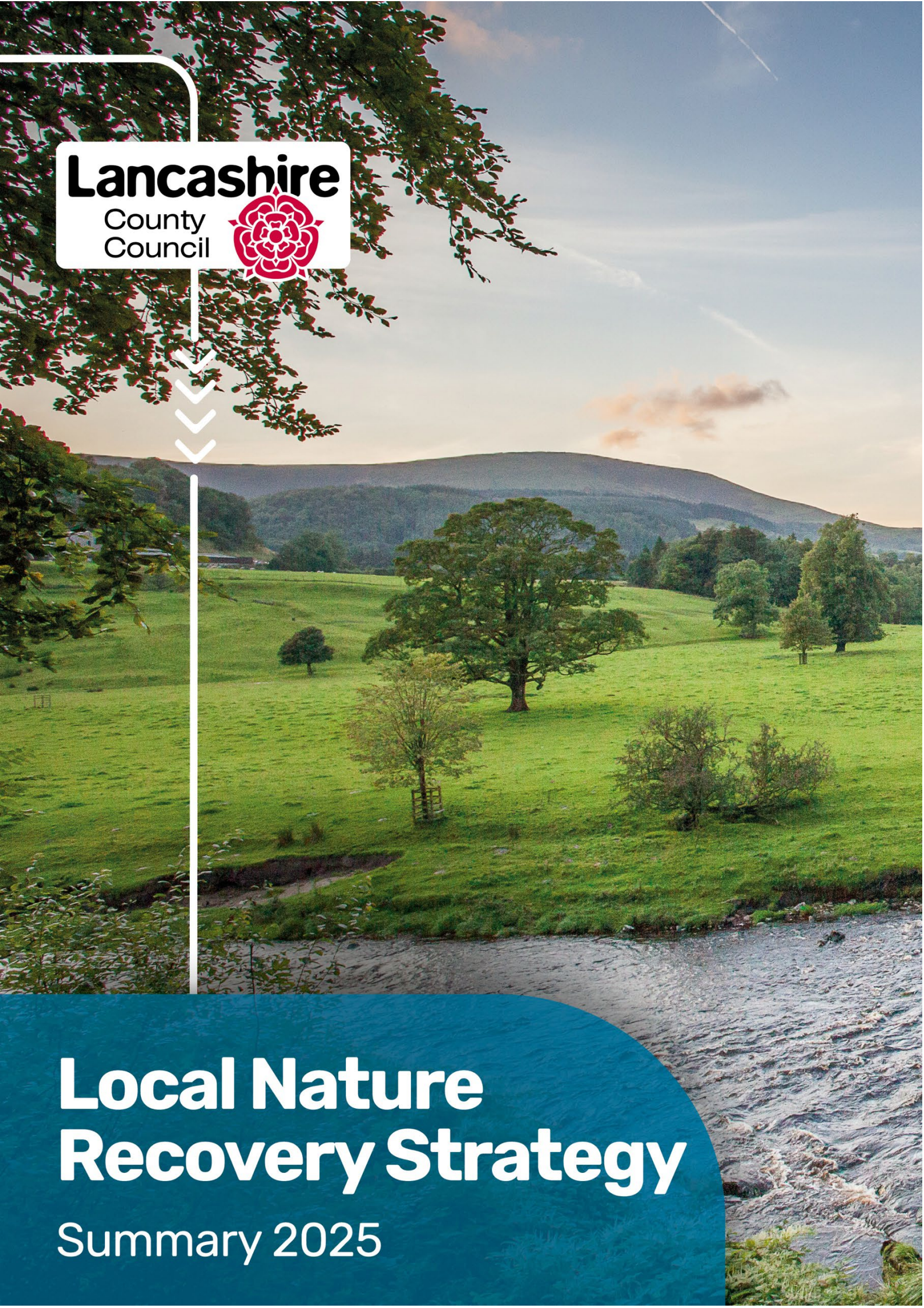

Local Nature Recovery Strategy

Summary 2025

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Summary of the Lancashire Local Nature Recovery Strategy

Note to readers:

Some of the language used in this strategy is technical due to the complex nature of the subject. A glossary is provided at the end of this document, and any specialist words will be followed by (*) as a reminder to refer to the glossary if required.

You can also read Lancashire's full Draft Local Nature Recovery Strategy at www.lancashire.gov.uk/council/strategies-policies-plans/environmental/local-nature-recovery-strategy/

Introduction

We are lucky in Lancashire to have a diverse and spectacular environment and landscape, stretching from the uplands to the coast, including areas designated* for their national and international importance for biodiversity*. However, reflecting global and national trends, Lancashire's biodiversity has been declining. We want to halt this decline and, in time, reverse biodiversity loss. We want to enhance and protect our best nature rich sites, create new sites where there is opportunity to do so, and provide better access to green* and blue space* that everyone can enjoy.

This is the first nature recovery strategy for Lancashire. It recognises the challenges we face in reversing this decline, but also the great opportunities we have for nature recovery and the benefits action can have, not only for our important landscapes, habitats* and species, but for the people of Lancashire. Nature can provide many benefits, including greater public enjoyment and health benefits, carbon capture*, water and air quality improvements and flood management. A more attractive place to work, visit and do business also encourages local economic growth.

The vision and aims for nature recovery

The strategy provides a collective vision for nature recovery to work together to protect, enhance and connect our rich biodiversity (the variety of plants and animals we have in Lancashire) and natural environment to be enjoyed by more Lancashire residents and visitors.

It aims to:

- Halt local biodiversity loss and support thriving species populations, which can move more freely through the landscape.
- Conserve natural resources and build resilience to climate change.
- Provide wider benefits for the people of Lancashire including increased and equitable* access to green and blue space.
- Reinvigorate existing partnerships and establish new ones to deliver nature recovery in the places and spaces that need it most on a landscape-scale.

What is a Local Nature Recovery Strategy?

A local nature recovery strategy (LNRS) identifies priorities agreed between a wide group of organisations to drive nature's recovery and in doing so provide wider benefits, such as public access to nature, natural flood-risk management, and resilience to climate change.

The main purpose of the LNRS is to identify locations to create or improve habitat (the natural place in which an animal or plant usually lives) most likely to provide the greatest benefit for nature and the wider environment. These mapped opportunity areas are intended to guide where effort can be focused and joined up to help improve connectivity and resilience for habitats and species across Lancashire. The LNRS is not a delivery plan but is a tool to identify the best opportunities for nature recovery and can be used to target action and funding and hopefully inspire people to get involved on their own land, in local community initiatives and through development to support nature's recovery.

Why we need a Local Nature Recovery Strategy

Legal requirement

England is widely considered to be one of the most nature-depleted countries in the world following historic and ongoing declines. Because of this the UK government has made legally binding commitments, through the Environment Act [i] 2021 to end these declines and for nature to recover**.** The Act introduced the requirement to prepare and publish nature recovery strategies that cover the whole of England to help deliver these commitments. The wider county of Lancashire which includes the unitary authorities of Blackburn with Darwen, Blackpool as well as Lancashire County Council is one of those strategy areas.

To support the benefits of nature

Nature plays a vital role in supporting our health and wellbeing, society, and economy. It provides the air we breathe, the food we eat, the water we drink, and many of the resources crucial for our survival and quality of life. Nature also captures and stores carbon and has a vital role to play in helping us adapt to the impacts of climate change.[ii]

For more information on these sections, see the full Draft Strategy Document 'Introduction' section.

To start to address the pressures on Lancashire's biodiversity

The main pressures on Lancashire's biodiversity have been identified as:

- Climate change
- Pollution
- Land management harmful to biodiversity
- Flood risk
- Habitat fragmentation – the breaking up of habitats into small pieces that cannot function properly on their own
- Recreational pressure
- Built development

Climate change is acknowledged as a pressure across all Lancashire's habitats. Changing weather patterns with warmer drier summers and warmer wetter winters with more frequent extreme weather such as storms and droughts are likely to become the norm [vi] , leading to increased flooding, coastal erosion and potential for new pests and diseases which in turn impact on nature and people.

Human activity such as land use changes, increased development and growing towns and cities, recreation, and pollution result in areas of land being broken up into smaller sections and habitat loss.

To build on and develop new opportunities for nature's recovery

The strategy is informed by current successes and opportunities for new projects to expand, enhance, and reconnect our key habitats for broader benefits. In many cases these build on existing work already being delivered by many organisations across Lancashire. These include the Biological Heritage Sites Project which monitors and aims to conserve Lancashire's most important Local Wildlife sites, Agri-Environment schemes and the Farming in Protected Landscapes Programme which help farmers to deliver nature recovery, natural flood risk management, the Rivers and Wildlife Trusts projects promoting and enhance terrestrial and freshwater ecosystems for both people

and wildlife and initiatives delivered through the NHS and by local communities to involve more people in nature to support their health and wellbeing.

For more information on Pressure and Opportunities, see the full Draft Strategy Document 'Statement of Biodiversity Priorities' section.

Who the LNRS is for and how to use it

The LNRS is for the habitats, species and people of Lancashire. Whether you are a land manager, developer, planner, environmental organisation, member of a community group or resident, looking to identify opportunities for nature recovery and to target action and funding, everyone can act for nature whether it be at home, in your local community, through Biodiversity Net Gain (BNG), Agri-environment Schemes through to Landscape Recovery Schemes.

This LNRS will be the guiding strategy for nature recovery across Lancashire to target potential opportunities to take action for nature's recovery as well as to help inform future policies and plans.

Example for how to use it

Note – For information on the map, priorities and measures see the sections that follow

Find the location you are interested in on the LNRS Local Habitat Map the link to which can be found at *www.lancashire.gov.uk/council/strategies-policies-plans/environmental/local-nature-recovery-strategy/*

This could be for a community project, a farmer wanting to target where and what kind of action to carry out to make space for nature on their land or to help developers identify sites for Biodiversity Net Gain.

See what Potential Measures or actions are being suggested in that area – a description of the measures/actions can be found by clicking on them on the map. Note down the codes for the measures you are interested in then find ***more detail on the action proposed i.e., the species it will support and the wider benefits it will have in the 'Priorities & Potential Measures' Tables in the full Draft Strategy Document.***

This information should also be used for helping you to complete grant applications for carrying out potential future projects. The measures are not intended to be detailed

instructions, but a guide for what appropriate action can be taken. Before undertaking any measure, it is important to get the permission of the landowner and specialist advice.

A summary of information regarding compliance with legislation, policy, and best practice can be found on both the Local Habitat Map and 'Appendix 2' of the full Draft Strategy Document.

How the strategy was developed

As the designated responsible authority, Lancashire County Council has led on the production of this LNRS. However, an inclusive and collaborative approach has been taken to produce it with our 12 District Authorities, two Unitary Authorities of Blackburn with Darwen, and Blackpool, the Yorkshire Dales National Park Authority, Natural England, Environment Agency and Forestry Commission; along with a broad range of stakeholders including habitat and species experts from local environmental organisations and Lancaster University. Landowners and managers (farmers, local authorities, education providers, the NHS, and utilities companies) and members of the public have shared their knowledge, experience and understanding of where nature recovery should be focused, and this information has fed into the production of the LNRS.

For a full list of the organisations that have helped develop this strategy see Appendix Two of the Evidence and Technical Information Document which can also be found at www.lancashire.gov.uk/council/strategies-policies-plans/environmental/local-nature-recovery-strategy/

The strategy has been developed following the statutory and non-statutory guidance provided by DEFRA (The Department for Environment, Food and Rural Affairs) and Natural England, taking an evidence-based and locally led approach.

Statutory guidance on what each strategy should contain can be found at www.gov.uk/government/publications/local-nature-recovery-strategy-what-to-include

Engagement process

Since September 2023, we have been gathering information to understand the pressures, opportunities and priorities for nature's recovery in Lancashire.

This has included:

- **Stakeholders, and specialists on Lancashire's habitats and species:** For example, Lancashire Wildlife Trust, the Woodland Trust, Lancashire Peat Partnership, the River Catchment Partnerships, the National Landscape* Teams, Natural England, the RSPB, the Butterfly Conservation Trust and various other species specialists and groups and LERN - the Lancashire Environment Record Network, Lancashire County Council.
- **Public Engagement Survey**: We received 963 responses, the highest across England, highlighting the importance of red squirrels, hedgehogs and bees, trees, and woodlands. Concerns were raised about the pollution of rivers, lakes, and groundwater*.
- **Interactive Map**: Developed alongside the survey, this tool allowed all participants to provide information on locations important for nature recovery. The data collected helped with our strategy mapping.
- **People and Nature Roadshows**: These events engaged sectors such as Health, Education, VCFSE (Voluntary, Community, Faith and Social Enterprise), Active Lifestyles, and Community/Place-Based groups.
- **Engagement with Landowners and Managers**: A Land Managers task group was set up with representatives from organisations including The Country Land and Business Association (CLA), the National Farmers Union (NFU), United Utilities, the education sector, the NHS, Councils and our National Landscapes, who fed into the habitat work and helped with wider engagement through webinars, face-to-face workshops, and auction-mart drop-ins. We reached 275 individuals, including farmers, land managers, and agricultural students.
- **Youth Engagement**: We participated in the Lancashire Youth Climate Conference to promote the LNRS and gather feedback from 16-19-year-olds on barriers, opportunities, and priorities for nature recovery. We also engaged with the Lancashire Wildlife Trust's Youth Council.

For full reports from the Engagement process, see the Evidence & Technical Information Document Appendix 4, 5 and 8.

For more information about LERN - the Lancashire Environment Record Network, Lancashire County Council visit www.lancahire.gov.uk/lern/

What is in the Local Nature Recovery Strategy?

The Local Nature Recovery Strategy is made up of two main elements, a Statement of Biodiversity Priorities and a Local Habitat Map. These come together to describe

Lancashire and its biodiversity and to set out how and where action can be taken to provide the greatest benefits for nature recovery.

The statement of biodiversity priorities draws on existing information on the state of nature and the environment in Lancashire, to agree what the strategy is trying to achieve (the priorities) and to identify practical actions (the measures) that could achieve them.

The Local Habitat Map provides a visual way for groups and individuals to see the areas which are already important for biodiversity in Lancashire. This includes internationally, nationally and locally designated sites as well as Biological Heritage Sites (Lancashire's most important Local Wildlife sites) and irreplaceable habitats* such as ancient woodland*, blanket bog* and coastal sand dunes. It also maps areas that could become of particular importance and the actions that could be taken for nature recovery.

To cover the different types of places and spaces across Lancashire seven broad habitat types have been identified:

- Aquatic (water based) & wetlands*
- Coastal & estuarine (the tidal area where rivers meet the sea)
- Grasslands (including farmland)
- Lowland & upland peatland*
- Rocky habitats
- Urban & infrastructure networks (e.g., roads, rail, bridges and buildings)
- Wooded habitats & trees

The existing and likely future pressures faced by each of these habitats have been identified, together with possible opportunities for nature recovery to overcome these pressures. These pressures and opportunities have informed the **Priorities** (the long-term end results that the strategy is seeking to achieve) and the **Potential Measures**, or actions, that can be taken to contribute to achieving each agreed priority and deliver wider benefits such as climate resilience, flood risk management, better access to green and blue space, and improved health outcomes.

To see the links between the potential measures, the habitats and species benefits, and the wider environmental benefits see Tables 5 to 19 'Priorities, potential measures, and associated benefits' in the Full Draft Strategy Document.

Example – Considering the Pressures & Opportunities on Lancashire's Habitats to Establish our Priorities and Potential Measures

Water quantity extremes, such as flooding, is a pressure on Lancashire's flood plain meadows and the communities that live downstream highlighted by the Aquatic (water based) and wetland specialists. An opportunity to overcome this pressure would be the creation of wetter areas throughout our river systems. This led to the priority, *AW4 Catchments resilient to water quantity extremes* and the identification of a number of actions or potential measures to achieve this priority, for example *AW4.4 - Bioengineering* and nature-based solutions* for moderation of water flows, such as reedbed filters, living dams, living revetments, tree and hedge planting and kested* hedgerows*. Suitable locations were then mapped on the Local Habitat Map for this particular action, where if carried out, could help to address the pressure of flooding. The species that would benefit from this action, such as water vole, various fish species, and insects such as cranefly and wasps have been identified, as well as the benefits for people such as reduced flood risk, an improved water environment to provide sustainable resources for a growing population for example through drought resilience and soil loss prevention.

Description of Lancashire and its biodiversity

The area covered by the strategy includes Lancashire's 12 districts, Blackburn with Darwen and Blackpool and covers an area of 3,066 square kilometres, with a population of 1.53 million. It also includes a small part of the Yorkshire Dales National Park. Lancashire is divided into 11 'National Character Areas (NCAs), each representing a distinctly different landscape and following natural lines in the landscape not county or district boundaries:

• Morecambe Bay Limestones	• Southern Pennines
• Morecambe Coast and Lune Estuary	• Lancashire Coal Measures
• Bowland Fells	• Manchester Pennine Fringe
• Lancashire and Amounderness Plain	• Sefton Coast
• Lancashire Valleys	• Yorkshire Dales
• Bowland Fringe and Pendle Hill	

For descriptions of these areas, the habitats that make them up and the species they support see Section 'Statement of Biodiversity Priorities for Lancashire - Description of Lancashire and its biodiversity' in the full Draft Strategy Document.

The following sections summarise the condition (the state in which they are currently in) of the broad habitat types and the Priorities associated with those habitats to help improve them.

Broad Habitat Type Condition and Priorities:

Aquatic and Wetland

The condition of Aquatic (water based) habitats across Lancashire varies significantly, as does the number of different ways to assess them. However, broadly speaking, they are not in good condition. A total of 88% of Lancashire's surface water bodies were classified as having 'moderate' water quality and all of our waterbodies failed in the Chemical Status of the Water Framework Directive Water Bodies assessment[vii].

In respect of aquatic and wetland species, water voles have undergone one of the most serious declines of any wild mammal in Britain during the 20th century having been lost from 94% of places where they were once widespread[viii]. In Lancashire, although oystercatcher have shown an increase of 12%, our breeding curlew, lapwing and snipe are all in decline. The Ribble Rivers Trust use Trout and Salmon as indicators of catchment health, which allows identification of locations in poor condition. Both species are showing a concerning decline across the catchment.

There are four Priorities covering Aquatics and Wetlands:

- **AW1. Enhanced existing river, stream and watercourse network and associated floodplains in Lancashire.**
- **AW2. Natural river processes restored, with habitats connected along water courses and between their flood plains.**
- **AW3. A restored and connected healthy freshwater and wetland landscape in Lancashire.**
- **AW4. Catchments resilient to water quantity extremes.**

Refer to Tables 4 & 5 in the full Draft Strategy Document for more information on the pressures and opportunities affecting aquatic and wetland habitats and for details on the Potential Measures proposed.

Coastal and Estuarine

Lancashire's coastal area spans from Silverdale Cricket Club just south of Far Arnside to Sefton. This large expanse of coastline has several main estuaries (the tidal area where rivers meet the sea), the Ribble, Wyre, Lune, Keer, Kent and Leven with many smaller channels that feed into the coastline[ix]. There are also extensive areas of river, coastal and estuary Sites of Special Scientific Interest (SSSIs)*.

Sand dunes are formed over many years, occurring around the coastline. They are vulnerable to increased disturbance and invasive plant species, as well as weather and sea conditions[x]. The presence of three large golf courses on Lancashire's dune land has saved extensive areas of semi-natural vegetation, including the largest remaining areas of dune heath, from built development.[xi] However, without sensitive management of routine golf course operations such as drainage, irrigation*, tree-planting, mowing, fertilising and re-seeding then their biodiversity value is at risk.

There are three Priorities covering Coastal and Estuarine:

- **C1. Coastal habitats connected with wider ecosystems* particularly transitional habitats.**
- **C2. Naturally functioning coastal systems with dynamic processes forming embryonic and transitional habitats.**
- **C3. Expanded, enhanced and preserved coastal and estuarine habitat important to Lancashire.**

Refer to Tables 6 & 7 in the full Draft Strategy Document for more information on the pressures and opportunities affecting coastal and estuarine habitats and for details of the Potential Measures proposed.

Grassland (Including agricultural land)

Semi-natural grassland* is one of the most threatened habitats in the UK, with a reported 97% loss of semi-natural enclosed grasslands in England and Wales between 1930 and 1984[xii].

Most semi-natural grassland in England has been improved to benefit agricultural production, and the grasslands in Lancashire are no exception. The more natural and species-rich sites that remain are often small and isolated but can still support communities of specialised plant and animal species[xvi]. Healthy grasslands are a very important store for carbon.

There are three Priorities covering Grassland (Including agricultural land):

- **G1. Ecologically important grasslands preserved and managed for biodiversity.**
- **G2. A connected network of biodiverse grassland habitats.**
- **G3. Sustainably managed agricultural land with maximised biodiversity value, generating wider environmental benefits.**

Refer to Tables 8 & 9 in the full Draft Strategy Document for more information on the pressures and opportunities affecting grassland habitats and for details of the Potential Measures proposed.

Peatland

Lancashire contains approximately 135,000 hectares (or approximately 190,000 football pitches!) of peat soils, according to Natural England's Peaty Soils layer. Many of our peatlands are in a continuing state of degradation[xviii] and much of our lowland peat is currently used for intensive farming [xix]. Winmarleigh Moss SSSI is the largest area of lowland raised bog remaining in Lancashire and is the only one that survives in anything like its original condition[xx]. At least 95% of the lowland peat mosses existing in Lancashire in 1948 have been lost[xxi] mainly been due to it being reclaimed for farming, peat extraction, repeated burning or afforestation*. There is no specific data on the condition of Lancashire's upland peat habitats, although it is expected that similar rates of loss will apply to Lancashire's upland peat habitats over the same period.

There are three Priorities covering Lowland Peatland Habitats:

- **P1. Sustainable land use of lowland peat soils creating a mosaic of peatland habitats supporting a variety of species.**
- **P2. Lowland peatlands and their supporting habitats restored and connected at a landscape-scale.**
- **P3. Active growing lowland peatlands supporting rich biodiversity.**

There are three Priorities covering Upland Peatland Habitats:

- **P4. Functioning upland peatlands forming peat at a landscape-scale.**
- **P5. A mosaic of upland peatland, non-peatland and connecting transitional habitats in the uplands supporting a variety of species.**
- **P6. Sustainable land use and management of upland peat soils.**

Refer to Tables 10 & 11 in the full Draft Strategy Document for more information on the pressures and opportunities affecting peatland habitats and for details of the Potential Measures proposed.

Rocky Habitats

Rocky habitats, some of which are natural and some of which are man-made, are found throughout Lancashire. Lancashire's limestone pavements* are nationally rare habitats with 45% of their area having been damaged or destroyed by quarrying activity[xxii]. In 1990, only 3% of the area left remained undamaged[xxiii]

Post-industrial sites including former quarries, drained reservoirs, disused railways, and certain types of industrial tips have been naturally taken over by a wide range of plants and animal communities such as at Mere Sands Wood Nature Reserve. These sites are valuable for their biodiversity and there is a need to recognise their importance in the context of pressure for development or redevelopment and a need to manage them appropriately to enhance their biodiversity value.

There are three Priorities covering Rocky Habitats:

- **R1. Limestone pavement habitats with high biodiversity value.**
- **R2. Rocky outcrops and features with high biodiversity value (including outcrops, cliff faces, ledges, crevices, seepages, scree and boulders).**
- **R3. Biodiversity value of geological features, rocky habitats and artificial habitats arising from past industry and development is maximised.**

Refer to Tables 12 & 13 in the full Draft Strategy Document for more information on the pressures and opportunities affecting rocky habitats and for details of the Potential Measures proposed.

Wooded Habitats and Trees

Lancashire is home to a range of habitat types relating to trees and woodland, including trees, hedgerows, scrub, orchards, woodlands, wood pasture and parkland*, wet woodland*, and commercial forestry. However, tree and woodland cover is approximately 10.34% (2022 National Forest Inventory figures), this is below the North-West average for woodland cover (12.57%) and the England average at 14.87%.

Up to 40% of England's ancient woodlands have been cleared and replanted with non-native timber species[xxiv]. The way in which trees and woodland are established and

managed will influence their biodiversity and the other benefits they provide[xxv]. Lack of management of existing woodlands is leading to poor condition and replanting is often required. Grazing by deer is one of the main pressures *[xxvi], with deer populations that may be higher than at any other time in the last 1000 years [xxvii].

There are two Priorities covering Wooded Habitats and Trees Habitats:

- **W1. Biodiversity value of existing wooded habitats is maximised.**
- **W2. Woodland and wooded habitats expanded and connected with biodiverse woodland creation and tree cover in appropriate locations on a landscape scale.**

Refer to Tables 14 & 15 in the full Draft Strategy Document for more information on the pressures and opportunities affecting wooded habitats and trees and for details of the Potential Measures proposed.

Urban Habitats (Including Infrastructure Networks)

Urban habitats occur in built up areas and Infrastructure Networks include for example roads, rail, bridges and buildings. Throughout Lancashire's long history, changes in agriculture, industry, society and the environment have had a profound and lasting influence over the landscape and urban environment[xxviii]. Our industrial past has left us with many brownfield* sites, including open mosaic* habitats on previously developed land, which have considerable biodiversity value. The increased demand for housing is putting pressure on brownfield sites for residential development.

The most important habitats in the urban environment are the open spaces within towns, cities and built-up areas. It is essential that nature is at the heart of urban regeneration to create well designed, attractive, investable places that are good for people, climate, and the economy[xxix].

There are four Priorities covering Urban Habitats (including Infrastructure Networks)

- **U1. Suitable habitats and features created and maintained to support thriving populations of urban species important to Lancashire.**
- **U2. Maximised biodiversity value of new and existing urban environments and infrastructure networks.**
- **U3. Increased connectivity of habitats through and between urban landscapes.**
- **U4. Biodiverse publicly accessible spaces and routes.**

Refer to Tables 16 & 17 in the full Draft Strategy Document for more information on the pressures and opportunities affecting urban habitats and for details of the Potential Measures proposed.

Species

The Potential Measures carried out on each specific habitat will benefit a range of Lancashire's most important species. With the help of specialists, 534 of these species have been prioritised and these measures should help aid their survival/recovery. A list of the 534 species can be found in Appendix Ten of the Evidence and Technical Information document.

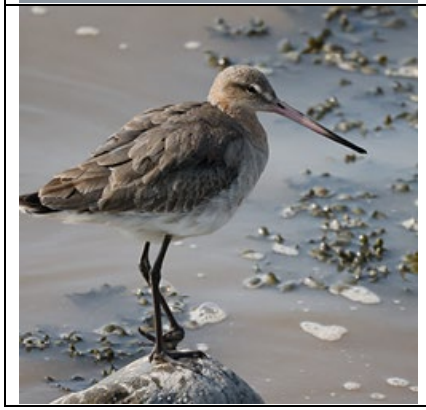
24 species have also been identified as 'Lancashire LNRS Target Species'. These are some of Lancashire's most scarce, declining or most important species requiring specific actions beyond the more general habitat creation and enhancement measures. A specific Priority has been assigned to these species:

SR1: Enable the recovery of scarce and declining species and other species considered to be important to Lancashire, which require bespoke species recovery measures.

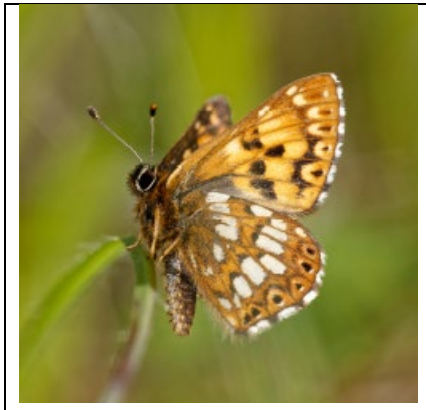
For detailed information on the measures for the 24 target species, refer to Table 19 in the full Draft Strategy Document.

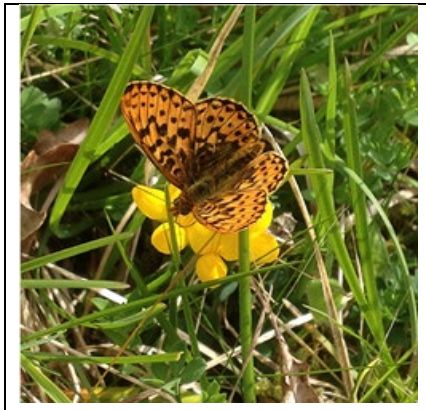
A Summary of the 24 Lancashire LNRS Target Species and why they were selected is provided here:

	Name	***Taxon***	***Broad habitat***	
	**Red squirrel** (*Sciurus vulgaris*)	Mammal	Woodland	This iconic species is currently found in isolated areas which cannot support themselves without improving and connecting suitable areas for them and at the same time controlling grey squirrels which are the main threat to reds and the reason they have become endangered. Enabling the recovery in Lancashire also bridges the gap between existing populations in Cumbria and Liverpool City Region and potentially into Yorkshire as well.
	**Atlantic salmon** (*Salmo salar)*	Fish	Aquatic & Wetland / Coastal & Estuarine	Icons of British rivers, but population numbers have rapidly declined. Complex needs for each stage of their life cycle are being impacted across the board due to pollution, barriers to spawning grounds, extremes of flooding and drought associated with climate change and the need to return to complex, natural re-wiggled rivers to support those complex needs.

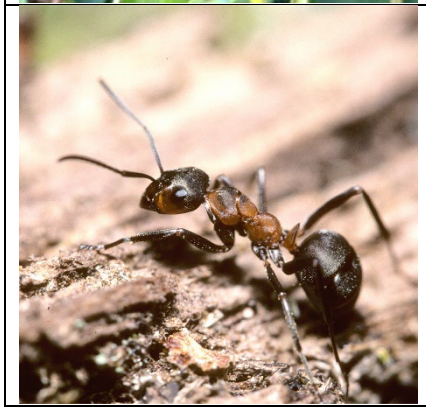
	**European Smelt** (*Osmerus eperlanus* photo © Thomas Myerscough, Wyre Rivers Trust)		Aquatic & Wetland / Coastal & Estuarine	Smelt have undergone massive declines in Lancashire and across the North-West. They are incredibly sensitive to water quality decline, as well as water extremes caused by climate change. They also need multiple improvements throughout the course of their rivers to allow migration and to restore their breeding grounds.
	**Hen harrier** (*Circus cyaneus* photo © Lee O'Dwyer)	Birds	Peatland / complex	A flagship* species for other upland ground-nesting raptors such as merlin and short-eared owl. The Forest of Bowland in Lancashire is one of England's most important strongholds for breeding hen harriers, which is internationally recognised as a Special Protection Area (SPA) for this species. Persecution at a national level is the greatest threat to this iconic species.
	**Black-tailed godwit** (*Limosa limosa* photo © Paul Ellis)		Aquatic & Wetland / Coastal & Estuarine	Only three sites remain in the whole of the UK for breeding populations of black-tailed godwits and the freshwater on the coastal floodplain grazing marsh at Newton/Freckleton Ribble Estuary is one of them (where they are an internationally recognised species of the SPA). But numbers of breeding pairs is dangerously low (1-3) and urgent action is required to ensure this breeding population isn't lost.

	**Black-headed gull** (*Chroicocephalus ridibundus* photo © John Power)		Complex (e.g., marine and intertidal, farmland, wetland, grassland)	Lancashire is one of the most important Counties in UK for this species, and the West Pennine Moors is nationally recognised as a Site of Special Scientific Interest (SSSI) for this species. They been heavily impacted by avian flu, as well as climate related changes such as flooding of nest sites during high rainfall, and predation during drought where water levels fall allowing predators to cross over to Island nesting sites. More habitat suitable for nesting and protection from predators is desperately needed.
	**Lesser black-backed gull** (*Larus fuscus* photo © Philip Miller RSPB, juvenile being ringed.		Complex (e.g., urban and suburban, marine and intertidal, farmland, wetland, grassland and moorland)	As natural food sources at sea appear to dwindle more pressure on modern feed sources in fields, urban areas and at landfill sites occur. With only two main natural nesting colonies in Lancashire, and with one failing fast due to predation on eggs and chicks, there is increasing pressures associated with the other. There is a huge need to re-establish the original natural breeding areas and identify new potential breeding areas to alleviate the pressures of the existing colonies.

	**Duke of Burgundy** (*Hamearis lucina* photo © Tom Dunbar)	Butterflies	Rocky habitats/ complex	This butterfly is in serious decline and is a northern England regional conservation priority species. It needs a delicate balance of habitats to survive and that requires specific management and is therefore likely to need re-introduction to support its recovery. The core population area is now limited to Gait Barrows.
	**High brown fritillary** (*Fabriciana adippe* photo © Martin Wain, Butterfly Conservation Trust)		Rocky habitats/ complex	Once common and widespread this butterfly is now restricted to a scattering of sites in England and Wales including in the Morecambe Bay area. Groups here have declined sharply and by 2023 all except a small population at Gait Barrow had disappeared. It is a northern England regional conservation priority species due to a decline of over 90% since the 1970s.

	**Pearl-bordered fritillary** (*Boloria Euphrosyne* photo © Martin Wain, Butterfly Conservation Trust)		Rocky habitats/ complex	In England and Wales this butterfly is only found in scattered and isolated colonies and is mainly absent in the north. However, they are present in the limestone areas of Morecambe Bay although confined to only a handful of sites and there is currently little suitable habitat to which it might spread. This species is also a northern England regional conservation priority species.
	**Large heath** (*Coenonympha tullia* photo © Tim Melling)		Peatland	This species is unique as it is more or less confined to boggy peatland areas in the uplands and the lowlands. As peatland restoration takes place this species is likely to need reintroduction into newly restored areas to support its recovery. Large heath are declining across northern England, and Lancashire is thought to be the most northern of the lowland sites and therefore essential to ongoing conservation work. This species is also a northern England regional conservation priority species.

	**Belted beauty** (*Lycia zonaria* photo © Stephen Palmer)	Moths	Coastal & estuarine	The Lancashire colony is the last remaining colony of Belted Beauty in England and Wales, and the survival of this species stands on a knife edge. Its national rarity mixed with an ability to survive on this atypical saltmarsh habitat against all odds and the unusual nature of the moths themselves, make this an important and iconic species in Lancashire as well as throughout the British Isles.
	**Least minor** (*Photedes captiuncula* photo © of Justine Patton)		Rocky habitats/ complex	Nationally rare and restricted to very localised areas in the north of England Least minor is at risk of being added to the Endangered list. The Morecambe Bay limestone area is a stronghold for this pretty day moth which flies in sunny weather, and highlights the urgent need to properly understand and look after these microhabitats which it lives in.
	**Wall mason bee** (*Osmia parietina* photo © Mike Foley)	Hymenoptera	Grassland/ Woodland	Both a flagship and umbrella species (a species whereby protecting these indirectly protects many other species as well), wall mason bees have a very limited range nationally and as such are a vulnerable species. With a stronghold in Morecambe Bay this highlights the urgent need to properly understand and look after these solitary bees.

	**Tormentil mining-bee** (*Andrena tarsata* photo © Allen Holmes)		Grassland	Another umbrella species, as its name suggests, this little bee is entirely reliant on one flower, tormentil as a pollen source! This species has dramatically decline across Lancashire and the rest of England through habitat loss and their populations are isolated making it very vulnerable.
	**Bilberry bumblebee** (*Bombus monticola* photo © Allen Holmes)		Peatland (heathland)	Lancashire is a key location for this flagship species, which is particularly vulnerable to the impacts of climate change. They are in serious decline both nationally, but evidence suggests locally as well, with local extinctions and substantial declines in previous strongholds of the County.
	**Red wood ant** (*Formica rufa* photo © Andy Beech)		Woodland	The most northern populations of red wood ant are found in the open woodlands around Morecambe Bay but it is disappearing from much of the North, Midlands and East of the Country. They are the UK's largest ant species and can live in large, complex social groups and can spray formic acid to defend themselves!

	**Yellow Star-of-Bethlehem** (*Gagea lutea* photo © David Earl and the late John Somerville)	Plants	Woodland (riverside)	This delicate spring flower, is very rare in Lancashire, found growing at only two known sites in recent times which makes it extremely vulnerable. It is mostly found along wooded riverbanks where flooding and erosion is resulting in habitat loss. Propagation (producing a new plant from a parent plant) in potential new locations particularly along the River Hodder and nearby rivers could be highly successful and help aid the recovery of this species.
	**Northern bedstraw** (*Galium boreale* photo © Peter Gateley)		Rocky habitats	Almost entirely only found in the north of England and Scotland, with only one known location left in Lancashire. The pretty little white flowers attract a lot of pollinator insects like little bees and flies. As with all these plant species, propagation will be required to ensure its survival as well as finding appropriate sites to plant and arranging suitable management particularly at the existing site and in the Lune valley where it used to be found.
	**Wood crane's-bill** (*Geranium sylvaticum* Photo © David Earl)		Grassland	This woodland edge and unimproved (untouched by fertilisers) grassland species is scarce in Lancashire and undergoing widespread decline in England and is therefore a priority for conservation. It provides nectar and pollen for bees and the many other types of pollinating insects. The common name of 'crane's-bill' refers to the long, beak-like shape of the seeds (as can been seen in the photo). Propagation will be necessary and is known to have been successful, so local species recovery is achievable.

	**Melancholy thistle** (*Cirsium heterophyllum* photo © David Earl)		Grassland	Once widespread across the north of England this species is now classed as Near Threatened (at risk of becoming threatened nationally) and has only managed to hang on at a few sites in Lancashire. They are called the melancholy thistle because they droop when they first bloom, and because they use to be used as a cure for melancholia (depression). They are very attractive to bees and butterflies and will attract seed-eating birds like goldfinch later in the year. Propagation to suitable sites like lane verges and semi-improved meadows will be necessary.
	**Lady's-slipper orchid** (*Cypripedium calceolus* photo © Peter Wakely, Natural England)		Rocky habitats	This beautiful orchid is critically endangered and one of the rarest plants in the UK. Remaining plants are isolated and therefore extremely vulnerable, and sadly at risk of theft! Arnside & Silverdale National Landscape in Lancashire is part of a conservation project for this species, to decide where and when the next generation of Lady's Slipper-orchid will be planted, in locations they will hopefully thrive without too much help. Future management of these sites so that the plants are more resilient in the face of our increasingly unpredictable weather patterns will be key.

	**Petty whin** (*Genista anglica* photo © Joshua Styles)		Peatland (heathland)	This pretty heath and moorland species is also very rare in Lancashire having undergone serious decline particularly in NW England leaving isolated populations that are extremely vulnerable. Conservation at a site is underway and could be extended to other existing sites within Lancashire to improve population sizes, genetic diversity and habitats to promote germination and persistence and hope that these efforts will result in more robust, healthy populations of the species in NW England.
	**Dwarf cornel** (*Cornus suecica* photo © Peter Gateley)		Peatland	Population isolation through the drying out of moorland and fires has resulted in this species becoming extinct within Lancashire on several occasions! This pretty species is in cultivation, being propagated and reestablished at two secret locations in the West Pennine Moors SSSI!

The Local Habitat Map

The Local Habitat Map provides a clear visual way to see the areas which already are, and those that could become, of particular importance for biodiversity and the wider environment.

Those that could become important have been identified to join up or expand existing areas of particular importance. This is intended to establish larger, more resilient networks of high-quality habitat, and show how spaces can be better connected across Lancashire.

Some of the potential measures identified for each habitat and the target species have been mapped on the **Local Habitat Map**. This has been done where locations that provide the greatest benefit for nature and the wider environment from carrying out that measure can be identified.

Mapped measures are highlighted in green in the Priority & Measures Tables of the in the full Draft Strategy Document.

Universal Priorities

Three 'universal' priorities* that relate to recurring pressures that affect all habitats have been identified:

- **Minimising the build-up of different types of pollution** from nutrients such as sewage, and from soils and silt - for example following flooding events and pollution from industry and development
- **Biosecurity (measures aimed at preventing the introduction or spread of harmful organisms)** and the control of invasive species, and
- **Minimising the impact of recreational activities** e.g. limiting access to sensitive areas during nesting seasons

The measures that could be taken to address these pressures have been identified in Table 20 in the full Draft Strategy Document.

Supporting Actions

In addition to the mapped and unmapped measures identified for each habitat type and the target species, supporting actions* have been identified that will help to achieve the LNRS priorities. These actions are equally important to achieving our nature recovery priorities and have been informed by feedback gathered as part of the engagement carried out with specialists, land managers, the Voluntary Community Faith and Social Enterprise sector, and the public survey. These actions are grouped under the following four themes:

- Gathering and improving data & evidence
- Engagement and collaboration
- Policies that support nature recovery
- Funding and finance for nature recovery

For more information see the Full Draft Strategy Document 'Supporting Actions'.

Delivery, Monitoring and Review

The LNRS is a tool to identify opportunities for nature recovery, which can be used to target action and funding, it is not intended to be a delivery plan. The delivery of the LNRS will involve a wide range of organisations and individuals. By working with partners, the aim is to strengthen partnerships, particularly with those who manage land and those involved in making regulatory decisions that will be fundamental to delivering the strategy.

The Environment Act requires that the LNRS is reviewed and republished every 3 – 10 years. This will enable progress on delivery to be monitored, to reflect on what has been achieved, and identify where more action is needed.

For more information see the in the full Draft Strategy Document 'Delivery Monitoring and Review'.

Glossary

Agri-environment schemes	Government programme set up to help farmers manage their land in an environmentally friendly way.
Ancient woodland	Areas of woodland that have been continuously wooded since at least 1600AD.
Biodiversity	The variety of life (abbreviation of biological diversity)
Biological Heritage Site (BHS)	Non-statutory (not controlled by law) wildlife sites of at least County significance within Lancashire.
Biosecurity	A set of precautions that aim to prevent the introduction and spread of harmful organisms, such as insects, and disease-causing organisms (called pathogens) such as some bacteria and fungi.
Blanket bog	Normally in the uplands, it is an area of peatland* that forms where there is high rainfall allowing peat to develop not only in wet hollows but over large expanses of undulating ground. The blanketing of the ground with peat gives the habitat type its name.
Blue space	Our water environments: natural – such as rivers, lakes, streams and the sea, and built – such as marinas, canals and outdoor pools.
Brownfield sites	Previously developed land that is no longer being used. This includes disused industrial estates and factories. It does not include farmland.
Carbon capture	A process by which Carbon Dioxide (CO_2) is absorbed and stored preventing its release into the atmosphere. Trees and peatland are natural carbon capture solutions.
Designated	Given a specific status e.g., the Forest of Bowland is designated a National Landscape (previously called Areas of Outstanding Natural Beauty).
Ecosystems	The complex of living organisms, their physical environment, and all the interactions between them.
Equitable	Giving consideration to the needs of different population groups, so that everyone has the opportunity to enjoy the same outcome.
Flagship species	A flagship species is a species selected to act as an icon or symbol for a defined habitat, issue, campaign or environmental cause.
Green space	An area of grass, trees, or other vegetation set apart for example for recreational purposes in an otherwise urban environment.
Groundwater	Water that is found below the earth's surface in rocks and soil.

Habitats	A habitat is an environment inhabited by living organisms. There are a range of systems for classifying habitats into categories. This strategy uses the following broad categories: • Aquatic & wetlands • Coastal & estuarine • Grasslands (including agricultural land) • Lowland & upland peatland • Rocky habitats • Urban habitats • Wooded habitats & trees.
Irreplaceable Habitat	Habitats that would be technically very difficult (or take a very significant time) to restore, recreate or replace once destroyed, taking into account their age, uniqueness, species diversity or rarity. The statutory* irreplaceable habitats found in Lancashire (as defined by the Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024) are: • ancient woodland, • ancient and veteran trees*, • blanket bog, • limestone pavement, • sand dunes, • salt marsh, and • lowland fen.
Limestone pavement	A natural karst landform (a landform worn away by water) consists of a flat, cut into surface of exposed limestone that resembles a pavement.
Lowland fen	A water-logged habitat with wetland plants like reeds and rushes, often found in shallow valleys.
National Landscape	National Landscapes (designated Areas of Outstanding Natural Beauty) are on par with the UK's National Parks, each is an outstanding landscape whose distinctive character and natural beauty is safeguarded in the national interest.
Nature-based Solutions	Actions which support and draw on nature to provide wider environmental or societal benefits.
Peatland	A type of wetland whose soils consist of partially decaying plants, forming layers of peat.
Potential measures	Specific practical actions to achieve priorities.

Priorities (in the LNRS)	The end results that the strategy is seeking to achieve.
Semi-natural grasslands	Grasslands that exist as a result of human activity (e.g., mowing or livestock grazing), but where environmental conditions and the numbers of species are maintained by natural processes.
Sites of Special Scientific Interest (SSSI)	Nationally designated sites of special scientific interest. SSSIs are legally protected under the Wildlife and Countryside Act 1981.
Special Area for Conservation (SAC)	Protect one or more special habitats and/or species listed in the Habitats Directive. They cover both terrestrial and marine habitats and species. Designated under the Conservation of Habitats and Species Regulations 2017.
Special Protection Area (SPA)	Internationally designated areas on land or at sea which protect vulnerable bird species in the UK. Designated under the Conservation of Habitats and Species Regulations 2017.
Species	A set of organisms in which the members have similar characteristics to each other and can breed with each other.
Target Species	Lancashire's most scarce, declining or most important species requiring bespoke actions beyond the more general habitat creation and enhancement measures.
Veteran tree	May not be very old, but they have significant decay features, such as branch death and hollowing. These features contribute to their biodiversity, cultural and heritage value. They are also considered statutory irreplaceable habitat. All ancient trees are veteran trees, but not all veteran trees are ancient.
Wetlands	Areas of land that are either permanently or seasonally flooded with water, supporting species that are adapted to live there. They play an important role in reducing flood risk and slowing the flow of water.
Wet woodland	Characterised by trees such as willows, birches and alder that thrive in poorly drained or seasonally flooded soils, such as in fens and bogs, pond and lakesides, riverbanks, and flushed hillsides.
Wood pasture	Land that has been managed through grazing. They can be ancient, or more recent, but will contain trees growing in open pastureland, often very old and are home to many rare and threatened species.

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