Cheshire & Warrington

Local Nature Recovery Strategy

> **"We want to mainstream nature's recovery into all decisions and activities so that nature, people and businesses thrive."**

Foreword from Councillor Louise Gittins, Leader, Cheshire West and Chester Council

As the Responsible Authority required to develop and produce the Cheshire & Warrington Local Nature Recovery Strategy, Cheshire West and Chester Council is honoured to lead this process for the county on behalf of Cheshire East, Warrington Borough Council and the Peak District National Park Authority, with support from Natural England, the Environment Agency and Forestry Commission.

We are grateful to Cheshire Local Nature Partnership, our supporting authorities, residents, communities, and businesses who have helped us produce this strategy over the past 12 months.

The purpose of our Local Nature Recovery Strategy is to urgently halt nature's decline and ensure its recovery across the county and positively contribute to the Nature Recovery Network for England. Our Local Nature Recovery Strategy outlines the priorities, actions and maps we all need to guide our projects, decisions and where resources should be targeted.

All three council's decisions to declare a Climate Emergency demonstrate the combined commitment to repair the natural world and combat climate change. Cheshire's Local Nature Partnership (LNP) will be developing an action plan so that we can all work together to deliver the priorities and actions set out here.

Investing in nature can make business more effective and sustainable, help places become more climate resilient, act as a focus for quality placemaking, build stronger communities, improve people's health and wellbeing.

To complement new initiatives and more joined up activities, work will continue on many landscape scale projects already being led by Local Nature Partnership members. These include Lindow Moss, Networks for Nature, Coronation Meadows and the Bollin Landscape Recovery Project. This Strategy will play an important role in developing future projects like these, together with co-ordinating work to invest in nature across our landscape for years to come.

To promote and recognise positive action, we are launching the annual Wilder Cheshire Awards to celebrate the efforts of so many individuals, businesses, farmers, landowners and community groups who are making a difference to create a more nature-friendly Cheshire.

This is not just a strategy that contains ambition and aspirations, it also has detailed examples of practical things we can do marked with the symbol you see below. I look forward to us all rolling up our sleeves and working together to protect and safeguard the wildlife, habitats and natural spaces we love, cherish and rely on here in Cheshire and Warrington.

Foreword from Councillor Hitesh Patel, Lead Member for Climate Change, Sustainability and the Environment, Warrington Borough Council

Warrington Borough Council are proud to have worked alongside responsible authority Cheshire West and Chester Council, Cheshire East Council and the Peak District National Park Authority in the development of the Cheshire & Warrington Local Nature Recovery Strategy, supported by Natural England, the Environment Agency and the Forestry Commission.

In 2019, Warrington Borough Council declared a climate emergency and made a commitment to take action. Understanding that the global climate crisis has an important local dimension, this commitment made clear that we must all do our bit to limit our impact and ensure we are prepared for the effects. The Warrington Climate Emergency Commission was set up shortly after, to advise the council on its climate commitments and lead the borough-wide conversation on climate change.

At Warrington Borough Council, our goal is to be net-zero within our own operations by 2030. To meet our objective, we must rapidly decarbonise our activities, including the way in which we heat and power our built infrastructure, the way we travel to work and the resources which we consume daily. A new climate change team was established in 2021 to move forward with achieving these goals and developing a Climate Emergency Action Plan, which was adopted in May 2023.

A key component of Warrington Borough Council's commitment to change and taking effective action will be realised though the Local Nature Recovery Strategy for Cheshire & Warrington. The strategy identifies the priorities, measures and locations for nature recovery within Cheshire and Warrington over the next decade and aims to improve ecological networks, targeting investment in nature as part of the process of climate change adaptation.

As a member of Cheshire's Local Nature Partnership, Warrington Borough Council will take a leading role in developing an action plan to deliver these priorities and measures, as the strategy is taken forward.

As nature knows no boundaries, it is imperative that the spirit of cooperative working continues to thrive across Cheshire and Warrington, and that the scope of projects relating to wildlife, habitats and wider ecological networks are not limited to individual boroughs. We all hold a shared responsibility in protecting our natural world, and the Local Nature Recovery Strategy provides the blueprint to turn words into action, providing natural solutions for climate change adaptation. By working together alongside landowners, local communities and the future generations of environmentalists, we will ensure a healthy and resilient natural environment which can be enjoyed by all.

> **"At Warrington Borough Council, our goal is to be net zero within our own operations by 2030."**

Foreword from Councillor Nick Mannion, Leader, Cheshire East Council

"Our resolution to this important work is clear and increasingly becoming one of our organising principles. On that basis, in January 2022 we made a further pledge to make Cheshire East a carbon neutral borough by 2045.

Using policy tools like the environmental policies in our Local Plan and our Biodiversity Net Gain Supplementary Planning Document, we're building a framework to protect nature and promote sustainable energy.

Our environmental strategies have been key to this and have helped us make significant progress by introducing renewable energy to our estate, planting thousands of trees across the borough and promoting the shift to electric vehicles across our fleet.

The actions we are taking today will have positive impacts on everyone, but for us all to lead more rewarding and healthier lives we need to make this a collective effort.

By working together, we can live in an environment where our families can flourish – an open, fairer, greener Cheshire East.

The biodiversity crisis is intrinsically linked to the climate emergency and as a council we are proud to support this emerging Nature Recovery Strategy, which will help us protect and restore multiple habitats across the region, while adapting to climate change."

Foreword from Councillor Michael Gorman, Deputy Leader, Cheshire East Council

"The climate and biodiversity emergency is something that affects us all and as part of our response to this, back in May 2019, we recognised the climate emergency and committed the council to tackling its own carbon emissions.

This commitment is part of our ambition to make policy and take decisions that improve our performance on environmental issues.

We have also pledged to raise awareness of taking action to combat climate change across the borough, working with others to consider and tackle their own carbon footprint by reducing energy consumption and promoting healthy lifestyles.

Our actions now will help Cheshire East residents lead happier and healthier lives – both now and for many generations to come. It's essential to creating a greener environment for all of us to enjoy."

Executive Summary: Cheshire & Warrington Local Nature Recovery Strategy

Vision - to mainstream nature's recovery into all decisions and activities so that nature, people and businesses thrive, to make Cheshire and Warrington Nature Positive by 2030.

Principles

- Right habitat in the right place for the right reason.
- Follow statutory requirements, best practice and standards.
- Support landowners and managers.
- Think long term and build resilience to climate change and other threats.
- Maximise multiple benefits.
- Improve access to nature for residents and communities.
- Raise awareness and grow skills.
- Grow and share expertise.
- A cohesive, joined up approach.

Cheshire & Warrington's LNRS Network - Local Habitat Maps

1. Core Local Nature Sites- Our designated sites for nature.
2. Opportunity Areas For Nature Recovery- The Potential Stepping Stones and corridors for Species to move through the landscape.
3. Mapped Actions- What actions should be prioritised in the Opportunity Areas for the best outcomes for nature and wider environmental benefits.

Priority Habitats & Themes

4. Woodland, Hedgerows and Trees
5. Grassland and Heathland
6. Watercourses
7. Peat and Wetlands
8. Nature-based Solutions
9. Farmland
10. Urban

Executive Summary: Cheshire & Warrington Local Nature Recovery Strategy

Rolling up our sleeves: examples of opportunities and actions for biodiversity

Manage woodland restoration to increase diversification in the age and structure	Increase the biodiversity in all woodlands including plantations and replace with climate-resistant native and non-native trees	Plant and maintain more urban trees to create a continuous tree canopy
Turn old landfill sites into unimproved grasslands and other habitats to increase species and habitats	Reconnect rivers to their floodplains so they function more naturally, reducing flood risk downstream	Restore and increase hedgerows which also reduce runoff and improve water quality in rivers and streams

Enablers – partnerships, resources, management and funding

Establish and maintain a strong effective partnership for management and delivery	Administer and coordinate funding backed by robust and efficient procedures	Ensure funding is targeted to agreed plans and objectives
Increase financial investment into nature and nature-based solutions	Put in place staff and resources to deliver the LNRS, support Cheshire Local Nature Partnership and deliver agreed initiatives	Communicate and promote the benefits of nature and nature's recovery

Executive Summary: Cheshire & Warrington Local Nature Recovery Strategy

Priority Habitats & Themes

- ✓ Woodland, Hedgerows and Trees
- ✓ Grassland and Heathland
- ✓ Watercourses
- ✓ Peat and Wetlands
- ✓ Nature Based Solutions
- ✓ Farmland
- ✓ Urban

Natural Public Goods and Services - How Nature Helps Us

- ✓ Financially successful and productive farm businesses
- ✓ Reduced flood and drought risk
- ✓ Locking away and storing carbon
- ✓ Clean water and air
- ✓ Urban cooling and reduced pollution
- ✓ Healthier soils
- ✓ Food supply and security
- ✓ Physical and mental health and wellbeing
- ✓ Recreation and sustainable tourism
- ✓ Enhanced heritage and culture
- ✓ Better jobs and investment
- ✓ Attractive retail, longer visits and greater spend

Contents

Contents

Why do we need a Nature Recovery Strategy?

The county of Cheshire is known for its city, towns and villages and its tourist attractions, heritage, industry and agriculture, but without nature what would it be?

With the Peak District upland moors in the east, our distinctive meres and mosses, internationally important estuaries, Sandstone Ridge and Cheshire Plains, our county has a varied and rich natural environment. People love to explore its woodland, wetlands, waterways and country parks.

Cheshire has a strong farming heritage, with its gently rolling green landscape nationally important to the dairy industry, famous for Cheshire Cheese, while its ancient orchards have 32 local apple species. Cheshire is known as the 'pond capital of Europe' with its heavy soils supporting 16,000 ponds. Along with our rivers, estuaries, canals and other wetlands, these host an array of plants and wildlife like Great Crested Newts, Toads, Water Voles and birdlife such as Redshank and Snipe. You may be lucky enough to find the odd Hedgehog snuffling in a garden, while you might see a Kestrel, Owl hunting or Swifts and Swallows flying overhead.

Much of Cheshire and Warrington's industrial and rural heritage has given us the formal parks, urban trees, ancient woodland, heathland, grasslands, wetlands, orchards, and the canals and rivers that we enjoy today. Cheshire and Warrington's natural assets have been vital to our communities, economy and culture for centuries.

But nature is at risk. The UK is amongst the lowest 10% of countries for biodiversity in the world. We are witnessing catastrophic declines in key species and habitats. Since the 1990s, we have seen an unprecedented decline in nature in the UK with one in four mammals facing extinction and 43% of birds at risk. Cheshire holds the sad record of having lost more species in the county than in any other rural county in England, with 156 species going extinct since 1950. Pressure on nature from human development, intensification of land use, pollution and climate change has led to habitat loss and fragmentation. This means that wildlife is confined to smaller and lower quality areas without the means to move and expand.

We need to create bigger, better and more spaces for nature and ensure they are joined up. You will see references to wildlife corridors and mosaic habitats in the strategy – this means joining up areas for nature, by creating varied stepping stones between them. Variety is key – different species need different habitats to live in, and many species need a variety of habitats over the course of their lifetime.

Not only is nature struggling – but people suffer from unequal access to nature and greenspace. Opportunities for people to enjoy and appreciate nature need to be easier for everyone, while keeping nature safe and allowing it to continue to thrive. To ensure nature continues to be appreciated, cared for and prioritised more people need to connect with it, learn about it, and understand the wonders of its habitats and species. We need to rediscover how to identify plants and animals and know what they need, to take a role in helping to care for them in the future.

The good news is that globally, nationally and locally, action is underway to halt and reverse the threat to nature. This Local Nature Recovery Strategy is part of a national approach to create a Nature Recovery Network to halt species decline by 2030 and improve it by 2042 (across England).

In turn, the UK is committed to the Global Biodiversity Agreement to achieve 30 by 30 (30% of land protected for nature). On top of this the UK farming and land owning sector have already spent millions and decades addressing environmental issues through government funded and industry-led initiatives. For example, through historic environmental schemes such as LEAF (and continue to do so through farmer clusters) and ELMS.

What is Biodiversity? Biodiversity means the variety of life in our natural world – including plants, animals, insects and microorganisms.

What is a Local Nature Recovery Strategy?

Cheshire and Warrington's Local Nature Recovery Strategy is our collective blueprint to turn around nature's decline and restore it. The strategy describes:

- Our unique natural environment and key habitats and species.
- The opportunities and priorities for different parts of Cheshire and Warrington, showing us where we can take action to safeguard and enhance the special species that live there.
- The actions to deliver our priorities, including 'rolling up our sleeves', examples of how those can be delivered in practice.
- Local nature maps with different layers of information.
- Useful resources and information on each habitat, urban and farmland, with even more technical details provided in the appendices.

Our interactive pledge map shows where people, communities, businesses and other organisations intend to act, or have taken positive action for nature already.

Nature recovery can happen in every place, whether it is on a balcony, in a garden or community space, on a family farm or a large country estate.

We can all make a difference, from farmers and landowners, Town and Parish Councils, businesses and housing developers to highways engineers, school children, communities and voluntary groups.

Visit our pledge map here >

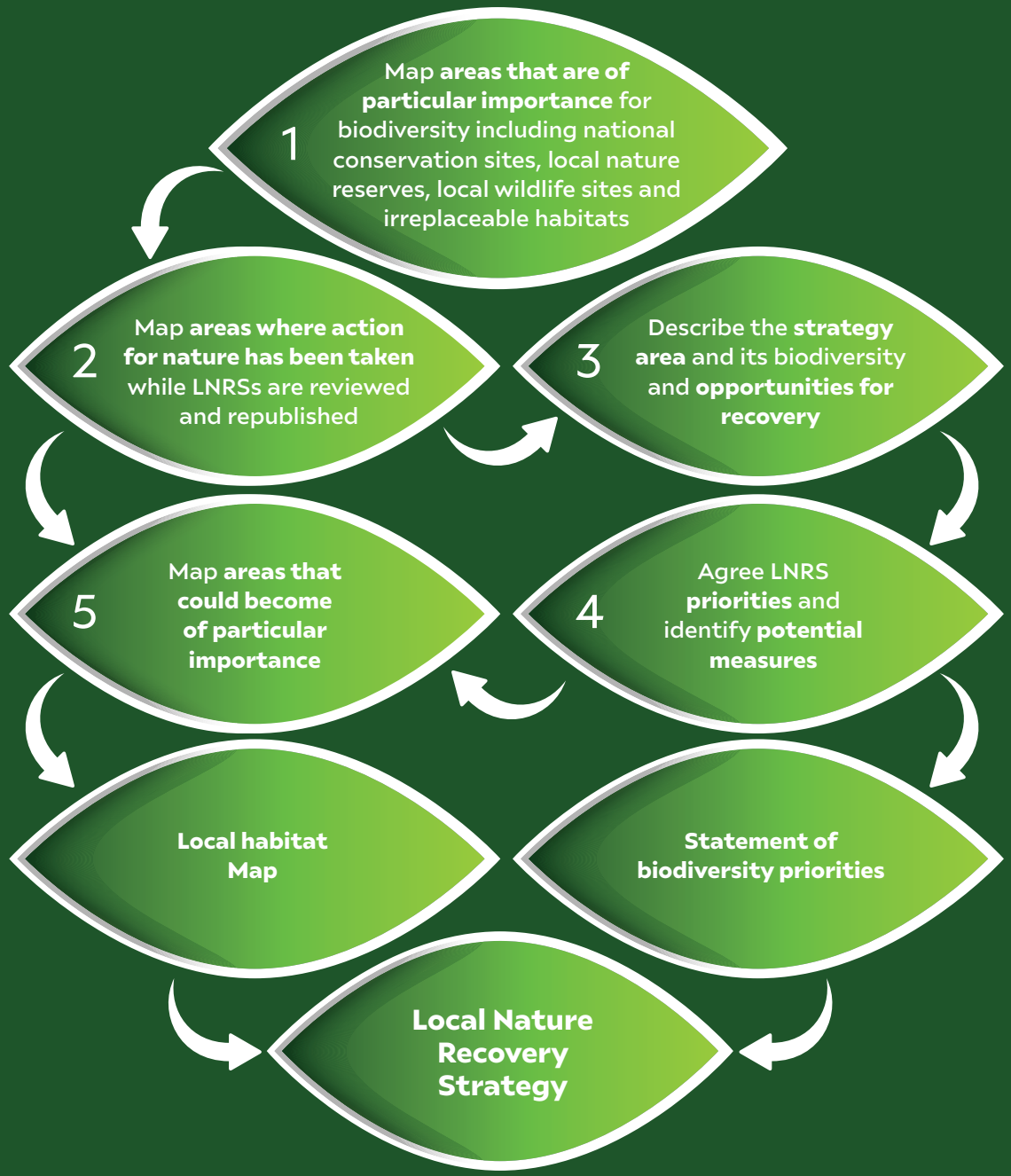
How was the Local Nature Recovery Strategy Produced?

The Environment Act 2021 required Cheshire and Warrington local authorities to develop a Local Nature Recovery Strategy. Cheshire West and Chester Council has led the preparation of this Strategy in collaboration with the other councils and partners across the area.

Our Local Nature Recovery Strategy was developed with key stakeholders to agree priorities for nature recovery and activities in particular locations, informed by a range of other relevant local plans and strategies. By working with local people with a keen understanding of their area, including farmers and landowners, we have agreed practical, achievable actions to deliver our LNRS Priorities and Measures [the actions to achieve the LNRS] to help restore Cheshire and Warrington's nature so it can thrive again.

This Strategy covers the whole of Cheshire including Cheshire West & Chester, Cheshire East, Warrington and the South West and Dark Peak areas of the Peak District National Park that fall within Cheshire East. It includes part of the Mersey and Dee estuaries (to the mean low water line) but does not include the deeper marine environment. As part of the process, we have worked with our neighbouring areas to ensure that the Nature Recovery Network and the measures overlap by an agreed 2km over county boundaries, as nature doesn't recognise where one county ends and another starts. This means that our contribution to the Nature Recovery Network map for the whole of England will be complete and align with our neighbours.

The steps of the LNRS process are shown on the right.



How was the Local Nature Recovery Strategy Produced?

Step 2 is only relevant for when LNRS is reviewed. The steps we followed are shown below:

We are very grateful to everyone who generously gave their time, views and expertise to help create this strategy and look forward to working together to help protect, enhance and restore nature for current and future generations. Thanks to:

- **Over 800 people who responded to the survey and pledges for local action on nature.**
- **Nearly 200 people who came to our three public workshops to shape the priorities and actions.**
- **Farmers, landowners and other key stakeholders who have given their valuable time to participate in both one-to-one and group meetings.**
- **Schools who helped provide views from young people on the natural world.**
- **Representatives from stakeholder organisations including Active Travel Cheshire, Sustainable Northwich, the National Farmers Union and Cheshire Wildlife Trust.**
- **Experts from our Local Nature Partnership and steering group (see acknowledgements below for full list) including individuals who contributed to online workshops to refine the priorities and actions.**
- **Staff from Cheshire Wildlife Trust and Cheshire RECORD for their exhaustive and thorough work on the descriptions, species list and maps.**
- **Volunteers who dedicate their time to recording, reporting, documenting and taking action to safeguard and restore key habitats and species.**

“I would like Cheshire to be a place where the natural environment is valued as much as the built environment, and where everyone has access to nature.”
Cheshire resident, survey respondent

Who is the Local Nature Recovery Strategy for?

This strategy is for everyone in Cheshire and Warrington who wants to help nature recover and thrive. It can help:

- **Public Sector organisations** to deliver their new stronger biodiversity duty on nature recovery.
- **Local Authorities** to ensure nature is considered as part of decision making, provision of their services, and to better understand and integrate the benefits nature can provide to society and economy.
- **Local Planning Authorities** with Local Plans and planning policy to guide where and how development should take place, alongside how nature should be safeguarded, incorporated into development, included in good placemaking and as a catalyst for better health and wellbeing, stronger communities, delivering a quality environment and to support the economy.
- **Farmers and land managers** as the main stewards of our landscapes, to continue to care for and extend valuable natural habitats as part of their businesses.
- **Policymakers and funders** to direct and guide funding and resources, informing evolving Environmental Land Management and Agri-Environment funding schemes.
- **Investors** to find effective local opportunities to finance habitats and actions for nature, people and the economy.
- **Developers** to plan how they can build in harmony with nature, deliver Biodiversity Net Gain and design resilient developments that prioritise nature-based solutions.
- **Communities and businesses** that want to take action to protect and restore nature and grow skills, knowledge and capacity to realise the benefits it could bring.
- **Training providers** to develop the skills and a greater number of experts, contractors and volunteers that will be needed to restore, safeguard, maintain and monitor nature into the future.
- **Environmental organisations** taking action to deliver better habitats and landscapes to achieve wider environmental benefits including nature-based solutions. To continue to act as an independent voice for nature, improve people's connection with nature and support individuals, communities and businesses to take positive action for nature.

What happens next?

The adopted Local Nature Recovery Strategy will inform work with the Cheshire Local Nature Partnership on a delivery plan created alongside the strategy.

This includes ensuring that we monitor and report every five years against the priorities and actions, following our agreed monitoring framework.

The Secretary of State will determine when adopted LNRSs will need to be reviewed, revised and republished within a 3-to-10-year timeframe. Our monitoring work will inform future versions of our LNRS.

> **"I would like to know more about where I can go and see or walk."**

What does nature do for us?

In response to the video and as part of our public consultation across Cheshire and Warrington

- 95% of people think that the natural environment is getting worse.
- 45% of people visit the outdoors for leisure at least once a week.
- 54% of people enjoy nature, and 55% feel it improves their wellbeing.

Ecological benefits

- Protects our rare and threatened species and habitats.
- Provides greater abundance and diversity of wildlife and healthier ecosystems.
- Captures and stores carbon dioxide, helping to tackle climate change.
- Provides resilience to future climate impacts, reducing flooding and overheating.
- Provides natural regulation and resilience to pests and diseases.
- Natural cycles and processes improve air, water and soils.

Benefits for our economy and businesses

- Supports thriving, sustainable farm and rural businesses.
- Reduces the likelihood and costs of flood and heat related risks.
- Provides value for money as nature-based solutions are often cheaper and more sustainable than 'hard engineering' solutions.
- Provides new business opportunities with growing demand for green jobs and skills.
- Delivers a pleasant environment to attract and help retain a productive and healthy workforce.
- Improves visitor and tourism, High Street and customer retail experiences.
- Adds value to housing in close proximity or incorporating quality natural features and spaces.
- Provides clean water for homes, businesses and industrial processes.
- Attracts investment including the opportunity to offset the carbon impact of operating businesses.

Social benefits

- Protects communities from weather extremes by nature-based solutions that reduce flood and urban overheating risks.
- Makes for happier, healthier communities with green spaces for exercise and leisure for better physical, mental health and wellbeing.
- Provides access to cleaner air and water.
- Improves local food security, reducing the need to use pesticides and fertilisers.
- Provides natural places for people to meet and act as a catalyst for neighbours to connect, building stronger communities.
- Creates career and opportunities to improve skills, health and wellbeing, and develop a sense of ownership and connection to local nature.

See Appendix 9 for detailed lists of benefits of nature to different sectors and organisations.

What are nature-based solutions? These are actions to protect, conserve, restore, sustainably use and manage natural or modified land, freshwater and marine ecosystems to address social, economic and environmental challenges - while at the same time providing human well-being, resilience and biodiversity benefits. An example is planting trees in a town to reduce flood risk, prevent overheating, provide habitats for animals, make an area more attractive and improve health and wellbeing for residents.

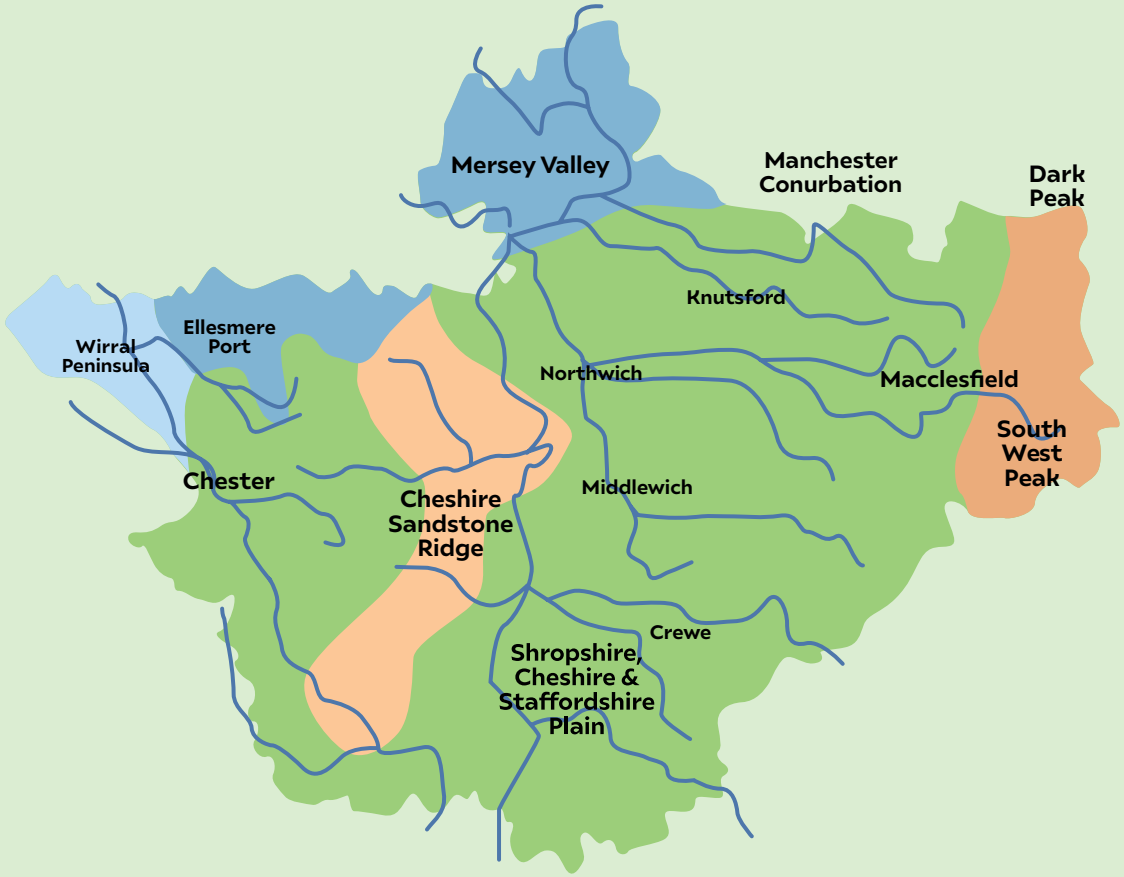
Cheshire & Warrington's Natural Environment – Where Are We Now?

Nature in Cheshire and Warrington

Cheshire and Warrington form a unique area sheltered by Wales from the west and the Peak District's Dark and South West Peak to the east, south of the major conurbations of Liverpool City Region and Greater Manchester. It has a distinct landscape with multiple types of habitats from ancient woodland to blanket bog on the moors, and ponds to floodplain meadows. Farming and agriculture make up around three quarters of land use, and Cheshire is not famous for its cheese for nothing – dairy farming has relied on its grasslands for centuries. Cheshire's land is not only used for livestock but crops as well, making much of the county a mixed farming landscape. Cheshire is also home to some important historic parkland and farming estates such as Tatton, Grosvenor's Eaton and the Cholmondeley Estates which feature ancient woodland and important grasslands.

There is a wide array of habitats, and parts of the county are internationally and nationally important for biodiversity. Our Meres and Mosses are internationally important wetland habitats left over from the last ice age, added to by thousands of ponds dug over the centuries, totalling 40,000. Although intensively farmed, this wet landscape supports an array of birds, including the threatened Willow Tit, amphibians, dragonflies and rare invertebrates as well as its irreplaceable raised bogs and deep post-glacial waterbodies.

Our Cheshire Plains are drained by numerous rivers such as the Dee, Mersey Gowy, Bollin and Weaver, with its tributary the River Dane. Ancient woodlands cling onto its steep valley slopes and fast-flowing sections still support Dipper and Wild Trout.



The Landscape Character Areas of Cheshire & Warrington

The Peaks to the east of the county and the Sandstone Ridge running north to south in the middle of Cheshire (currently being considered for National Landscape Status - formerly Area of Outstanding Natural Beauty), form higher less-productive land providing a refuge for ancient grassland and heathland. These areas are particularly important for moths and butterflies.

Cheshire and Warrington have four habitats and 3 themes: Woodlands, Trees and Hedgerows; Grassland and Heathland; Watercourses, and Peat and Wetlands, Nature-based solutions, Farmland and Urban. Within these there are some irreplaceable habitats which include ancient woodland, ancient and veteran trees, blanket bogs and lowland fens.

Nature in Cheshire and Warrington

- 24 different habitat types
- Iconic species such as the Great Crested Newt and Black-Crested Grebe
- 10.24% of Cheshire and Warrington is of high nature value (excluding Local Wildlife Sites)
- 10,118km of hedgerows (3% of England's total hedgerow network)
- 12.5% of Cheshire is covered by trees, with 7.7% being Ancient Woodland (excluding plantations on Ancient Woodland Sites)
- 8 National Trust sites
- 1 Potential National Landscape Area (new name 1 Protected Landscape proposed (formerly Area of Outstanding Natural Beauty) Sandstone Ridge (under discussion at time of writing)
- 3,700 ha of Coastal & floodplain grazing marsh and saltmarsh
- 941 Local Wildlife Sites, covering 13,827ha (with a further 796 potential Local Wildlife Sites located in the LNRS area), managed by the Cheshire Wildlife Trust
- 63 SSSI's, 5 RAMSARs, 10 SACs & SPAs, 2 National Nature Reserves and 10 Local Nature Reserves.
- Internationally and nationally significant estuaries, Dee and Mersey, which are designated with the Dee as a Water Protection Zone, SPA,SAC SSSI and RAMSAR and the Mersey as a SPA, SAC and RAMSAR
- Nationally significant pond network (important for Great-Crested Newts and Silver Water Beetle)

Irreplaceable habitat is very difficult (or takes a very long time) to restore, create or replace once it has been destroyed. This may be due to its:

- Age
- Uniqueness
- Species diversity
- Rarity

Irreplaceable habitat includes some of England's most ecologically valuable terrestrial and intertidal habitat. For example:

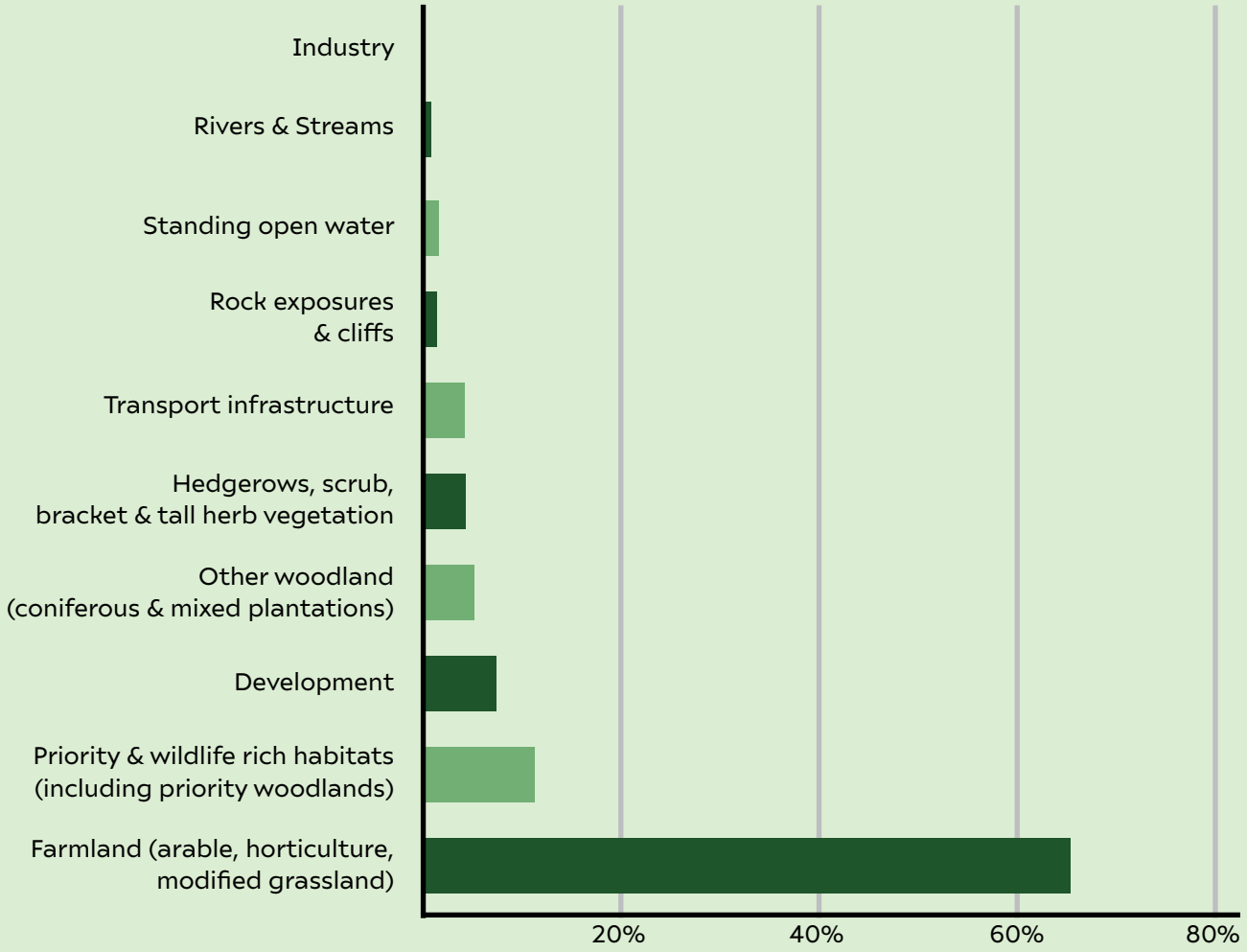
- Ancient woodland
- Ancient and veteran trees
- Blanket bog
- Limestone pavements
- Coastal sand dunes
- Spartina saltmarsh swards
- Mediterranean saltmarsh scrub
- Lowland fens

The vast majority, nearly 70% of land use is agriculture (in line with the national average for England), with forest, open land and water at around 11-15% (priority habitat plus other woodlands including plantations). Although rivers and streams themselves have a small footprint, their catchments, areas from which water flows into them cover the entire county. Development including residential development makes up around 6-9% with Warrington being more built up than other areas of Cheshire. Transport routes and other major infrastructure take up 4-5% of land. Despite its visual impact from many locations, such as the view of Stanlow from the side of the Mersey or Helsby Hill, industry has a very small footprint at less than 0.5%.

In the context of the national commitment to protect 30% of land for nature by 2030, **just 3.4% of Cheshire and Warrington's land is under statutory (e.g. legal) protection while 10.4% is designated for nature,** which in comparison to its more urban neighbours is surprisingly low given that the city-regions have more land for nature - 11% of Greater Manchester, 14% of Liverpool City Region and 24% for the more rural county of Lancashire.

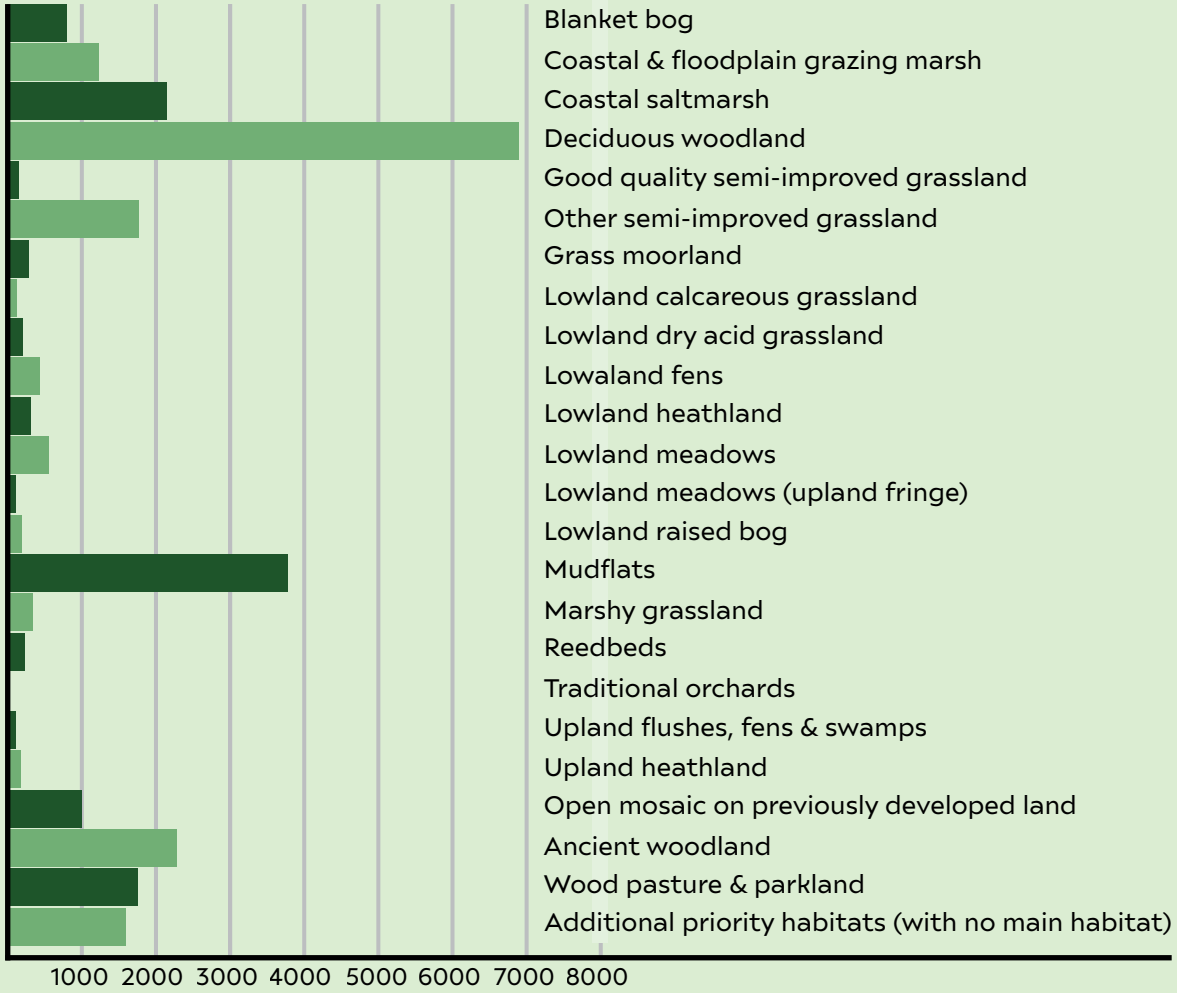
Cheshire and Warrington have some internationally recognised important sites designated for nature, from Special Protection Areas on the coast and estuaries to Specials Areas of Conservation and Ramsar designated sites across our Cheshire Meres and Mosses. There are 63 Sites of Special Scientific Interest, of which 43.7% are meeting favourable or unfavourable recovering condition at this time.

Land use & Habitats in Cheshire & Warrington



What is a Water Protection Zone? The WPZ is an area that is protected for water quality, such as the River Dee. The designated area has regulations put in place to protect water quality from diffuse pollution and certain activities (e.g. storing or using controlled substances), which are banned or restricted to reduce the risk of polluting drinking water. Most of our rivers provide drinking water and water for industrial processes but the Dee is the only WPZ due to its importance for drinking water in Wales and England.

Area cover for priority & wildlife-rich habitats in LNRS



Cheshire and Warrington's total area is 229,000 hectares and the chart below shows some of the priority areas and wildlife rich habitats by remaining area. This shows us that **the actual land-area of some of our most valuable sites for nature are very small** – showing the urgency of action to safeguard, expand, buffer and connect these sites to conserve both habitats and species.

What is a conservation designation?

There are seven types of conservation designations in the Cheshire & Warrington area. These include:

Statutory Protected Sites (legally protected sites)

- Ramsar[1] sites which are wetlands considered important at an international level;
- Special Protection Areas and Special Areas of Conservation which are designated to conserve the habitats and species of importance at a European level. Both SPA's & SAC's form the UK national site network
- National Nature Reserves are those sites that are of most significance nationally.
- Sites of Special Scientific Interest (SSSI) are a representative sample of those sites considered to be of national importance for their biological or geological features.
- Local Nature Reserves are sites of particular importance for their nature conservation value, but also their value to the local community.

Non-statutory

- Local Wildlife Sites are non-statutory (unlike all the above) and selection is based upon the most important, distinctive and threatened species and habitats. They can have status in local plans where policies exist to provide limited protection. They are also known as Sites of Importance for Nature Conservation, Sites of Nature Conservation Importance, County Wildlife Sites and Local Sites.
- All these designations provide important sites for nature and are our core sites for nature recovery.

[1] A wetland site designated to be of international importance under the Ramsar Convention 1971

How big is a hectare (ha)? A hectare is 100m by 100m (or 2.4 acres). It is a bit bigger than a football pitch and about the same area as the inside area of a 400m running track at a sports ground.

The State of Nature

The state of nature in Cheshire, mirrors national trends, with declines in all priority habitats since 1980. Cheshire and Warrington may appear green, yet many of these seemingly natural areas have limited value to wildlife. Many habitats have been lost and fragmented, causing declines in some of the county's landmark species.

Cheshire holds the sad record of having **lost more species in the county than in any other rural county in England, 156 species have become extinct since 1950,** higher than England's average of 133. Due to habitat loss, 2,216 species have not been recorded in the county since the 1980's. This includes the Hazel Dormouse. More alarmingly, 4,122 species were last recorded between 1990-2010 but have not been recorded since (see Appendix 1). In some cases, this could be due to lack of experts to identify and record key species.

Current statistics in Cheshire & Warrington show a clear downward trend

- Hazel Dormouse was deemed locally extinct in 2010, despite reintroductions.
- 80% of all butterfly and moth species have declined in abundance, distribution or both.
- 4 local reptile species, 2 in decline (Adder and Slow Worm) and 2 relatively stable but could be lost due to the island effect (Common Lizard and Grass Snake).
- Marked declines in farmland birds e.g. Curlew and even in woodland birds, such as the Willow Tit, Spotted Flycatcher, Yellowhammer and the Dipper. The Lapwing is now becoming so scarce that there are only a few records compared to quite widespread distribution many years ago.
- Water Vole has been lost from 94% of its range.

"99% of species rich grasslands have been lost in Cheshire since the Second World War"

We also need to encourage more people to send in records of what they have seen to Cheshire RECORD

We need more people to take an active interest in our local wildlife, recruiting, training and supporting anyone interested to develop their identification skills to a competent level.

What do we need to do?

Following the Lawton Principles[1], if the areas we do have for nature are made more, **bigger, better, and more joined up,** we can help nature recover and thrive while at the same time helping protect areas from floods and droughts, tackling inequalities and enabling everybody to live and work in healthier and happier places. Our farmers and agricultural businesses could thrive, working with nature, producing healthy food, providing an attractive landscape and a more resilient ecosystem.

Our Nature Recovery Principles

Our Nature Recovery Network is based on evidence and established thinking on nature recovery in the UK, in particular, the Lawton Review of 2010 which said that we need to make our network of sites for nature "bigger, better, more and joined up". This recognises our best remaining wildlife sites as the basis of our Nature Recovery Network and guides us to act to:

- **Improve** the quality of wildlife sites by better management.
- **Increase** the size of habitat sites.
- **Enhance** our sites for nature by improving connections between them – corridors and stepping stones.
- **Create** new sites in rural and urban areas.
- **Safeguard** existing sites, and all of nature, by taking pressure off the wider environment – reducing pollution, climate impacts, disturbance, invasive species etc.

What is the ecological network? Ecological networks are the basic, joined up infrastructure of existing and future habitat needed to allow populations of species and habitats to survive in fluctuating conditions.[2]

Although we have 24 specific habitats grouped in four themes, it is important to note that **all habitats are interconnected** and for a landscape like Cheshire and Warrington's, a mosaic of habitats provides the best way to support nature, people and the economy.

[1] Making space for nature': a review of England's wildlife sites published today - GOV.UK

[2] Planning and the ecological and Nature Recovery Networks | Somerset Wildlife Trust

What is a mosaic approach? The Mosaic approach means looking at what species need in habitats – some species need different habitats in stages of their lifecycle from bare ground, dead wood, tall flower-rich vegetation, to scattered trees and scrub. This means having a mixture of habitats.

We need to take a practical and holistic approach to the landscape, recognising everyone's different roles. The expertise of farmers as stewards of the land, the academic expertise of our universities and colleges, the local knowledge and passion of our Wildlife Trust and Local records centre, other conservation organisations and community groups, the statutory role our Local Authorities can work hand in hand to restore nature and deliver economic and social benefits.

The following set of ten Cheshire and Warrington nature recovery delivery principles need to be applied to policy, funding and delivery.

01

Right habitat in the right place for the right reason

Ensure that habitat restoration and creation proposals occupy suitable sites and do not damage or displace existing quality habitats. Ensure nature is at the centre of all new development and neighbourhoods by design.

02

Follow best practice and standards

Comply with legal requirements, standards, guidance, best practice, as well as required permits and licences when creating and restoring habitats e.g. UK Forestry Standards. Ensure nature is at the heart of urban regeneration and new development.
An example of good practice, in addition to the UK forestry standards, includes: ***July_2023_Decision_support_framework_for_peatland_protection.***

03

Think about long-term resilience

Put nature at the heart of new development, so nature and places are resilient. Plan at the start for long-term habitat management, maintenance and funding. Ensure that schemes are resilient to future climate change impacts, pests and diseases.

04

Maximise multiple benefits

Communicate and maximise the wider benefits of nature recovery actions such as improving health and wellbeing, storing carbon, or reducing flood risk.

05

Involve residents and communities

Work collaboratively with residents, landowners, farmers, partnerships and business for nature's recovery.

06

Improve responsible access

Support and work towards fair and improved access for individuals and communities (where appropriate), so everyone has responsible and equitable access to nature.

07

Raise awareness

Ensure that the public are made aware of nature's recovery and the importance of their support e.g. biosecurity, help identifying species, volunteering, Countryside Code etc.

08

Support farmers and landowners

Support, and work in partnership with farmers and landowners, for example to encourage the uptake of Agricultural Environment Schemes. Help farmers and landowners to make informed decisions based on expert advice and knowledge.

09

Seek expertise – ask an expert

Whenever thinking of creating a habitat at a landscape scale, experts should be involved to help identify the best opportunities for biodiversity; seek expert guidance on large and small projects.

10

Make it cohesive, join it up and blur the boundaries

Nature has no boundaries – think through how actions can connect – speak to the neighbours, create blurry edges, and a diverse patchwork of habitats. For new habitat creation along rivers, discuss water management with neighbours to ensure consistency and collaboration in catchments.

LNRS Habitats and Themes Strategic Priorities

The following sections show each of the habitat types, explain the state of nature, pressures they face, outline the opportunities and list the priorities and actions we can take to support nature recovery and build our Cheshire and Warrington Local Nature Network. Each section has a 'rolling our sleeves' up list of practical actions to illustrate what exactly could happen to deliver nature recovery.

These sections cover:

Woodlands, Hedgerows & Trees | Grassland & Heathland | Watercourses | Peat & Wetlands

Following the habitat section, we will cover key priority species that need additional actions.

Then we provide a theme section, based on Farmland, Urban and Nature based solutions that bring all the above together in themes to make it easy for people to locate their specific priorities.

Woodlands, Hedgerows and Trees

This section outlines the current state of our woodland, hedgerow and trees, the pressures they face, opportunities for nature recovery, the priorities and actions for this habitat, plus examples of how we can roll up our sleeves and deliver.

Cheshire and Warrington's woodlands, hedgerows and trees.

- **Total Tree & Woodland cover: 12.69% [slightly above NW average]**
- **Woodland Cover: 6.51% [less than NW and England average]**
- **4.62% broadleaved woodland**
- **0.75% coniferous**
- **Trees Outside Woodland Cover: 6.17%**
- **Ancient Woodland 0.8% [1,872 ha]**
- **78% is Ancient Semi Natural Woodland [1460 ha]**
- **22% Plantation Ancient Woodland Sites [412 ha]**
- **325 recorded Veteran trees**
- **10,118km of hedgerow in Cheshire (making up 3.2% of England's total hedgerow network).**
- **66% of Cheshire's woodlands are unmanaged.**
- **Urban tree cover varies significantly in Cheshire West and Chester, ranging from as little as 4% in some wards in Ellesmere Port, Chester and Warrington to 30% in some wards on the edge of our towns and villages.**

Did you know?

Beetles need dead wood...

Around 650 UK beetle species are thought to require deadwood at some point in their lifecycle – our woodland, trees and hedgerows are home to deadwood invertebrates which in turn become part of the food chain and support other wildlife which eat them.

Cheshire and Warrington has just 6.51% woodland cover, lower than the England average of 10%, but it also has a high number of trees outside woodland, hedgerow, urban and parkland trees covering 12.7% of the area. As most parkland is placed on estates, which were once an ancient hunting forest, has 325 recorded veteran trees, but this figure is likely to be a fraction of the ancient trees seen across its landscape. We have a variety of types of woodland which are home to different species but are fragmented, facing common and specific risks, including a lack of management (regular thinning for woodland products that once took place), pressure from development, climate change, diseases, invasive non-native species like Rhododendron or disturbance from recreation.

What are Veteran and ancient trees? **A Veteran tree is one that has features like cavities, decay holes and fungi growing on the trunk, they are an important habitat in their own right, significantly contributing to wider forest or woodland biodiversity and often have a rich cultural and historical value. Sometimes prominent in the landscape, they mark historic boundaries or locations. An ancient tree is one that has passed beyond maturity and is in its old age, often with a wide trunk but smaller crown. The deadwood from ancient trees is an important habitat.**

Broadleaved Woodland covers 4% of our area (and makes just over a quarter of priority habitat overall in this strategy) and includes Dry Oak woodland, Ash woodland and Upland Oak woodland. Shell Brook Valley near Wincle (see photo) and woods near Cumberland Cottage in the South Pennines Special Area of Conservation (SAC) are considered to be some of the best examples of Upland Oak woodland in the UK. These woodlands are very important for birds including the upland Wood Warbler, Redstart, and Pied Flycatcher. They are also home to rare moths and the Purple Hair-streak Butterfly. Particular risks include the pathogen phytophthora which can cause 'Sudden Oak Death'.

Wet Woodland is very distinctive and often found alongside other woodland types. Its permanently waterlogged conditions support species including birds - Marsh Tit, Willow Tit and flowers like Yellow Saxifrage.

Tree planting on peatlands is not advised, but Clough Woodland or Wet Woodland found in steep-sided moorland valleys has recently been shown to lock away more carbon than bare peat, and it also provides an important corridor and stepping stone in our landscape.

Plantation Woodland planted since the 1800s is increasingly suffering from lack of management or invasive rhododendron. New funding and huge efforts are being made to help diversify and improve our plantations, the biggest being Delamere Forest.

Wood Pasture and Parkland is found in all 15 estates across Cheshire, from Lyme Park in Disley to Eaton Estate on the Dee. It is often home to Veteran and ancient trees.

Ancient Woodland and Plantation Ancient Woodland Sites (PAWS) are irreplaceable habitat only covering 1% of Cheshire.

Traditional Orchards Our rarest priority habitat, Cheshire orchards have very localised species of damson, bullace (a kind of plumb), plum and pear, and an estimated 32 local varieties of apple. In 2011, surveys found 90.2 hectares of traditional orchards in Cheshire, but the latest figures show only 4.2 hectares remaining, either due to lack of recording or loss of these orchards.

"Cheshire was famous for its apples and pears. I'm in my fifties now, and things have really changed. I remember finding old orchards on farms as a child, with really old apple and pear trees."

Cheshire resident.

Hedgerows play a vital role in the lifecycle and survival of many farmland species including amphibians, small mammals, invertebrates and birds. They complement and connect other areas of habitat and provide food, shelter and breeding sites. Cheshire used to have the largest hedgerow network in England until the 1970s when many were removed to make larger fields or replaced with fencing. Today, many of our hedgerows are in poor condition, being trimmed every year, making them too low and narrow, instead of being cut every two-to-three-years to create a larger and wider A-shape with standing trees. In 1995 Cheshire's remaining hedges had 750 free standing trees per km length of hedgerow, more than any other county. The good news is that since hedgerow rules and regulations were implemented in 1997, hedgerows have been replanted and retained.

Heroic Hedges: Beyond benefiting nature, healthy hedges offer numerous advantages to farmers and landowners. They provide wind and frost shelter for crops, reduce pesticide use by housing natural predators, and support pollinators for better yields. Hedges also protect grazing animals, offer diverse forage, aid biosecurity, and prevent disease spread. They reduce water run-off, protect soils, limit nutrient loss to waterways, and mitigate flooding. Hedgerows improve soil nutrients and store carbon above and below ground, with new hedgerows sequestering 600-800kg of CO_2 per km annually.

Nature Recovery Opportunities for Woodlands, Hedgerows & Trees

- Woodland restoration, especially PAWS restoration, through improved management and species diversification.
- Diversify woodland structure, age, increase the proportion of native and non-native (suitable species to replace native trees on verge of extinction) , climate resilient trees and increase area of canopy openings to benefit woodland species
- Re-establish local timber production to encourage better management
- Foster natural regeneration
- Reduce deer, Grey Squirrel or livestock grazing, especially near tree planting areas
- Retain dead wood and mature trees with cavities to provide habitat for multiple species
- Develop a continuous canopy cover approach for the urban tree environment
- Possible removal of conifers and replace with broadleaved trees to increase biodiversity
- Woodland creation and management schemes are being introduced, with better payments to encourage farmers and landowners to establish agroforestry on their land and plant or improve hedgerows.

Case study: National Trust's Historic Landscapes Programme

Funded by DEFRA's Green Recovery Challenge fund, the Historic Landscape programme aimed to enhance nature and start to combat the effects of climate change in five areas across Cheshire and Greater Manchester. Projects include planting 20,000 trees and laying or improving 4km of hedgerow to provide a nature corridor through Quarry Bank and Lyme Park. Other projects include wetland creation at Dunham Massey and Alderley Edge, bringing Egrets back to the area.

Open areas in woodland: Openings in the woodland canopy are important to let light in and enable younger and smaller trees and shrubs, plus flowering plants like Bluebells, Wood Anemones, brackens and grasses to flourish and provide food for animals and insects.

Priority	Actions	Related Species
More, bigger, better and more joined up wildlife rich woodland networks across the landscape	• Establish sustainable, biodiversity-positive management of all woodland, regardless of size. • Establish buffers to woodlands using a variety of methods. • Create and manage woodlands to UK Forestry Standard, increasing % open space in large scale woodlands and resilience to pests, disease and climate change. • Create new woodlands at the right scale for the setting that will be wildlife rich. • Increase connectivity between existing woodlands through different suitable habitats. • Safeguard mosaics (different habitats within one landscape) to complement and support woodland through good design and management. • Encourage positive management of woodlands by encouraging renewed interest in extracting timber for products and sale.	• Deadwood Invertebrates • Willow Tit • Fungi • Turtle Dove • Nightingale • White-Letter Hairstreak Butterfly
A network of well-connected, well managed and restored ancient woodlands and Plantation on ancient woodland sites (PAWS), veteran trees, orchards and exceptional trees	• Safeguard and encourage positive management of existing ancient woodlands and plantation ancient woodland sites (PAWS). • Create woodlands, woodland belts and hedgerows to buffer and connect existing ancient woodland sites. • Adopt coppicing in suitable damp woodland sites to manage woodland structure. • Dead trees should be left standing where possible or where they have fallen. • Older Veteran and ancient trees should be protected with fencing or guards. • New trees should be encouraged to maintain a variety of ages within the wood. • If not possible to leave dead trees in place, make wood piles/ habitat heaps. • Improve protection and safeguard veteran and exceptional mature trees in the urban and rural environment. • Establish new trees that can become veteran and exceptional trees of the future. • Re-establish voluntary tree wardens or community volunteers across Cheshire to help record, safeguard and encourage the positive management of veteran or exceptional trees and orchards.	• Willow Tit • Deadwood • White-Letter Hairstreak Butterfly
Urban areas with a network of trees, hedges and woodland, sustainably managed, delivering nature recovery and more environmental benefits to residents	• Better safeguard and manage tree assets in urban areas. • Establish and manage tree assets as a continuous viable tree cover. • Plant suitable replacement urban trees, native or non-native, where planted urban trees are coming to end of life. • Create and safeguard a network of urban trees and woodlands. • Safeguard, retain and improve conditions for exceptional mature trees in the urban environment. • Prevent damage to retained trees. • Safeguard, manage and expand community woodlands. • Educate the public on the benefits of different layers of habitat in woodland.	• Western European Hedgehog • Badger • Bats • White-Letter Hairstreak Butterfly • Willow Tit
More, bigger, better and more joined up hedgerow networks	• Safeguard and enhance existing hedgerows to achieve species diversity and enhance landscape value. • Create or restore 5000km of additional species rich hedgerows. • Promote benefits of hedgerows and their positive management across Cheshire and Warrington. • Allow for buffers around hedgerows and management to field margins to be avoided during March to September. • Better value and safeguard and increase the number of veteran and exceptional trees in our hedgerow network.	• Farmland birds (e.g. Tree Sparrow, Corn Bunting, Yellow Wagtail, Yellowhammer) • Deadwood Invertebrates • Grassland Fungi Assemblage

Delivering the Actions: What More Can We Do?

Suggested activities to support the actions

What exactly needs to happen to make the priorities a reality and deliver the actions outlined above? We need to ensure that the funding, investment, skills and knowledge are in place to enable the actions. In the below section, here are some examples of practical activities that could support delivery of the priorities and actions.

More of these are being developed as part of ongoing action plans.

How could we deliver more, bigger, better and more joined up wildlife rich woodlands networks across the landscape?

- Seek funding and support to encourage more interest and skills in woodland management.
- Use the UK Forestry Standard[3] in all woodland management design.
- Encourage direct seeding or planting of appropriate ground flora (such as Bluebells, Wood Anemones and Foxgloves) in new woodland as canopy matures.
- Improve forestry knowledge and skills amongst farmers, contractors and volunteers.
- Work with the farming community and foresters to develop a local timber market to help bring many of our woodlands back into positive management.

[3] The UKFS is a technical standard for managing forests across the UK, and applies to all woodland, regardless of who owns or manages it. It's designed to apply to all kinds of woodlands, from timber plantations to conservation habitats.

It's not an auditable standard or a 'gold standard'. The document occupies the space between the law and the conditions of specific grants and certifications. By using current evidence bases, it helps to address the most significant risks to our woodland.

The standard is intended for professional foresters such as forest owners, managers, practitioners, regulators and advisors. ***The UK Forestry Standard - GOV.UK***

How could we deliver urban areas with a network of trees, hedges and woodland, sustainably managed, delivering nature recovery and more environmental benefits to residents?

- Map and record our trees to better understand and ensure better management of the trees we have, including condition, age and risk within major urban and rural areas.
- Local Authority Tree and Woodland Strategies should be updated and in place by 2030 for 2050 and beyond with appropriate resources to ensure good practice.
- Update Planning Policy to work towards a minimum of 16% canopy in all wards as part of new development and regeneration schemes, with potential use of urban greening factor applied to boost overall provision of trees and greenspaces (see Urban section below).
- Carry out better, more joined up management of trees in the urban environment.
- Seek resources to re-establish voluntary tree wardens or community volunteers across Cheshire to record exceptional trees, hedgerows and orchards and influence their positive management.

Two Tree Wardens, Tree Council

How could we deliver a network of well-connected, well managed and restored Ancient & Plantations on Ancient Woodland Sites, Veteran or exceptional trees and Orchards?

- Develop the concept of Farmer-forester with landowners and agricultural colleges to provide broader training and support for landowners and their employees and contractors.
- Go beyond current root protection areas standard[4] to retain Veteran and exceptional trees as part of development, where possible requiring a buffer zone of the full falling distance in designs (e.g. houses not built too close, to avoid future pressure from residents to remove due to concerns over liability or lack of light).
- Planners and developers encouraged to update Design Codes to reflect the above and tree risk management issues such as proximity to highways.
- Encourage collection of seeds with local provenance to ensure future woodland, Veterans and exceptional specimen trees, Cheshire and regional fruit varieties are perpetuated across the county, potentially through a network of community and private orchards.

[4] ***What is a Root Protection Area? - Woodland Trust***

> **The Mersey Forest, Cheshire and Merseyside's Community Forest,** has been working with trees for the benefit of people, nature and climate over the last 30 years. So far, almost 10 million trees have been established across Cheshire and Merseyside, four trees for every person living in the area. The Mersey Forest work with a range of people to make this happen - from partners to landowners and managers through to communities, schools and local businesses. To find out about their work and the free support and grants available, visit: ***merseyforest.org.uk***

How could we deliver more, bigger, better and more joined up hedgerow networks?

- Encourage communities and volunteers to develop skills and help landowners survey and identify areas for new hedgerows or to restore existing hedgerows.
- The Local Nature Partnership should communicate and promote the value of hedges and provide good management guidance (e.g. 2/3 year cutting regime and an 'A' shape).
- Identify and promote species mix appropriate to local areas and to be resilient to future climate.
- Update Planning Design Codes to prioritise native hedgerows instead of fences and other physical boundaries as part of development (other than in designated landscape and conservation areas where historic walls or similar features should be promoted).

Grassland and Heathland

This section outlines the current state of our grassland and heathland, the pressures they face, opportunities for nature recovery and the priorities and actions for this habitat.

The state of our grassland and heathland

What types of grassland and heathland are good for nature?

Species rich grassland (shown on the right) is what we need, buzzing with insects, with different heights and types of plants and surface texture including tussocks and lumps. Improved or semi-improved grasslands may sound good – but in fact they are not very good for nature. Most of our species-rich grasslands, full of different types of grasses and wildflowers have been lost to fields that may look green but are in fact ecological deserts of rye grass or a very limited specie mix (e.g. clover, buttercup and ryegrass), not that effective in protecting and improving our soils, supporting insects or other animals.

- **Less than 2% of Cheshire & Warrington area is grassland and heathland habitat.**
- **Most grassland in Cheshire is improved (species-poor) grassland (1861ha), mainly rye grass for agriculture.**
- **Second largest habitat is coastal and floodplain grazing marsh, at 1315ha (again most is species poor).**
- **99% of Cheshire's species rich meadows have disappeared since 1930.**
- **534ha of lowland wildflower meadow left.**
- **63% of Local Wildlife Sites on grasslands have lost all their unimproved neutral, acid or calcareous grassland habitat.[5]**

[5] Appendix 1: Description of the Strategy Area: Technical version

Grassland and heathland habitats cover a small area of Cheshire and Warrington, including grazing land, as well as road verges, parks, golf courses, riverbanks, lakesides, churchyards and within woodland 'rides' (areas of grass within woodlands). Our grasslands and heathlands are fragmented, under pressure from drainage, development, agricultural improvement, recreational disturbance, and lack of management that leads to succession (scrub up with woody plants as nutrients increase). **Care must be taken in planning tree planting, so that vital remnants of important grassland habitat are not lost and are prioritised for restoration.**

Species rich grassland can be recognised as more species per square meter than any other habitat. Cheshire has irreplaceable wax-cap meadows and pastures which have some of the best examples of fungi in the UK. Along with these, our old species rich grasslands are home to well-established, complex webs of plants, fungi and invertebrates which cannot be replaced if lost.

Many of Cheshire's traditional hay meadows were ploughed up around the Second World War's 'dig for victory' campaign and then lost during the intensification of farming driven by the Common Agricultural Policy, encouraging greater mechanisation, larger scale and simpler processes, including extensive use of chemical fertilisers, pesticides and herbicides. When species rich grasslands are lost, we see a significant impact on farmland species, particularly invertebrates at the bottom of the food chain, which also impacts small mammals, amphibians and even reptiles. So, the loss of this habitat has had a severe effect on the numbers of Lapwings, Curlews and Yellow Wagtails and Skylark since the 1930s. **Species rich grassland has been lost faster than any other habitat in the UK.**

Cheshire and Warrington's diverse habitats include a wide range of types of grassland and heathland which include the following.

Neutral Grassland this species-rich grassland is defined as having a minimum of 12 species of grass, sedge or wildflower per square meter. We only have 476ha left of species-rich meadow, the largest is at Local Nature Reserve Swettenham Meadows (see photo) managed by the Cheshire Wildlife Trust and the local farmer for sympathetic grazing. The large number of flowering plants now supports 14 types of butterfly.

Waxcap Grassland is a specific habitat with groups of fungi (see photo) including those from the Waxcap family. It is nutrient poor, well-drained, semi-natural grassland, and often grazed by sheep or mowed. It can be found in pastures, reservoir embankments, churchyards or old cricket pitches. It is found in the Pennine foothills at Rainow, with its rare Ballerina waxcap, and Tegg's Nose Country Park has 18 waxcap species and 25 other types of fungi.

Coastal and Floodplain Grazing Marsh is found where the floodplain retains a high-water table for at least part of the year, providing an important habitat for overwintering wildfowl and breeding wader birds. Its water-filled ditches are an important habitat for mammals, insects and plants. Cheshire has only 1,315 ha of coastal and floodplain grazing marsh left along its major rivers. The River Gowy meadows support important endangered birds like Starling, Snipe and Reed-bunting and invertebrates such as the Mud Snail and Lesser Silver Water Beetle. Grazing marsh along Frodsham, Helsby and Ince marshes are of county, national and international importance for breeding and migrating birds, designated as functionally linked land to the Mersey estuary. We also have small areas of **Fen Meadow** and **Marshy Grassland** (or rush pasture).

Acid Grassland has only 86ha left with good examples in Cheshire East, at Kettleshulme, Wildboarclough and Rainow. These have magical sounding wildflower species like Sheep's Fescue, Common Bent, Tormentil, Harebell and Moonwort.

Fact: Plant life research shows that one typical 3 acre field can host 9,000,000 flowers on a single summers day, producing enough nectar to support over 300,000 bees.

Calcareous Grassland (around 26 ha) has formed on lime beds formed from salt mining near Northwich, providing rare and complex plant life similar to that found on natural limestone pavements in the Dales or Chalk Downs in the South of England.

Similar sites with crushed concrete, brick waste and other industrial material left for a generation or two can often provide incredible mosaic habitats where nutrients are at a premium leading to a mix of scrub, open ground, very rare grassland and groups of other plants like lichen and mosses. Hard concrete and other aggregates provide an artificial hard layer to stop soil enrichment and prevent these habitats deteriorating with a lack of management of the vegetation (which would normally result in enrichment and succession). This hard landscape often provides temporary pools and bare ground. Together all these things are called **Open Mosaic Habitat.** Many of these sites are at risk of development due to a national policy for encouraging development on brownfield sites.

Great Grasslands: The benefits of species rich grassland are good for nature and farmers alike. A typical 3-acre field can host 9 million flowers on a single summer's day, producing enough nectar to support over 300,000 bees. Species rich grassland, with legumes found in herbal lays fix nitrogen, reducing costs of fertilisers, feed supplements and worming treatment, providing better grazing nutrition and minerals. Rotational grazing also promotes animal growth. It drains better, is more resilient to drought and provides a longer grazing season, provides carbon storage and has less weed growth. Of course, there is a cost to swapping out rye and clover for herbal lays. The Future Farming Group should be able to provide case studies and examples of how this 'reversion' back to more species rich grassland can be a win-win for farming businesses and wildlife.

Heathland comes in two types – **Wet Heathland** and **Dry Heathland,** upland and lowland. Heathland is an important habitat with 25% dwarf shrub cover found on mineral soils and thin peat. Our wet heathland is very fragmented and degraded, suffering from recreational disturbance or becoming deciduous woodland. It is found on the edges of blanket bog, with thin soils, sphagnum moss, heather and gorse. **Cheshire's lowland wet heath is its second rarest habitat in the area**. Dry heathland is slightly more common as a local wildlife site than wet heathland in Cheshire and Warrington. Dry heathland is recognisable by its gorse, heather and bilberry and is an important home to adders, lizards and the Common Hairstreak butterfly. Risks it faces include development, fire, climate change and air pollution.

What is Citizen Science? Research conducted by the public also known as volunteer monitoring or community science. Citizen Science is widely used to study wildlife and help with conservation. We'd like to encourage more people to connect with nature, to learn more about it, and help us keep good records of common and rare species across Cheshire.

Nature Recovery Opportunities for Grassland and Heathland

- Councils have begun to adopt better management practices, sowing wildflower areas in many of our urban areas to provide food for pollinators. More work is needed to ensure new wildflower meadows are sustainable in the long term with appropriate resources, training or volunteer support to ensure they are hay cut, and cuttings removed, to prevent enrichment, loss of diversity and value over time.
- Restore former landfill sites to grassland and other appropriate habitats, manage by hay cutting or conservation grazing.
- Lapwing, Redshank and Curlew populations will benefit from restoration and management of lowland wet grassland on floodplains.
- Implement seasonal grazing and mowing to maintain the grass cover (sward) and not impact nesting birds.
- Restore former heathland sites e.g. Goostrey heaths and Morley Green Heath
- Improve resident education and awareness to carry out nature friendly gardening and improve awareness of the rarity of heathland habitat and reduce the danger of wildfires at publicly accessible heathland sites.
- Restore appropriate ex-industrial sand and sandstone quarries in Cheshire to Acid Grasslands and Lowland Heath to allow animals like reptiles to thrive.

What is a sward? It's an old English word meaning a stretch of turf or an area covered in grass. It comes from words relating to hide or skin.

Priority	Actions	Related Species
More, bigger, better and more joined up wildlife rich woodland networks across the landscape	• Create and enhance a network of grassland sites. • Create more wildflower rich grasslands, encourage rotational grazing practices and reduced fertiliser use. • Create new species rich grasslands as part of public and private development. • Better manage grasslands to increase species and sward diversity. • Reduce pesticide use. • Promote better grazing practices for different grassland communities. • More grasslands managed by hay cuts or cut-and-collect in urban areas. • Promote nature friendly gardening. • Support communities to adopt public land to manage as species rich grasslands. • Promote nature friendly public space and linear features (i.e. roads, railways, cycle routes, canals). • Use Citizen Science to increase identification and recording of species across our diverse grasslands. • Promote awareness of the value and role grasslands can play.	• Roof nesting birds (e.g. House sparrow, Starling, House Martin, Swift) • Pollinators i.e. Butterflies, Moths and Bees
Waxcap grasslands, coastal and floodplain grazing marsh are extended and restored	• Enhance waxcap grasslands. • Establish appropriate conservation grazing over large areas. • Expand and enhance the area of coastal and floodplain grazing marsh. • Protect existing known locations of waxcap grasslands. • Carry out appropriate management of sites depending on location. • Maintain grassland through livestock grazing but avoid soil damage where possible. • Conduct research to locate sites of importance as such mapping long established undisturbed grasslands. • Use environmental DNA tests to help protect the species.	• Grassland Fungi Assemblage
More, bigger, better and more joined up Heathland	• Restore and create wet heath. • Create and enhance a network of heathland sites. • Manage and maintain heathland through appropriate conservation grazing practices. • Manage and expand diverse heathlands for key species identified in Cheshire. • Promote the value of heathland. • Increase capacity for raptor nest watches. • Engage with communities that come in close contact with species from Birds of Prey assemblage associated to this habitat. • Increase suitable nesting sites to improve breeding rates. • Raise awareness amongst the public and landowners of their needs, diet and benefits of presence.	• Reptiles Assemblage (i.e. Adder, Common Lizard) • Birds of Prey assemblage (i.e. Hen Harrier, Peregrine Falcon and Goshawk)
Moorland areas supporting species and structurally diverse mosaic of habitats	• Enhance and manage moorland through plant reintroductions and translocations. • Increase suitable nesting sites to improve breeding rates. • Raise awareness amongst the public and landowners of their needs, diet and benefits of presence. • Manage recreation to safeguard our moorlands. • Promote awareness of moorland habitats and why they are important. • Establish a network of gully blocking and re-profiling areas to raise the water table. • Enable heather to complete its natural cycle.	• Birds of Prey assemblage (i.e. Hen Harrier, Peregrine Falcon and Goshawk)

Delivering the Actions: What More Can We Do?

Suggested activities to support the actions

What exactly needs to happen to make the priorities a reality and deliver the actions outlined above? We need to ensure that the funding, investment, skills and knowledge are in place to enable the actions. In the below section, here are some examples of practical activities that could support delivery of the priorities and actions.

More of these are being developed as part of ongoing action plans.

How could we deliver more, bigger, better and more joined up nature friendly and semi-natural grasslands for people and pollinators?

- ✓ Alter mowing practices, to "hay cuts" or "cut and collect" management (this stops the cut grass from rotting down and making the soil too fertile, then range of species and the rarer flowers and grasses get out competed by nettles, thistles etc).
- ✓ Explore solutions to costs of transporting and disposing of cuttings to help make it more financially viable for farmers, landowners and councils. E.g. use grass cuttings for biomass energy generation (the cost of removing and transporting cut grass is often the main barrier to getting more specie rich areas created and under the right management).
- ✓ Encourage appropriate nature friendly gardening practices to promote more natural gardens and verges by suggesting seed mixes for urban and rural areas and different soils.
- ✓ Set up a **Future Farming Group** to test and promote good practices, focusing on how farming business can be improved through nature-based solutions (identifying win/wins – for example, species rich headlands can improve adjacent field crop yields).

What's a headland? Headlands are the areas at the edges of fields beyond where the main arable crop grows, it's often where the tractor and machinery turns around before going back into the main field to drill or spray it. Headlands are therefore a grassland where lots of wild-flowers can grow providing homes and food for pollinators that benefit crops and eat pests, reducing the need for fertilisers and pesticides.

How could we deliver extended and restored waxcap grasslands, coastal and floodplain grazing marsh?

- ✓ Expand the area of grazing marsh by helping landowners to re-introduce appropriate water level management and get greater diversity of sward structure on larger sites.
- ✓ Promote better grazing practices for different grassland communities (eg waxcap grasslands[6] need grazing to keep the grass short, but don't need a lot of animals compacting the soil, or nutrients building up from dung).
- ✓ Ensure that managed realignment for flood defence or the conservation of intertidal habitat such as mud flats and salt marsh do not compromise the area or quality of coastal and fluvial grazing marsh.

How could we deliver more, bigger, better and more joined up heathland?

- ✓ Connect and share best management practice and learning across lowland heathland landowners.
- ✓ Require mineral extraction and landfill to be restored to the most appropriate habitat (i.e. heath in some locations) as a condition of planning consent.
- ✓ Encourage introduction of important species to existing and new heathland sites (e.g. Crowberry, Bilberry, Gorse and Cross-leaved Heath (see photo)).
- ✓ Recruit and promote volunteers to help with Citizen Science to get a better understanding of the extent and quality of wet heath.

How could we deliver moorland areas supporting species and structurally diverse mosaic of habitats?

- ✓ Promote and encourage suitable plant reintroduction or translocations.
- ✓ Peak District National Park Authority and Local Nature Partnership partners to collaborate with landowners to establish a network of gully blocking areas to raise the water table to more natural levels, and gully reprofiling.
- ✓ Use the moorland edge to encourage the creation and expansion of wet woodland.

[6] *https://www.plantlife.org.uk/wp-content/uploads/2023/03/Waxcaps_GrasslandFungiGuideManagement.pdf*

Watercourses

This section outlines the current state of our watercourses, the pressures they face, opportunities for nature recovery and the priorities and actions for this habitat.

The state of our watercourses

- All Cheshire and Warrington rivers and streams are in poor or moderate condition.[7]
- 3,704ha of mudflats make up 1.62% of the area.
- 1,112ha of rivers and streams cover less than 0.5% of our area but their catchments cover almost the entire county.
- 2,086ha coastal saltmarsh makes up under 1% of our area.
- River Dee and River Mersey estuaries are nationally and internationally designated with legal protections.

Cheshire and Warrington's watercourses include rivers, streams, estuaries and canals. **The rivers Mersey, Dane, Weaver, Wheelock, Gowy, Bollin and Dee are important ecological corridors crossing our landscape, home to Brown Trout, Atlantic Salmon and European Eel.** Alongside the numerous streams, they form a vital habitat for wildlife. Riverbanks too steep or wet for farming or timber production are home to woodland, species-rich grassland and form tiny fragments of mosaic with scrub or fen. **The canals built in the industrial revolution are now important homes for wildlife, forming corridors and bordering hedgerows, scrub and meadows. Some of Cheshire and Warrington's most important places for wildlife are the Mersey and Dee Estuaries with inter-tidal mudflats and saltmarshes** which are internationally important for migrating birds.

There are many risks to nature in and around Cheshire's rivers and streams with all in only moderate or poor condition, exacerbated by the modifications and obstacles in them which make species movement difficult. These water bodies are under pressure from water extraction, pollution from agricultural, urban and highway run-off, plus occasional sewage discharge overflows. Run-off from agriculture and sewage discharges add unwanted nutrients to the water which causes algal blooms and a high amount of sediment, adversely effecting native species. The linear nature of our network of watercourses helps invasive non-native species like Himalayan Balsam, Japanese Knotweed and Floating Pennywort to spread. Our waterways and river systems are also highly impacted by climate change, the higher frequency of storms and droughts.

Rivers

The **River Dee** rises in Eryri (Snowdonia) National Park in Wales and joins the English border above Chester. It is designated as a Water Protection Zone and a SSSI due to its importance as a source of drinking water for 3 million people and because of certain designated features. It has water meadows in Chester, which occasionally flood but many sections of it have been heavily modified.

The **River Dane** has many natural features such as oxbows, sandy cliffs and sand bars. Significant amounts of woodland can be found along the steep banks near Holmes Chapel, including ancient woodland.

[7] State of our Rivers Report 2024 | The Rivers Trust

A tributary of the River Dane, the **River Wheelock** area is a designated Local Wildlife Site due to its reeds, Reed Sweetgrass and Red Canary Grass which provides an important habitat for the Marsh Harrier and the elusive Bittern (once locally extinct). It is an important ecological connectivity corridor to the Sandbach Flashes SSSI.

The **Weaver** is the longest river in the county at over 50 miles rising in the Peckforton Hills and joining the Manchester Ship Canal before entering the Mersey Estuary. Between Nantwich and Winsford it is more semi-natural and meandering but downstream of Winsford, it has been heavily modified with weirs and locks to allow boats to bring in coal and export salt. It even had its own Act of Parliament to permit navigation in 1759.

Also rising in the Peckforton Hills is the **River Gowy** which follows the lowland of Cheshire for 22 miles. It is the most heavily modified river in the area, and has been straightened, dredged and had its banks raised to drain once marshy floodplain for agriculture and to reduce flooding, yet it still provides important coastal and floodplain grazing marsh habitat in several locations along its route. It plays host to nationally rare insect species at the Gowy Marshes and is an important area for wading birds.

The Mersey flows through Warrington Borough meandering through Paddington Fields on the northern edge of Woolston Eyes, before meeting the estuary at Howley Weir. It then flows heavily channelled through the southern edge of Warrington Town centre out on the west side of the town to more naturally meander before being joined by **Sankey Brook** and the Gowy west of Warrington.

Canals Provide important ecological corridors especially in urban areas, home to Gadwall – a dabbling duck (photo), Reed Bunting and Willow Warbler. Canal boat traffic can cause sediment churn which prevents submerged water plants growing, and dredging adds to habitat loss. Piling at the sides of canals can cause irreparable damage to bordering wetland vegetation and significantly reduce their wildlife value. Canals are very popular with people but unfortunately there are some who drop litter and dogs not being on leads can cause disturbance to wildlife like nesting birds. Canals are not immune to invasive species like Giant Hogweed, Japanese Knotweed, Floating Pennywort and New Zealand Pygmy Weed, or algal blooms from run-off.

Estuaries - The middle Mersey Estuary is designated as a Special Protection area (SPA), Ramsar and SSSI. It is an important part of a major bird migration route. The Upper Mersey Estuary near Warrington consists of intertidal sand and mudflats and saltmarsh. They are classified as Functionally linked land to the SPA. Since the industrial revolution the river has been subject to industries dumping heavy metals, zinc, lead and arsenic into the River Mersey, but as many of these industries have disappeared, fish and other aquatic life have returned, attracting Cormorant, Heron and Grebe as the river has come back to life.

The Dee Estuary is protected by SPA, SAC, SSSI and Ramsar designations and is one of the top ten estuaries in the UK for wintering and passing waterfowl populations. Throughout the year it provides a key area for internationally designated birds, its mudflats support a variety of marine invertebrates.

Our estuaries, especially the Dee's saltmarshes, have been managed well by the RSPB but certain pressures still persist across the Dee and Mersey such as effects of persistent historic and current pollution, increased storm surges as a result of climate change and recreational disturbance, along with invasive species like the Chinese Mitten Crab.

Nature Recovery Opportunities for Watercourses

- **Adopt nature-based interventions in the landscape to improve water quality e.g. hedgerows, buffer strips and river-side tree planting.**
- **Develop upon the good work of the catchment partnerships to complete further Water Framework Directive (WFD) enhancement measures by speeding up river restoration and wetland creation.**
- **Eradicate American Mink, to help establish a viable population of water voles again.**
- **Require developers of large-scale developments to minimise damage to estuarine habitats and through Biodiversity Net Gain policies, mitigate for any losses by habitat restoration elsewhere.**
- **Provide buffering habitats to help catch pollution run-off.**

Priorities and Actions for Watercourses

Priority	Actions	Related Species
Cleaner and resilient watercourses with more abundant native wildlife	• Create interventions in the landscape to slow the flow and reduce run-off. • Re-connect rivers and estuaries with their floodplains. • Facilitate identification, regulation and enforcement of pollution by relevant agencies. • Protect exposed river sediments from vegetation building up, disturbance by animals, excessive run-off and pollution. • Create fish migration map to highlight bottlenecks and raise awareness on the impact. • Create backwaters and bays alongside buffer zones. • Remove sources of pollution of our catchments by encouraging nature based solutions in the landscape. • Reduce pollution of our catchments. • Remove or adapt barriers to allow fish and other river species full access to our rivers and streams. • Enhance natural structures in rivers for biodiversity benefits. • Ensure better natural recharge of water bodies during low rainfall periods. • Create and restore a variety of riverside (riparian) habitats. • Improve water quality.	• White-clawed freshwater Crayfish • Migrating Fish Assemblage (i.e. Atlantic Salmon & European Eel) • Mud snail • Lowland Raised Mire Invertebrates Assemblage • Exposed Riverine Sediment Invertebrate Assemblage • European Water Vole • Common Club-Tail Dragonfly • Desmoulin's Whorl Snail
The whole river catchment, from source to sea, functions as naturally as possible	• Re-connect rivers to their floodplains and allow them to flow more naturally, where possible. • Create a mosaic of habitats in the catchment that holds and slowly releases water over time to refill our waterbodies for nature and people. • Re-engineer canal banks using more natural materials and to encourage mix of planting. • Enhance canals by improving and creating better habitats for nature.	• Exposed Riverine Sediment Invertebrate Assemblage • Common Club-Tail Dragonfly
Our estuaries are restored for nature and enhanced by local communities	• Enhance and create habitats along our estuaries. • Manage and re-align flood defences to create intertidal habitats. • Reduce the impact of public access on feeding and nesting birds.	• Exposed Riverine Sediment Invertebrate Assemblage

Delivering the Actions: What More Can We Do?

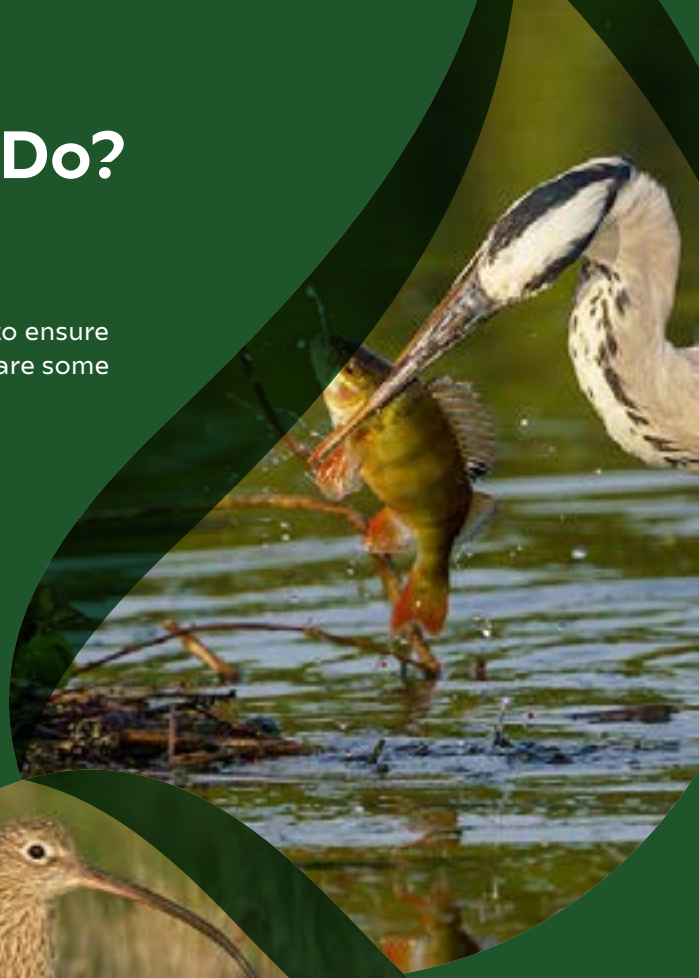
Suggested activities to support the actions

What exactly needs to happen to make the priorities a reality and deliver the actions outlined above? We need to ensure that the funding, investment, skills and knowledge are in place to enable the actions. In the below section, here are some examples of practical activities that could support delivery of the priorities and actions.

More of these are being developed as part of ongoing action plans.

How could we deliver cleaner and resilient watercourses with more abundant native wildlife?

- ✓ Create interventions in the landscape to slow the flow and reduce run off.
- ✓ Facilitate identification, regulation and enforcement against pollution by relevant agencies.
- ✓ Create a variety of river and riverside adjacent habitats e.g. clough woodlands, neutral grasslands and wetlands to re-connect our rivers and canals with the wider ecosystem.
- ✓ Encourage better design and planned management of Sustainable Drainage Systems (SuDS) and permeable surfacing as part of development through planning policy and design codes.



What is diffuse water pollution? Diffuse water pollution comes from lots of smaller, scattered and intermittent sources including run off from transport, agricultural soils and nutrients, pesticides and leaching through soils or underground drainage, which all combined to pollute our watercourses.

How could we ensure that the whole river catchment, from source to sea, functions as naturally as possible?

- ✓ Create a **pilot investment scheme** for the Weaver-Gowy catchment to improve water quality, slow the flow during high rainfall events and ensure a more natural slow release of water from habitats in the landscape at times of low rainfall to support nature, provide water for businesses and society and to help defend communities from flooding. When principles are demonstrated, roll out to other catchments.
- ✓ Create a more diverse selection of habitats in the catchment to protect soils, reduce nutrient runoff and increase groundwater absorption.
- ✓ Work together on suitable reintroduction of important species e.g. Eel and Water Vole.
- ✓ Support development and delivery of diffuse water pollution management plans.

How could we restore our estuaries for nature and help local communities enhance them?

- ✓ Coordinate with Mersey and Dee Estuary Partnerships to provide advice and action to encourage responsible recreation to reduce the impact of public access on feeding and nesting birds.
- ✓ Expose mudflats and sand and shingle patches along the rivers to act as microhabitats for insects, fish spawn and provide nest sites for Kingfishers and Sand Martins.

Peat and Wetlands

This section outlines the current state of our peat and wetlands, the pressures they face, opportunities for nature recovery and the priorities and actions for this habitat.

The state of our peat and wetlands

- **3280ha standing open water**
- **692ha Blanket bog**
- **16,000 ponds**
- **Cheshire's Meres and Mosses are internationally and nationally significant for wildlife.**

Cheshire and Warrington have a range of peat and wetlands formed after the last ice age 20,000 years ago – known as its Meres and Mosses. These support a variety of important habitats and species including Lowland Raised Bogs and Basin Mires, Upland Blanket Bog, Fens and Reedbed, Inland Salt Marsh, Meres, Lakes and Ponds. Development pressure, climate change, drainage, erosion, nutrient enrichment from nearby ditches and watercourse, succession (see box), invasive species like Himalayan Balsam and lastly, recreational disturbance put these valuable habitats at risk.

Peat

There are 153ha of **Lowland raised bog** and 20.4ha of **Basin mire** remaining. Lowland raised bogs formed gently-curving domes of peat up to 12 metres thick, rising above the surrounding landscape and fed only by rainwater. Their swampy pools are filled with Willow, other water-borne tree species and reeds followed by vegetation and sphagnum mosses growing on rafts above the surface of trapped water beneath. Over the years, this formed peat, an important carbon store. This process still occurs in places like Abbots moss, also known as 'quaking bogs'. Today most of the mosslands of Cheshire and Warrington are relict peat. The small areas of mossland support rare species of invertebrates such as the Floating Raft Spider, aquatic beetles and heath butterflies while the best mosslands support rare plants such as Royal Fern, Juniper, Cranberry, Bog Rosemary, the Carnivorous Sundew and host multiple species of sphagnum moss.

Succession – it's natural but it's a problem. Succession is a threat to some habitats but what does it mean?
Nothing stays the same, and that is natural. So, habitats evolve – soils build up as plants rot down, ponds fill with silt and plants, unmanaged grassland 'scrubs up'. If ponds aren't cleaned out, new ponds aren't being created, there will be no new sites for rare species to move and habitats will be lost. With so few protected or safeguarded spaces, nature is at more of a risk, so we need to ensure that succession does not mean we lose our last remaining habitats for key species.

Upland Blanket Bog formed around 7,500 years ago as mosses accumulated, trapping organic matter and carbon to create waterlogged expanses of peaty soils. Peat forming species colonise this habitat, such as Sphagnum mosses, accompanied by Common and Hare's Tail cotton grasses. Cheshire's upland blanket bog is found on the flanks of the South Peak's Pennine hills where the habitat supports birds like Merlin, Golden Plover and Short Eared Owl. This is a protected landscape, reflected in international, national and local designations. Sadly our upland blanket bogs have dried out in some cases, others have been subject to high levels of historic pollution and disturbance which destroyed tracts of peat making it more vulnerable to erosion and wildfires. Efforts are being made to restore blanket bog and related habitats with a view to turning them from carbon emitters back into carbon sinks by helping them to hold more water and reduce flood risk. This includes gully blocking, planting Sphagnum Moss and stabilising existing peat.

Wetlands

Fens and Reedbeds (photo) occur on the edges of open water in valleys and depressions and around springs and flushes, where the soil remains waterlogged most of the year. Fens and reedbeds form an important mosaic of varied habitat around the meres (lakes) of Cheshire and are home to the famous booming Bittern, groups of Warbler and flowers – Marsh Violet, Purple Loosestrife and Meadowsweet. We have nearly 500 hectares of fen and reedbed, reduced over the years through drainage for agriculture and the lowering of the water table on neighbouring land. Flood barriers have acted to disconnect rivers from their floodplains which in turn damages many of these wetland habitats.

Inland Salt Marsh is Cheshire's rarest habitat and due to its fragmentation and a lack of recording we don't know its current extent. It is an important habitat (one of the most at risk habitats across Europe) found near salt workings where brine springs come up. Forming part of a mosaic habitat it supports Saltmarsh Grass and Lesser Sea-Spurrey.

Meres & Mosses are mainly located across lowland Cheshire and include natural glacial meres ranging in depth from 1 – 27m, artificial reservoirs, flooded sand and gravel pits, subsidence lakes and flashes (wetlands formed in old mining areas). These all provide vital habitat for insects, dragonflies and wildfowl. Cheshire's meres and mosses have suffered from pollution, from human pressure – nitrogen leaching from sewage works, overstocking with fish, disturbance from boats and through the spread of invasive non-native species.

What is Wet Woodland? Willow Carr and Alder Carr are types of wet woodland that grow in fens and bogs with a bulky ground layer of plants like Royal Fern, Yellow Flag and Meadowsweet. What is a pond? It's a water body less than 2 hectares in size. Ponds have a life cycle – gradually silting up and becoming marshy at the edges as trees and plants encroach; eventually they're visible as clumps of trees, and may only have water in during the winter as some dry up in the summer, this sometimes serves to remove fish present that predate on most other aquatic life. A pond that is good for wildlife is species rich with lots of variety and plant life at different stages to support aquatic and insect species.

Ponds Cheshire has one of the densest pond landscapes in the country with 16,600 ponds remaining out of the pre-20th century's 41,000 ponds. Areas close to Handforth, Arley and Tabley are particularly rich in ponds. Old pond locations or 'ghost ponds' can be seen as contours on the ground or found on old maps. Cheshire also has the greatest concentration of Great Crested Newts in England. Ponds act as a network of wildlife habitats and as stepping stones in the landscape for aquatic and wetland species. Because many of Cheshire's marl pits (clay pits) were dug at a similar time, without management many of these ponds are reaching the later stages of their life cycle, silted up and often seen as clumps of trees in the landscape. In the last 40 years Cheshire's ponds can be adversely impacted by chemical drift and fertiliser run off and sometimes taken over by invasive species.

Case Study: Lindow Moss Landscape Partnership

Lindow Moss is a unique and historically important place in Wilmslow, Cheshire, home to Lindow Man, the preserved bog body discovered in the 1980s. Lindow Moss is one of the largest lowland peatlands in Cheshire and is a diverse mosaic of habitats and a key area for carbon storage due to its peat content. The Lindow Moss Partnership was established in February 2024 by Wilmslow Town Council, Transition Wilmslow, Cheshire Wildlife Trust, Groundwork Cheshire Lancashire & Merseyside, Cheshire East Council, Natural England, Friends of Lindow Moss and Mersey Rivers Trust. They have developed a 10 year **action plan** and secured a National Lottery grant to begin work to achieve their vision of a landscape in recovery, for nature, for the climate and for our citizens.

Nature Recovery Opportunities for Peat and Wetlands

- **The Natural England Great Crested Newt District Level licensing has created 300 new ponds in the past six years and restored around 100, and the funding will be continued for the foreseeable future.**
- **Peat restoration projects are currently taking place with the Great Bog project and the Greater Manchester Wetlands project, which includes areas of Warrington.**
- **Trials of wet farming techniques have been established with the Mersey Rivers Trust and this could be expanded to ensure floodplains are re-connected to the rivers.**

Priorities and Actions for Peat and Wetlands

Priority	Actions	Related Species
Peat priority habitat restored to be more climate resilient and buffered with semi-natural habitats	• Planning permission for new or extended sites for peat extraction should be refused and peat deposits should be protected from harmful development (we may not be able to do anything regarding historic allocations). • Rewet blanket bogs and restore peat, manage for biodiversity and reduce carbon emissions. • Enhance and restore blanket bog plant diversity. • Expand existing wetlands and species diversity through restoration. • Enhanced mosaic of habitats buffering lowland wetlands (e.g. Wet woodland). • Increase lowland raised bog restoration.	• Open Mosaic Butterflies & Moths
More, bigger, better and more joined up wetland habitats	• Target wetland creation in naturally wet areas. • Re-introduce and increase the sphagnum moss and companion species cover across our meres and mosses. • Minimise recreational disturbance, where possible. • Raise awareness amongst the public and landowners of their needs, diet and benefits of presence. • Increase capacity for raptor nest watches. • Maintain sphagnum moss lawns by controlling water levels and avoiding drying out/scrubbing up. • Create buffer zones around known sites to prevent damage from surrounding land use practices. • Safeguard, restore and improve wetland habitat, providing buffers to protect water quality and by managing invasive non-native species. • Develop opportunities for local businesses to invest in peat restoration to offset their carbon impact.	• Desmoulin's Whorl Snail • Lowland Raised Mire Invertebrates • Mud Snail • Lesser Silver Water Beetle • Birds of Prey Assemblage (e.g. Hobby & Marsh Harrier)

Delivering the Actions: What More Can We Do?

Suggested activities to support the actions

What exactly needs to happen to make the priorities a reality and deliver the actions outlined above? We need to ensure that the funding, investment, skills and knowledge are in place to enable the actions. In the below section, here are some examples of practical activities that could support delivery of the priorities and actions.

More of these are being developed as part of ongoing action plans.

How could we deliver peat priority habitat restored to be more climate resilient and buffered with semi-natural habitats?

- ✓ In some areas, planting trees and scrub can help stabilise the blanket bog edge or larger gullies.
- ✓ Seek resources to rewet the blanket bogs in the Dark Peak, working with willing landowners, to restore peat and improve biodiversity.
- ✓ Stabilise remaining areas of bare peat using geotextile or heather brash, and revegetate using grass nurse crops.
- ✓ Restore traditional open mosaic peatland by managing deer within the Peak District National Park Authority.

How could we deliver more, bigger, better and more joined up wetland habitats?

- ✓ Restore the full range of blanket bog plants by reducing heather or grass dominance, through different methods. Some species may need reintroduction.
- ✓ Create a carbon and nature-based investment scheme for Lowland and Upland Peat, for innovative habitat restoration and water management.
- ✓ Encourage positive management of ditches and watercourses near wetlands to ensure they are not impacted by nitrogen, phosphates or invasive species.

Species Priorities and Actions

Whilst restoring and safeguarding nature in the four habitat areas and in the three themes should help halt species decline and nature to recover, we have identified priority species for Cheshire and Warrington that require special actions. These are shown here in alphabetical order.

Priority	Action	Habitat Link
Common-Clubtail Dragonfly		**Watercourses**
	• Conduct bespoke habitat management to maintain a balance of vegetation along water courses. • Provide good water quality, nearby scrub and wood, and shading that is below 50% during May to July. • If dredging is carried out, it should be done in sections with the spoil left long enough for larvae to make their way out, then eventually be moved away from the watercourse.	**Woodland, Hedgerows and Trees**
Desmoulin's Whorl Snail (this is just 3mm tall)		**Watercourses**
	• Provide high water levels and good quality habitat, including areas of Greed Sweet-grass (Glyceria). • Protect river banks from evolving into scrub. • Do not cut river bank vegetation short. • Do not drain wetland habitat.	

Priority	Action	Habitat Link
European Water Vole		**Watercourses** **Farmland**
	• Eradicate or control American mink. • Create buffer strips along water courses. • Control livestock access to river banks (through fencing or seasonal fencing). • Carry out sympathetic bank and ditch management so the burrows are not destroyed. < Water Vole Terry Whittaker 2020 Vision Wildlife Trusts	
Hen Harrier		**Heathland** **Peat & Wetland**
	• Support action to halt illegal persecution.	

Priority	Action	Habitat Link
Lesser Silver Water Beetle		**Peat & Wetlands** **Farmland**
	• Maintain livestock access to ponds and ditches, maintaining the poached margins. • Leave vegetation in ponds and do not dredge them. • Keep numbers of ponds fish-free to avoid predation. < Image copyright Andy Harmer	
West European Hedgehog		**Urban** **Nature Based Solutions**
	• Connect urban spaces through 'hedgehog holes' and road bridges/tunnels. • Foraging areas should be considered in planning applications alongside badger setts. • Dark corridors should be encouraged along waterways and in areas of urban landscape that connect foraging habitat. Increase awareness of hedgehog diets, how to avoid pest species in gardens and what materials could be used for hibernation. • Encourage promotion of local and national citizen science projects to record hedgehog numbers	
Atlantic Salmon		**Watercourses**
	• Where possible, allow river channels to return to a natural meander providing greater protection from predators. • Modify or remove weirs and/or install fish passes. • Create fish migration map to highlight bottlenecks and raise awareness on the impact.	

Priority	Action	Habitat Link
Mud Snail 	• Install or safeguard ephemeral (occasional) ponds • Avoid drainage and management practices that involve clearing vegetation and deepening of ponds.	**Peat and Wetlands** **Farmland**
Open Mosaic Butterflies and Moths 	• Within appropriate habitats maintain a mix of 'micro' habitats with a variety of plant species and ages. • Plant food sources such as Common Bird's-foot-trefoil and Greater Bird's-foot-trefoil alongside a variety of grasses such as False Brome and Cock's-foot.	**Open Mosaic Habitats** **Urban** **Farmland**
Swift 	• Increase suitable nesting sites through sympathetic renovation works and installation of nest boxes and swift bricks. • Develop a communication campaign to gain public support for swifts. • Encourage and promote people to record swifts on 'Swift mapper' or RECORD's data app 'SWIFT' • Encourage gardening for wildlife by planting suitable wildflowers to help increase invertebrates, providing more food sources, and by reducing weed killers and pesticides.	**Urban** **Public**

Priority	Action	Habitat Link
White-Clawed Freshwater Crayfish		**Watercourses**
	• Use environmental DNA testing to locate populations of White-Clawed Freshwater Crayfish and non-native crayfish. • Identify potential future ark sites. • Continue translocations and monitoring of ark sites. • Control non-native crayfish to reduce competition for food. ***Ark sites** are being used across the UK to create stable populations in remote areas free of disease, non-native crayfish and other threats.*	
White-Letter Hairstreak Butterfly		**Woodland, Hedgerows and Trees**
	*This butterfly breeds on Elm species (many of which were killed during the Dutch Elm Disease outbreaks of the 1970s).* • Plant Wych Elm, English Elm and Small-leaved Elm. *< Ian Leach, Butterfly Conservation*	
Willow Tit		**Woodland, Hedgerows and Trees**
	• Increase the presence of woodland glades, open canopy, standing deadwood and a dense shrub layer within woodland. • Adopt coppicing in suitable damp woodland sites to manage woodland structure. • Create and maintain woodland's scrubby, edge habitats. • Install nest boxes with a modified design to replicate holes within deadwood. • Keep aware of ongoing research and implement delivery based on best practice. • Increasing woodland scrub density benefits Turtle Dove and Nightingale, and increasing standing deadwood benefits Lesser Spotted Woodpecker and deadwood invertebrates.	

Reintroductions

Alongside prioritising action to help vulnerable species, there is public interest in the reintroduction of lost species. Reintroductions are possible in the urban and rural areas.

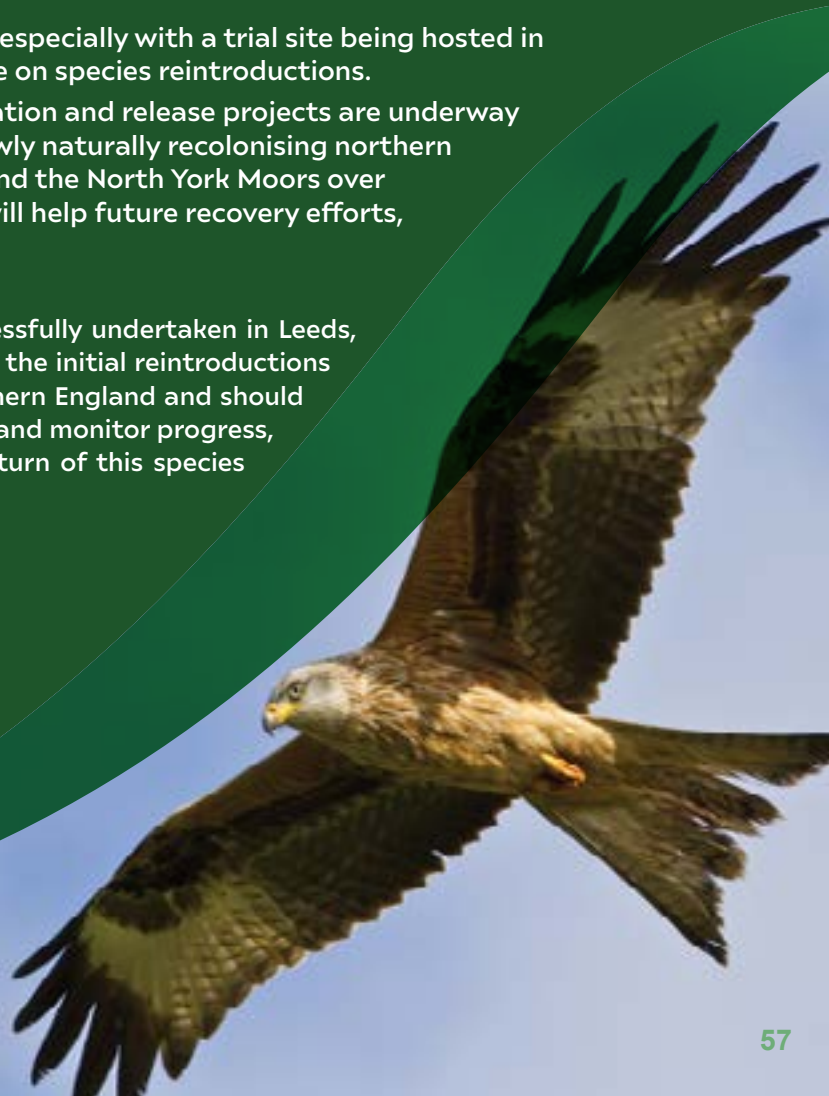
Based on responses to the public and expert workshops, the most popular species for local reintroduction is the beaver, Pine Marten, Silver-Studded Blue butterfly and Large Heath Butterfly

Alongside beavers, other popular candidates for reintroduction included the pine marten and large birds of prey such as the red kite or hen harrier. Locally, there is a further need to discuss the development of a reintroduction group, concerted landowner engagement, habitat improvements and the identification of viable reintroduction sites would all be key actions on the journey to reintroduce species.

- Beaver: Although, there have been discussions about the possible reintroduction of the Beaver, especially with a trial site being hosted in Hatchmere Nature reserve currently, we will be following the DEFRA and Natural England advice on species reintroductions.
- Pine martens: Pine martens are not currently thought to be present in Cheshire. Initial translocation and release projects are underway in the UK to boost remaining remnant population in Wales. 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.

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 sitings since the initial reintroductions in Yorkshire, Cumbria and Gateshead populations of red kite have successfully expanded across northern England and should reach Cheshire. 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 this species to Cheshire.

“I would add more green spaces like wildlife parks to get animals to rest and have a good space.”



LNRS Schools Consultation and Competition

During the LNRS development process, we asked Edsential (a CIC, specialising in Learning outside the classroom) to host a consultation with multiple schools across the LNRS area.

Overall, they were able to attend 24 schools and delivered to 36 classes/year groups and eco councils and 111 pupils answered individual questionnaires . Feedback we received was positive during the visits.

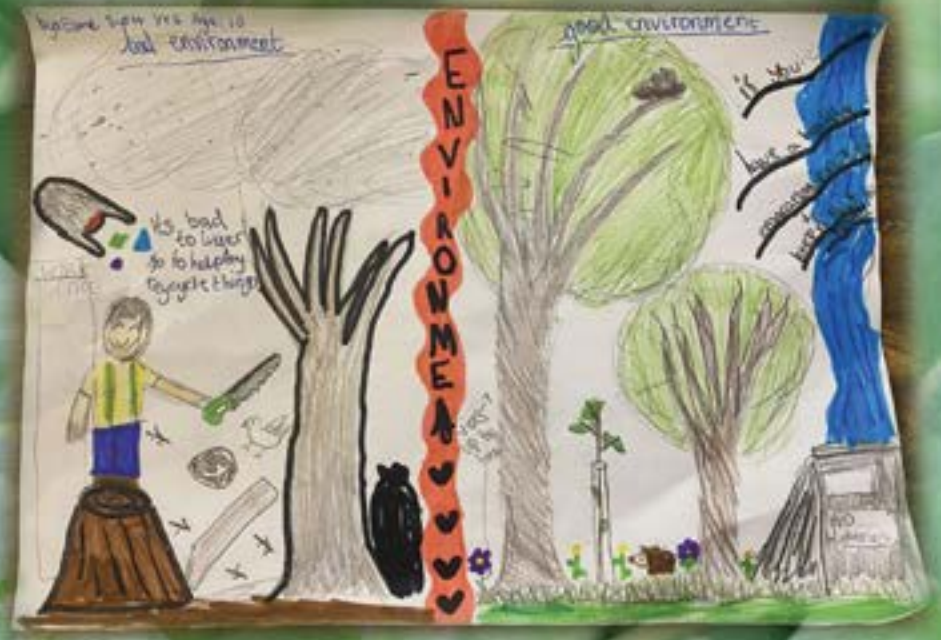
Students were encouraged to create their pieces of work that reflected their responses.

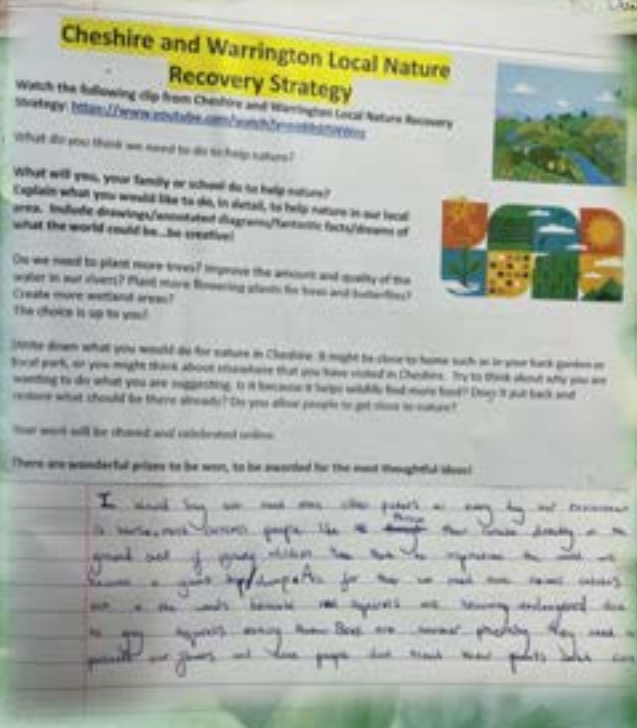
Working with eco-councils was very effective as the students and staff already had a vested interest in the LNRS.

Some of the artwork and quotes from questionnaires submitted are seen in this section.

> **"Add a pond and monitor the biodiversity levels so we know if we have encouraged any plants or animals. Encourage in bees to pollinate more flowers and also plant wildflower meadows"**

> **"Increase our woodlands. Get kids to plant trees now to create trees"**





Cheshire and Warrington Local Nature Recovery Strategy

Watch the following clip from Cheshire and Warrington Local Nature Recovery Strategy: https://www.youtube.com/watch?v=xxxxxxxxxxx

What do you think we need to do to help nature?

What will you, your family or school do to help nature?
Explain what you would like to do, in detail, to help nature in our local area. Include drawings/annotated diagrams/fantastic facts/dreams of what the world could be...be creative!

Do we need to plant more trees? Improve the amount and quality of the water in our rivers? Plant more flowering plants for bees and butterflies? Create more wetland areas?
The choice is up to you!

Write down what you would do for nature in Cheshire. It might be close to home such as in your back garden or local park, or you might think about somewhere that you have visited in Cheshire. Try to think about why you are wanting to do what you are suggesting. Is it because it helps wildlife find more food? Does it put back and restore what should be there already? Do you allow people to get close to nature?

Your work will be shared and celebrated online.

There are wonderful prizes to be won, to be awarded for the most thoughtful ideas!

Farmland

Cheshire is predominantly an agricultural landscape, with productive farmland covering 60% (139,968ha) of the area. By the 12th century, Cheshire was one of the main dairy regions in the UK. The dairy industry initially relied on natural hay meadows and water meadows. The difference between today's ryegrass crop to the hay and water meadows that made Cheshire's rich yields was the introduction of industrial fertiliser. The areas of permanent species rich pasture and hay meadow worked hand in hand with the soil due to the difficulty to plough, resulting in a self-sustaining system.

In the east of the county, crops were grown in rotation with grass. Since the second world war, agriculture in Cheshire intensified as a result of the Agriculture Act in 1947 and Common Agricultural Policy in the 1970's, causing nearly 60% of habitat loss. From the 1990s, EU agri-environmental schemes were introduced and government policies since leaving the EU have focussed on encouraging more traditional practices of food production to provide food security and incorporate nature recovery into farm practices.

The Environmental Land Management Schemes (ELMS) created by the 2019 UK government have provided incentives for farmers and landowners to transition to nature friendly farming. 50% of England's farmers have already signed up to the Sustainable Farming Incentive, one of the ELM schemes, reflecting the positive uptake and role farmers are prepared to play as the main stewards of our landscape.

The benefits of taking nature recovery actions on each of the four habitat areas have been outlined in sections above including:

- **Healthy hedgerows and new hedgerows** provide shelter and browsing for animals, benefits to crops, preventing soil runoff and improving water quality.
- Species rich grassland and herbal leys provide **mineral and nutrition** to grazing animals along with **longer grazing seasons,** with **greater resilience to drought** and **flooding** through their deeper root systems. Hay and silage cutting should be undertaken taking into account ground nesting birds, and cut and remove introduced to preserve unimproved grassland where livestock are not present.
- Use of **nature-based solutions and natural flood management** to reduce and slow runoff into waterways, such as natural buffers to arable crops, retention ponds, leaky barriers, riverside and floodplain woodland, riverside fencing for cows to maintain the banks as habitats, sympathetic management of ditches (eg clearance of one side, retaining spoil so larvae can hatch before spoil is removed) and reconnecting rivers to their floodplains.

There are also many actions within each of the habitat sections that farmers and landowners are encouraged to take to conserve and restore natural habitats, wildlife corridors and improve water quality. Some of these are low cost or simple changes to practices that can have a significant effect to turn around species decline, such as changing hedge cutting to every two or three years and forming an A shape hedge; or installing bird boxes and preserving headlands for species rich wildflowers. Others obviously require more in depth planning and funding within farm business plans. Some funds are currently available, to support positive management of woodland, hedgerows, ponds and other habitats via agri-environment grants, or Biodiversity Net Gain, while other forms of support and funding are still being developed.

To deliver this strategy, the Local Nature Partnership is committed to providing and enabling expert support and lobbying so that our farmers and landowners can easily access information and resources, in partnership with the Future Farmers Group, the National Farmers Union and Countryside Landowners Association. Together we can work to make Cheshire and Warrington's farms and land both sustainable and financially successful.

Case Study: Mersey Rivers Trust

Mersey Rivers Trust (MRT) runs a **water friendly farming programme** across several catchments of the Mersey basin including the Upper Weaver in Cheshire. Working in partnership with others (e.g. Environment Agency and Natural England's Catchment Sensitive Farming) the Trust engages with land managers to raise awareness of the need to protect and improve water quality. Where funded, MRT can offer a small grants to implement measures identified in the plan such as soil management, cover crops, slurry management, livestock fencing and trackway improvements.

> **Mersey Rivers Trust - Water Friendly Farming Hub.**

Nature Recovery Opportunities for Farmland

- Since 1992, agri-environment schemes were introduced under the EU to address the impacts on wildlife and have continued since the UK's exit from the EU.
- England's agri-environment schemes have been strengthened and new schemes established such as Landscape Recovery, which is designed to support large-scale projects for environmental and climate benefits.
- Improvement in data capture and analysis with the agri-environment schemes enable us to develop an understanding of the positive impacts.
- To increase the county's farmland bird population by 10% over 10 years, approx. 26% of the farmed landscape needs to be devoted to higher tier agri-environment schemes.
- If we can re-establish and extend the hedgerow network we can reduce soil loss, improve soil health, increase bird populations and improve livestock and crop health.

Priorities and Actions for Farmland

Priority	Actions	Related Species
Support and promote nature friendly farming, land management and sustainable food production across the landscape	• Establish a Future Farmer Group to develop, showcase and promote sustainable farming that benefits nature • Help co-ordinate farm advice across the region to support sustainable farming, productivity and better outcomes for nature • Increase suitable nesting sites to improve breeding rates. • Install bird boxes. • Raise awareness amongst the public and landowners of their needs, diet and benefits of presence • Maintain grassland through livestock grazing but avoid soil damage where possible • Protect exposed river sediments from vegetation building up, disturbance by animals, excessive run-off and pollution. • Practice sensitive silage and haymaking practices during nesting season. • Safeguard nesting habitats • Adopt sympathetic land management practices, particularly during nesting season (eg. keeping livestock away from nesting areas). • Maintain wet features such as drains and scrapes. • Create reptile corridors and compost heaps (any heaps of decaying vegetation) across farmland to allow greater reptile movement within the area and egg laying sites. • Encourage and promote benefits of hedgerows to livestock, soils and crops. • Ensure easy process for landowners to develop and deliver Biodiversity Net Gain (BNG) units to the developer market. • Improve farming businesses through nature-based solutions.	• Birds of Prey Assemblage (e.g. Barn Owl, Sparrowhawk) • Reptiles assemblage (e.g. Grass Snake, Slow Worm) • Farmland Birds (e.g. Skylark, Yellowhammer, Corn Bunting and Yellow Wagtail) • Grassland Fungi Assemblage • Lesser Silver Water Beetle • Mud Snail • Open Mosaic Butterflies and Moths • Invertebrates on exposed river sediments • European Water Vole • Breeding waders assemblage (i.e. Lapwing, Curlew)

Delivering the Actions: What More Can We Do?

Suggested activities to support the actions

What exactly needs to happen to make the priorities a reality and deliver the actions outlined above? We need to ensure that the funding, investment, skills and knowledge are in place to enable the actions. In the below section, here are some examples of practical activities that could support delivery of the priorities and actions.

More of these are being developed as part of ongoing action plans.

How could we support and promote nature friendly farming, land management and sustainable food production across the landscape

- ✓ Establish a Future Farmer Group to explore, generate and promote ways to support sustainable farming and to share lessons, resources and experience with each other.
- ✓ Develop case studies, networking and examples of good practice, promoting the benefits of investing in nature interventions to support animal health and welfare.
- ✓ Establish a cooperative or farming group to explore how we can make our woodlands viable for business and nature.
- ✓ Develop the concept of **Farmer-forester** with the farming community, forestry organisations and further education colleges to provide broader training for landowners and their employees and contractors.
- ✓ Research, develop and promote with equine organisations and veterinary sector suitable species rich grassland mixes that support horse health, whilst helping wildlife to thrive.

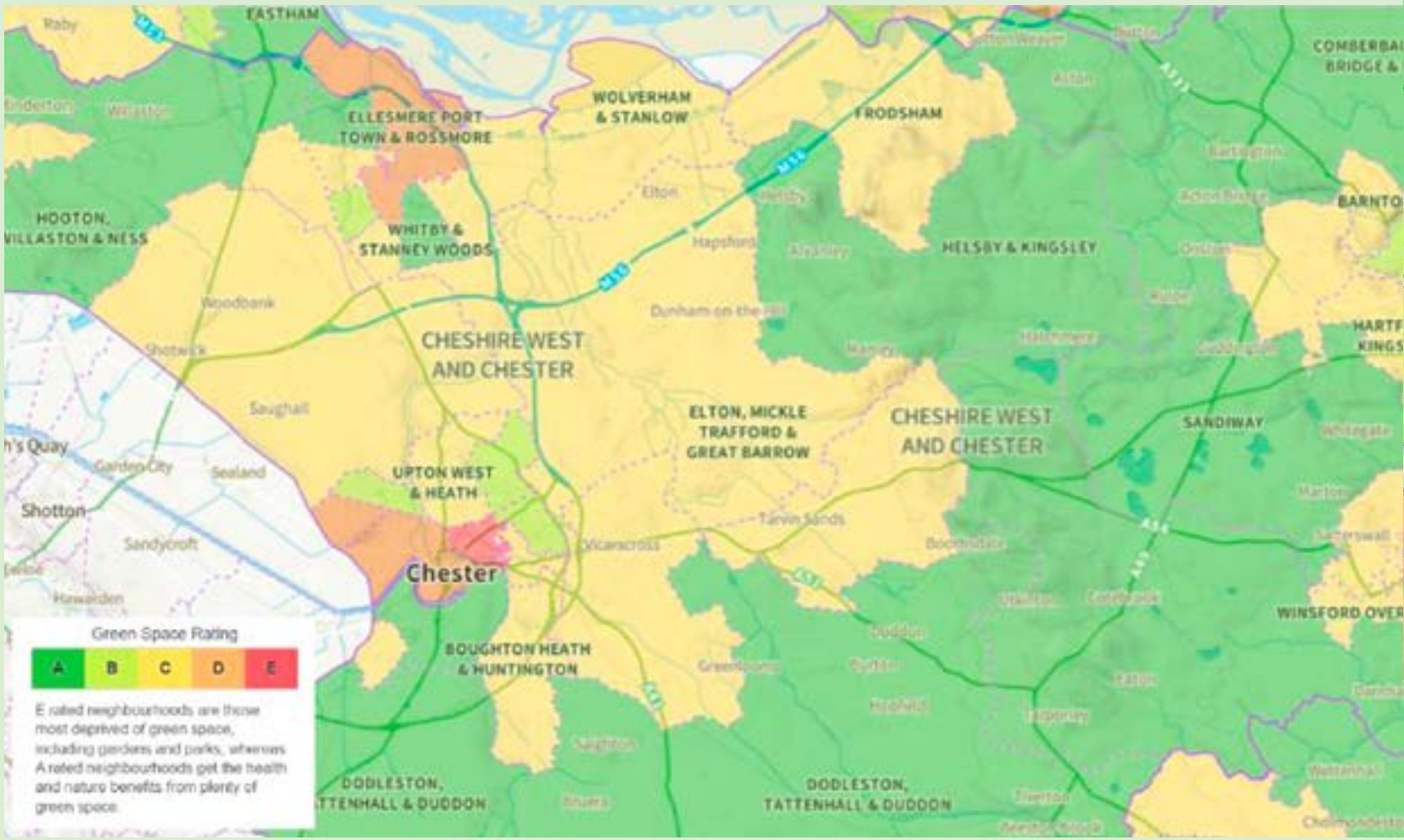
Urban

Cheshire and Warrington's urban, post-industrial landscape includes a variety of habitats, which many rare species have colonised. Cheshire and Warrington contain disused quarries, old industrial sites, former railway sidings and landfill sites, often located in the urban centres and fringes. As industrial and manufacturing processes changed during the mid to late 20th century the road network dramatically expanded,and railways became important linear wildlife corridors. Some of our brownfield sites have evolved into rare open mosaic habitats, becoming home to nationally scarce species. The salt and sandstone industry also left areas of unique habitat, such as Flashes and Lime beds. Wealthy industrialists also helped to invest in formal parks, gardens, arboretums and much of the green infrastructure we benefit from today.

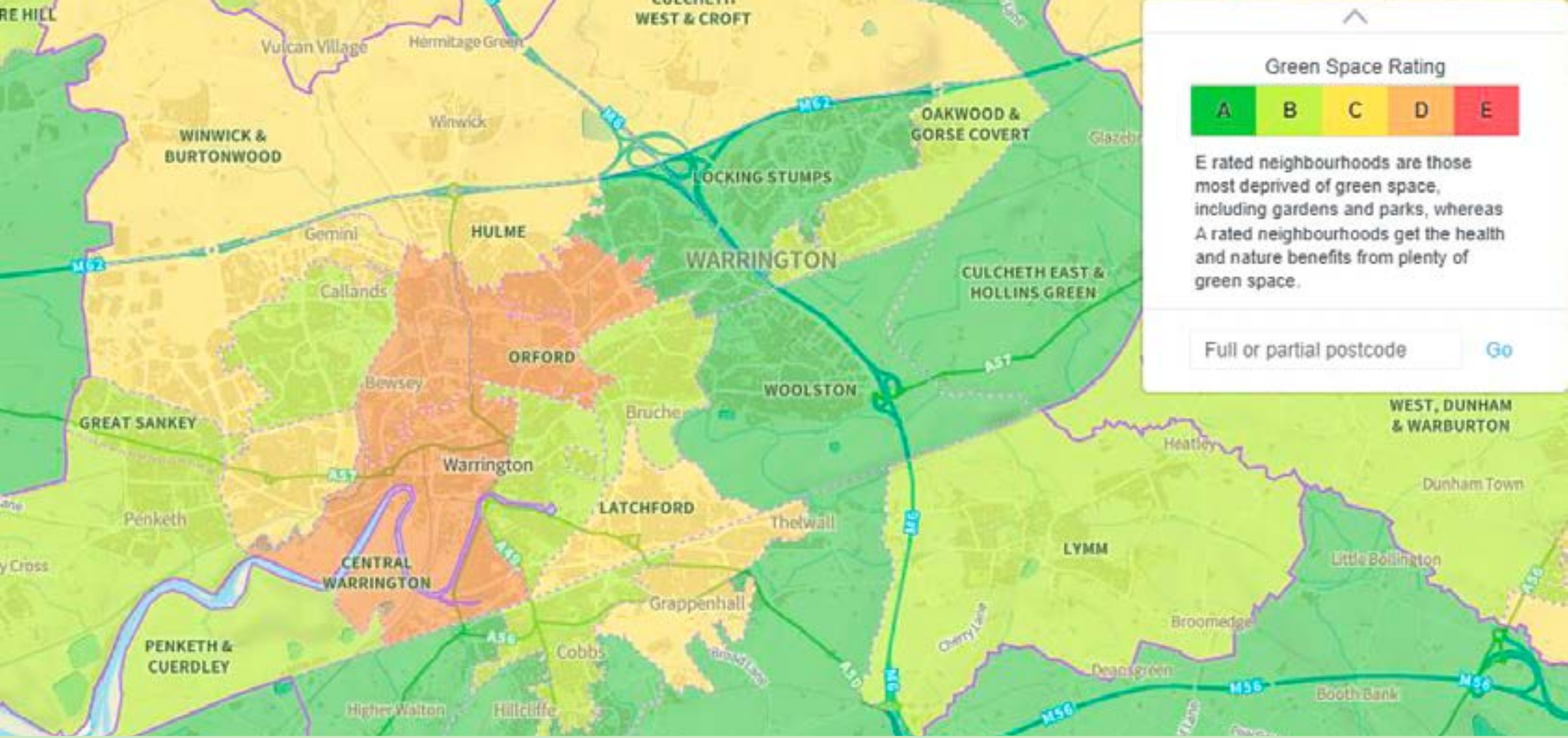
Our urban areas are vital for nature's recovery, and we can gain multiple benefits from taking action on nature while also improving our air quality, reducing heat and flood risk, improving spaces for leisure and recreation and helping improve residents' health and wellbeing.

We can also tackle some of the big inequalities and make sure everyone has access to nature including being able to access green space, woodland, rivers and grassland within a 15-minute walk of everyone's home.

Currently, according to Friends of the Earth's Green Space Rating [8]maps, people living in some of our urban areas are deprived of greenspaces such as gardens and parks, including Ellesmere Port town, Chester and Wharton, parts of Warrington and Macclesfield.



[8] Access to green space in England | Friends of the Earth



The same often goes for trees, the Tree Equity Score from the Woodland Trust is based on the principle that all communities should have equitable access to the benefits of trees where they live. While some urban areas enjoy abundant greenery and tree cover, others lack these essential natural assets.

Studies show that trees and other green infrastructure in urban areas can:

- Reduce air pollution, quieten noise and keep cities shaded and cool.
- Improve ecosystems and boost biodiversity.
- Create a sense of place, beauty and heritage.
- Create attractive environments where businesses want to invest and people want to live, work and play.
- Alleviate stress, stabilise blood pressure, ease anxiety and depression, and provide opportunity for healthy, active lifestyles.

Urban tree cover varies significantly in Cheshire and Warrington, ranging from as little as 5% in some wards in Ellesmere Port, Chester and Warrington to 30% in some wards on the edge of our towns and villages.

Case Study: Warrington's Sky Garden Culture

Warrington's award-winning Sky Garden is based on the top of a multi-storey car park. Funded by private businesses with the local authority and Warrington Museum, it is an excellent example of an educational and environmental project with multiple benefits. Not only does it provide a space for nature in an urban environment, it includes RHS gardener training for the volunteer team, a weather station to track climate change effects and an allotment, which provided food for the community at its Harvest Festival. The Sky Garden joins a growing number of Community Gardens across the Warrington area where people can get together to develop green spaces, improve the environment and improve their health and well-being.

Priorities and Actions for the Urban areas

Priority	Actions	Related Species
Better wildlife movement between urban and rural areas	• Safeguard and expand nature corridors within urban areas, to connect with broader rural landscape corridors. • Connect urban spaces through 'hedgehog holes' and road bridges/tunnels. • Foraging areas should be considered in planning applications alongside badger setts. • Dark corridors should be encouraged along waterways and in areas of urban landscape that connect foraging habitat. Increase awareness of hedgehog diets, how to avoid pest species in gardens and what materials could be used for hibernation. • Create more communal greenspace and wildlife rich areas. • Re-establish and improve wildlife culverts / underpasses along our transport infrastructure. • Integrate nature into better urban placemaking including working towards increasing tree canopy cover to at least 16%. • Develop a sponge city network to reduce possible impacts of climate change. • Improve the greenway and active travel network for nature and people. • Where possible, invest in nature in brownfield sites that are not subject to development.	• Badgers • Western European Hedgehog • Bats in urban areas (e.g. Lesser Horseshoe Bat, Noctule Bat and Western Barbastelle) • Open Mosaic Butterflies and Moths

Opportunities to Recover Nature and Provide Wider Benefits in our Urban Areas

- Ensure that multi-functional green spaces are planned into new developments and regeneration schemes.
- Manage our parks and open spaces for nature rich, climate adapted habitats.
- Make sure all our schools, care homes, hospitals and other buildings have nature-rich accessible green spaces for nature and people.
- Include green space and trees in any highways or infrastructure plans.
- As part of street lighting and lighting in public spaces, consider dimming, shielding and installing sensor activated lighting (subject to security considerations) and install warmer red-spectrum lights instead of the blue-white lights so often used.
- Support and encourage more people to make their gardens, driveways and land more nature friendly.
- Support community gardens and green spaces, for nature, food growing and climate.

We can do this by using Nature Based Solutions – for more on that, see the following section.

Delivering the Actions: What More Can We Do?

Suggested activities to support the actions

What exactly needs to happen to make the priorities a reality and deliver the actions outlined above? We need to ensure that the funding, investment, skills and knowledge are in place to enable the actions. In the below section, here are some examples of practical activities that could support delivery of the priorities and actions.

More of these are being developed as part of ongoing action plans.

How could we enable better wildlife movement between urban and rural areas?

- ✓ Map existing habitats and corridors in our towns and cities and seek opportunities to expand and connect them.
- ✓ Re-establish wildlife culverts/underpasses along our roads (owned by LA) to ensure safe passage for wildlife across all network infrastructure.
- ✓ Better plan new development to provide and enhance corridors and connections to strengthen and support the ecological network.
- ✓ By encouraging and supporting more people and communities to have 'wildlife friendly' gardens and green spaces we will help species move through the urban landscape.

There's lots more we can do to roll our sleeves up and get going on nature recovery using Nature Based Solutions - so find out more in the section below.

Nature Based Solutions

Nature-based solutions are interventions based on nature that provide society with other beneficial outcomes.

Nature-based solutions such as increasing tree cover can reduce pollution and **urban** temperatures during summers, helping to regulate the climate in our towns and cities.

Hedgerows, tree belts, more diverse grasslands and buffer strips can reduce runoff from **agricultural** fields, reducing soil loss and improving water quality in our rivers.

Nature-based solutions can help to combat the effects of climate change; re-connect rivers to their floodplains can increase flood capacity, reducing flood risk downstream. Riverside planting, buffer strips and even leaky dams in smaller streams can also 'slow the flow' to help increase water volume in drier months to sustain wildlife in our rivers and provide drinking water and sufficient provision for industrial processes.

Nature-based solutions are often a more natural, sometimes cheaper, and more nature-friendly alternative to hard engineering which only solves one problem, and sometimes creates others.

Nature Recovery Opportunities For Nature Through Nature Based Solutions In The Urban And Rural Environment

- **Strategic planning of a multi-functional nature-rich greenspace especially in new developments enables nature to recover and people to become more connected with nature.**
- **Establish more forest schools or outdoor education in our pre-schools and schools.**
- **Use design standards and good practice, such as the Building with Nature Standard or measures outlined in Wildlife Trust's Swift and Wild report, to encourage new developments to be more nature-friendly.**
- **Encourage developers to join the Homes for Nature initiative to ensure that every new home built has a bird-nesting brick or box, and hedgehog highway as standard in addition to meeting Biodiversity Net Gain requirements.**
- **To reduce flood issues, require developers to install Sustainable Drainage Systems such as swales, rain gardens and permeable surfacing that support wildlife and reduce flood risk.**
- **As part of installation, maintenance and replacement for street lighting and other lighting, we need to swap out blue-white public lighting and replace it with nature friendly lighting (warmer, lower wavelengths) in urban and rural environments to reduce impact on bird, bat[9] and other species. Also consider opportunities for ensuring lighting is no brighter than necessary or shielding street lighting subject to security and road safety considerations.**
- **Install wildlife-friendly green roofs and walls.**
- **Bat and bird boxes designed into buildings.**
- **Establish Nature Corridors to help invertebrates, reptiles, hedgehogs and other mammals to move between habitats.**
- **Planting should include native, locally sourced wildlife-friendly plants to reduce invasive species impact.**
- **Mandatory Biodiversity Net Gain is correctly implemented, monitored and strictly maintained.**

[9]Guidance Note 8 Bats and Artificial Lighting | Institution of Lighting Professionals

Priorities and Actions for Nature Based Solutions

Priority	Actions	Related Species
Nature, people and economy thriving through more, bigger, better and joined up Green and Blue Infrastructure	• Hedgerow creation prioritised within new development (see hedgerow measures). • All individual trees removed providing amenity value and eco-system services replaced with at least two trees. • Promote and improve nature at a landscape scale. • Create new green roofs, walls and spaces; retrofit, where feasible. • Mitigate the impacts of pollution from waste, transport and landfill. • Install more Blue and Green Infrastructure in new developments. • Create Sustainable Drainage Systems (SuDS) and permeable surfacing for nature, better amenity spaces and surface water management. • Diversify amenity grassland in urban greenspaces to provide more semi-natural habitats and multi-functional green spaces. • Increase urban tree canopy cover, to provide multiple benefits. Work towards 16% tree (or GI) cover target for all wards by 2035, prioritising action in wards of highest disparity. • Design buildings and infrastructure with nature benefits and improved placemaking in mind. • Encourage more nature in school grounds, well-designed with maintenance in mind.	• Mammals in urban areas assemblages (West European Hedgehog) • Roof nesting birds assemblage (Swift, House Martin, House sparrow).
Improved biodiversity by mitigating specific sources of pollution	• Local Nature Partnership to develop towards a “dark sky standard”. • Remove or mitigate light pollution particularly along the river and canal network. • Mitigate pollution from waste, industry and recycling management processes.	• Daubenton’s Bat/ Lesser Horseshoe Bat/ Noctule Bat/ Western Barbastrelle (Bats assemblage)
Better functioning watercourses for nature, people and a thriving economy	• Create, enhance and celebrate nature-based solutions throughout catchments to ensure plentiful, clean water for wildlife, people and economy. • Target habitat creation or enhancement through inset carbon sequestration close to emissions. • Store water and slow the flow through upstream habitat investment. • Promote the benefits of functional green and blue spaces for a vibrant economy.	• Open Mosaic Butterflies and Moths. • Roof nesting Birds (House Martin, House Sparrow, Starling, Swift)

Priority	Actions	Related Species
Nature, people and economy thriving through more, bigger, better and joined up Green and Blue Infrastructure	• Make nature accessible within a 15-minute walk of everyone's home. • Create communal greenspace with natural features to support stronger connections between nature and people, particularly in areas of inequality. • Provide online map and directory to inform opportunities to engage with nature through volunteering or to support green social prescribing. • Create sensory gardens, ponds, meadows and woodlands on school grounds to improve biodiversity, aid education and young people to build a positive relationship with nature at an early age. • Seek opportunities for our next generation to experience and build a positive and responsible relationship with nature through outdoor learning and/or Forest School provision across early years. • Support communities and local groups to take action for nature on their doorstep. • Create and promote opportunities to build skills for conservation, forestry or land management sectors, to build capacity and develop future stewards of nature. • Promote trailblazers and inspire wider action and involvement by celebrating communities, individuals, organisations and businesses. e.g. Organising Annual Wilder Cheshire Awards. • Promote benefits of integrating more nature into different environments (e.g. healthcare/elderly c are establishments, as part of businesses and industry environments).	• Open Mosaic Butterflies and Moths • Birds of Prey Assemblage (Hen Harrier/ Peregrine Falcon/ Goshawk and Sparrowhawk). • Breeding wader assemblage
More sustainable drainage and natural flood management, making space for water in our catchments and communities	• Install Sustainable Drainage Systems to deliver multiple benefits for nature, people and local businesses. • Develop design guidance that benefits nature and tackles climate impacts. • Install permeable surfaces and green / blue infrastructure to manage surface water. • Identify areas of significant flooding and develop nature interventions and investment opportunities to reduce risk and impact.	• Breeding waders assemblage (Lapwing/ Curlew/ Black-tailed Godwit)

Delivering the Actions: What More Can We Do?

Suggested activities to support the actions

What exactly needs to happen to make the priorities a reality and deliver the actions outlined above? We need to ensure that the funding, investment, skills and knowledge are in place to enable the actions. In the below section, here are some examples of practical activities that could support delivery of the priorities and actions.

More of these are being developed as part of ongoing action plans.

How could we ensure nature, people and economy are thriving through more, bigger, better and joined up Green and Blue Infrastructure?

- ✓ Explore installing green roofs on bus shelters, following the success of the Chester bus interchange station, creating pollinator and bee highways in urban areas.
- ✓ Stipulate use of 'warmer' wildlife friendly lighting and shielding or sensor activated external security lighting, particularly along our watercourses and in developments.
- ✓ Promote the positive role of green infrastructure in urban areas for nature, to provide environmental, economic and social benefits such as aiding urban cooling, protecting people from pollution and particulates from roads.
- ✓ Expand the **Networks for Nature** project to connect with Warrington and Cheshire East, linking towards the Bollin along the M56 corridor (This may include improvements from Highway England).

How could we ensure deliver improved biodiversity by mitigating specific sources of pollution?

- ✓ As part of the development process, developers should be encouraged to implement 'warm' wildlife friendly lighting, sensors and shielding of external security lighting and required to do this near known important bat feeding and roosting locations.
- ✓ Where possible Councils consider replacement of lighting with warmer wildlife friendly lighting.

How could we deliver better functioning watercourses for nature, people and a thriving economy?

- ✓ Agree unit calculations for carbon sequestration of different habitats as we develop opportunities for businesses to offset their carbon on their doorstep.
- ✓ Encourage individuals and communities to protect and create water features for people and wildlife.

How could we ensure more people are connected with nature, and with skills and knowledge to look after our wildlife?

- ✓ Providing communal greenspace with natural features such as trees and planting encourages greater connection between residents, resulting in stronger communities as they use and value these spaces together.
- ✓ Encourage more health and care settings to integrate nature into their grounds and buildings to help improve recovery rates and improve the health, wellbeing and quality of life of patients, residents or visitors.
- ✓ Integrate wildlife into areas of social housing to help nature in addition to contributing towards tackling social isolation and health inequalities.
- ✓ Promote benefits of integrating more nature into business, retail and industrial space.
- ✓ Develop and promote a directory and online resource map with all current opportunities to engage with nature listed, to aid self and GP green referral – e.g. Conservation work parties, Wellbeing Walks, Wildlife Trust and local groups events, Park Friends Groups, community gardening initiatives etc.

How could we deliver more sustainable drainage and natural flood management, making space for water in our catchments and communities?

- ✓ Promote and require better-quality of Sustainable Drainage Systems (SuDS) as part of development and renovation to control surface water run-off close to where it falls and copy natural drainage as closely as possible, to help manage flood risk, enhance biodiversity, improve water quality and provide high-quality amenity and communal spaces.

How could we enhance the multi-benefits and added value of nature-based solutions through the delivery of Green and Blue Infrastructure?

- ✓ Developers across Cheshire and Warrington should be encouraged to join **Homes for Nature** as a minimum and commit to installing bird-nesting brick or boxes for every new home built, as well as hedgehog highways as standard on every new development.
- ✓ Planners and developers should promote and use the **Building With Nature Standards** in placemaking.

Tackling Invasive Non-Native Species

As mentioned in the different habitat sections, some of the threats and pressures to our most important wildlife comes from invasive non-native species particularly Himalayan Balsam which shades out other species, Japanese Knotweed, and Floating Pennywort, a species that starves the water of oxygen and causes shading in waterbodies, which results in and causes other species dying off .

American Mink predate the native Water Vole, and the non-native American signal crayfish are spreading through our river and canal network, outcompeting the native white clawed crayfish and spreading disease.

So careful monitoring, management and schemes to control or eradicate these non-native invasive species are important to Cheshire and Warrington's Nature Network.

Priorities and Actions for Invasive Non-Native Species

Priority	Actions	Related Species
Invasive non-native species (INNS) minimised across Cheshire & Warrington	• Collate and promote good practice and build capacity for management and eradication of Invasive Non-Native Species • Eradicate and manage harmful Invasive Non-Native Species across all watercourses in Cheshire and Warrington. • Discourage inappropriate planting of Invasive Non-Native Species as part of landscaping and development schemes e.g. Rhododendron. • Promote the national "Check, Clean, Dry" biosecurity campaign across the county for boats, fishing equipment etc. • Regulate the importation and management of soils as part of highway and major infrastructure projects to prevent spread of Invasive Non-Native Species.	• European Water Vole • White-Clawed Freshwater Crayfish • Exposed riverine sediments invertebrates • Migrating fish assemblage • White-Letter Hairstreak Butterfly

Delivering the Actions: What More Can We Do?

Suggested activities to support the actions

What exactly needs to happen to make the priorities a reality and deliver the actions outlined above? We need to ensure that the funding, investment, skills and knowledge are in place to enable the actions. In the below section, here are some examples of practical activities that could support delivery of the priorities and actions.

More of these are being developed as part of ongoing action plans.

How could we minimise invasive non-native species across Cheshire and Warrington?

- ✓ Local Nature Partnership to work with other partners to develop eradication plans for key areas for invasive non-native species.
- ✓ Members of the public and key stakeholders to be encouraged to report sightings of invasive non-native species.
- ✓ Require and support landowners to eradicate invasive non-native species.
- ✓ Work with landowners and community voluntary groups to run 'Big Balsam Bash' events to remove Himalayan Balsam.
- ✓ Seek funding for trials to identify and evaluate the best methods for control in priority areas and share lessons though the Local Nature Partnership and with landowners/farmers through the Future Farmer Group.
- ✓ Set rafts and traps for American Mink between January and mid-April and August to December and continue trapping to prevent recolonisation[10].
- ✓ Monitor and manage signal crayfish populations, and identify ark sites for translocations of White Clawed Crayfish to build up its numbers away from threats.

[10] Mink control guidance - BASC

Cheshire and Warrington's Nature Network - Local Habitat Maps

Our Local Habitat Maps shows our best existing habitats and shows where the best opportunities are to expand, join or create these habitats.

They provide guidance for developers and businesses, environmental groups, community groups, local authorities and the public on where development should be avoided, where certain habitats should be created (and where habitats should not be created – ensuring the mosaic habitat is maintained, and that valuable rare grasslands are not lost to other habitat creation for example).

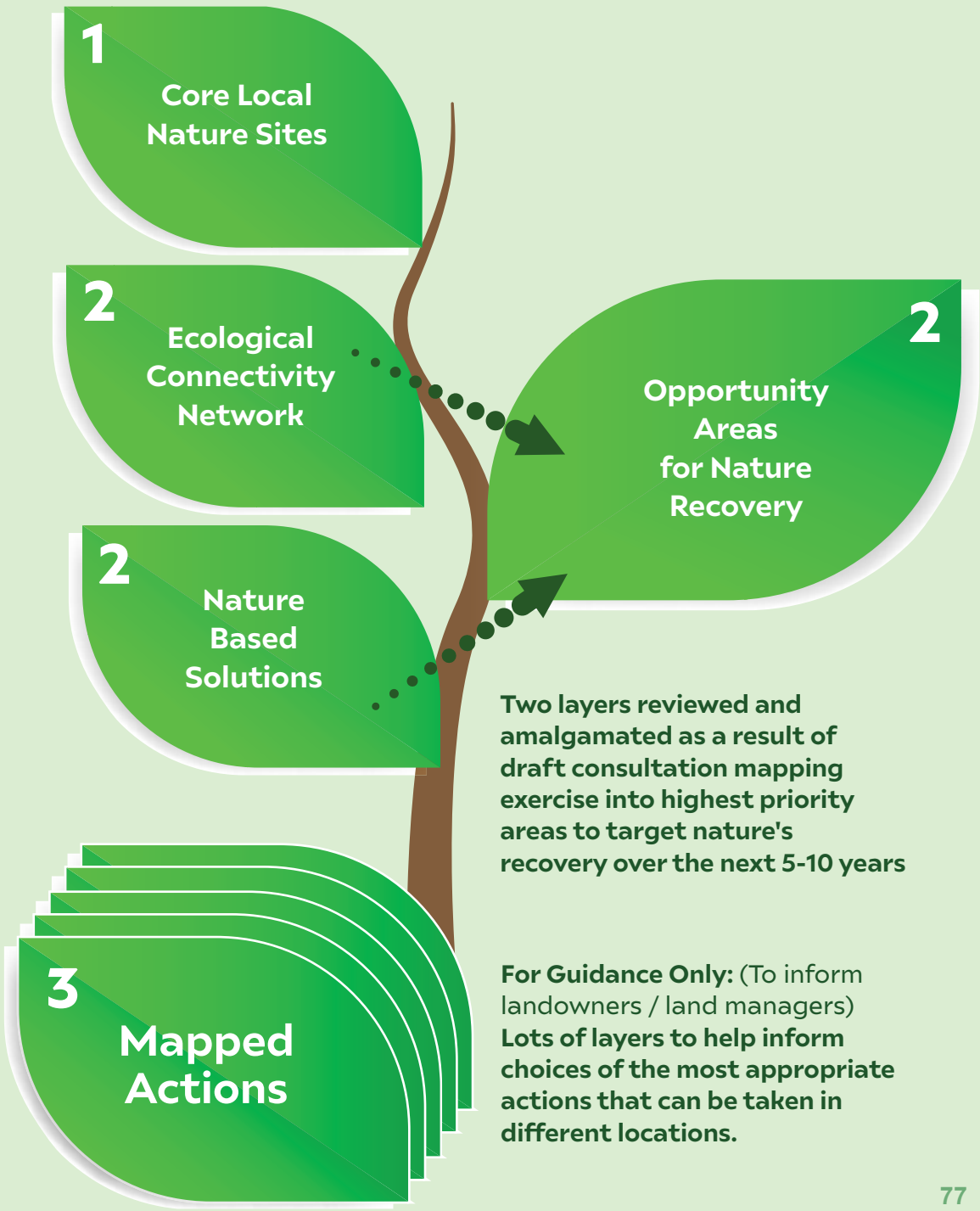
The maps can be used as evidence to support Biodiversity Net Gain, grant funding applications and can direct businesses where to target investment in carbon or biodiversity credits.

The Local Habitat Map consists of 3 layers:

- **Core Local Nature Sites (Areas of Particular Importance for Biodiversity).**
- **Opportunity Areas For Nature Recovery (Areas that could Become of Importance for Biodiversity consisting of opportunity areas offering wider environmental benefits).**
- **Mapped Actions – the mappable Actions from our Priorities and Actions for nature recovery.**

These can be viewed in an online, ***interactive map***.

There are instructions on how to comment, add sites, provide feedback and information to support or highlight indicate changes to areas being included in 'Local Habitat Map'.



Two layers reviewed and amalgamated as a result of draft consultation mapping exercise into highest priority areas to target nature's recovery over the next 5-10 years

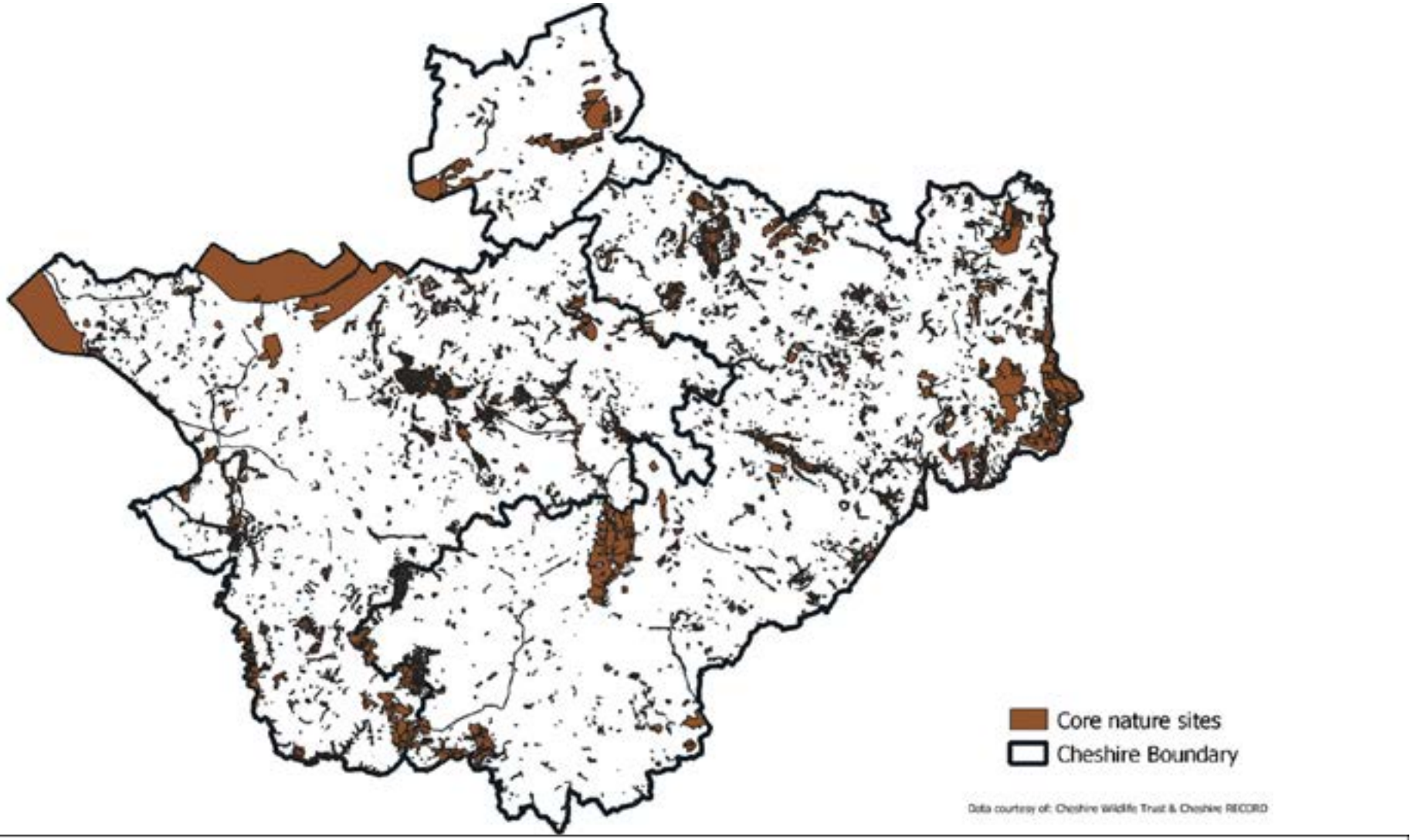
For Guidance Only: (To inform landowners / land managers) **Lots of layers to help inform choices of the most appropriate actions that can be taken in different locations.**

1. Core Nature Sites

Our best remaining wildlife sites across the area (our “areas of particular importance for biodiversity”).

These are statutory and non-statutory designated sites and irreplaceable habitats. These are the most important sites for nature, core areas of our ecological network and the foundation of our Nature Network that we need to protect, build upon, connect and expand.

1. Core Nature Sites



Cheshire West and Chester

0 10 20 km

1:500 @ A4

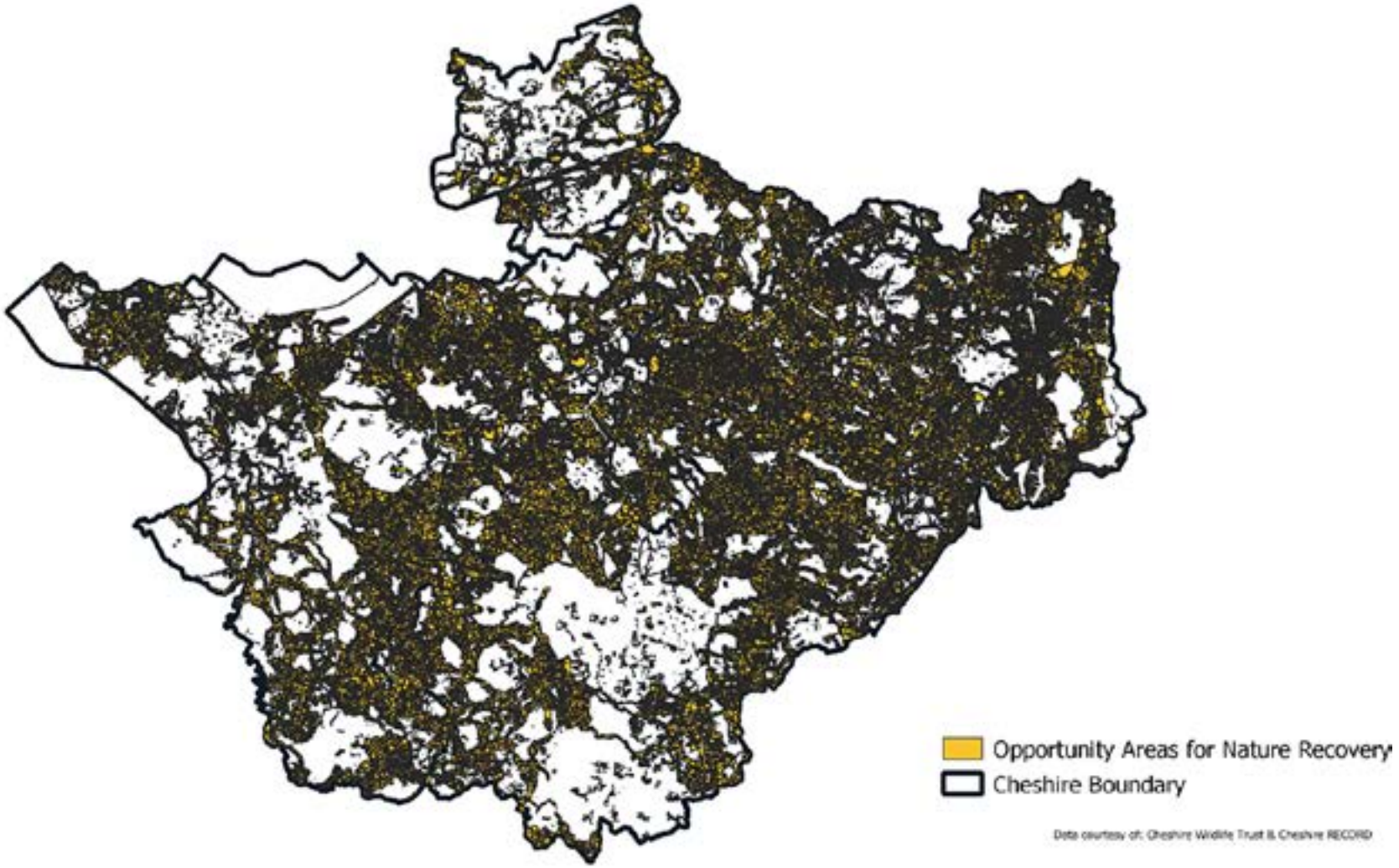
2. Opportunity Areas for Nature Recovery

The Opportunity areas for nature recovery layer consists of a 'nature first' approach. The nature first approach includes combining the Nature connectivity network, which was set out in the local plans, and Linkage mapper outputs (which details the best corridors that avoids the resistance to species movement in the landscape e.g. Transport and development infrastructure (see appendix 5 for further detail)). Higher priority is given to a specific area, which can provide not only nature recovery benefits but also wider ecosystem services e.g. natural flood management, improved mental and physical health and higher productivity in the workplace.

The following maps will demonstrate where combined opportunities lie to create, expand or improve the right habitats or a mix of habitats to form these essential arteries - 'corridors' and 'stepping stones' to link core sites, vital to ensure nature's recovery and a more effective, robust ecological network across Cheshire & Warrington where investment could bring extra benefits. Some places where we would wish to invest in nature could also provide essential services for people, the economy, and businesses (also known as ecosystem services). These include cleaner air, noise reduction, helping communities and businesses adapt to the effects of changes to our climate, reduce the risk of flooding, provide clean water for people to drink and our industries and to providing places for people to engage with and benefit from nature for their improved health and wellbeing. Areas identified to provide other benefits, further strengthen the value of investment because of the additional benefits action for nature can bring to people and places.

We need everyone in helping to determine where investment in nature might be vital to resolving key issues we currently face across Cheshire and Warrington, such as serious flooding, areas of high pollution, poor water availability or where there may be a severe lack of access to nature and greenspace, compounding health inequalities. We can then ensure because of the public consultation commentaries that we finetune "Mapped Areas that could become of importance for Nature," so strategically important locations are included to ensure investment in nature can help contribute towards resolving some of these challenges and to focus delivery in the next 5-10 years.

2. Opportunity Areas for Nature Recovery



Cheshire West and Chester

0 10 20 km

1:500 @ A4

3. Mapped Actions Map
(Measures for specific opportunity areas for nature recovery)

These layers are structured by the actions put forward in each Habitat and theme in the strategy. Each layer shows where relevant mapped actions under each priority and theme could potentially be delivered to benefit nature.

Some locations may have different actions mapped for the same space, providing options of which action or mix of actions a landowner or land manager may be able to choose to help deliver, if they wish to do so, compatible with other land uses, suitability of soils, aspect, water, and business needs.

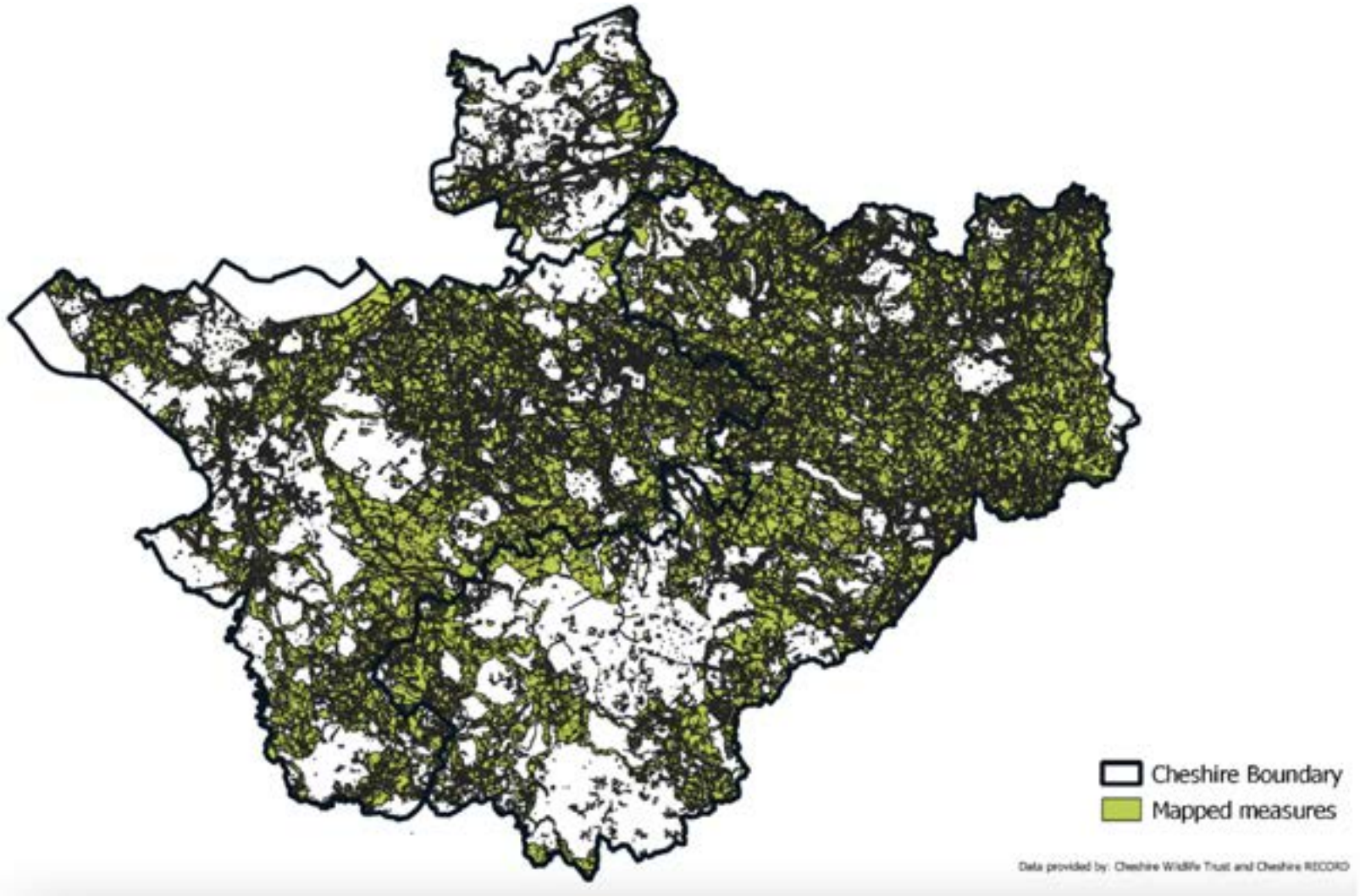
By looking at the interactive mapping, it allows everyone to see all the opportunities where actions could be delivered for each priority / theme. There are quite extensive opportunities to make a difference to nature by delivering all these actions across our rural and urban landscapes.

We will need the help of landowners, communities and organisations to help us prioritise the locations that are essential, the most practical and achievable to deliver, where there is an appetite to do so, to include them in "Mapped Areas that could become of importance for Nature" that should prioritise our efforts over the next 5-10 years.

Conversely, if we know specific landowners may not be interested or the land use planned for the next 10 years is not compatible with the actions we would like to invest in, we would love to know. We will discuss discounting these areas and concentrate our efforts to target funding and support the locations where investment will be welcomed and significant gains for nature can be secured.

Actions include the desire to buffer existing important sites, to improve and protect current valuable habitat and expand it. They also include the opportunity to deliver new or improved habitats, or a blend of these habitats (a mosaic) to provide the strategic arteries – 'corridors' and 'stepping stones' indicated in the Opportunity Areas For Nature Recovery, between our Core Nature Sites. Sites will be even more valuable if they can deliver important ecosystem services.

3. Mappable Measures Map



Cheshire West and Chester

0 10 20 km

1:500 @ A4

As per the examples above, These maps can be viewed separately to show different habitat actions and highlight what key actions could bring the best results where, for example on a school field, across a Parish Council, on a landowners or farmer's estate or on council land.

These then offer options for people to look at for inspiration. They can also check where else similar actions are needed, and perhaps share funding bids, equipment or expertise with the support of the Local Nature Partnership.

Have a look at the maps and see what you can find.

Supporting Your Decision-Making

LNRSs won't require you to change how you use your land or restrict development. They provide information to help you decide how to manage your land and make informed choices.

Likewise, if you want to do nature conservation work in an area that isn't prioritised in the LNRS, you still can – LNRSs won't prevent this and funding for nature recovery activities won't only be available for areas mapped in an LNRS.

The types of actions that LNRSs propose are intended to play an important role in meeting the government's targets and commitments for recovering nature and improving the environment. The government must track and report progress on these targets to determine where to focus efforts.

You can use LNRSs to help identify which environmental land management activities are most appropriate for your land and to see where there are opportunities for working with other land managers on landscape-scale nature recovery.

In future, LNRSs will help government when considering applications for funding specific nature recovery activities, by acting as criteria in applications for some schemes. LNRSs will also guide and incentivise landowners to create or enhance habitats for biodiversity net gain (BNG).

Have a look at the maps and see what you can find.

What next?

As part of the public consultation on the draft Local Nature Recovery Strategy, further engagement and representations from landowners, farmers, communities, local authorities, other organisations and individuals are welcomed as we will look to prioritise the most needed and achievable mapped priority sites and areas into a final Opportunity Areas for Nature Recovery map – to indicate where our efforts and funding should be prioritised over the next 5-10yrs.

Developers will be encouraged to invest in off-site Biodiversity Net Gain units in these priority areas, and other funds will be directed by the LNP to these areas, as a matter of urgency and future Agri-environmental scheme support may even be influenced by these mapped areas.

Unlike Liverpool City Region and Greater Manchester, Cheshire and Warrington have plenty of space, many passionate and motivated landowners who appear willing to consider investment in nature's recovery, integrated into the broader management of their land going forward. This could provide us with the opportunity to map 40-60% of Cheshire where good opportunities exist to invest in Nature's recovery over the next 5-10 years, to reverse the biggest decline in species experienced in any county across England over the last 70 years.

As part of the consultation, we will be seeking your views on what sort of percentage of the county you feel is reasonable to look to target to prioritise integrating investment into nature's recovery into our landscapes and urban areas.

Delivering Nature Recovery: How To Use This Strategy

Every person and every organisation can take action to help nature's recovery, from landscape scale projects through to small actions at home in your garden or window box. There is something we can all do.

This section explains how different organisations and individuals can use this strategy and the accompanying interactive opportunity maps.

This includes:

- **Landowners and Farmers**
- **Developers and Planners**
- **Business**
- **Community groups, Environmental Charities and Partnerships**
- **Residents**
- **Local Authorities**
- **Town and Parish Councils**

(Appendix 8 provides some evidence-based resources detailing the benefits to some sectors of taking action to deliver nature recovery.)

Our pledge map shows many of the projects being carried out across Cheshire and Warrington by volunteers or residents at home in their garden:

We invite everyone to continue to share actions you intend to take for nature or to celebrate things you have achieved. By sharing your stories and pictures we may be able to inspire even more people, communities and organisations to take positive action for nature across Cheshire and Warrington.

Case studies

Chester Zoo's Networks for Nature Project

Built upon the success of Chester Zoo's nature recovery corridor project, the Networks for nature project aims to help people to connect with nature, make it more accessible, drive nature recovery, empower communities to protect and restore nature and more importantly, create a network for nature. So far, they have improved over 62 hectares for wildlife and directly engaged more than 12,000 people.

Chester Wetlands Project

This project aims to utilise an underused part of the Countess of Chester countryside park to restore an increasingly rare floodplain meadow habitat. The organisations involved include University of Chester, Environment Agency, Cheshire West and Chester council, Bangor University, The Land Trust, The Conservation volunteers, Chester Zoo and Cheshire Wildlife Trust.

Forestry England's expansion at Delamere Forest

Hondslough Wood is a 40ha woodland being created to buffer Delamere Forest and provide a space for people to enjoy, an improved habitat for wildlife and a sustainable supply of home-grown timber. This has been supported by Coronation Wood, a national scheme to create 2,000ha of woodland by 2026 and support government targets to boost tree planting across the UK.

Farmers and Landowners

Farmers and landowners work across over 60% of the land in Cheshire and Warrington and hold the key to nature recovery by aligning their businesses, land use and farming practices with nature recovery, building back the key four habitats and using nature based solutions to make their farms and assets more productive for food security and more productive for nature.

As outlined in the Farmland section and habitat sections of this Strategy, restoring and replanting hedgerows, sensitively managing woodland, our grasslands and preventing runoff into our waterways while re-naturalising some of our rivers can have an almost instant effect in helping to halt nature's decline across Cheshire.

Farmers and landowners can work to support each other through the Future Farmer Group and continue to support and liaise with the Cheshire Local Nature Partnership to access landscape recovery, ELM, Biodiversity Net Gain and other investment, funding, information and expert guidance.

Farmers and landowners can use the strategy and maps to:

- **Understand how their land fits into the Nature Network.**
- **Inform strategic and business plans for their land.**
- **Integrate opportunities for nature-friendly farming practices.**
- **Inform and support applications for funding and project delivery on their land.**

Planners and Developers

Biodiversity Net Gain has become mandatory for all developments in 2024 and from November 2025 for infrastructure developments which enable developers to leave the natural environment in a measurably better state than it was beforehand. This means that any biodiversity on a development site must be retained and enhanced by 10% in area or quality, and if not possible, that nature is improved off-site.

Under the Environment Act 2021, local planning authorities and decision-makers must have regard to this Local Nature Recovery Strategy in their policies including the Local Plan. expected to come into force later in 2025, will make it a legal requirement for plan-makers to "take account" of LNRSs. Like the existing requirements on Local Plans, this will help the needs of nature recovery to be accurately reflected in the planning system. It will also apply to a wider range of similar spatial plans, at larger and smaller scale than local plans. Taking account of the Local Nature Recovery Strategy in proposed developments can help developers move more smoothly through the planning process.

Developers can use the strategy and map to:

- **Integrate nature into the planning and development process including master planning.**
- **Guide the most effective delivery of Biodiversity Net Gain on-site.**
- **Guide where off-site investment can provide the greatest benefits for nature (e.g buffers to irreplaceable habitats to protect and improve with resilience, additions to ecological corridors).**
- **Identify irreplaceable habitats which must be protected and retained.**
- **Place new restrictions on developing land – LNRSs will be one source of evidence used to inform the preparation of plans that will determine where development should occur (these plan preparation processes have their own consultation and engagement requirements so that different needs for land can be balanced by the plan maker).**
- **Install nature based solutions to reduce flooding, provide urban cooling, green space access and support the nature network.**

Homes for Nature is an initiative which developers are encouraged to join, to provide positive developments for wildlife. Homes for Nature members commit to provide a bird-nesting brick or box installed for every new home built and hedgehog highways in-built to every development as a standard. This is in addition to Biodiversity Net Gain regulations. Other aspects from the Homes for Nature group include guides on how to implement SUDs, pollinator friendly landscaping, bat roosts, insect bricks and hibernacula, which can help make the development supportive of nature. Native, wildlife friendly plants used in gardens and landscaping, wildlife-friendly boundaries between gardens and open space, deadwood piles or bug hotels should all be a standard feature of any development.

Business

We hope that this strategy inspires businesses to support a healthy natural environment for the benefits it can bring to the workplace, retail environments, employee performance, attendance and satisfaction. They may want to invest in nature based solutions locally, so that their employees and customers benefit from quality environments to live, work and play, whilst meeting corporate social responsibility aims or targets to offset carbon emissions.

Nature is good for Business- did you know? Employees with views of trees and landscapes took an average 23% less sick leave per year than employees with no view. Shoppers are willing to spend 9-12% more for goods and services in shopping areas with large mature trees. The cost to businesses from flooding is an estimated £82,000 per flooding event, loss of 50 working days and 40% reduction in productivity – installing rain-gardens, permeable surfaces in car parks and Sustainable Drainage Systems is vital.

In 2021, 92 businesses were affected by the floods in Northwich. By introducing natural interventions upstream and in Northwich itself, such as re-connecting the rivers to their natural floodplain, holding the flow back in smaller streams and ditches through leaky dams, more hedgerows, woodlands and species rich grasslands can help reduce the likelihood of future flooding events by increasing infiltration into the ground and reducing peak flows during high rainfall events.

Businesses and other organisations can use this strategy to:

- **Identify opportunities to invest in nature or take action to contribute to nature recovery.**
- **Take action on their sites to create green space and nature friendly schemes.**
- **Identify team-building, volunteering or sponsorship opportunities.**
- **Support local charities and community groups running schemes.**

Case Study: Bentley have implemented several new natural features around their manufacturing plant at Crewe. Their green wall alone produces around 40 kg of oxygen a year as well as helping to absorb heat, provide natural insulation and filter VOC toxins and dust. The living wall also attracts and supports local biodiversity. Bentley now has 300,000 Flying Bees located in hives at the edge of its factory site and has planted over 1,000 flowers around the site to support them. Although not the core aim of the scheme, the reduction in their CO2 emissions has been significant with the site now being considered carbon neutral.

Community groups and Environmental charities and partnerships

Community groups and environmental charities and partnerships are vital to delivering nature recovery, and are often the local experts on the places and species that are most at risk. Many of these groups have been fundamental to developing this Strategy.

Local community groups are key to recruiting, inspiring, training and coordinating dedicated volunteers, for nature recovery, but also for social and training reasons, so they can help build people's skills, provide green social prescribing, health and well-being schemes, tidy-ups and playschemes to keep their neighbourhoods litter-free, safe and attractive.

We hope to continue working in partnership under the Cheshire Local Nature Partnership to deliver the actions in this Strategy and provide guidance and support to groups wanting to develop and deliver projects.

This Local Nature Recovery Strategy helps local volunteers and community groups to:

- **Understand the needs of many of Cheshire and Warrington's most important habitats and species, to inform what action they can take to help.**
- **Understand how their local natural environment and green spaces fit within the nature network.**
- **Apply for funding for project delivery.**
- **Work with wider communities, local businesses, local authorities and landowners.**
- **Join networks of like-minded community groups to share support and information.**

Residents

People who live in Cheshire and Warrington are vital for nature's recovery and there are lots of ways you can help.

You can use the strategy to:

- Understand what nature is on your doorstep and where the most valuable habitats are.
- Make your garden or land more wildlife-friendly and work with your neighbours to put in wildlife corridors, ponds, swift bricks and nesting boxes to make yours a wilder neighbourhood.
- Become a volunteer - check out the map on the Local Nature Partnership website of all the opportunities to get involved with others in helping wildlife (e.g. Friends & Conservation Groups, LNP partners like Cheshire Wildlife Trust, Trust for Conservation Volunteers (TCV), Groundwork, National Trust and others).
- Keep your eyes open – spotting and recording wildlife is vital - we need more people to use apps on their phones (iNaturalist, iRecord, Merlin) and learn what different species look like.
- Once you have learned some species, you can send information of what you've seen to Cheshire RECORD using email or the Swift system. Understanding what species are where, helps us to understand how healthy their populations are and act to help some that are in danger.
- Join in wildlife spotting events like the Big Garden Birdwatch every January or the Big Farmland Bird Count in February.
- Use our Pledge Map to let us know what you're going to do for nature and how you are getting on.

Public sector, education, health and care settings

Institutions like the NHS, schools, colleges and universities and medical practices and care homes all have land and estates that could become places for nature that help the people they serve.

The benefits of nature have been well-documented and are becoming increasingly well-known and accepted in patient and staff wellbeing and recovery, learning environments, supporting social wellbeing and voluntary opportunities to tackle mental and physical health challenges. We are delighted to see that more schools are introducing the Forest School concept and introducing young people to nature and the outdoors.

Institutions can use this strategy and the resources in Appendix 8 to:

- Integrate nature into planning and enhancing their estates and assets.
- Understand what nature is on their doorstep and how they can become part of the Nature Network, creating new spaces for nature and ecological corridors or resting places from tiny forests to wildflower patches, bird boxes and ponds.
- Identify irreplaceable habitats which must be protected and retained
- Install nature based solutions to reduce flooding, provide urban cooling, green space access and support the nature network.
- Involve staff and service users in nature based projects from spotting and identifying wildlife and species through to planting and caring for green spaces.

Local Authorities: Cheshire West and Chester Council, Cheshire East Council, Warrington Borough Council and Peak District National Park Authority

This Local Nature Recovery Strategy is a statutory policy document that will be used by Local Planning Authorities to inform local planning policy and practice in line with the National Planning and Policy Framework and guide the delivery of Biodiversity Net Gain.

The Strategy provides evidence of action by the Local Authorities as part of their enhanced biodiversity duty under the Environment Act 2021. It also guides them in considering how they might protect and enhance biodiversity further through all their other functions.

As landowners and managers, the priority and action mapping should support local authorities to manage their assets more effectively to ensure nature's recovery.

Town and Parish Councils

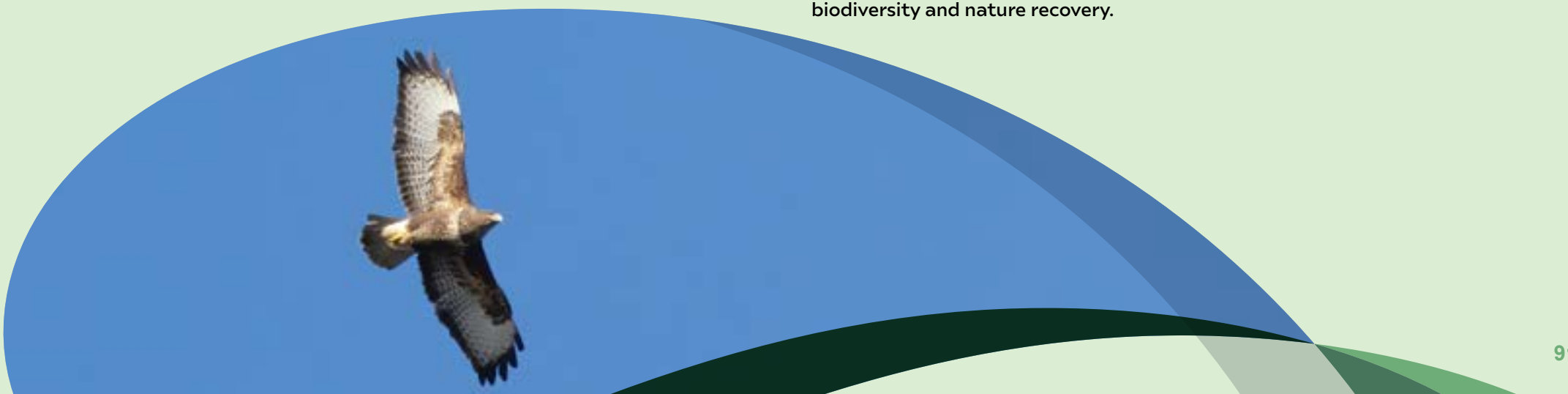
Under the 2021 Environment Act, public authorities (including town and parish councils) operating in England must consider what they can do to conserve and enhance biodiversity.

Government guidance states that Town and Parish Councils must:

- **Consider what they can do to conserve and enhance biodiversity.**
- **Agree policies and specific objectives based on their consideration.**
- **Act to deliver their policies and achieve their objectives.**

Town and Parish Councils can use this strategy to:

- **Understand how their local area fits into the Nature Network and develop an action plan.**
- **Help deliver and manage more accessible, natural green spaces for their residents to enjoy.**
- **Support applications for project funding.**
- **Inform environmental and land use policies and Neighbourhood Plans.**
- **Inform responses to planning applications and ensure they refer to biodiversity and nature recovery.**



How could we guarantee Nature Recovery and deliver this Strategy?

Cheshire Local Nature Partnership (LNP) brings together many of the key delivery organisations needed to ensure the actions identified in this Strategy get done.

Cheshire Local Nature Partnership provides leadership and coordinates joint initiatives and work to attract funding for nature recovery projects in our area. Its activities include:

- ✓ Establishing and maintaining a strong effective partnership for management and delivery.
- ✓ Administering and coordinating funding backed by robust and efficient procedures.
- ✓ Ensuring funding is targeted to agreed plans and objectives.
- ✓ Putting in place staffing and resourcing for Cheshire Local Nature Partnership and for delivery projects.
- ✓ Targets to increase financial investment into nature and nature based solutions especially for Agri-Environmental schemes.

This Strategy enables the partnership to work together in a coordinated way to influence and support communities, landowners and strategic work for nature across the county, such as our Catchment and Landscape Recovery Partnerships.

The LNP supports the establishment of a Future Farming Group and continues to provide critical input for new opportunities, like the designation of the Sandstone Ridge as a National Landscape. The first step for the Local Nature Partnership was to create a delivery plan. It collates, monitors and records actions being taken across the partnership, along with landowners, communities and other organisations who are willing to share information, so that we can demonstrate how we are all taking action to deliver the Strategy, monitor what difference this is making, and evaluate what is working well and what needs improving.

To measure progress, we are using our monitoring framework, which is maintained by the Cheshire West and Chester Council, as the Responsible Authority, and Cheshire RECORD (Cheshire's Local Environmental Record Centre).

Some of the indicators that are included are:

1. **Hectarage (ha) of land put forward for Biodiversity Net Gain, established and delivered.**
2. **Ha of land actively managed for sustainable food production and habitats.**
3. **Ha of woodland managed.**
4. **Ha of habitats created or enhanced.**
5. **No. of indicator species found in each habitat.**
6. **% Tree cover in urban wards.**
7. **Number of new habitats contributing to carbon sequestration.**
8. **% Of our rivers re-naturalised across the catchments.**
9. **£££s of investment into nature recovery/carbon or water by private sector**
10. **% Of our core areas for nature (areas of importance for biodiversity) in active management.**
11. **% Of hedgerows restored in our landscape.**

Acknowledgements

We would like to thank all those who contributed their time and effort to produce this strategy together for Cheshire and Warrington.

Our particular thanks go to:

Steering Group

- Barnston Estate
- Binnies
- Canal & River Trust
- Cheshire East Council
- Cheshire RECORD
- Cheshire West & Chester Council
- Cheshire Wildlife Trust (co-chair)
- Chester Zoo
- Cholmondeley Estates
- CLA
- CPRE
- Environment Agency
- Enterprise Cheshire & Warrington
- Forestry Commission
- Grosvenor Estate
- Groundwork Cheshire, Lancashire & Merseyside
- Mersey Forest
- Mersey Rivers Trust
- National Trust
- Natural England
- NFU
- RSPB
- Sandstone Ridge Trust
- Tatton Estate (co-chair)
- United Utilities
- Warrington Borough Council
- Weaver Gowy Catchment Partnership
- Woodland Trust

Officers Group

- Cheshire West and Chester Council
- Cheshire East Council
- Warrington Borough Council
- Peak District National Park Authority
- Natural England
- Forestry Commission
- Environment Agency

Further Contributions

In addition to the contributions given by the Steering & Officers group, we would like to specially thank those who have provided the documents, facilitation and additional work for the LNRS, which include:

Cheshire Wildlife Trust and Cheshire RECORD for the Description of the Strategy Area technical document, Opportunity mapping, and Species shortlist and workshops

Edsential for the Cheshire & Warrington LNRS education pack.

Majestical for the creation and development of the public engagement video.

Quantum Strategy and Technology for the editing and formatting of the final draft document.

Rhizome Cooperative for their facilitation of the public workshops.

Appendices (These will be available post consultation)

Appendix 1. Area Description: technical Version
Annex 1 : Habitat loss since 1980
Annex 2 : Species lost in Cheshire and Warrington
Appendix 2. Landscape Character Area information
Appendix 3. How LNRS relates to other council plans and strategies
Appendix 4. Methodology – how the LNRS was developed
Appendix 5: Step 5 mapping documents (Methodology and Interpretation)
Appendix 6. Species list/document
Appendix 7. Stakeholder Engagement Plan [survey reports and workshop outcomes]
Appendix 8. Resources
Appendix 9. Benefits

"The LNP are delighted to have been able to support the LNRS development, which represents a significant step forward to protecting and enhancing nature and our environment, and we look forward to being the key delivery partner once it is published.

The strategy is just the start of a holistic approach to incorporating the three pillars of sustainable development, which is a rich natural environment, a growing circular economy and a strong community."

Annette MacDonald, LNP co-chair

Contact
0300 123 8123
naturesrecovery@cheshirewestandchester.gov.uk

Cheshire & Warrington

Local Nature Recovery Strategy