring grasslands, field margins or road verges, where they will connect remaining semi-natural grasslands across river valleys and between different landowners, we can create networks for grassland species alongside where we live and work.



Photo credit: Adrian Dancy

Priorities

- Species-rich and semi-natural grasslands and lowland heath are safeguarded, well-managed and restored.
- More species-rich grasslands and lowland heath created, particularly where they will connect existing habitats.
- More urban meadows, with native wildflower species and longer grasses.
- More dedicated spaces for wildlife integrated into farmland and buildings, alongside food production.
- More biodiverse farmland, with healthier soils, better water management and fewer intensively managed areas.

These priorities cover a variety of grassland habitat types (such as acid, calcareous, amenity, neutral and modified grasslands), as well as croplands, pasture, horticultural land and lowland dry heath.

When delivering on these priorities always follow our habitat enhancement, restoration and creation principles.

Wider benefits

- Opportunities for leisure and recreation.
- Reduced carbon emission and increased storage of carbon.
- Building community interaction through establishing or managing local grassland areas.
- Short-term storing of rainwater and managing flood risk.
- Wildlife-friendly food production, and healthier soils.

Species supported

Delivering on these priorities will benefit many grassland and farmland species including:

- Barn owl.
- Kestrel.
- Lapwing.
- Bumblebees.
- Cinnabar moth.
- Grasshopper.
- Orange-tip (Cuckooflower).
- Orchid.
- Waxcap fungi.



Actions

Read our technical guidance for more information on achieving these actions and how you can work towards delivery (see [appendix 8](#)).

Priority	Practical actions
Species-rich and semi-natural grasslands and lowland heath are safeguarded, well-managed and restored	• Identify and safeguard remaining notable semi-natural grasslands. • Enhance and appropriately manage remaining semi-natural grasslands and lowland heath, including increasing species richness. • Showcase successful grassland and heath management and encourage awareness of the value of these habitats.
More species-rich grasslands and lowland heath created, particularly where they will connect existing habitats	• Creation or restoration of species-rich grasslands and lowland heath, particularly where they will expand or act as stepping stones or corridors. • Creation and maintenance of transitional areas or more mosaics of habitats, on the boundaries between grasslands and other habitats. • Ensure appropriate long-term management of newly created grassland to achieve increased species-richness and lowland heath. • Enhance and manage improved or semi-improved grasslands to boost species richness.
More urban meadows, with native wildflower species and longer grasses	• Allow areas of urban grasslands to grow long and flower and increase species diversity through planting or other measures. • Encourage greater understanding and acceptance of long grass and less intensively managed grasslands.

Priority	Practical actions
More dedicated spaces for wildlife integrated into farmland and buildings, alongside food production	• Install or enable more accessible homes for birds and bats on and around farms and rural buildings. • Set aside dedicated patches of sympathetically managed or uncropped areas, along field boundaries, margins, corners or less productive areas, particularly where they will connect. • Create and maintain forage areas and homes for species on farmland, alongside food production. • Grow and maintain multi-species cover crops, and cut later in the year, to provide food and cover for wildlife. • Safeguard existing hedgerows and plant more native hedgerows along field boundaries wherever possible. • Support and collaborate with farmers, landowners and managers to enhance their land for nature, alongside food production, and involve farmers in targeted species conservation programmes.
More biodiverse farmland, with healthier soils, better water management and fewer intensively managed areas	• Manage grassland and cropland at lower intensity and with low inputs. • Reduce soil erosion, minimise bare ground and encourage soil recovery. • Support switch to diversified plant species for grazing livestock, establish and maintain herbal leys or species-rich hay meadows. • Improve water quality and pollution management on farmland, in farmyards and control livestock access to waterbodies. • Support awareness raising efforts around responsible recreation in nature rich areas.



Upland moorlands

Opportunities

Our upland moorlands, from the Peak District National Park to the West Pennine Moors, hold significant heritage and cultural value for local communities and visitors. They are also ecologically significant, forming part of a much larger expansive upland moorland habitats stretching up to the Scottish borders. Our uplands often appear wild and untouched, but they have been subject to drainage and pollution for many decades, heavily managed and used for agriculture and sporting land uses. Working collaboratively with upland landowners and managers will be crucial to delivering benefits for nature.

As some of our biggest remaining natural spaces, our uplands could play a crucial role in large-scale nature recovery. There is potential to enhance and restore more extensive areas of our uplands. Where areas of bare peat still remain, there is potential to work faster and on a larger scale to revegetate, rewet and restore these areas towards active blanket bog. Greater diversity could also be encouraged by creating patchworks of different habitats, including trees, scrub and rare upland oak woodlands, in the right places. Planting more trees in the uplands should be done carefully as it can be concerning for some but can also play an important role in helping to reduce flood risk downstream and soil erosion.

Restoring and increasing the diversity of our upland moorlands will help deliver wider benefits and adapt the city-region to climate change. Restoring blanket bog reduces carbon emissions from peat soils and helps draw down more carbon, as well as encouraging higher water tables which reduces risk of wildfires. Areas of restored blanket bog also improve our drinking water quality and store more water, reducing the risk of flooding downstream.

Upland communities, landowners, land managers and farmers, all of whom already shape these landscapes, have a critical role to play in the legacy of this landscape for nature. There are opportunities to support these communities to meet the multiple demands on their land, whether it is recreation, nature recovery, food production or other uses.

Priorities

- Restore and rewet upland peat to active blanket bog and wet heath, to retain more carbon and hold more rainwater.
- More varied and well-functioning upland habitats, with patchworks of restored bog, heath, trees, springs and flushes, reducing flood and wildfire risk.
- More of our upland flushes are thriving, rich with sphagnum moss, rushes and sedges, supporting a diverse range of species.
- More trees, small woods and scrub are naturally regenerating, across our uplands, helping slow and store water.
- More upland communities, land managers and landowners are rewarded for helping nature recover.

These priorities cover a range of moorland habitats, including blanket bog, upland heath, upland springs, flushes and fens, upland woodlands and grasslands.

When delivering on these priorities always follow our habitat enhancement, restoration and creation principles.



Wider benefits

- Carbon storage.
- Recreation and leisure.
- Water storage.
- Water quality.
- Enhanced flood risk management.
- Reduced wildfire risk.

Species

Delivering on these priorities will benefit many upland species including:

- Brown and mountain hare.
- Golden plover.
- Kestrel.
- Meadow pipit.
- Red grouse.
- Bilberry.
- Cross-leaved heath.
- Sphagnum moss.



Actions

Read our technical guidance for more information on achieving these actions and how you can work towards delivery (see [appendix 8](#)).

Priority	Practical actions
More varied and well-functioning upland habitats, with patchworks of restored bog, heath, trees, springs and flushes, reducing flood and wildfire risk	• Stabilise, rewet and restore deep peat towards active blanket bog, where appropriate. • Encourage more diverse native vegetation and more flower-rich habitats, in appropriate places, on existing upland moorlands. • Create transitional habitats or corridors to increase linkage between our uplands and lowland habitats, where conditions allow. • Reduce wildfire risk by creating natural fire breaks, rewetting, and boosting awareness.
More of our upland flushes are thriving, rich with sphagnum moss, rushes and sedges, supporting a diverse range of species	• Restore more naturalised wet areas, flushes and ponds. • Create rough, diverse grasslands around flushes and wetlands, wet in some areas with rushes around flushes and springs. • Reduce and slow land drainage and encourage natural flood management.
More trees, small woods and scrub are naturally regenerating, in appropriate places, across our uplands, helping slow and store water	• Encourage the restoration and regeneration of existing upland woodlands and clough woodlands. • Increase woodland and tree regeneration and planting, in appropriate places, with varying density from closed canopy woodland in some places to scattered trees in others. • Encourage moorland and clough edges to 'scrub up', in appropriate places, to improve diversity, securing soils and slowing water flow. • Target woodland creation, tree planting and the creation of leaky dams, where they will also contribute towards slowing water flow.

Priority	Practical actions
Restore and rewet peat to active blanket bog and wet heath, to retain more carbon and hold more rainwater	• Stabilise, rewet and restore deep peat towards active blanket bog and wet heath, where appropriate. • Work at scale to restore larger areas of remaining blanket bog faster.
More upland communities, land managers and landowners are rewarded for helping nature recover	• Support the switch to land management practices that will further enhance the diversity of upland habitats. • Encourage sustainable upland grazing and less intensive management of uplands. • Maintain, restore and increase upland hedgerows, hedgerow trees and field boundaries as important habitats. • Encourage sustainable recreation and reduce activities that damage upland habitats.



Species priorities and actions

Working to enhance, create and connect habitats across Greater Manchester will be of huge benefit to many species. Whilst many species across Greater Manchester are declining, some species and groups of species, need bespoke action beyond wider habitat priorities set out in this strategy.

Under national guidance, Local Nature Recovery Strategies can set out a manageable list of target species and species groups for focused attention to help these species bounce back and avoid local species loss. The target species and species groups set out in this section do not replace or in any way affect national species of principal importance (also referred to as Section 41 (of the Natural Environment and Rural Communities Act 2006) species), instead they are a local list of species requiring targeted bespoke attention.

Guided by a national process set out by Natural England and working with local species experts, a long list of over 400 vulnerable local species (see [appendix 2](#)) was identified considering:

- **Conservation status:** Particularly threatened, vulnerable or endangered species (according to International Union for Conservation of Nature red lists, national red lists of species at risk of extinction⁴⁰ or Biodiversity Action Plan Section 41 UK lists).
- **Local significance:** Species that are locally significant in Greater Manchester.

To identify target species for this strategy, we have focused on local species that are particularly at risk and that need focused action beyond our habitat priorities. From the long list, 16 target species and species groups have been selected for action in this first iteration of the LNRS. You can read more about the process of selecting these species and species groups in [appendix 2](#).

Reflecting national guidance, the following factors were used to select the 16 target species and species groups from the long list of over 400 species:

- **Bespoke requirements:** Specific action required to aid these species recovery beyond the habitat priorities.
- **Urgency:** Urgent action needed to stabilise species loss.
- **Deliverability:** Feasibility of actions that could be delivered within Greater Manchester to aid recovery.
- **National significance:** National significance of the population in Greater Manchester.
- **Wider benefits:** Benefits for other species and wider ecosystem services, such as flood risk reduction or carbon sequestration.
- **Climate change:** Vulnerability to current and future climate change.



Selection process:

Step 1 involved identifying threatened and other locally significant species relevant to the strategy area.

Step 2 involved determining which of these species could be best supported through targeted local action beyond the actions already set out around restoring, creating and joining up habitats across the Greater Manchester area.

In line with the guidance, species were not included in the shortlist if:

- Their needs could be covered by more, bigger, better and connected habitats, as these are met through the habitat priorities and actions.
- It is unclear what is causing their decline or on-the-ground action is not a priority.
- The factors constraining their recovery lie outside of England.
- In the species records held, they were considered as passing vagrants/occasional visitors.

There are of course many vulnerable species beyond those that we have been able to cover in the target species and species groups list. The habitat priorities and actions will help to conserve these species and monitoring populations will help assess whether other species from the long list should be prioritised for action in future updates to this strategy.

Target species and actions

Species and groups of species for prioritised local nature recovery are stated below. Where several species requiring similar actions have been identified then they have been collected into a group.

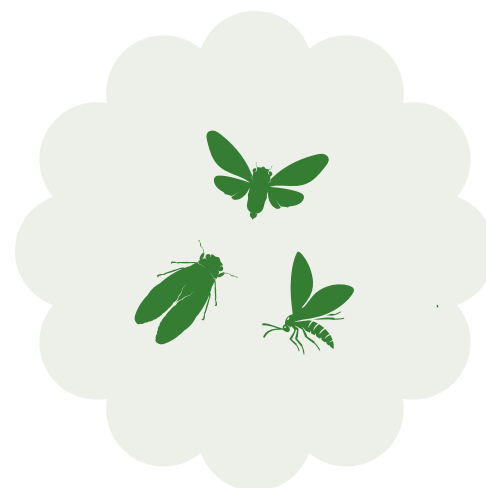
Individual species

- Mountain hare.
- Water vole.
- Willow tit.
- Black-necked grebe.
- Hedgehog.
- European hornet.
- Manchester black poplar.
- Slow worm.



Species groups

- **Upland bees, butterflies and moths:** bilberry bumblebee, tormentil mining bee, small copper butterfly, wall butterfly, small heath butterfly, dark green fritillary butterfly, gypsy bumblebee, Manchester treble-bar moth.
- **Urban birds:** swift, house martin, black redstart.
- **Farmland birds:** tree sparrow, corn bunting, linnet, yellow wagtail and yellowhammer.
- **Grassland fungi:** pink waxcap, jubilee waxcap, olive earthtongue, powdercap strangler, violet coral.
- **Migratory fish:** atlantic salmon, european eel.
- **Grassland ground-nesting birds:** curlew, lapwing, twite, skylark, golden plover, dunlin, snipe.
- **Brownfield insects:** dingy skipper, common blue, trifurcula cryptella.
- **Mossland insects:** large heath, crambus hamella, gelechia cuneatella, glyphipterix haworthana, lampronia fuscata, large red-belted clearwing, monochroa suffusella, phiaris schulziana, purple-bordered gold.



Target species or species groups	Practical actions
Mountain hare	Bespoke actions: • Protection from predators and livestock. • Identification and monitoring of population hotspots and breeding areas. • Reduction in barriers to movement across key roads and railways near population hotspots. • Landowner and land manager engagement and support. • Consider changing burning regimes in population hotspots for mountain hare, or managing timing of controlled burning to limit impacts on mountain hare populations. General habitat actions that will support recovery: • Stabilise, rewet and restore any remaining deep peat towards active blanket bog. • Encourage more diverse native vegetation and more flower-rich habitats, in appropriate places, on existing upland moorlands and heath. • Improve wildfire risk management by creating natural fire breaks and boosting awareness.



Target species or species groups	Practical actions
Water vole	Bespoke actions: • Identification, monitoring and safeguarding of key remaining population strongholds and breeding areas. • Protection from predators (mink) and avoid trampling or intensive grazing by livestock along the edges of waterbodies. • Careful management of water bodies, ditches, and banks, where water vole populations are present, to ensure burrows are not destroyed and reduce disturbance of populations. • Creation of areas of sunny shallow water margins with bankside vegetation. • Creation of margins or buffer areas along waterbodies. General habitat actions that will support recovery: • Enhance existing habitats within our waterbodies and grassland, wetlands and woodlands habitats alongside waterbodies. • Restore more natural riverbanks, in appropriate locations, and reduce invasive species. • Improve water quality by reducing point source and diffuse pollution. • Stabilise, rewet and restore any remaining deep bare peat towards active blanket bog.



Target species or species groups	Practical actions
Willow tit	Bespoke actions: • Identification and safeguarding of key remaining nesting sites and population strongholds. • Monitoring of key population strongholds, particularly for the impacts of competition or predation. • Increase availability of specialist nest sites in key population strongholds. • Creation and maintenance of young wet woodlands, with a dense under canopy and availability of dead wood. • Improvement in connectivity of remaining populations through targeted creation of young wet woodlands. General habitat actions that will support recovery: • Creation and maintenance of transitional areas or more mosaics of habitats, on the boundaries between grasslands and other habitats. • Expand existing woodland and scrub and other woodland fringe and transitional habitats.
Black-necked grebe	Bespoke actions: • Safeguarding of existing breeding sites. • Bespoke wetland habitat creation and management, including management of water levels, creation of shallow water areas and reedbeds, removal of high-impact invasive species. • Protection from disturbance, particularly from water sports or recreation at breeding sites. • Protection from predation. • Reduced litter at key breeding areas and population strongholds. General habitat actions that will support recovery: • Improve water quality by reducing point source and diffuse pollution.

Target species or species groups	Practical actions
Hedgehog	Bespoke actions: • Creation of habitat piles or hedgehog homes. • Reduced barriers to movement through the creation of hedgehog highways between gardens, with 13cm square gaps in fences to allow movement between gardens. • Managing boundaries in a beneficial way for hedgehogs, by leaving strips of long grass or vegetation along hedges and fences or providing additional cover through planting parallel hedges. • Reduction in light pollution and litter in parks and gardens. • Increased awareness and education. General habitat actions that will support recovery: • Manage spaces in a wildlife-friendly way by leaving areas of longer grass for wildlife in gardens or reduce mowing, reducing use of pesticides and herbicides. • Create greener spaces, and more connected habitats, along existing and new streets, highways and cycleways.
European hornet	Bespoke actions: • Increased awareness raising and education. • Increased monitoring and identification of population strongholds. • Reduced nest disturbance or destruction.



Target species or species groups	Practical actions
Manchester black poplar	Bespoke actions: • Identification, safeguarding and monitoring of existing trees. • Good management of existing trees, including management of pests and diseases. • Increased planting of black poplar in the right locations, using locally appropriate source stock. • Improvement of genetic variability in newly planted trees. • Consideration of the genetic diversity of black poplar using the Forestry Reproductive Materials register and consideration of planting locations to encourage nurseries of native saplings to form.
Slow worm	Bespoke actions: • Increased awareness and education. • Identification, monitoring and safeguarding of population hotspots. • Creation of hibernation refuges or shelters. • Creation of sunny sheltered basking spots.



Target species or species groups	Practical actions
Upland bees, butterflies and moths: bilberry bumblebee, tormentil mining bee, small copper butterfly, wall butterfly, small heath butterfly, dark green fritillary butterfly, gypsy bumblebee, Manchester treble-bar moth	Bespoke actions: • Identification and monitoring of population hotspots. • Specialist habitat creation and management to ensure forage areas and nesting sites (such as south facing embankments) and bare sandy areas, where practical. • Restore sward mosaics and good variation in heath age and structure or hedgerows. • Landowner and land manager engagement and support to avoid use of pesticides, herbicides and nitrates. • Avoidance of overgrazing and recreational pressures in population hotspots, retain areas of species-rich grassland and small areas of gorse. • Prevention of wildfires. General habitat actions that will support recovery: • Encourage more diverse native vegetation and more flower-rich habitats, in appropriate places, on existing upland moorlands and heath.
Urban birds: swift, house martin, black redstart	Bespoke actions: • Increased awareness and education. • Identification, monitoring and safeguarding of existing nesting sites; these should be retained and protected wherever possible. • Installation of species-appropriate nesting boxes, such as swift bricks or boxes, house martin nesting cups. • Creation of bog gardens and areas of long grass. General habitat interventions that will support recovery: • Manage spaces in a wildlife-friendly way by leaving areas of longer grass for wildlife in gardens or reduce mowing, reducing use of pesticides and herbicides. • Support species by installing homes for wildlife on buildings.

Target species or species groups	Practical actions
Farmland birds: tree sparrow, corn bunting, linnet, yellow wagtail and yellowhammer	Bespoke actions: • Supplementary feeding stations over the winter. • Sow winter bird seed crops. • Avoid mowing or crop harvesting during periods where nests will be impacted. General habitat interventions that will support recovery: • Grow and maintain multi-species cover crops, and cut later in the year, to provide food and cover over the winter. • Set aside dedicated patches of unmanaged or uncropped areas with tall grasses, along field boundaries and margins, field corners or less productive areas, particularly where they will connect. • Install homes for birds on and around farms and rural buildings, to improve farmland species diversity. • Safeguard, manage, and restore the species diversity and structure of existing hedgerows. • Create more native hedgerows.



Photo credit: Adrian Dancy

Target species or species groups	Practical actions
Grassland fungi: pink waxcap, jubilee waxcap, oliver earthtongue, powdercap strangler, violet coral	Bespoke actions: • Identification, safeguarding and monitoring of important remaining sites. • Landowner and land manager engagement and support. General habitat interventions that will support recovery: • Enhance and appropriately manage remaining semi-natural grasslands to good condition, including avoiding use of pesticides, herbicides and nitrates and appropriate grazing and livestock management. • Showcase successful grassland management and encourage awareness of the value of our remaining semi-natural grassland.
Migratory fish: atlantic salmon, european eel	Bespoke actions: • Maintain and encourage in-river plant communities and remove high-impact invasive species. • Encourage more natural river geomorphology that will deliver a mixture of water speeds (areas of slower and faster flow) and riverbed substrates with improved habitat quality for known spawning grounds (areas of pools, riffles and refugia). • Create a fish migration map to highlight bottlenecks and raise awareness of areas impacting these species. • Avoid impacting White Clawed Crayfish. General habitat interventions that will support recovery: • Improve mobility (restoring migratory pathways upstream) by removing barriers such as weirs, daylighting buried or covered waterbodies or installing by-pass structures, where feasible. • Improve water quality by reducing point source and diffuse pollution.

Target species or species groups	Practical actions
Grassland ground nesting birds: curlew, lapwing, twite, skylark, golden plover, dunlin, snipe	Bespoke actions: • Identification, safeguarding and monitoring of nesting sites. • Protection of nesting sites from predators, livestock and human disturbance using fencing, signage or other exclusion methods or predator management. • Safeguarding and appropriate management of foraging sites. • Landowner, land manager and public awareness, engagement and support. General habitat interventions that will support recovery: • Encourage more diverse native vegetation and more flower-rich habitats, in appropriate places. • Improve wildfire risk management by creating natural fire breaks and boosting awareness.
Brownfield insects: dingy skipper, common blue, trifurcula cryptella	Bespoke actions: • Identification and monitoring of important sites. • Landowner and land manager engagement and support.
Mossland insects: large heath, crambus hamella, gelechia cuneatella, glyphipterix haworthana, lampronia fuscata, large red-belted clearwing, monochroa suffusella, phiaris schulziana, purple-bordered gold	Bespoke actions: • Identification, safeguarding and monitoring of important remaining sites. • Specialist habitat creation and management to ensure good availability of flower-rich areas as pollen and nectar sources, forage areas and nesting sites. • Landowner and land manager engagement and support. • Appropriate grazing and livestock management. General habitat interventions that will support recovery: • Encourage more diverse native vegetation and more flower-rich habitats, in appropriate places. • Manage land at lower intensity and with low inputs, reduce herbicide, pesticide use and minimise use of nutrients.

Reintroductions

Alongside prioritising action to help vulnerable species, there is public interest in the reintroduction of lost species. In a public survey of priorities for this strategy, the reintroduction of lost species was the second most requested action for species (see [appendix 5](#)).

Reintroductions are possible in urban areas. For example, over the last decade the Greater Manchester Wetland Partnership have successfully reintroduced the Manchester argus butterfly (large heath butterfly) at Astley Moss in Wigan and are working towards further species reintroductions. Based on responses to the public survey the most popular species for local reintroduction is the beaver. Alongside beavers, other popular candidates for reintroduction included the red squirrel, pine marten and large birds of prey such as the red kite or hen harrier.

- **Beaver:** Reintroductions of beavers have taken place in several locations, some nearby to Greater Manchester, including at the Hatchmere Nature Reserve in Cheshire, Willington Wetland Nature Reserve in Derbyshire, and Cors Dyfi Nature Reserve in Powys. The development of a reintroduction group, concerted landowner engagement and the identification of viable reintroduction sites would all be key actions on the journey to reintroduce this species.
- **Birds of prey:** The reintroduction of large birds of prey species such as the red kite have been successfully undertaken in Leeds, Oxfordshire, Gateshead and Cumbria over the last 20 years. Based on records of red kite sightings since the initial reintroductions in Yorkshire, Cumbria and Gateshead, populations of red kite have successfully expanded across northern England and should eventually reach Greater Manchester. The development of a supportive reintroduction

group for large birds of prey to track and monitor progress, as well as public and landowner engagement and education, could help to ensure the successful return of species to Greater Manchester.

- **Pine marten:** Pine martens are not currently thought to be present in Greater Manchester. Initial translocation and release projects are underway in the UK to boost remaining remnant population in Wales and the creation of a new population nearby in the Forest of Dean. Pine martens are thought to be slowly naturally recolonising northern England from existing Scottish populations, with sightings in Kielder Forest, Northumberland and the North York Moors over recent years. Action now to boost the size, condition and connection between our woodlands will help future recovery efforts, either through reintroduction or natural recolonisation.
- **Red squirrel:** Significant populations of grey squirrel across the city-region mean that a reintroduction of red squirrels would be unlikely to be successful due to the high risk of squirrel pox transfer from grey to red squirrels. For a reintroduction to be considered in the future, grey squirrel populations would have to undergo significant population management.

Species reintroductions can come with unintended risks to existing ecosystems, so should be deployed sensitively and appropriately, in line with the principles for habitat enhancement, restoration, and creation.





DELIVERY: HOW YOU CAN DELIVER ON THE STRATEGY

Introduction

Why nature matters for
Greater Manchester

Nature in Greater
Manchester:
Where are we now?

Vision and targets:
Where do we need to get to?

Nature Network:
Where is best for nature?

Priorities and actions:
What do we need to do?

Delivery:
**How you can deliver
on the strategy**

Acknowledgements

List of appendices

References and notes

Who can do what?

We want this strategy to inspire everyone across Greater Manchester to take action to help nature's recovery. The priorities and actions set out how we can best help nature recovery across Greater Manchester. The Nature Network highlights where the best opportunities are to enhance and connect our protected sites and support species movement between these.

We encourage everyone to use the priorities, actions and Nature Network to inform how they respond to the biodiversity emergency. Even the smallest actions – at home and in our local communities – can add up to make a big difference and make space for nature in every community. Larger initiatives can have a transformational impact, providing space at a landscape-scale for nature to recover.

What each of us can do will vary – we all have different ways we can support the implementation of the strategy. We suggest on the following pages how different groups could best contribute to the delivery of the strategy.

A delivery options document will also be produced to sit alongside the strategy in 2025 and 2026.



Landowners, farmers and land managers:

Why?

Those who own and/or manage land in Greater Manchester can make a significant contribution to nature recovery across the city-region, particularly those responsible for agricultural land (32% of Greater Manchester), amenity spaces (19%) and transport infrastructure, like roads and railways (13%). This land might be used for another primary purpose – such as growing food, providing transport routes or providing space for leisure activities or for people to enjoy – but with opportunity to provide more space for nature alongside this. Supporting nature does not necessarily mean a change in land use but simply taking action for nature alongside existing land uses.

How?

Landowners, farmers and land managers can use the strategy to:

- Understand how their land fits within the Nature Network.
- Understand where opportunities to do something significant for nature recovery are located.
- Identify what the best action to carry out on their land could be.
- Inform and support applications for funding and delivery of projects on their land.

It is important to note that actions identified in the strategy or mapped in the Nature Network do not rule out landowners, farmers and land managers from taking other actions. No strategy can replace the knowledge that landowners, farmers and growers have of their land and the nature it supports. The strategy is high level and intended to support the decisions of landowners, farmers and land managers, not prescribe action.

What?

Landowners, farmers and land managers could take action by:

- Applying for agri-environment payment schemes and seeking farm advice that supports the creation or restoration of habitat on their land.
- Engaging with environmental organisations, government agencies and other stakeholders on nature recovery options on their land, nature friendly farming initiatives and exchanging knowledge.
- Collaborating on environmental projects and other nature recovery initiatives across the city-region.
- Considering the habitat priorities and actions and undertaking management planning to decide which could work best for their business.
- Identifying whether any priority species or species group are present on their land and considering whether action could be taken to support them.
- Adopting nature friendly land management practices.



Developers and planners:

Why?

There are plans to build over 175,000⁴¹ homes over the next decade and a half within the nine local authorities⁴² part of the Places for Everyone Joint Development Plan, as part of a wider strategy to bring forward development at a scale which can drive transformational change across the city-region and play a role in delivering on the ambitions for a Nature Network⁴³. Future growth and development of the city-region will rely on a healthy natural environment and provides an opportunity to fully integrate nature into plans for how we grow and develop the city-region.

How?

Under the Environment Act 2021, local planning authorities and decision-makers must have regard to this LNRS in their policies and Local Plans.

Developers and planners can use the strategy to:

- Inform the preparation of Local Plans, including the identification, mapping and safeguarding of areas for nature recovery as required under national planning policy guidance.
- Inform the selection, master planning and design of development sites.
- Determine where habitat creation or enhancement for BNG will be of 'high strategic significance'.
- Support the integration of nature into the planning and development process.
- Understand how development sites fit within the Nature Network and can impact upon and contribute to broader nature recovery efforts across the city-region.

- Identify key actions that would help deliver for nature alongside the development of the land.
- Guide where off-site BNG sites can contribute to broader nature recovery efforts across the city-region.

What?

Planners and developers could take action by:

- Embedding the vision, aims, targets, priorities and action of the LNRS into planning policies and guidance documents, including Local Plans and action plans, to ensure that development decisions prioritise biodiversity, habitat restoration and green space provision.
- Incorporating nature recovery into development, infrastructure and regeneration plans and maximising their opportunities to create greener, healthier more resilient spaces for people to live and work.
- Using the priorities, actions and Nature Network to identify opportunities to do more for nature and ensuring development and regeneration projects contribute to larger, better connected and better managed nature-rich spaces.
- Identifying and prioritising areas for habitat creation, enhancement in planning and master planning process.
- Collaborating and engaging proactively with environmental NGOs, communities and other stakeholders on nature recovery and the creation of nature-rich healthy environments for residents to live and work in.



Businesses:

Why?

With over 100,000 businesses across Greater Manchester, there is huge potential for commercial organisations to make a significant contribution to nature recovery. Nature is good for business and the LNRS aims to inspire businesses to support nature recovery. There are multiple benefits for businesses from a healthy natural environment – including better staff performance, attendance and retention.

By supporting nature recovery, business premises can benefit from features such as green walls and green roofs – reducing energy use and providing natural cooling. Installing SuDS such as raingardens near businesses can reduce the risk of flooding⁴⁴. Investing in nature can also help employee retention, wellbeing and productivity, as well as beneficial marketability if nature is incorporated into the workplace.

How?

Businesses and other organisations can use the strategy to:

- Understand how their activities and plans fit within the local environment and what the key priorities and actions for nature are in their local area.
- Inform their own corporate plans and contribution to nature recovery.
- Use the Nature Network to understand where opportunities to do something significant for nature recovery are located and what the best action to take would be.
- Inform corporate social responsibility efforts and corporate donations.

What?

Businesses could take action by:

- Using the strategy to understand the priorities and action for nature recovery across Greater Manchester that businesses could get involved with.
- Embedding nature-friendly practices into business operations and plans, to reduce impact on nature.
- Taking action to enhance or maintain habitats on their own land and supporting species (e.g. by installing swift brick or boxes on their buildings).
- Supporting or investing in local nature recovery projects in their local area.
- Getting involved with local nature organisations, environmental NGOs and community groups working to implement the LNRS, through providing staff time, skills/tech support or funding.
- Aligning corporate social responsibility efforts and corporate donations with the LNRS.
- Create or enhance green space or raingardens on their premises, involving the local community.
- Support community-led projects in the local area that deliver nature recovery.

Community groups and volunteers:

Why?

Community groups and volunteers across Greater Manchester are already at the forefront of action to help nature recover. The work they do can be incredibly varied from alleyway greening projects to entire community groups coming together to deliver large scale projects. They are often the local experts on the places and species that are most important in their local area and take ownership of their local green and blue spaces. In coming together to improve their local natural environment, they bring people together to help them connect with nature, strengthen the community and improve the places where they live. This has wider benefits for people's health and wellbeing, adds value to local spaces, as well as providing spaces for nature in people's communities. They also help to coordinate volunteers and can build people's skills and confidence, with much wider social and economic benefits for the city-region. Greater Manchester has a growing network of community groups taking action for nature and connecting with their local environment.

How?

Community groups can use the strategy to:

- Understand how their local area (e.g. green spaces) links into the wider aspirations for a Greater Manchester Nature Network.
- Understand how their efforts support local nature recovery.
- Inform other actions they could carry out in their local community.
- Raise awareness of the importance of nature and encourage more people to join their group.

- Support applications for funding and delivery of projects.
- Understand where there are nearby opportunities to boost ecological connectivity across the city-region.

What?

Community groups are already vital to nature recovery and could take even more action by:

- Using the Nature Network maps to inform new project development and initiatives.
- Championing nature recovery in their local areas and beyond.
- Partnering with local schools, community centres, local businesses, local authorities, landowners and organisations to engage more people with nature recovery, hosting workshops and educational programmes or outreach activities.
- Linking up with other local community and environmental groups and share knowledge, skills and expertise.
- Assessing their community spaces to understand which of the priorities and actions that they could contribute towards.
- Initiating more community-led projects to pursue and exploring funding opportunities.
- Monitoring biodiversity, through contributing to established local (GMLRC) and nationwide initiatives, and participating in citizen science activities (such as bio-blitzes).
- Helping set up more local community nature recovery groups.



Environmental charities and partnerships:

Why?

Environmental charities (or NGOs) and partnerships, such as the Great Manchester Wetlands Partnership, the Great North Bog Partnership and the Catchment Partnerships, are already undertaking crucial work to help wildlife bounce back and empower communities and landowners to take action. These organisations are at the forefront of driving forward action for nature across the city-region, helping to bring forward new projects and initiatives to restore habitats, reintroduce species and work with local communities.

Many of these environmental charities and partnerships have been closely involved in development of this strategy and will be pivotal in shaping future iterations. Working with GMCA, the LNRS has provided environmental charities and partnerships with a chance to set out agreed targets, priorities and actions for nature recovery across Greater Manchester, and set out a landscape-scale approach through the nature-network.

How?

Environmental charities and partnerships can use this strategy to:

- Leverage and target funding and investment towards the Nature Network.
- Build collaborative projects and coordinate action.
- Inform their priorities and actions.
- Understand how their work contributes to wider local nature recovery efforts across the city-region.
- Work with and engage communities, businesses, local authorities and landowners.

- Raise awareness of the importance of nature recovery, and encourage landowners, businesses, developers and community groups to collaborate on nature recovery projects.

What?

Environmental charities and partnership are already vital to nature recovery and could take even more action by:

- Using the Nature Network maps to inform new project development and initiatives.
- Using the priorities and actions to understand the best actions to take.
- Providing and using funding and grants to support habitat enhancement and restoration projects.
- Leading nature restoration projects that meet the priorities and actions set out in the strategy.
- Working with policy makers and commercial organisations to promote the adoption and uptake of nature-friendly policies and practices.
- Raising awareness, engage and educate local communities, businesses, residents and other organisations regarding nature recovery and the importance of the strategy.
- Collaborating with local authorities, local community groups, public bodies, landowners and other organisations to develop nature recovery initiatives and plans and help to facilitate partnerships between different stakeholders to join forces on nature recovery.
- Advocating for the delivery of the LNRS.

Schools, health facilities and other local institutions:

Why?

Organisations and institutions like the NHS, schools and other local institutions such as universities are often significant landowners and managers, with large estates and campuses which could become assets for nature and people to enjoy. For organisations like the NHS, schools and universities, promoting the health benefits of spending time in nature and integrating nature into estates can help to boost the wellbeing of patients and students, improve recovery times and learning outcomes, as well as wider mental health and wellbeing benefits.

How?

Schools, health facilities and other local institutions can use this strategy to:

- Inform how they create or enhance green space or gardens on their premises, such as a therapeutic or sensory gardens.
- To build and inspire nature based educational or health programmes, such as green social prescribing programmes.
- Understand how their work contributes to wider local nature recovery efforts across the city-region.
- Inform how they could change the management of their green estate to benefit nature.
- Engage local communities with action for nature on their estates.

What?

Schools, health facilities and other local institutions could take action by:

- Understanding the priorities and action for nature recovery they could get involved with.
- Embedding nature-friendly practices into their operations and estates management.
- Taking action to enhance or maintain habitats on their own land and supporting species (e.g. by installing swift brick or boxes on their buildings).
- Supporting or investing in local nature recovery projects in their local area.
- Getting involved with local nature organisation, environmental NGOs and community groups working to implement the LNRS, through providing staff time, skills/tech support or funding.
- Providing funding and grants to support habitat enhancement and restoration projects.
- Linking up with other local community and environmental groups and share knowledge, skills and expertise.



Residents:

Why?

With a population of nearly three million people, Greater Manchester's residents carry huge potential to contribute to nature recovery. Private gardens – which make up around 15% of total land use in the city-region – are ideal spaces to take action. Yards, balconies and alleyways can also be greened and act as valuable space for nature, particularly pollinators. Working together with neighbours and the local community can help improve bigger areas and support initiatives to improve a variety of spaces for nature across neighbourhoods.

How?

Residents can use the strategy to:

- Understand what they can do to take action for nature or expand on existing activities.
- Understand how their local natural environment (e.g. green spaces) fits within the Nature Network and wider nature recovery efforts.
- Raise awareness with neighbours and local communities.

What?

Residents could take action by:

- Getting involved in local community initiatives to support nature's recovery or local conservation projects such as habitat restoration, tree planting, litter clean-up events, invasive species control and citizen science programmes.
- Researching and getting involved in environmental volunteering opportunities in their local area.
- Taking steps to benefit nature in your own space by creating a nature-friendly yard, balcony or garden.
- Setting up a local group to support nature recovery, if one does not already exist.
- Participating in biodiversity monitoring programmes, such as citizen science surveys or bioblitz events, to collect data on local species and habitats.
- Following responsible recreational practice, e.g. following the countryside code.
- Taking part in environmental workshops and training sessions.
- Championing nature recovery and raising awareness with neighbours and local community groups.



Enabling Factors: What more do we need to be successful?

There are several enabling factors that will be crucial to the delivery of the strategy by a wide range of stakeholders.

These include:

- Funding.
- Collaboration.
- Working with volunteers and communities.
- Recording and monitoring.
- Behavioural change.
- Skills and training.
- Integration.
- Communication and education.

Funding

Delivering the priorities in this strategy will require funding. To do this, we need to maximise the extent and impact of any public funding in the city-region. However, given the scale of action required, nature recovery cannot be achieved through public funding alone (such as agricultural environment schemes and grant funding), and accessing private finance will be crucial. Integrated approaches for ambitions like water quality improvement, flood risk reduction and benefits for nature and people, will need to make the most effective use of public money.

To maximise private funding, we all need to:

- Develop business models to facilitate other sources of funding, focussing on initiatives such as off-site BNG and carbon offsetting, particularly through private finance.
- Continue to develop and implement policies locally that incentivise funding into the natural environment and lobby for national policy change.

Collaboration and partnerships

Delivering on nature recovery is a shared responsibility that requires coordinated efforts from a wide variety of stakeholders. There is a strong record of private, public and voluntary/ community/faith and social enterprise (VCSFE) sectors working together to deliver improvements to the natural environment. This spans from the strategic city-region wide partnerships like the Greater Manchester Local Nature Partnership, to partnerships on specific projects and in particular locations. To maximise collaboration and partnership approaches we all need to:

- Deepen and strengthen partnerships across Greater Manchester to deliver this strategy.
- Develop new partnerships and networks between existing groups and partners and between sectors.



Volunteers and communities

Volunteers and community action groups are already at the forefront of supporting nature across Greater Manchester. They will play an essential role in the delivery of the strategy. Volunteers across the city-region are already involved in a wide range of projects, such as litter clean-ups and alley greening projects, bio-blitz and species recording, tree-planting and habitat management and much more. To maximise the role of volunteers and community groups, we all need to:

- Encourage and build awareness of volunteering opportunities across the city-region.
- Support volunteer groups and celebrate their contributions and successes.
- Develop volunteer and community networks to empower, share knowledge and upskill.
- Provide more opportunities to volunteer.



Skills and capacity

Delivering the strategy will require a range of jobs and skills across a range of sectors, including:

- Practical habitat creation, restoration and management work.
- Integrating the natural environment into a range of other sectors, including housing development, infrastructure planning, engineering, development and healthcare.
- Communication, engagement and marketing to inform and engage residents and organisations with nature recovery.
- Developing knowledge of the natural environment across a range of sectors to support delivery, such as financial and legal sectors.
- More training opportunities and apprenticeships.

Recording and monitoring

Species recorders and those that regularly contribute to citizen science projects and wildlife monitoring initiatives play a vital role in helping us to understand and monitor the state of nature across Greater Manchester. To maximise the role of recorders we all need to:

- Maintain a robust system of wildlife recording and data sharing, led by the Local Environmental Records Centre (LERC).
- Get more people involved and trained in recording species and habitat data.



Behavioural change

With over 2.8 million residents across the city-region, encouraging behavioural change and maximising the positive role of residents will be key to driving forward nature recovery efforts. To maximise behavioural change, we all need to:

- Build awareness of the biodiversity emergency.
- Encourage more positive interactions with nature.
- Reduce impacts on nature through making small scale decisions that will collectively have a positive impact, including: nature-friendly gardening, reducing littering and pollution, creating space for nature, being mindful of recreational disturbance.

Integration

Driving nature recovery forward across the city-region will require action across a huge range of sectors. To be successful, the LNRS must be embedded across a range of sectors, policies and decision-making areas, it should not sit separately. To embed nature recovery, we all need to:

- Raise awareness of the wider socio-economic benefits of nature for residents and businesses.
- Demonstrate how nature can add value to the growth of the city-region and bring about the co-benefits to further the agenda of multiple policy areas.

Communication and awareness

Connecting people with nature and helping people to understand the natural environment is vital to encourage support and action. To raise awareness, we all need to:

- Encourage people to spend time in nature and engage with nature.
- Build greater awareness via information sharing, events, campaigns, programmes in schools and online resources.



Monitoring: How will we know if we're successful?

Over the next ten years, monitoring the delivery of the targets and ambitions in this strategy will be crucial in understanding our progress in tackling the biodiversity emergency. A monitoring framework will be set up to enable us to track progress towards some of the most important elements of this strategy. [Appendix 8](#) set out how we have developed the headline targets in the strategy and provides an initial outline of how these targets will be monitored.

GMCA will set up a monitoring framework on the delivery of the strategy as part of the Natural Capital Group (our Local Nature Partnership) and work with the Greater Manchester Ecology Unit and partner organisations to monitor progress on this strategy. Annual updates will be produced to report on progress against the targets and delivery of the strategy.



Photo credit: Adrian Dancy



ACKNOWLEDGEMENTS



Introduction

Why nature matters for
Greater Manchester

Nature in Greater
Manchester:
Where are we now?

Vision and targets:
Where do we need to get to?

Nature Network:
Where is best for nature?

Priorities and actions:
What do we need to do?

Delivery:
How you can deliver
on the strategy

Acknowledgements

List of appendices

References and notes

GMCA would like to thank all of the organisations that contributed to the preparation of this strategy, as well as the many other organisations and people who contributed via events, workshops, surveys or the public consultation.

We would particularly like to thank the contributions made by those in our:

Steering Group:

- Canal and River Trust
- City of Trees
- Environment Agency
- Envance
- Forestry Commission
- Greater Manchester Ecology Unit
- Groundwork Greater Manchester
- Irwell Catchment Partnership
- Lancashire Wildlife Trust
- Lower Mersey Catchment Partnership
- Mersey Rivers Trust
- National Farmers Union
- National Trust
- Natural England
- NHS Greater Manchester

- Peak District National Park Authority
- Royal Horticultural Society
- Southway Housing
- Transport for Greater Manchester
- United Utilities
- University of Manchester
- Upper Mersey Catchment Partnership
- Wigan Metropolitan Borough Council (on behalf of the Officers Group below)

Officers Group:

- Bolton Metropolitan Borough Council
- Bury Metropolitan Borough Council
- Manchester City Council
- Oldham Metropolitan Borough Council
- Rochdale Metropolitan Borough Council
- Salford City Council
- Stockport Metropolitan Borough Council
- Tameside Metropolitan Borough Council
- Trafford Council
- Wigan Metropolitan Borough Council
- Greater Manchester Ecology Unit
- Natural England

Species Expert Advisory Group:

- David Earl, GM, Lancashire and North Merseyside County Recorder, BSBI
- Gary Hedges, Liverpool Museum
- John Harrison, Assistant Vice County Recorder, South Lancashire Bat Group
- Steve Hindle, National Trust Grassland Fungi Project Officer
- Karen McCartney, County Recorder for Aculeate Hymenoptera for Greater Manchester, BWARS
- Kevin Nash, the Environment Agency
- Lorna Drake, Species and Protected Sites Senior Officer for Cheshire to Lancashire, Natural England
- Martyn Walker, Lancashire Wildlife Trust
- Paul Barrington, Greater Manchester Ecology Unit
- Stephen Palmer, Lancashire Vice County Recorder, Lancashire Moths
- Steve Atkins, Assistant County Bird Recorder Greater Manchester
- Stuart Fraser, Greater Manchester Ecology Unit
- Tony Parker, Cheshire, Merseyside, Lancashire, Greater Manchester Mammal Recorder, Mammal Society



LIST OF APPENDICES

Introduction

Why nature matters for
Greater Manchester

Nature in Greater
Manchester:
Where are we now?

Vision and targets:
Where do we need to get to?

Nature Network:
Where is best for nature?

Priorities and actions:
What do we need to do?

Delivery:
How you can deliver
on the strategy

Acknowledgements

List of appendices

References and notes

- **Appendix 1.**
Relationship between the Greater Manchester Local Nature Recovery Strategy and other Greater Manchester policies and strategies
- **Appendix 2.**
Methodological Statement – Evidence and processes used in preparing the Greater Manchester Local Nature Recovery Strategy
 - Appendix 2a. The processes and evidence used to develop habitat priorities and actions
 - Appendix 2b. The processes and evidence involved in developing the target species and actions
 - Appendix 2c. The processes and key steps undertaken in mapping the Nature Network
 - Appendix 2d. Long List Species
- **Appendix 3.**
Greater Manchester State of Nature Report
- **Appendix 4.**
Stakeholder engagement undertaken
- **Appendix 5.**
Plan for Nature Survey Report
- **Appendix 6.**
Detailed description of Greater Manchester landscapes and habitats
- **Appendix 7.**
Overview of the headline targets developed
- **Appendix 8.**
Habitat Priorities and Actions

A photograph of two women in a garden. The woman on the left, seen from the back, has short reddish-brown hair and wears a light blue blazer with a gold chain necklace. The woman on the right has blonde hair and wears a blue polo shirt; she is smiling and holding a long green bean. They are standing in front of a green metal fence with plants growing on it.

REFERENCES AND NOTES

Introduction

Why nature matters for
Greater Manchester

Nature in Greater
Manchester:
Where are we now?

Vision and targets:
Where do we need to get to?

Nature Network:
Where is best for nature?

Priorities and actions:
What do we need to do?

Delivery:
How you can deliver
on the strategy

Acknowledgements

List of appendices

References and notes

- ¹ **Lamont and Hinson. (2024).** A narrative review of reviews of nature exposure and human health and wellbeing in the UK. Natural England. Available on the [Natural England Access to Evidence website](#).
- ² **Natural England. (2020).** Managing Ecosystem Services Evidence Review (Formerly Ecosystem Services Transfer Toolkit). Available on the [Natural England Access to Evidence website](#).
- ³ The **Living Planet Index (LPI)** is a measure of the state of the world's biological diversity, based on average percentage change in population sizes of vertebrate species from terrestrial, freshwater and marine habitats. The LPI is adopted by the UN Convention of Biological Diversity as an indicator of progress. The Living Planet Index is one indicator among many which demonstrates the global decline in our biodiversity. Available on the [Living Planet Index website](#).
- ⁴ **The State of Nature Partnership. (2023).** State of Nature 2023. Available on the [State of Nature Partnership website](#).
- ⁵ **GMCA. (2024).** Greater Manchester State of Nature Report. Available on the [GMCA website and appendix 3](#).
- ⁶ **GMCA and the Environment Agency. (2021).** The natural capital approach in Greater Manchester. Available on the [GM Green City website](#).
- ⁷ **Pimm et al. (1995).** The Future of Biodiversity. Science, 269, 5222. Available on the [Science.org website](#).
- ⁸ **De Vos et al. (2015).** Estimating the normal background rate of species extinction. Conservation Biology. 29, 2. Available on the [pubmed website](#).
- ⁹ **England's Biodiversity Indicators 2020** report on changes in the relative abundance of priority species populations (species of conservation concern) in the UK. Available on the [gov.uk website](#).
- ¹⁰ The **Biodiversity Intactness Index** is produced by the National History Museum. Available on the [National History Museum](#).
- ¹¹ **The State of Nature Partnership. (2019).** UK State of Nature Report 2019. Available on the [State of Nature Partnership website](#).
- ¹² **Natural England. (2009-2019).** Monitor of Engagement with the Natural Environment, Natural England 2009-2019. Data reported is the average for Greater Manchester respondents over the 10 years between 2009-2019.
- ¹³ **GMCA. (2021).** Nature Recovery Survey, GM Consult. Available on the [GM Consult website](#).
- ¹⁴ **The Ramblers' Association. (2021).** The grass isn't greener for everyone: Why access to green space matters, Ramblers. Available on the [Ramblers' Association website](#).

The Ramblers' Association report shows that the richest 20% of areas in England have 5 times the green space of the most deprived areas.

- ¹⁵ **Lindley et al. (2020)**. Nature and Ageing Well in Towns and Cities: Why the natural environment matters for healthy ageing. Available on the [GHIA website](#).
- ¹⁶ **GMCA. (2023)**. Greater Manchester residents' survey main report. Available on the [GMCA website](#).
- ¹⁷ **GMCA. (2024)**. Plan for Nature Survey. GM Consult. Available on the [GM Consult website](#). For a review of the results of the survey please see [appendix 4](#).
- ¹⁸ **Irreplaceable habitats for the LNRS** are those set out in the Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024. Available on the [Legislation.gov website](#).
- ¹⁹ **British Trust for Ornithology. (c1980 and c2010)**. Breeding Bird Survey (Bird Atlas) c1980 & c2010 Data. Available on the [British Trust for Ornithology website](#).
- ²⁰ **British Trust for Ornithology. (c1990 and c2021)**. British Trust for Ornithology Mammal Survey Data. Available on the [British Trust for Ornithology website](#).
- ²¹ **Natural England Green Infrastructure Framework** – Principles and Standards for England. Available on [Natural England Green Infrastructure Standards website](#).
- ²² **Greater Manchester Combined Authority** internal analysis completed using data from [Natural England ANGST standard maps](#) and [Office for National Statistics population estimates](#).
- ²³ **Manchester Metropolitan University. (2016)**. Research Summary – My Back Yard. Overview available on the [Manchester Metropolitan University website](#).
- ²⁴ **City of Trees. (2020)**. All our Trees – Greater Manchester's Tree and Woodland Strategy. Available on the [City of Trees website](#).
- ²⁵ **GMCA. (2023)**. Greater Manchester's Natural Environment, NE1: Plant one million trees by 2024. Available on the [City of Trees website](#).
- ²⁶ **Red Rose Forest. (RRF)** was one of twelve community forests established in England in 1991 as part of the then government's drive to support the regeneration of urban areas by increasing tree cover and enhancing degraded landscapes.
- ²⁷ **Lancashire Wildlife Trust. (2021)**. Briefing note: Great Manchester Wetlands NIA Partnership. Available on the [Lancashire Wildlife Trust website](#).

- ²⁸ **Smart et al. (2020)**. England Peat Strategy: Greater Manchester Peat Pilot Report for Defra. Natural England. Available on the [GM Green City website](#).
- ²⁹ Explanations about different types of semi-natural grasslands. Available on the [Wildlife Trust website](#).
- ³⁰ **GMCA. (2024)**. Greater Manchester Climate Change Risk Assessment. Available on the [GMCA website](#).
- ³¹ **GMCA. (2023)**. River Tame INNS Survey 2023. Available on the [Natural Course Website](#). Greater Manchester Combined Authority (2022) River Irwell INNS Survey (2022). Available on the [Natural Course Website](#).
- ³² **Lawton et al. (2010)**. Making Space for Nature: a review of England's wildlife sites and ecological network. Report to Defra. Available on the [National Archives website](#).
- ³³ These core local nature sites and the nature recovery opportunity areas together form the Local Habitat Map for the Greater Manchester LNRS in relation to the national LNRS statutory guidance and regulations.
- ³⁴ The ecosystem service heatmap displayed is derived from the EcoservR capacity dataset, a tool for mapping natural capital assets and ecosystem services developed at Liverpool John Moors University in collaboration with Natural Capital Solutions, Forest Research and Cheshire Wildlife Trust. More information available on the [EcoservR website](#).
- ³⁵ The criteria used to select actions to be mapped are set out in [appendix 2](#) and mapped measures listed.
- ³⁶ A series of datasets were combined to identify hotspots where the delivery of urban priorities and actions would be particularly beneficial. These included the Natural England's Greenness Grid which was used to identify areas with a high percentage manmade (grey) land cover (greater than 75% of a 200m grid square) using the Office for National Statistics Indices of Multiple Deprivation (IMD) areas which was used to identify the 10% and 20% most deprived areas of Greater Manchester (IMD 1 or 2). These two datasets were combined to identify the most densely urban areas and those with the highest levels of deprivation, as a proxy for those most in need of greenspace. The Natural England Access to Natural Green Spaces dataset was then used to further refine down these areas and identify only those that were also distant from 0.5ha and 2ha green spaces (not within the 'Doorstep' or 'Local' ANGSt standards).
- ³⁷ **IGNITION. (2023)**. The IGNITION Project: A baseline for nature-based solutions. The IGNITION Project. Available on the [GM Green City website](#).
- ³⁸ National guidance on the urban greening factor is available from the National Green Infrastructure Standards. This guidance includes a calculative approach to identifying and assessing whether developments have achieved the national standards. Available on the [Natural England Green Infrastructure Standards website](#).

³⁹ **Defra. (2021)**. The England Trees Action Plan (2021-2024). Available on the [gov.uk website](#).

⁴⁰ More information about national red listed species is available on the [JNCC website](#).

⁴¹ **GMCA. (2023)**. Places for Everyone, as adopted in March 2024. Available on the [GMCA website](#).

⁴² For Stockport further growth aspirations will be outlined through a separate Local Plan for Stockport.

⁴³ **GMCA. (2023)**. Greater Manchester Growth Locations. Available on the [GMCA website](#).

⁴⁴ **GMCA, UKGBC and Business for the Community. (2020)**. Nature-based solutions to the climate emergency. The benefits to business and society. Available on the [UKGBC website](#).