

North Yorkshire and York Local Nature Recovery Strategy (LNRS)

**Document 2: Thriving Nature in North Yorkshire
and York – Our Local Nature Recovery Strategy**



February 2026

LNRS Document Navigation

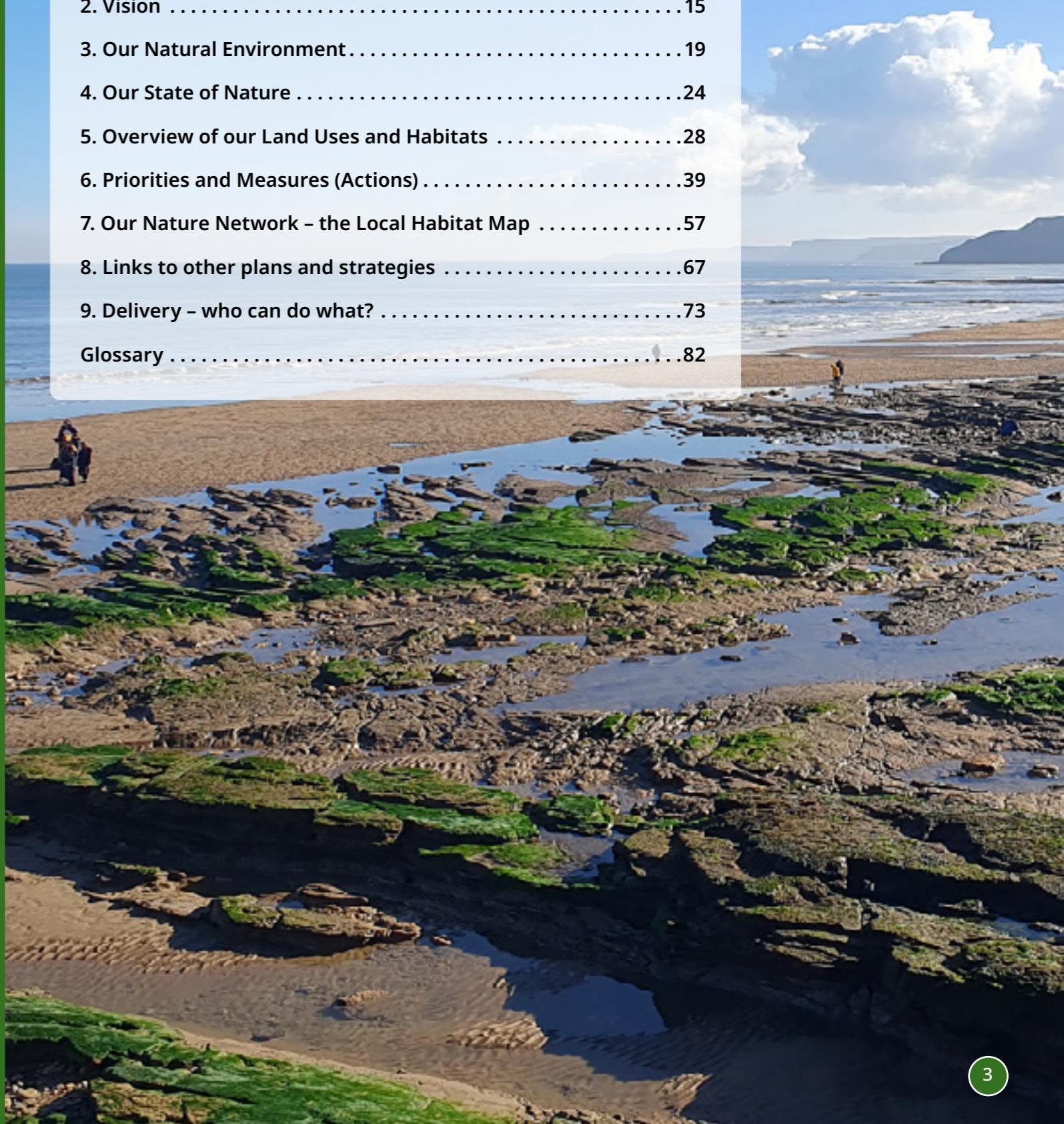
The North Yorkshire and York Local Nature Recovery Strategy (LNRS) is split into 5 separate parts to help users of the strategy easily find the information that is most relevant to them. The 5 parts are set out in the table below, with a brief description of each one. To access other parts of the LNRS, please visit: www.northyorks.gov.uk/lnrs-documents

This is: **Document 2: Thriving Nature in North Yorkshire and York – Our Local Nature Recovery Strategy**

1	Thriving Nature in North Yorkshire and York – Non-Technical Summary Provides a non-technical summary of the North Yorkshire and York Local Nature Recovery Strategy intended for residents and readers from a non-technical background
2	Thriving Nature in North Yorkshire and York – Our Local Nature Recovery Strategy Provides a detailed overview of the North Yorkshire and York Local Nature Recovery Strategy intended for politicians, land managers, town planners and wider stakeholders
3	Statement of Biodiversity Priorities Part I – Description of Our Strategy Area Provides a detailed description of the strategy area of the North Yorkshire and York Local Nature Recovery Strategy
4	Statement of Biodiversity Priorities Part II – Priorities and Measures Sets out the priorities and measures for the North Yorkshire and York Local Nature Recovery Strategy
5	The Local Habitat Map Online mapping platform providing the Local Habitat Map for the North Yorkshire and York Local Nature Recovery Strategy, including existing Areas of Particular Importance for Biodiversity (APIBs) and Areas that Could Become of Particular Importance for Biodiversity (ACBs)
Appendix 1	LNRS Prioritisation methodology and scoring criteria
Appendix 2	LNRS Species prioritisation methodology
Appendix 3	LNRS Mapping methodology and datasets
Appendix 4	LNRS Nature recovery opportunities longlist
Appendix 5	LNRS Priority species list
Appendix 6	LNRS Online survey responses summary, February 2024
Appendix 7	LNRS Species measures

Contents

Foreword	4
Executive Summary	6
1. Introduction	8
2. Vision	15
3. Our Natural Environment	19
4. Our State of Nature	24
5. Overview of our Land Uses and Habitats	28
6. Priorities and Measures (Actions)	39
7. Our Nature Network – the Local Habitat Map	57
8. Links to other plans and strategies	67
9. Delivery – who can do what?	73
Glossary	82



Foreword

North Yorkshire and York supports an amazing diversity of landscapes and wildlife, from ancient woodlands and chalk hills to large expanses of open moorland and beautiful historic parklands. Nevertheless, the State of Yorkshire's Nature report¹ advises that nature is under threat across Yorkshire, with up to 2,000 species having disappeared in the last 200 years and nearly 1 in 5 species having declined by more than 25% in the last 20-30 years.

To try and address nature's decline across our geography, government appointed North Yorkshire Council in 2023 to lead the North Yorkshire and York Local Nature Recovery Strategy (LNRS), working closely with our five supporting authorities: City of York Council, Yorkshire Dales National Park Authority, North York Moors National Park Authority, York and North Yorkshire Combined Authority and Natural England.



Councillor Richard Foster

North Yorkshire Council's Executive Member for Managing our Environment

The LNRS has been developed in collaboration with a wide range of stakeholders, including land managers and farmers, environmental organisations, local interest groups, residents and young people.

As we share a common landscape and river network, and nature recovery needs to be enacted at scale, we will act as the lead authority and continue to work in partnership with City of York Council, Yorkshire Dales National Park Authority, North York Moors National Park Authority, York and North Yorkshire Combined Authority and Natural England.

I look forward to working with our partners and many stakeholders to implement this strategy.



Councillor Jenny Kent

City of York Council's Executive Member for Environment and Climate Emergency

Climate change and the global loss of biodiversity are at critical tipping points, and creating diverse, healthy green spaces and waterways is vital for us all to thrive.

The LNRS identifies priorities to not only help reverse the decline in nature but allow it to flourish, and create a network of nature-rich sites that are bigger, better managed and more joined-up across the county and across the country.

Implementing LNRS is an important step forwards for a liveable future, protecting nature for our future generations, and an opportunity to work together to safeguard our natural spaces and wildlife.



Mark Corner

*Member Champion for the Natural Environment
Yorkshire Dales National Park Authority*



Patrick James

*Chair, Conservation and Climate Change Forum
North York Moors National Park Authority*

With their iconic heather moorlands, ancient woodlands, hay meadows, coastal cliffs and river valleys, the North York Moors and Yorkshire Dales National Parks support some of our rarest and most important plants, animals and habitats. Atlantic salmon, curlew, turtle dove, black grouse and native juniper all rely on this special place, and LNRS will help us and our partners prioritise action for nature recovery so these and all other species can survive and flourish in the face of climate change.

Developing the LNRS with our landowners, farmers and land managers, our Management Plan partners, and our communities across the National Park, ensures a shared understanding of priorities and a collective commitment to reversing habitat loss, increasing biodiversity and bio-abundance, and building a resilient landscape.

As Supporting Authorities, we will have a responsibility to play a significant role in shaping and delivering the LNRS, working alongside other stakeholders to support sustainable, connected and naturally functioning landscapes where nature can thrive.



David Skaith

Mayor of York and North Yorkshire

The healthy, thriving communities I want to see across York and North Yorkshire are dependent on easy access to the region's vast and varied landscape. Getting out into nature boosts people's physical and mental health and is a great way to keep active.

But protecting nature not only means saving it for future generations – it also means tackling the challenges of climate change, while attracting visitors and creating jobs.

Restored habitats and landscapes can reverse the decline in biodiversity, help capture carbon from the atmosphere and provide protection from natural hazards such as flooding.

The LNRS is a collaboration which will be vital to the future of our region's natural landscapes and habitats, as well as helping York and North Yorkshire achieve its goal of becoming carbon negative by 2040.

¹ State of Yorkshire's Nature - Yorkshire Wildlife Trust www.ywt.org.uk/StateofNature

Executive Summary

Vision and Ambition

Our vision is to work together to *enhance, expand, restore, and connect* habitats across North Yorkshire and York, creating a region where nature thrives. By 2035 we aim to be a national exemplar for abundant nature, leaving our natural environment in a better state for both people and wildlife. This will support a resilient economy and help mitigate and adapt to the impacts of climate change.

As one of 48 Local Nature Recovery Strategies (LNRS) across England, our strategy contributes to a national Nature Recovery Network. This network will support species recovery and deliver a wide range of benefits from nature through inter-connected habitat improvements.

Challenges and Pressures

Nature in the UK is under severe pressure, with our country ranked among the most nature-depleted globally. There is evidence that our ability to adapt to a changing climate is reduced when nature is lost, and nature depletion is predicted to reduce national GDP by 6-12% by the 2030s. In Yorkshire alone, over 25% of species have declined in the past 30 years. In North Yorkshire and York, this is evident in the dramatic decline of species such as the Turtle Dove, White-Clawed Crayfish, Red Squirrel, and Burnt Orchid.

Key pressures on nature include habitat loss, pollution, invasive species and climate change. Less than 20% of our water bodies currently meet the criteria for good ecological status, underscoring the urgency of required action.

Strategic Response

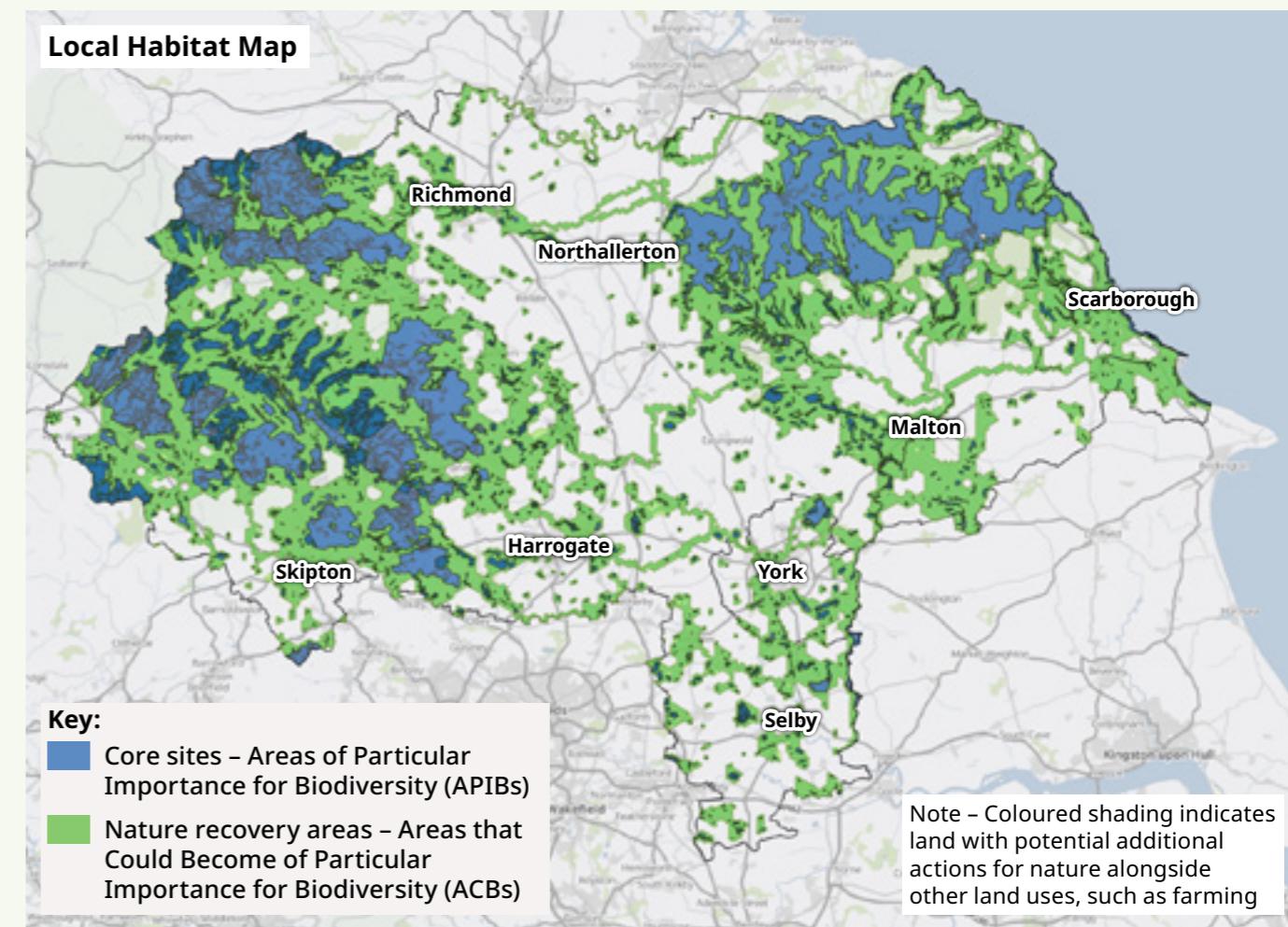
To address these challenges, we have worked with a wide range of expert stakeholders to develop 44 priorities and over 150 targeted measures across seven 'habitat' themes; farmland, upland, grassland, woodland, water and wetlands, urban, and coast.

These priorities are aligned with our proposed nature recovery network (Local Habitat Map) – a bold vision to make our habitats *bigger, better, more and more joined up*. This network will join up with our seven neighbouring LNRS. Better-connected habitats will help to reverse species decline and deliver wider benefits from nature such as climate regulation, cleaner water, and improved access to nature for people to benefit their health and wellbeing.

Call to Action

We are now transitioning to the delivery phase and Government has asked us to monitor changes in nature resulting from our proposed actions. Success with delivery will depend on collaboration across communities, businesses, public bodies, NGOs, and land managers and farmers.

There will be opportunities to integrate nature recovery into the government's growth agenda. Alongside public funding, we will help to explore opportunities for private investment into nature recovery.



1. Introduction

The intention of this document is to provide an overview of the scope of the LNRS, whilst also forming a signpost to, and summary of, more detailed information that can be found in the Description of Strategy Area (Document 3), Statement of Biodiversity Priorities (Document 4), the Local Habitat Map and the supporting appendices.



What is a LNRS?

Local Nature Recovery Strategies (LNRS) are a new system of spatial strategies intended to drive nature recovery, along with associated environmental improvements. Their preparation is a statutory requirement under the Environment Act 2021 and their main purpose is to identify appropriate actions and suitable locations to enhance existing habitats, or create new habitats, where this is most likely to provide the greatest benefits for nature and the wider environment.

Each strategy must:

- Agree priorities for nature's recovery
- Map the most valuable existing areas for nature
- Map specific proposals for enhancing or creating habitat for nature, along with wider environmental goals

This document is the LNRS for North Yorkshire and York, which has been led by North Yorkshire Council following appointment by Defra as the responsible authority for its preparation, in collaboration with a wide range of regional stakeholders.

In due course, Defra will require the responsible authority to review and republish the strategy as part of an ongoing cycle which considers what has been achieved, and proposes what further work is needed for nature to recover. It is expected that the first published LNRS will be reviewed within 3-10 years.

The strategy does not oblige landowners or land managers to make any changes or undertake any actions on the land that they own or manage. In addition, it does not confer any additional protections or change

existing protections and restrictions. Instead, the strategy seeks to drive collaborative, coordinated action for nature by setting out the most beneficial priorities and measures (actions) to enhance and create habitat, and identify where these could be carried out to have the greatest positive impact.

Why do we need an LNRS?

The UK is one of the most nature depleted countries in the world². Nationally, all our ecosystems assets, like freshwaters and enclosed farmland, and the majority of the benefits they provide, like freshwater and cultivated crops, are deemed to be at high or medium risk. North Yorkshire and York, like the rest of England has suffered extreme biodiversity loss over the past 50 years. Many habitat areas across North Yorkshire and York are heavily fragmented, functionally isolated, and lacking in management, causing significant declines in biodiversity and ecological condition. Our area contains over 600 species considered to be endangered or vulnerable to extinction, including Tansy Beetle, Hen Harrier, Curlew, European Eel, Water Vole, and Frog Orchid. Human life too is affected by these changes. The ability to adapt to a changing climate is reduced when nature is lost, and nature depletion is predicted to reduce national GDP by 6-12% by the 2030s³.

As a result, the UK Government has made binding commitments to halt and reverse biodiversity decline in accordance with the Environmental Improvement Plan (EIP) 2023, and to meet the global Conference of the Parties' (COP15) 30 by 30 commitment to protect 30% of UK land and sea for nature by 2030⁴.

2 State of Natural Capital Report for England is now published – Natural England: <https://naturalengland.blog.gov.uk>

3 Green Finance Institute: www.greenfinanceinstitute.com/wp-content/uploads/2024

4 Environmental Improvement Plan: <https://assets.publishing.service.gov.uk/media>

What does this document contain?

- **Section 2** – Vision and principles – with our stakeholders we have co-created a vision statement with 10 supporting principles
- **Section 3** – Description of our natural environment
- **Section 4** – Outline of our state of nature
- **Section 5** – Overview of our broad areas and habitats
- **Section 6** – Priorities and measures (actions) for nature recovery that we have established with our stakeholders
- **Section 7** – Our nature network and Local Habitat Map – online map (spatial representation of the LNRS)
- **Section 8** – Links to other plans and strategies
- **Section 9** – How we go about delivery of the LNRS

How has the strategy been prepared?

Preparation of the LNRS has been led by North Yorkshire Council, as the responsible authority, with work having commenced in September 2023. North Yorkshire Council has been supported by an advisory group (steering group) with representation from the Defra arm's length bodies (Natural England, Forestry Commission and the Environment Agency), the protected landscapes in North Yorkshire (two National Parks and three National Landscapes), City of York Council, Yorkshire Wildlife Trust, White Rose Forest, Dales to Vales River Network, North and East Yorkshire Ecological Data Centre (NEYEDC) and the National Farmers Union (NFU). During the development of the strategy, North Yorkshire Council has also elicited the views and expertise of many wider stakeholders across our geography.

We have facilitated seven webinars, nine briefings to Council Members, 33 in-person workshops, 33 stakeholder one-to-one interviews, 30 one-to-one sessions with land managers and farmers and engaged with 90 organisations and over 1500 individuals.

Key statistics from engagement undertaken up to August 2025



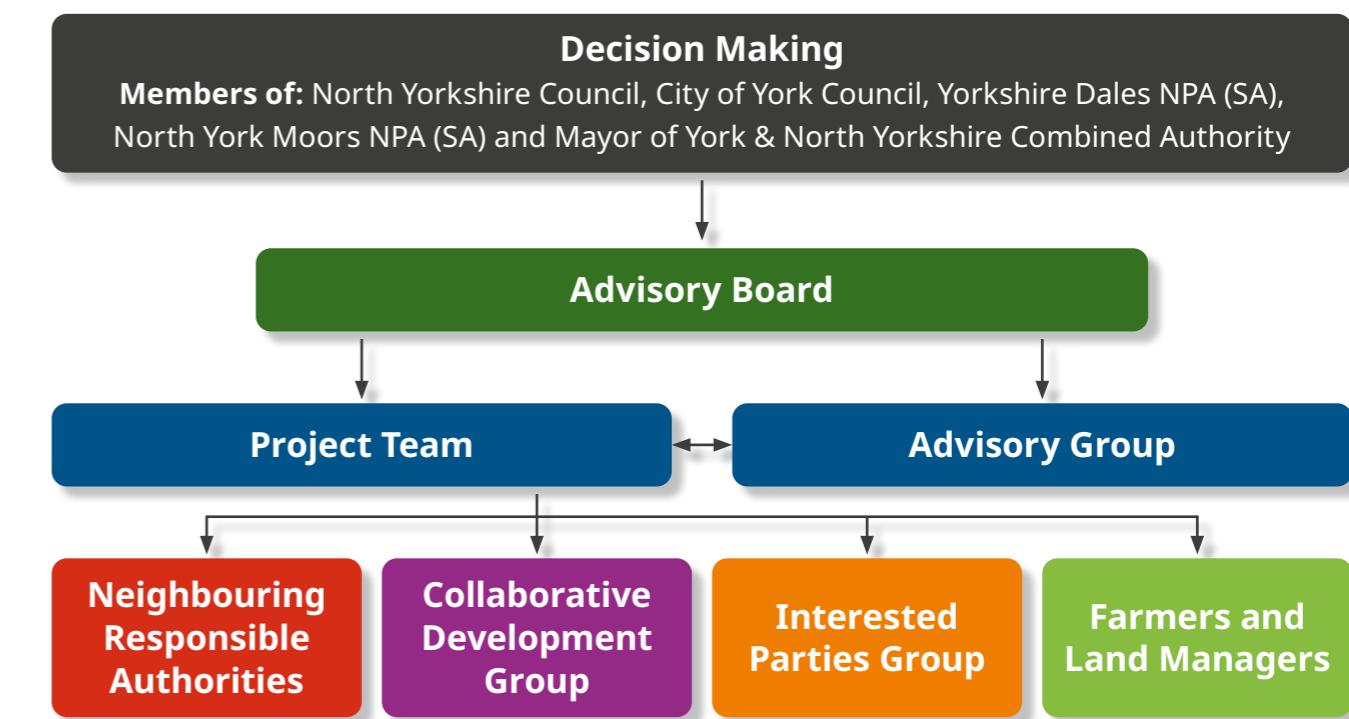
Who has been involved?

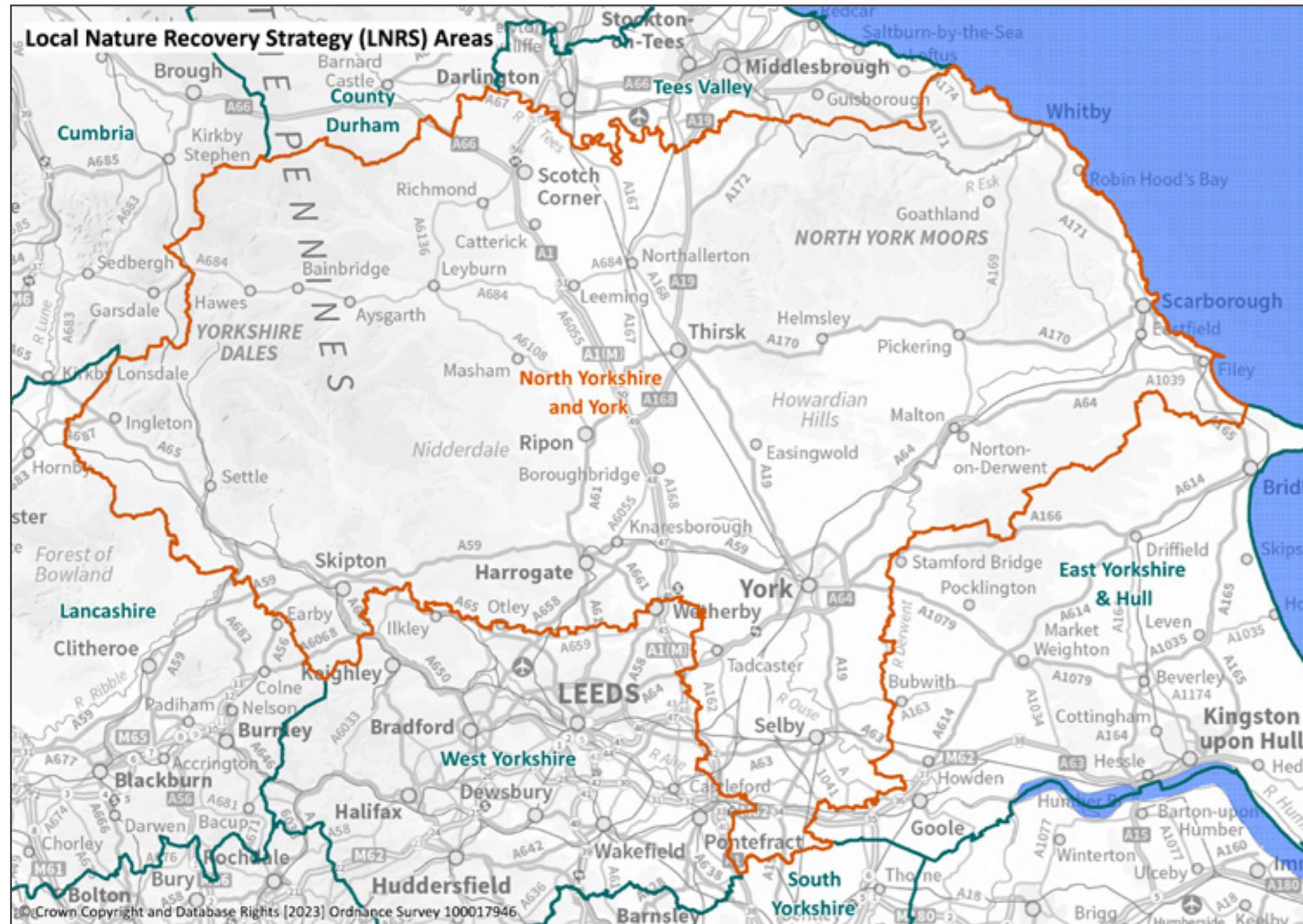
North Yorkshire Council developed a stakeholder engagement plan during summer 2023 to establish governance (working procedures and accountability), to raise awareness about LNRS, and determine which stakeholders to engage with. A working group from North Yorkshire Council and Natural England established a governance model for the LNRS (see diagram below), with the key groupings being:

- Lead Members from the responsible authority and supporting authorities – key decision makers
- Advisory Board – officers at director level, representing the responsible authority and supporting five authorities (Natural England, York and North Yorkshire Combined Authority, City of York Council, Yorkshire Dales National Park Authority and North York Moors National Park Authority)

- Project Team – officers from North Yorkshire Council and the North Yorkshire and York Local Nature Partnership (LNP)
- Advisory Group – 18 advisory group members representing key stakeholder organisations
- Seven neighbouring LNRS responsible authorities (see plan overleaf)
- Two collaborative development groups – (i) habitat and species specialists (ii) experts from public health, climate change, natural capital, and economy
- Over 200 land managers and farmers
- Interested parties - local politicians, local authority senior officers, town and parish councils, environmental organisations, youth councils, our LNRS mailing list (over 500 contacts) and members of the public

Governance and stakeholder engagement





Who is the strategy for?

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

How should it be used?

- To encourage collaboration:** working across communities, businesses, public bodies and non-governmental organisations (NGOs) to help nature to thrive
- To inform and provide evidence:** understand the local state of nature and the best actions we can all take to help nature recover, alongside other land use and development
- To direct investment:** by setting out the best locations to focus action and resources to enhance habitat, including the delivery of Environmental Land Management schemes (ELMs), Biodiversity Net Gain (BNG) and Local Investment in Natural Capital (LINC).
- To deliver wider benefits from nature:** Natural England's State of Natural Capital (SoNC)⁵ report demonstrates how the stock of ecosystem assets underpins the provision of a suite of benefits from nature, which in turn contribute to the economy (see page 38)
- To raise awareness:** encourage our citizens to appreciate the state of nature and to get involved in action on the ground
- Monitor progress:** government will require us to review and republish our LNRS periodically, so we will need to monitor progress and map areas where action for nature recovery has been undertaken and whether those actions are having an impact

⁵ State of Natural Capital Report for England – Natural England
<https://publications.naturalengland.org.uk/publication/6683489974616064>

2. Vision



2. Vision

Our LNRS identifies locations to improve biodiversity and deliver wider benefits from nature, such as capturing carbon from the atmosphere, flood regulation, and providing greater access to nature-rich spaces where this is most needed for health and wellbeing.

Since embarking on the preparation of the LNRS, we have worked collaboratively with a wide range of stakeholders including farmers, landowners, habitat experts, local politicians, town planners and residents to ask what nature means to them, how we can reverse its decline and what many wider benefits nature recovery can bring to both people and wildlife. Together we have established a vision statement and an ambition for the coming decade.

Vision

Our vision for restoring nature is:

To work together to enhance, expand, restore and connect our region's habitats for thriving nature across North Yorkshire and York.

Our ambition is that by 2035 our sub region will be an exemplar for abundant nature, and we will leave our natural environment in a better state for people and wildlife species, while supporting a prospering economy and helping to address climate change.



Long Preston Floodplain project, near Settle

Picture credit: Colin Alford

Principles

We have co-created 10 principles that will underpin our vision, statement of biodiversity priorities, and local habitat map. Principles 1 to 5 focus on what we need to do, with principles 6 to 10 focusing on how we can do it. The principles are set out below:

What we need to do:

1	Restore natural processes – restoring nature's way of doing things, where people and wildlife are better able to thrive in a prospering economy, while mitigating the effects of, and adapting to, climate change
2	Produce food, fuel and timber in a nature-friendly way
3	Connect people to nature – helping people become more aware of nature, our responsibility to it and the health and wellbeing benefits it can provide
4	Manage our water sustainably for both people and wildlife
5	Enhance local character and distinctiveness

Principles 1-5 align closely with some of the benefits from nature referred to in the State of Natural Capital Report for England and this is covered in more detail on page 38.



How we can do it:

6	Work across and engage with communities, businesses, public bodies and non-governmental organisations (NGOs) to help nature to thrive
7	Put nature and natural processes at the heart of policy and decision-making
8	Attract funding and green finance into nature
9	Prioritise and promote jobs, education, apprenticeships, and skills in delivering nature recovery
10	Monitor and evaluate change – recording uplifts to species, tree cover and habitats over time

Principles 6-10 are considered in more detail in Section 9.0 Delivery – who can do what?



3. Our Natural Environment



3. Our Natural Environment

Our Description of Strategy Area (Document 3) covers the natural environment in more detail and stakeholders engaged in nature recovery should read that document fully. The text below provides selective information from that document in a summary format.

Our land area of over 850,000 hectares (8,500 square kilometres) covers a range of geologies including limestone, sandstone and ironstone. Long term interactions between land, climate, and hydrology have resulted in distinctive topography, with uplands characterised by the Yorkshire Dales, North York Moors and Yorkshire Wolds, and neighbouring lowlands including the Vale of Mowbray, Vale of York and Vale of Pickering.

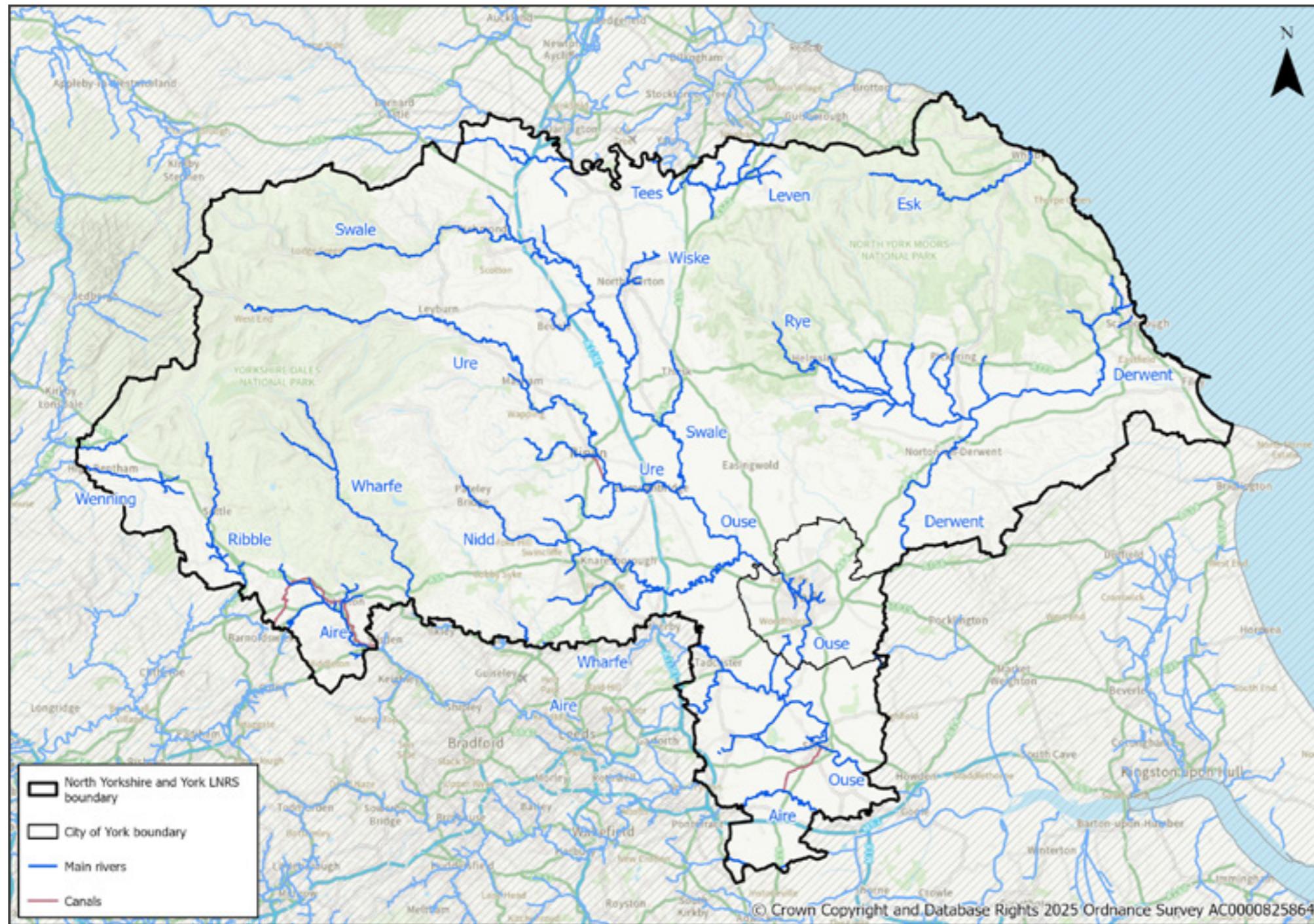
North Yorkshire and York has an extensive river network (see plan overleaf), with the rivers Swale, Ure, Nidd and Ouse flowing in a south-easterly direction towards York and then on into the Humber estuary. Other rivers joining the Ouse downstream of York include the Aire, Wharfe and Derwent. In the north, the Tees and Esk form their own, separate river catchments, while in the west the river Ribble finds its source in the Yorkshire Dales before flowing into neighbouring Lancashire.

Our rivers support a diverse range of habitats, including floodplain meadows, with approximately 15% of the national floodplain meadow resource being found within North Yorkshire and York. The Lower Derwent Valley, south east of York, supports one of the best examples of traditionally managed species-rich floodplain meadow habitat in the UK and supports internationally important populations of wintering waterfowl, along with the floodplain meadow adjacent to the River Ouse and its role in flood management for the City of York.

North Yorkshire is noted for its upland landscapes, dominated by heather moorland and blanket bog which support rare species such as Hen Harrier, Merlin, and Bog Asphodel. The upland areas of the county contain 27% of England's blanket bog resource⁶ and around 25% of the upland heathland resource, with the North York Moors having the largest block of continuous heather moorland in England. The Yorkshire Dales National Park contains approximately half of all Britain's limestone pavement and contains a significant proportion of the national upland hay meadow habitat, which the area is also famous for.

Lowland heathland is a rare habitat in England, and the York and Selby areas contain 2% of the country's resource, supporting rare species such as Pillwort, Slender Pond Snail, Adder and Nightjar.

⁶ Our peatlands - Yorkshire Peat Partnership www.yppartnership.org.uk/our-peatlands



Limestone habitats are especially rich in wildlife, and North Yorkshire is unique in having four different limestone types, each supporting unique habitats and species. These include the largest area of Carboniferous limestone in the Yorkshire Dales, the Permian Magnesian limestone running north to south through the centre of North Yorkshire, the Jurassic limestone on the southern edge of the North York Moors, and Britain's most northerly chalk outcrop (Cretaceous) in the Yorkshire Wolds. These support unique flora such as Lady's Slipper Orchid, Purple Milk-vetch and Perennial Flax. Almost half the plants of Conservation Concern in Yorkshire were linked with limestone and chalk. The Yorkshire Dales contains more than 40% of England's upland calcareous grassland resource.⁷

As a percentage of our total land area, woodland cover across North Yorkshire and York is 11.5%, compared with the England average of 14.9%,⁸ nevertheless we have important areas of ancient and long-established woodlands across our geography. The North York Moors National Park has the highest density of Plantation on Ancient Woodland Sites (PAWS) in the North of England. North Yorkshire and York is known for its large number of country estates and associated parkland, including Fountains Abbey & Studley Royal, Duncombe Park, and Castle Howard, which support large numbers of veteran and ancient trees, an irreplaceable habitat.

The LNRS encompasses the North Yorkshire coastline between Staithes in the north and Filey Bay in the south. It is a highly distinctive coast with internationally important Jurassic and Cretaceous geology, including fossil-rich cliffs. Many of the softer coastal cliffs have a mosaic of habitats such as species-rich grasslands, scrub, wet flushes and bare ground which support a range of unusual plants and invertebrates. The hard cliffs provide important nesting sites for declining seabirds, such as Kittiwake, and the intertidal rock platforms are important for a range of rock pool species such as seaweeds and molluscs.

⁷ Flagship Habitats in North Yorkshire (2019), M Hammond

⁸ National Forest Inventory (NFI) and Outside Woods (TOW) data, Forest Research

North Yorkshire and York hosts a range of rare and iconic species from birds such as the Curlew and Barn Owl, to the Tansy Beetle, also known as 'the Jewel of York', as one of only two places it is found in the UK. The North York Moors National Park is now home to the only significant breeding population of Turtle Dove in the north of the UK and

our area is one of only a few places in the country left for endangered species such as Tassel Stonewort and Freshwater Pearl Mussel. The occurrence of the moth Dark Bordered Beauty at Strensall Common, near York, is the only known site in England for this species. Many of these rare and vulnerable species occur outside of our protected areas.

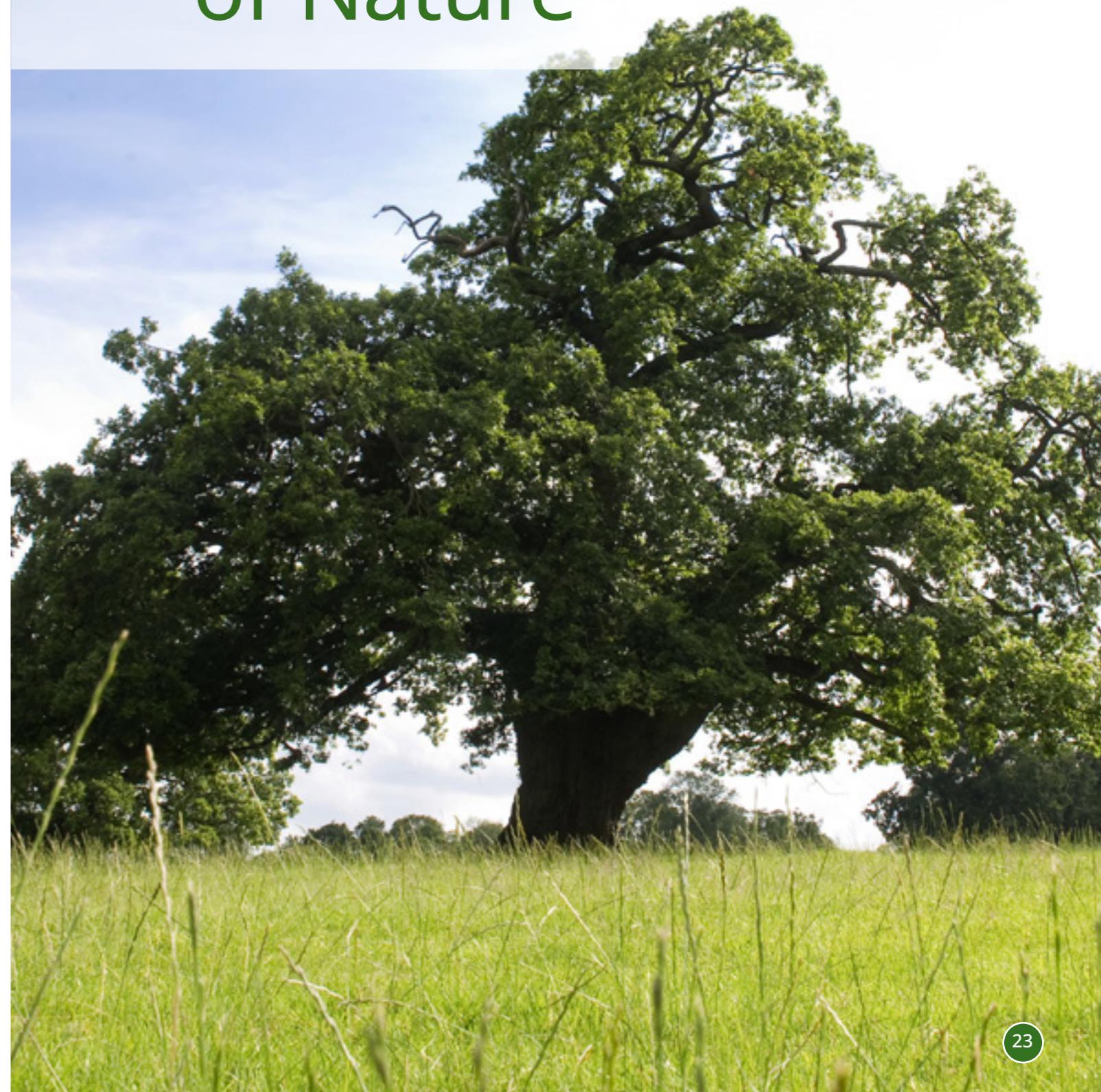


Picture credit: Will Askew



Picture credit: Gareth Atkinson

4. Our State of Nature



4. Our State of Nature

Our Description of Strategy Area (Document 3) covers the state of nature in North Yorkshire and York in more detail and stakeholders engaged in nature recovery should read that document fully. The text below provides selective information from that document in a summary format.

Species

In Yorkshire over 25% of species have declined in the last 30 years⁹ and this change can be seen in North Yorkshire and York by the dramatic decline of species such as Turtle Dove, White-Clawed Crayfish, Red Squirrel and Lady's Slipper Orchid. Our area contains over 8,600 species considered to be endangered or vulnerable to extinction, including Adder, Curlew, European Eel, Water Vole and Burnt Orchid. Species that may be thought of as common such as the Common Toad, European Hedgehog or Swift are classed as priority species due to their dramatic declines in numbers in recent years.

Designated Sites

12.1% of the total area of North Yorkshire and York is internationally designated as either Special Protection Area (SPA), Special Areas for Conservation (SAC) or Ramsar Sites. These range from the extensive upland heathland habitat in the North York Moors National

Park, blanket bog habitat in the Yorkshire Dales National Park, and floodplain meadow in the lower River Derwent. 13.8% of our total area is designated as Sites of Special Scientific Interest (SSSI) including areas of floodplain meadow along the River Ribble near Settle and lowland heath in the York and Selby area. Alongside these are Local Wildlife Sites (LWS) covering 1.2% of our total area, Local Nature Reserves (0.04%) and National Nature Reserves (0.2%). Irreplaceable habitats found within North Yorkshire and York include ancient woodland, blanket bog, limestone pavement and lowland fen.

However, these designations do not ensure that this land is in good quality for nature, due to a wide range of pressures. For example, only 15% of our SSSI sites are in 'favourable' condition, with 71% assessed as 'unfavourable – recovering', 9% 'unfavourable – no change' and 5% 'unfavourable – declining'.



Picture credit: Gareth Atkinson

Pressures

Pressures that have led to the decline in species and the condition of designated sites will continue to impact into the future if not addressed. Some of these include:

Habitat loss and fragmentation – urbanisation and agricultural intensification since the Second World War have historically led to the direct loss of habitat, as well as a reduction in the quality of remaining habitat. Rivers and their associated riparian habitats have been heavily modified for flood risk and land drainage reasons and many man-made structures and weirs present barriers to fish migration. These changes over time have created a fragmented network of sites for nature that have reduced the ability of species to migrate and made them more at risk of localised extinctions.

Water Pollution – less than 20% of North Yorkshire and York's waterbodies are classed as having good ecological status, highlighting the impact that issues such as pollution are still having on these ecosystems. More work is required to reduce the input of unwanted chemicals and nutrients from sewage treatment and runoff from roads and agriculture into our watercourses, to support the recovery of our river wildlife.

Air Pollution – in England, the two main sources of atmospheric pollutants are nitrogen oxides and ammonia. Nitrogen oxides result from the burning of fossil fuels, in both power stations and motor vehicles, while ammonia, nitrous oxide and methane are mainly emitted from agriculture. Overall, 96% of England's most sensitive wildlife habitats are affected by excessive nitrogen deposition.¹⁰

Invasive species – there are estimated to be around 2,000 Invasive Non-Native Species (INNS) in the UK, with many being well established, such as the Grey Squirrel. Collectively, INNS are estimated to cost our national economy £1.84 billion a year and are a major threat to our nature. Some directly target our native wildlife (e.g. American Mink, Signal Crayfish), whilst others cause indirect harm, including undermining our riverbanks (Himalayan Balsam), damaging property (Japanese Knotweed), or impacting on human health (Giant Hogweed). Control of INNS has been identified as one of our overarching priorities within the strategy (see priority OVR_P03).

Pests and diseases – these are prevalent throughout our natural world, with more entering our country through human activity and climate change. Warmer average temperatures and wetter environments could increase the presence of pests and diseases even further. Ash dieback was first observed in England in 2012 and is expected to kill up to 80% of Ash trees across the UK,¹¹ which will change the landscape and threaten many species which rely on Ash.

⁹ State of Yorkshire's Nature - Yorkshire Wildlife Trust www.ywt.org.uk/StateofNature

¹⁰ We need to talk about Nitrogen - British Ecological Society www.britishecologicalsociety.org/need-talk-nitrogen

¹¹ Ash Dieback (*Hymenoscyphus fraxineus*) - Woodland Trust www.woodlandtrust.org.uk/trees-woods-and-wildlife/tree-pests-and-diseases/key-tree-pests-and-diseases/ash-dieback

Climate change – the UK is predicted to experience warmer, wetter winters and hotter, drier summers. The impacts we are already experiencing from our changing climate are also impacting the species around us. Flooding during breeding seasons can lead to nests and habitats being washed out, while droughts can prevent access to essential water and food sources. Changes in temperature can cause flowering periods to fall out of sequence with emerging pollinating insects, leading to a lack of food at essential life stages. Changes in temperature will force animals to either survive in poor living conditions or migrate, which can be extremely challenging if the habitat they rely on is highly fragmented.

Land use – urbanisation and agricultural intensification since the Second World War have led to the direct loss in habitat, as well as a reduction in the quality of remaining habitat. This has created a fragmented network of sites for nature which has reduced the ability of species to migrate and made them more at risk of localised extinctions.

In the UK, the many demands on our land is an ongoing issue, including meeting the needs of agricultural production, employment and residential development, strategic infrastructure including renewable energy, nature recovery and leisure and recreation. It is understood that Government will publish its Land Use Framework (LUF) during 2025 to support better management of these competing demands on land. North Yorkshire and York faces all of these demands across its geography and it will need tools like the LUF and the planning system to help to manage them effectively.

5. Overview of our Land Uses and Habitats



5. Overview of our Land Uses and Habitats

Working with a wide range of experts, community groups, farmers, landowners and others, we have established a range of priorities and measures (actions) to help nature recover. These are covered in more depth in Section 6. We have grouped our area's land uses and habitats into seven categories (see graphic below).



We have used these 'habitat' categories throughout the strategy to allow easier identification of the priorities and measures that are most relevant to particular habitats or land use types. We recognise that there is some crossover between the categories, and that some of the categories primarily relate to land use or landscape type, rather than a specific habitat type.

In this section, we provide an overview for each 'habitat' category, along with a short case study demonstrating 'nature recovery in action'.



Farmland

Overview

Farmland makes up over 70% of the land area of North Yorkshire and York and, with over 6,900 farms¹² across our LNRS area, farming plays a significant role in community life. Agriculture also has an essential role in managing our region's landscapes, flora and fauna, alongside its significant contribution to the local economy.

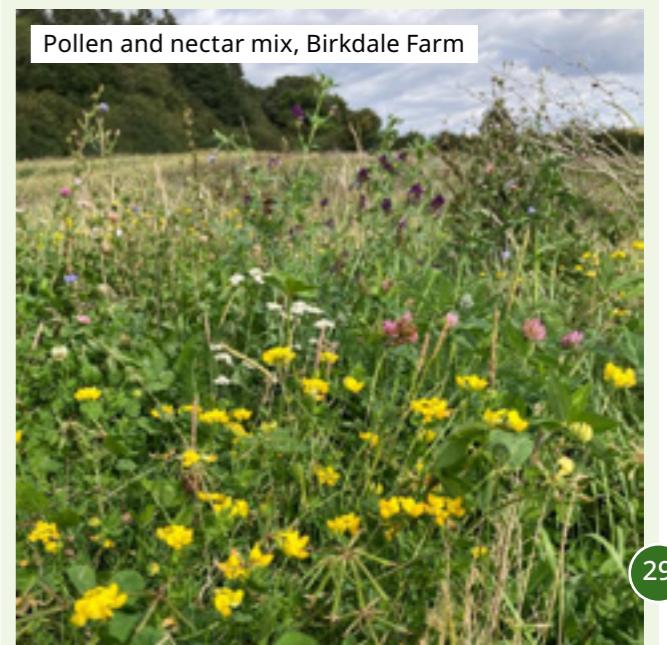
In broad terms, our flatter lowland areas and some parts of the coast tend to be occupied by larger arable and mixed farms, with our upland areas and foothills being occupied by smaller hill farms, typically focussed on livestock and mixed farming. Our engagement with farmers during 2024 suggests that across our geography there are pockets of land where landowners and farmers are taking action to help nature by including natural habitats alongside their farm business activity. This applies particularly in the protected landscapes, which have benefitted from the Farming in Protected Landscapes (FiPL) scheme, an initiative which provides advice and grants in respect of nature recovery and other objectives.

Elsewhere, there is evidence that post-war agricultural intensification has resulted in field amalgamation through the removal of features such as hedgerows, trees, copses and ponds, resulting in an environment with smaller and more fragmented areas of natural habitat, which is less able to support nature and wildlife.

Nature recovery in action – Birkdale Farm

Birkdale Farm in the Howardian Hills National Landscape is a 300-acre farm utilising regenerative agriculture principles to improve soil health and support biodiversity. The farm produces winter wheat with herbal leys as a 'break crop'. 150 breeding New Zealand Romney ewes support the management of various environmental options, improving the diversity of grassland and grazing wheat in February to reduce the risk of virus, and therefore the use of fungicide spray. No insecticides have been used on the farm for the past eight years. A mid-tier Stewardship and Sustainable Farming Incentive (SFI) agreement supports rare arable plants, wildflowers, birds, invertebrates and newts, whilst also protecting soil, water and hedgerows.

The farm has reduced its reliance on inputs (fertilisers and pesticides), extended the hedgerow network and implemented traditional management, incorporated flower-rich field margins and plots to support pollinators and predatory insects. 18 species of dragonfly and 10 species of bat have been recorded on the site, and rare moths, Great Crested Newt and arable plants such as Corn Buttercup and Field Pennycress have also been recorded through regular surveys.



Picture credit: Frances Standen

¹² Defra (2021), Farm type and farm size, Structure of the agricultural industry in England and the UK at June



Hay meadow, Ashes Pasture



Upland

Overview

Our upland landscapes are a stronghold for nationally and internationally important habitats, such as limestone pavement, upland heathland, blanket bog, upland hay meadows, calcareous grasslands, mires, flushes and other wetland features. These are home to a large number of specialist species reliant upon these unique habitats, but these species are often found in low numbers and can be very isolated populations. Our uplands are the source of multiple river systems in our area, and are thereby linked to opportunities to reduce water pollution and the impacts of flood events by storing more water upstream. Many of our upland habitats excel at storing carbon, but are damaged and are currently emitting this stored carbon into the atmosphere. Restoring habitat to stabilise these carbon stores is essential to our ambitions to reduce carbon emissions and will help to slow down and reduce the impacts of climate change.

These areas have also been subject to past policies that encouraged the drainage of upland habitats, resulting in de-wetting and drying out. Historically some of our upland habitats have been converted to grassland and some agricultural practices have resulted in overgrazing.

Nature recovery in action – Yorkshire Peat Partnership

Yorkshire Peat Partnership (YPP) is restoring peatlands at scale in the Yorkshire Dales and North York Moors National Parks and Nidderdale National Landscape. Their goal is to restore and conserve upland peat resources to ensure the long-term future of these unique and valuable habitats. To date YPP has been particularly active in peatland restoration in areas such as Swaledale, Wensleydale, Nidderdale and lower Wharfedale in the Yorkshire Dales, and Eskdale in the North York Moors. By the end of March 2024 YPP had delivered 46,952 ha of peat restoration work which is 50% of the estimated 94,220 ha peatland in their operational area.¹³

YPP is monitoring plots throughout their operational area to better understand how their work is affecting the peatlands they are restoring.



Picture credit: Yorkshire Peat Partnership



Grassland

Overview

Grasslands are important habitats for wildlife, both in their own right and through connecting and buffering other habitat types. Some of our grasslands are fantastically rich in wildflowers which make them vital homes and stepping stones for pollinators, whilst others are important feeding and nesting sites for species such as farmland and wading birds. Good populations of fungi, such as waxcaps, can highlight unimproved, low-nutrient grasslands, which are a rare and threatened habitat in England. However, these diverse grasslands tend to be found in small, fragmented sites, lacking wider connectivity.

Mirroring trends across England over recent decades, our geography has lost a significant proportion of its species-rich grassland. There has been a tendency for diverse grassland to be converted to less diverse 'improved' grassland for grazing and silage, and some associated field amalgamation has also occurred, with the loss of networks of hedgerow, hedgerow trees, copses and field margins.



Main Lake, Nosterfield Nature Reserve

In other areas, species-poor grasslands have often been lost in favour of creating other habitat types, such as woodland, or for other land uses such as housing, renewable energy or more 'productive' farmland. It is important we recognise their inherent value to support and connect nature in our decision-making.

Nature recovery in action – Nosterfield Nature Reserve

The main Nosterfield Nature Reserve is 150 acres of wet grassland and open water situated between the Rivers Ure and Swale in North Yorkshire and it is managed by the Lower Ure Conservation Trust (LUCT). The underlying magnesian limestone and its associated aquifer makes the location particularly distinctive. Sand and gravel were produced from a former quarry here until the late 1980s and it was designated a Local Nature Reserve (LNR) in 2001. A dramatic rise and fall in the water levels, associated with the natural water table and rainfall, results in a huge range in water levels, typically 2.5 m per year, creating ideal conditions for many breeding waders, such as Curlew, Redshank and Avocet. LUCT also manages the west end of Nosterfield Quarry (100 acres), including reedbed (breeding Bittern and Marsh Harrier) and magnesian limestone grassland. In a survey carried out in 2018, more than 1,100 species were recorded in 24 hours, evidencing the growth in biodiversity in the nature reserve since its restoration.

Flasks Lake, Nosterfield Nature Reserve



Picture credit: Tris Terry



Woodland

Overview

North Yorkshire and York contains a variety of wooded habitats of different ages and types. Our ancient woodlands have persisted since the 1600s, and long-established woodlands since 1893. These woodlands may have had their tree cover and woodland structure changed, from the original tree species to a range of woodland types, including conifer, mixed, and broadleaf woodlands (often after the Second World War). However, these woodlands still retain important woodland flora, contribute significantly to biodiversity and ecological resilience, and support a wide range of woodland species. Woodland cover is more prevalent in the eastern regions of our area, particularly in the North York Moors and Howardian Hills.

Elsewhere, woodlands tend to occur in isolated pockets, lacking wider connectivity, for example wooded valleys/ghylls are



Snaizeholme, Yorkshire Dales National Park

important remnants of ancient woodland where trees were difficult to access by grazing animals. Across our total land area woodland cover is 11.5%, compared with 4% of the Yorkshire Dales National Park, 8% of Nidderdale National Landscape, 16% of Howardian Hills National Landscape and 23% of the North York Moors National Park.¹⁴

Parkland is an important habitat for our area as it is not only important historically and culturally, but hosts important populations of veteran and ancient trees. Each of these historic trees acts as an ecosystem, with some species such as oak supporting as many as 2,300 species¹⁵ including bats, birds, fungi, and invertebrates that can only survive on dead or dying wood. However, our veteran and ancient trees tend to be isolated and vulnerable to felling or toppling caused by high winds.

Nature recovery in action - Snaizeholme

Snaizeholme is a unique and complex habitat restoration and nature recovery project in the Yorkshire Dales, south of Hawes, and is being led by the Woodland Trust working with the National Park Authority and Forestry Commission. It is also one of the key sites of the Northern Forest project.¹⁶ In the first phase, there is a plan to plant almost 291 hectares (719 acres) with native tree saplings, creating one of the largest new native woodlands in England. It will join riverside pasture, wooded valley sides, peat bogs and limestone pavement to form a diverse mix of wildlife-rich habitats.

The careful approach to planting will create groves, glades and open woodlands that gently transition into, and connect with, the other habitats, all delivered without the use of plastic tree guards or herbicides.

This phase has been funded by the White Rose Forest through its Trees for Climate funding programme. Trees for Climate, part of Defra's Nature for Climate fund, ran to March 2025 and has provided grants for woodland creation within all Community Forest areas in England.



Tree planting at Snaizeholme



York Community Woodland walk event

Nature recovery in action - York Community Woodland

City of York Council and Forestry England are working in partnership to create an extensive new community woodland of predominantly native mixed broadleaf species on a 78-hectare site near the village of Knapton to the west of York. York Community Woodland opened to the public in August 2024, providing public access to this newly created habitat comprising of 200,000 planted trees and shrubs via a network of forest roads and tracks. The site contributes to the combined outline objectives of City of York Council and Forestry England to sequester residual carbon, enhance biodiversity, improve the health and wellbeing of residents and provide new green jobs, skills development and volunteering opportunities. The ongoing development of the site has been promoted through community engagement and activities such as woodland walks, wildflower meadow sowing, and tree planting. Forestry England is responsible for the future management and monitoring of York Community Woodland as the site continues to develop and mature.

14 Woodland cover figures referenced from respective Protected Landscape Management Plans

15 Oak trees and wildlife - Woodland Trust

www.woodlandtrust.org.uk/trees-woods-and-wildlife/british-trees/oak-tree-wildlife

16 The Northern Forest: Planting 50 Million Trees
<https://thenorthernforest.org.uk>



Water and wetlands

Overview

A series of major rivers have shaped North Yorkshire and York's landscape, with many having their source in the uplands of the Yorkshire Dales and North York Moors before flowing into the Humber Estuary or to the coast. Much of our lowlands were historically covered by fens, marshes, bogs, ponds, and wet grasslands. Millennia of human activity has altered the shape and flow of all our rivers and in many cases disconnected them from their floodplains, created wildlife barriers such as weirs, and drained huge areas of wetland. Drainage of wetlands has occurred particularly in our low-lying areas such as the Vale of Mowbray, Vale of York and Vale of Pickering and this has largely impacted negatively on our wildlife.



Picture credit: North York Moors National Park Authority

Our rivers and canals face many pressures, including impacts from intensive land use, modifications, invasive non-native species, water pollution, and climate change. Resulting habitat degradation and fragmentation threatens local wildlife, both within our rivers and canals and across the wider landscape. These pressures can be addressed at a whole catchment scale by considering not only the river channel and feeder waterways, but the surrounding landscape with measures such as reducing water run-off from neighbouring fields and 'slow the flow' interventions such as tree and hedgerow planting.

Nature recovery in action – Ryevalise

Ryevalise is a National Lottery Heritage Fund landscape partnership scheme aiming to restore the western River Rye catchment, focussing on conserving, enhancing and reconnecting habitats to the river system. Part of the work has involved engaging with landowners and farmers to encourage habitat improvements on the land they manage within the catchment. These stakeholders have received payments for works to habitats and these are underpinned by conservation agreements. Alongside the catchment restoration is a citizen science programme, which has been supporting work on species and habitats including bats, ancient and veteran trees, aquatic invertebrates and juvenile fish. The Ryevalise programme, running from 2019-2025, also aims to revitalise the Rye's natural and cultural heritage, reconnecting people to the river, the history and wildlife of the area, and supporting the restoration of the landscape. From April 2025, the programme will be entering a legacy phase, however payments forming part of conservation agreements will continue until 2031. The partnership has prepared a number of 'shovel ready' projects for legacy delivery when future funding pots become available.



Picture credit: North York Moors National Park Authority



Picture credit: St Nicks



Urban

Overview

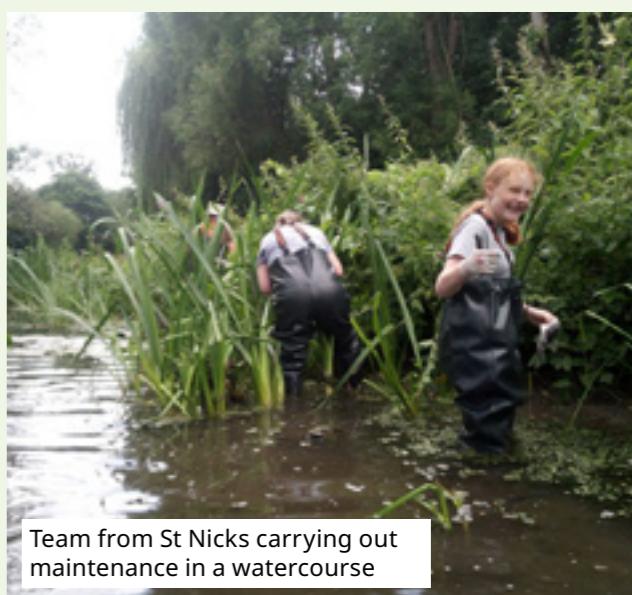
The city of York, along with our larger towns such as Harrogate and Scarborough, and the smaller market towns spread across the county, have all been shaped by the landscapes they sit within and by many phases of development over time. Infrastructure such as buildings, roads and railways have created barriers for nature and contributed to the decline in many species over the decades.

Wildlife can be found in a variety of places in our settlements, within the remnants of semi-natural habitats such as woodlands, meadows and ponds, as well as human-created spaces such as parks, gardens, schools and business parks. Many of these spaces can be low in biodiversity due to intensive management and a limited number of tree, shrub and flower species, with many of these being non-native and less suitable for pollinators.

Nature recovery in action - Green Corridors York

York has a rich abundance of green spaces, and these green corridors act as vital green 'lungs' breathing life into the city. Connecting these are the city's two main rivers, their surrounding floodplains, disused railway lines, medieval strays and city wall embankments. The biodiversity of these crucial green 'lungs' and connecting corridors are declining due to human pressures, pollution and lack of resources affecting their management.

Green Corridors York,¹⁷ led by the environmental charity St Nicks, strives for "more, bigger, better and more joined up" green spaces by conserving nature, whilst supporting neighbouring communities. The initiative, started in 2018, encourages collaboration between land managers, conservation groups and volunteers to improve land management, reduce pollution and challenge harmful developments. It is supporting the expansion of habitats and species such as floodplain meadow, Water Vole and Tansy Beetle.



Picture credit: St Nicks



Coast

Overview

Yorkshire's coastal environment is diverse and unique. It is connected to both inland environments through coastal streams and estuaries, and to offshore environments via important tidal systems and currents. Human influences and associated pressures are felt across the coastline, with multiple industries being reliant on services provided by our marine ecosystems (such as fishing, offshore developments, mineral extraction and shipping), combined with a large coastal tourism sector centred around our seaside towns like Whitby, Scarborough and Filey.

These pressures can result in the displacement of species due to offshore developments and underwater noise, less prey available due to intensive fishing practices, toxins and litter resulting in poor water quality, and changes in tidal currents, temperatures and storm events due to climate change. The impacts of these pressures are most often reflected in the declining health and populations of charismatic seabird species.

North Yorkshire's coast is a mix of hard cliffs and soft coastal slopes made of calcareous clays. Beyond these slopes, the area is characterised by sheltered sandy bays which

disappear into rocky shore and wave-cut platforms. The River Esk, culminating in the natural harbour formed by its mouth in Whitby, where it flows into the North Sea, provides an important migratory route for salmon and sea trout. Smaller coastal streams, such as Staithes Beck and Scalby Beck in Scarborough also provide key migratory routes for fish and discharge nutrients directly into coastal waters.

The extensive intertidal rocky shore communities are an important source of food for migratory and over-wintering birds, which feed on a variety of molluscs and coastal invertebrates. The rocky outcrops and platforms also provide valuable space for Grey and Common Seals to rest, breed and pup at various locations. Each spring, breeding seabirds return to the sheer cliffs scattered along North Yorkshire's coastline, attracted by the nutrient-rich seas.

The LNRS will focus its priorities and measures on species and habitats out to mean low water (average height of all low tides). Nature recovery work further out to sea will be led by the Yorkshire Marine Nature Partnership.

Nature recovery in action – Concrete Coast

Yorkshire Marine Nature Partnership's Concrete Coast programme¹⁸ is working to create new opportunities for intertidal species to thrive on our coast. By adapting man-made coastal structures (such as coastal defences and harbour walls) through appropriate habitat creation measures, we will encourage coastal wildlife like limpets, mussels and shore crabs to return to the shorelines they once lived on.

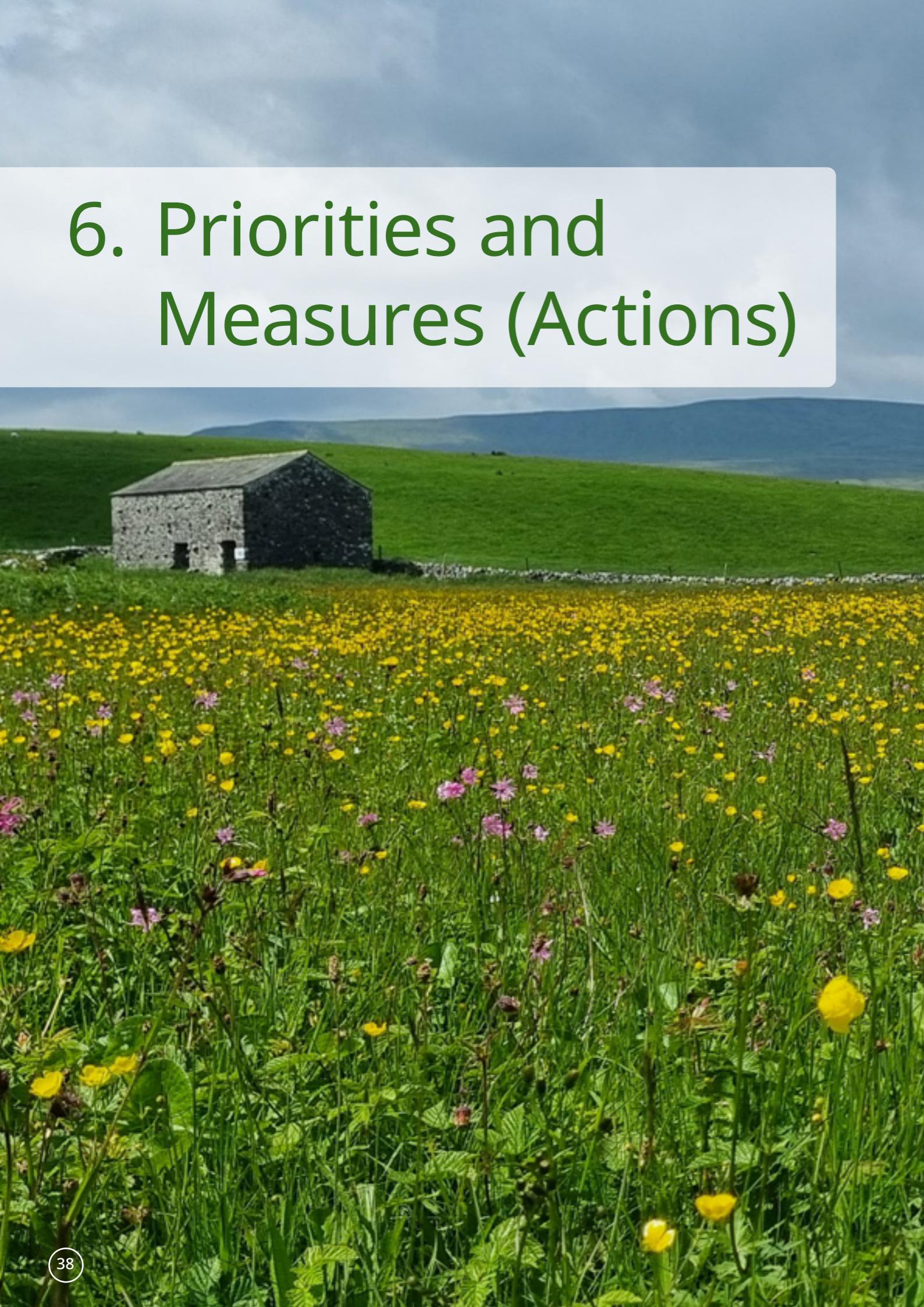
Sections of Yorkshire's coastline remain in a natural state, however there are also extents of man-made infrastructure including sea defences to protect towns and businesses, and harbours and slipways to provide safe havens for the fishing fleets. In creating such infrastructure, we change the natural landscape of the coastline and reduce the amount of habitat available to wildlife.

Many intertidal habitats are shrinking in size, or being lost altogether, due to sea level rise. Natural coastal habitats are unable to retreat further inland because of the walls, barriers and structures we have built. This project explores how we can encourage wildlife to colonise artificial habitats fixed onto man-made infrastructure through simple and cost-effective methods, without changing the function or integrity of coastal structures. In the future, these methods could be used to support intertidal communities where habitat is being lost through the impacts of climate change.



¹⁸ Concrete Coast Project – Yorkshire Marine Nature Partnership - YMNP <https://yorkshiremarinenaturepartnership.org.uk/discover/research-and-active-projects/concrete-coast-project>

6. Priorities and Measures (Actions)



6. Priorities and Measures (Actions)

Priorities and measures are covered extensively in the Statement of Biodiversity Priorities (Document 4) and stakeholders engaged in nature recovery should read that document fully. This Section provides a summary from that document, with the full list of measures (actions), benefits from nature and focus species set out in Document 4.

Working with a wide range of stakeholders, we have established a range of priorities to help nature recover, alongside providing benefits from nature. These priorities are considered the 'what' and the 'why' of nature recovery; what we are seeking to do, and why we are seeking to do it. With our stakeholders, we have co-created five high-level 'overarching' priorities which are relevant to all nature recovery activity (see page 39). These are supplemented by 39 priorities spread across our seven 'habitat' categories as listed below:



Farmland



Upland



Grassland



Woodland



Water and wetlands



Urban



Coast

Measures (actions)

Each priority has a number of associated measures, which are the practical 'on the ground' actions that would help to deliver the aims of the priority. They can be considered as the 'how' and the 'where' of nature recovery; how we could do it, and where we could do it.

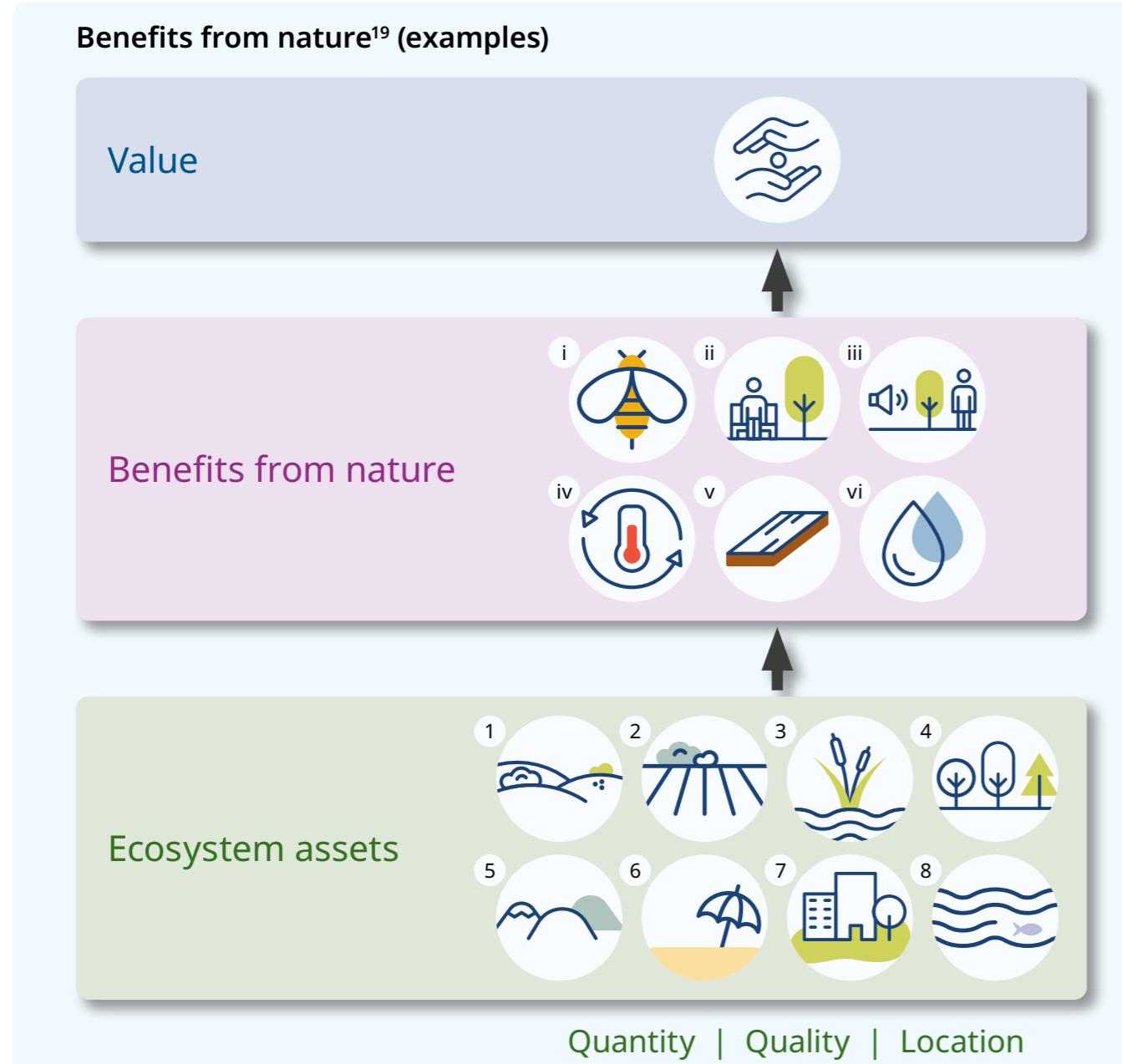
Species

North Yorkshire and York is home to a significant number of rare and threatened species that will, to some degree, benefit from habitat improvement measures, however they may also need very specific actions. For example, research and survey work that will help to better understand their distribution, abundance and ecology, as well as more specific measures to provide their unique habitat requirements. This section refers to 'focus species', which is a shortlist of species to be prioritised in this first iteration of the LNRS. Species are covered extensively in the Statement of Biodiversity Priorities (Document 4) and stakeholders engaged in nature recovery should read that document fully.

Benefits from nature

We have also stated which wider benefits from nature are relevant to each priority, using concepts from Natural England's State of Natural Capital (SONC) Report for England 2024. This makes the case that our economy and society depend on complex natural systems for our daily needs and our ability to regulate climate change. It refers to the natural capital logic chain, where ecosystems are the natural capital assets that underpin

the benefits on which society depends (see diagram below). How much of an asset we have (quantity), what condition it is in (quality) and where it is (location), determine the benefits the asset provides. The graphic below presents six examples of benefits from nature relevant to our priorities and measures. Refer to Document 4 for the full list of benefits from nature relevant to our strategy area.



Overarching priorities

Through discussion with stakeholders, we decided that the strategy needed to include several high-level 'overarching' priorities, which are relevant across all habitat types. These priorities followed recurring themes that emerged during stakeholder workshops, such as enhancing habitat connectivity and controlling invasive non-native species (INNS) across our geography.

Key to graphic opposite:

Benefits from nature

- (i) pollination (ii) urban cooling (iii) noise regulation (iv) climate regulation (v) timber & other wood products (vi) clean water

Ecosystem assets

- (1) semi-natural grasslands
- (2) enclosed farmland
- (3) freshwaters & wetlands
- (4) woodlands
- (5) mountains, moorlands & heaths
- (6) coastal margins
- (7) urban
- (8) marine

Each overarching priority contains wider objectives that would help to support nature recovery across North Yorkshire and York.

- Enhance the connectivity between areas of good-quality existing habitat through the creation of appropriate new habitat between existing sites, to improve connectivity for key species.
- Undertake actions to benefit key species, particularly those requiring specific interventions.
- Control and seek to eradicate invasive non-native species (INNS).
- Work collaboratively with all sectors to enhance coordinated regional action to benefit nature and seek to increase public knowledge, awareness and understanding of nature and its wider benefits.
- Enhance the ecological data and evidence base and share knowledge between all organisations and individuals undertaking actions to benefit nature.

Habitat priorities



Farmland

Around 70% of North Yorkshire and York's land area is farmed. To achieve our ambition to better connect our important habitats and allow species to move freely, we must maximise opportunities to create additional connecting habitat such as hedgerows and trees, flower-rich field margins and ditches within our farmed landscapes. We can make small and big changes to the way our farms are managed which can help to make farm businesses more resilient to pests, diseases, drought and flood events, whilst also creating more space for nature to thrive within these working landscapes.

Priorities & example measures (actions)

see Document 4 (Priorities and Measures) for full schedule

Priority (short name)	Example Measure (action)
Enhance and expand arable field margins	Increase the abundance and diversity of wildflowers in field margins through promotion of relevant funding options.
Expand trees outside woodlands	Increase tree and scrub cover by identifying existing less sensitive pasture that would be suitable for infield agroforestry.
Promote high nature value farming practices	Promote established and innovative farming techniques, (e.g. precision farming, drones) to enable farmers to be able to adopt such techniques.
Promote changes in grassland management	Encourage uptake of more diverse and sympathetic grazing practices such as rotation of stock and use of different livestock breeds.
Expand the hedgerow network	Identify and map fragmented patches of woodland that would benefit from being connected by hedgerows.

Our engagement with landowners and farmers indicated an appetite to work more closely with their neighbours, so that priorities and their associated measures (actions) can extend across land ownership boundaries and our wider geography. There are several farmer clusters in our geography that share ideas, best practice and implement measures on a landscape scale, across land ownership boundaries, with the opportunity to set up more of these in the future.

Benefits from nature include:

- Carbon storage
- Reduced chemical use
- Soil health
- Water quality
- Flood protection
- Cultivated crops
- Erosion control
- Pest and disease control
- Animal welfare

Focus species include:

- Harvest Mouse
- Turtle Dove
- Tree Sparrow
- Rare arable flowers



Harvest Mouse

Picture credit: Natural England/Julian Dowsse



Hedgerow establishing

Picture credit: Leanne Fox



Upland

The upland areas of the county contain 27% of England's blanket bog resource, which not only provides valuable wildlife habitat, but also wider ecosystem services such as regulating water quality, mitigating flood risk and sequestering carbon. The ongoing enhancement of blanket bog is highlighted as a priority through enhancing the wetness of existing sites, and adjacent land, to prevent drying out. Related habitats include dry and

wet heath which, depending on location, tend to sit at the margins of blanket bog. Priorities for dry and wet heath include restoring and creating new areas of upland dry heathland and enhancing and expanding wet heath adjacent to existing blanket bog. Stakeholders have also highlighted our region's limestone-related habitats as priorities and the need to expand species-rich connecting habitat between the existing core areas.

Priorities & example measures (actions)

see Document 4 (Priorities and Measures) for full schedule

Priority (short name)	Example Measure (action)
Management and connection of Limestone Pavement habitats	Identify and map Limestone Pavement coverage to understand its current state and potential location for calcareous grassland to be restored as a buffer.
Enhance and restore upland calcareous grassland	Enhance upland calcareous grassland through optimal grazing management (adjust stock numbers, alter stock type to include more cattle), and manage scrub to an appropriate percentage.
Enhance upland hay meadows	Enhance and maintain existing upland hay meadows through traditional management e.g. cut and collect with aftermath grazing.
Enhance acid grassland	Enhance existing upland acid grassland through appropriate grazing, no mechanical operations in breeding season, and re-wetting or adding scrapes where required.
Enhance upland dry heath	Enhance and restore existing upland dry heathland by amending grassland grazing regimes and grazing species to encourage the development of heath.
Enhance wet heath	Enhance existing wet heath by amending grazing regime and type where required (e.g. reduction in sheep, increase in cattle) and introduce species (e.g. sphagnum and cotton grass) where required.
Enhance blanket bog	Use peat maps to identify former extent of peat resource and understand ability to restore active hydrological processes to identify areas where blanket bog has been lost, and where peat formation could be re-started.
Expand moorland fringe habitats	Create a suitable mix of habitats adjacent to existing sites via different mechanisms, e.g. tree planting, natural colonisation, deer control, livestock exclusion, targeted wildfire mitigation zones.



Picture credit: Natural England/Neil Pike

Benefits from nature include:

- Access to nature
- Sense of place
- Carbon storage
- Climate regulation
- Pollination
- Soil health
- Plentiful water
- Water quality
- Flood protection

Focus species include:

- Adder
- Black Grouse
- Curlew
- Juniper



Picture credit: Whitfield Benson



Grassland

Over recent decades we have lost a significant proportion of our species-rich grassland and stakeholders have prioritised the enhancement of our distinctive grassland habitats, including species-rich grassland, lowland calcareous grassland, acid grassland, and roadside verges. We are seeking to expand our areas of species-rich grassland through alternative management practices, and to enhance our lowland calcareous grassland with appropriate

grazing and mowing regimes. Expanding acid grassland can be achieved by buffering our lowland heath sites using appropriate grazing and other management measures. Our large geography is served by an extensive road network and so we have also prioritised the enhancement of our roadside verges for improved biodiversity and better connectivity for species across North Yorkshire and York.

Priorities & example measures (actions)

see Document 4 (Priorities and Measures) for full schedule

Priority (short name)	Example measures (actions) include:
Enhance species-rich grassland	Implement alternative management practices to maximise biodiversity, including favourable cutting regimes.
Enhance and connect strategically important grasslands	Enhance strategically important grassland sites by utilising existing funding schemes, thus increasing the diversity of structure and species.
Enhance lowland calcareous grassland	Enhance existing lowland calcareous grassland sites through appropriate grazing / mowing regimes and scrub management as required.
Enhance and expand magnesian limestone grassland	Create species-rich grassland at suitable sites across the Magnesian Limestone. Use arable reversion methods, seeding/green hay spreading, plug planting of specific key species.
Expand acid grassland	Buffer lowland heath by managing adjacent grassland sites, using appropriate grazing and other management measures.
Restore and re-create lowland heath	Undertake creation/restoration of lowland heath utilising seed-rich brash, green hay and other material from appropriate local donor sites, and ongoing sensitive management.
Enhance road verges	Expand the cut and collect of verge arisings, learning from the 2024 North Yorkshire Highways pilot, including anaerobic digestion where appropriate.





Woodland

In quantitative terms, woodland coverage is 11.5% of the land area of North Yorkshire and York, somewhat lower than the national figure of 14.9%, with the UK legally binding target being to achieve 16.5% coverage across England by 2050. During the delivery phase of the LNRS process, it is envisaged that targets for North Yorkshire and York will be devised to increase tree and woodland cover, and our stakeholders have identified a range of priorities for our woodland habitats that are both quantitative and qualitative.

Veteran trees are identified as important habitats, both in their own right and to facilitate the movement of species, and we propose to both protect our existing

resource and plant additional trees that will become the veterans of the future. We propose the enhancement and expansion of wood pasture, wood meadows and open mosaic habitats, as they provide good connecting habitats between existing woodland and grassland sites.

Our ancient woodlands are rich in biodiversity; however, they are geographically dispersed and the interface with various other land uses can potentially negatively impact them. We plan to enhance, buffer and better connect these isolated woodlands, and improve all woodland types, to provide greater habitat diversity, better woodland condition, and encourage improved species movement.

Priorities & example measures (actions)

see Document 4 (Priorities and Measures) for full schedule

Priority (short name)	Example measure (action)
Protect and expand veteran tree resource	Protect existing veteran trees and potential future veterans with suitable fenced enclosures to protect from livestock and other herbivores.
Enhance and expand wood pasture, wood meadows and open mosaic habitats	Create and expand wood pasture habitat as an appropriate buffer and connecting habitat between woodland and grassland sites.
Enhance and connect ancient woodland	Restructure existing conifer plantations to buffer and connect patches of ancient woodland to maximise biodiversity.
Enhance, expand and connect new and existing woodland	Create new species-diverse woodlands. Ensure all woodland creation through planting or natural colonisation is established and managed according to the UK Forestry Standard.

Benefits from nature include:

- **Access to nature**
- **Health and wellbeing**
- **Educational resource**
- **Sense of place**
- **Carbon storage**
- **Climate regulation**

Focus species include:

- **Red Squirrel**
- **Hawfinch**
- **Northern Hairy Wood Ant**
- **Juniper**



Picture credit: White Rose Forest



Picture credit: Robyn Guppy



Water and wetlands

Reinstating natural processes in our river catchments, by making more space for water, will not only increase the diversity of species and the size of their populations, but will also reduce the impacts of flood events in our settlements. Many wetland habitats are also excellent carbon sinks, helping to reduce our carbon emissions.

Implementing nature-based solutions in our rivers and adjacent landscapes can also help to reduce water pollution, creating healthier rivers for both humans and wildlife.

Working with stakeholders, our priorities for water and wetland habitats include enhancing and expanding river habitats, by extending waterside vegetation beyond the riverbank. We are also seeking to restore natural river processes, which includes the reconnection of rivers to their floodplains by altering existing engineered barriers.

Priorities & example measures (actions)

see Document 4 (Priorities and Measures) for full schedule

Priority (short name)	Example Measure (action)
Enhance and expand watercourse habitats	Implement in-channel mitigation measures for all water bodies and improve in-channel habitat diversity.
Restore natural river processes	Remove, address or realign artificial and engineered barriers and modifications, where feasible, to allow re-establishment of natural river processes.
Expand and restore pond networks	Buffer existing ponds by increasing and improving the quality of marginal habitat and encourage creation/restoration of surrounding terrestrial habitat.
Enhance, expand and connect fen habitats	Create fen habitat where feasible, e.g. by expanding fen species into neighbouring ditches.
Restore, enhance and expand existing flushes	Enlarge wetlands at known key areas for breeding and wintering bird populations, including floodplain meadows, wet grassland, moorland edge, and mineral extraction sites.
Restore floodplain meadows	Increase floodplain meadow habitat, where appropriate, by allowing flooding to take place on appropriate grassland sites through reengineering flood protection embankments and water control structures.
Expand riparian woodland	Create new riparian woodland planting with a minimum width of 15-20m to either one or both sides of watercourse.
Restore, enhance and expand wet woodland	Identify wet areas of land hydrologically connected to existing wet woodland that have scope to become new 'wet woodland' habitat.



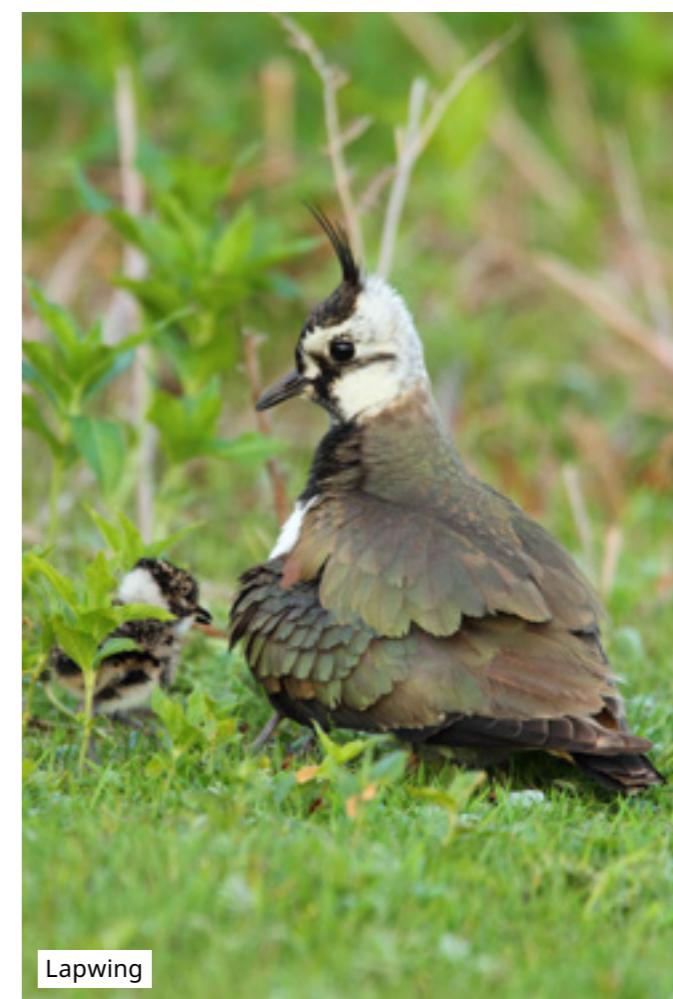
Our region's ponds tend to be isolated, with limited marginal habitat, and so we plan to enhance and expand the pond network to support the resilience of our wetland species. Our geography hosts a significant proportion of the national resource of floodplain meadow habitat (15%) and we intend to restore our existing poor quality sites and expand meadow habitat onto neighbouring land, whilst accommodating the needs of agriculture. A further priority is to expand the amount of riparian woodland along our watercourses, at all elevations, providing better habitat connectivity across our region.

Benefits from nature include:

- **Access to nature**
- **Health and wellbeing**
- **Plentiful water**
- **Water quality**
- **Flood protection**
- **Water cooling/shading**

Focus species include:

- **Tansy Beetle**
- **Curlew**
- **Lapwing**
- **Water Vole**
- **Common Frog**
- **Freshwater fish**





Urban

Across the built environment of North Yorkshire and York, there is scope to introduce more habitat for species to make homes alongside people. Implementing these kinds of changes, alongside enhancing and creating more green spaces in urban areas, will support human health and wellbeing through improvements to air and water quality, cooling down our urban environments and helping to store water, to help reduce the impacts of flood events.

We intend to incorporate more green infrastructure into our built environment by providing more habitat for nature, and plan to do this at a strategic level by working with our local authorities in their preparation of Green and Blue Infrastructure Strategies that will inform their Local Plans. On a more practical level, we will recommend that features for birds and bats are incorporated into both our new and existing buildings, and we intend to enhance and expand our existing nature-rich urban spaces, such as churchyards. Our areas of urban grassland tend to be intensively managed and we propose that maintenance



Picture credit: Tris Terry

Priorities & example measures (actions)

see Document 4 (Priorities and Measures) for full schedule

Priority (short name)	Example Measure (action)
Incorporate nature into the built environment	Work with local planning authorities in the development of their Green and Blue Infrastructure Strategies to maximise natural features within new developments, using Natural England's Green Infrastructure Framework.
Enhance urban nature-rich spaces	Buffer and connect urban nature-rich spaces by identifying neighbouring land with partners to restore or create suitable habitat.
Modify the management of urban grassland	Modify the mowing and management regimes for amenity grasslands to encourage more species diversity.
Promote public action for better nature connectivity	Promote nature and climate change adaptive options for residential properties, including a variety of native plants/flowers and water harvesting for sustainable garden irrigation.

Benefits from nature include:

- Access to nature
- Health and wellbeing
- Educational resource
- Sense of place
- Carbon storage
- Climate regulation
- Pollination
- Plentiful water
- Water quality
- Flood protection
- Clean air
- Noise regulation
- Urban cooling

Species supported include:

- Common Toad
- Garden Tiger
- Hedgehog
- Swift
- Emerald Damselfly
- Bats



Emerald Damselfly

Picture credit: Natural England, Allan Drewitt



Picture credit: Natural England, Allan Drewitt



Coast

Our rocky shores are home to a huge variety of wildlife and are an important way for people to learn about marine life. Many residents and visitors enjoy the diversity of our coastal habitats, but associated disturbance can put pressure on the wildlife that lives within these places. Sea birds, of which some populations are rapidly declining, nest on the region's cliffs and within our coastal towns, where their presence can lead to conflict with humans.

The coastal priorities devised with our stakeholders cover rocky shores, habitats for seabirds, and a unique area of saltmarsh along the North Yorkshire coast. In the earlier 'Our State of Nature' section, we highlighted the work of the Concrete Coast programme

Priorities & example measures (actions)

see Document 4 (Priorities and Measures) for full schedule

Priority (short name)	Example Measure (action)
Enhance rocky shore habitat	Work with the Concrete Coast programme to install ecological enhancements on 'hard' infrastructure, where ecologically and structurally appropriate, to create new habitat.
Enhance habitats for seabirds	Monitor and protect sea bird colonies on the North Yorkshire Coast from the effects of development and disturbance.
Enhance and expand existing saltmarsh	Enhance existing saltmarsh through sympathetic management and identify opportunities to expand this resource.

and we plan to continue to prioritise this work of adapting man-made coastal structures, with the necessary consents, to encourage coastal wildlife like limpets, mussels and shore crabs to return to the shorelines they once lived on. We propose the enhancement of habitats for our seabirds, both on our cliffs and in our urban areas, to help resolve pressures from human activity and the impacts of climate change. North Yorkshire has a very small area of existing saltmarsh near Whitby, which is unique to the coast between Middlesbrough and Spurn Point. We plan to enhance this existing habitat with appropriate management, and establish the feasibility of further expanding the resource in the locality.

Benefits from nature include:

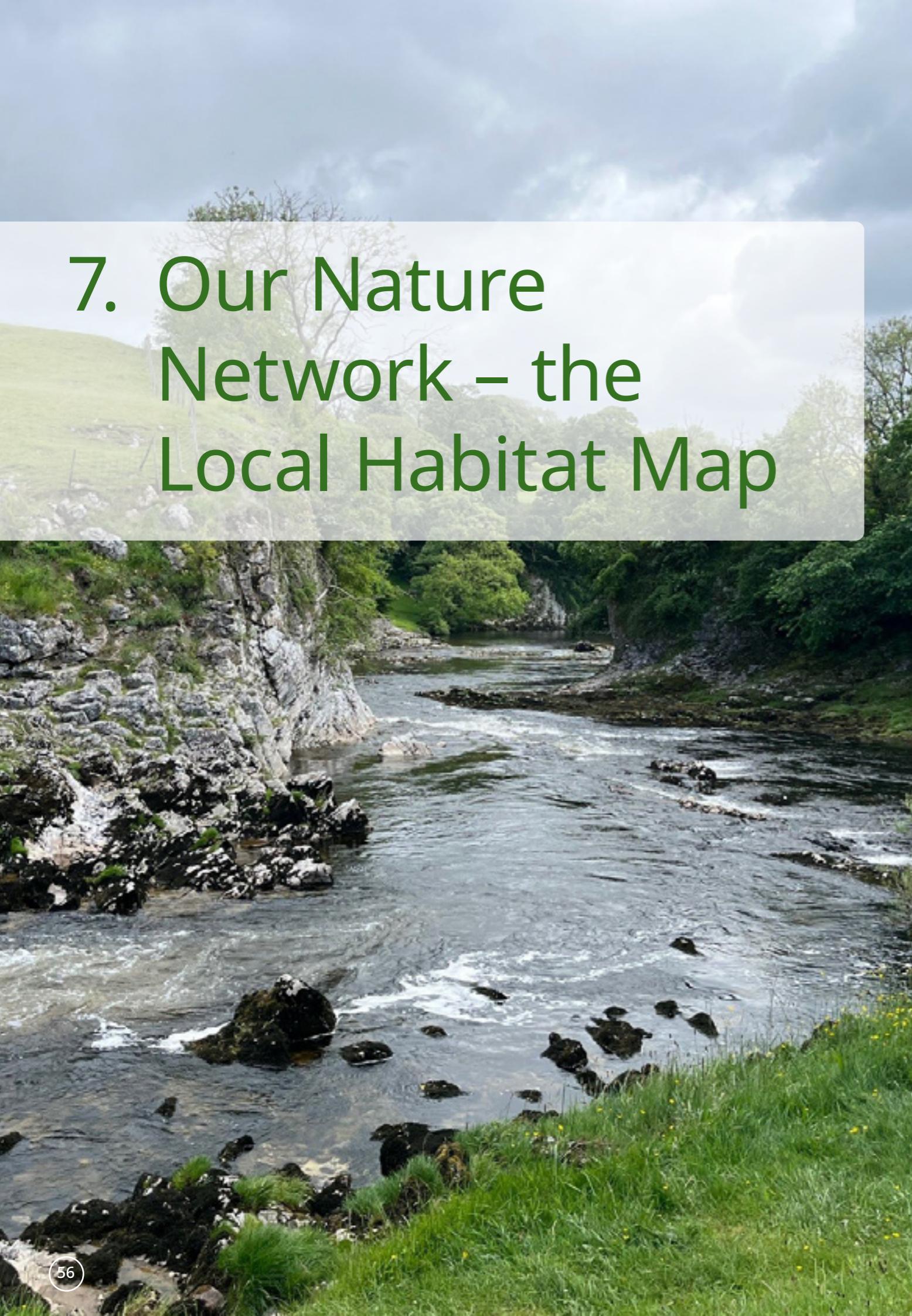
- **Access to nature**
- **Health and wellbeing**
- **Educational resource**
- **Sense of place**
- **Carbon storage**
- **Climate regulation**

Species supported include:

- **Kittiwake**
- **Fulmar**
- **Adder**
- **Blue Mussel**
- **Strawberry Clover**



7. Our Nature Network – the Local Habitat Map



7. Our Nature Network – the Local Habitat Map

Spatial vision

Our nature network (Local Habitat Map) provides a spatial vision for this first iteration of the LNRS, with the ambition to create a comprehensive and connected network across North Yorkshire and York. It will form a component of the national Nature Recovery Network²⁰ across England.

Our nature network is made up of existing core sites, areas of priority habitat within our National Parks and potential nature recovery areas. We define each of these elements below and set out the principle

of 'bigger, better, more, and more joined' up from Making Space for Nature²¹ that underpins the nature network (see reference to Lawton Principles on page 58). This guiding principle is also reflected in our vision: *'To work together to enhance, expand, restore and connect our region's habitats for thriving nature across North Yorkshire and York'*.

We also explain the use of hexagonal 'planning units' in the Local Habitat Map, and how our priorities and measures (actions), introduced in Section 6, relate to the nature network.



River Wharfe

Picture credit: Hugh Clear Hill

20 The Nature Recovery Network - GOV.UK www.gov.uk/government/publications/nature-recovery-network

21 'Making space for nature': a review of England's wildlife sites published today - GOV.UK www.gov.uk/government/news/making-space-for-nature-a-review-of-englands-wildlife-sites-published-today

Core sites – Areas of Particular Importance for Biodiversity (APIBs)

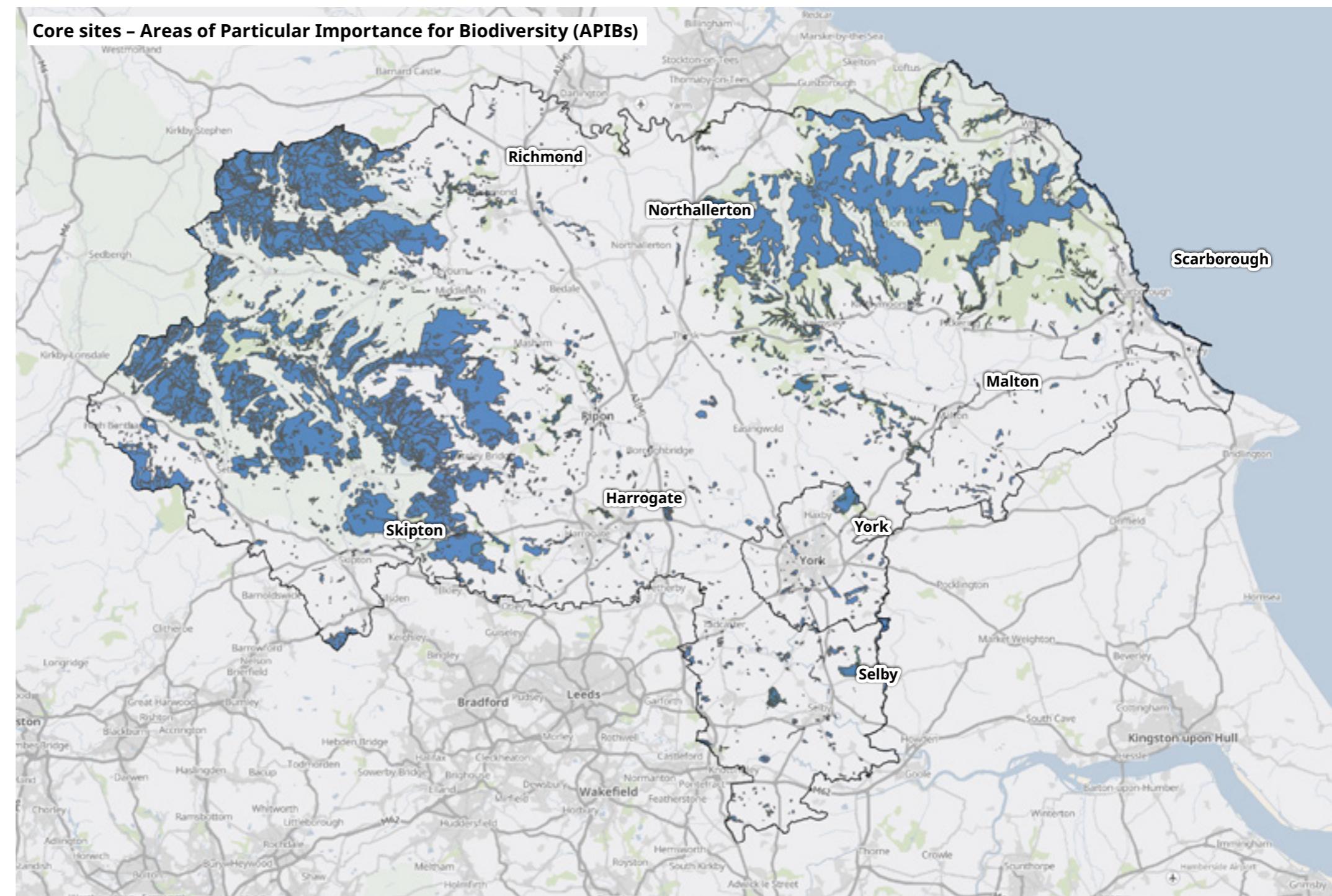
In preparing the LNRS, we are required to identify and map all existing nationally-designated conservation sites (e.g. Sites of Special Scientific Interest (SSSI)), Local Nature Reserves, Local Wildlife Sites and areas of irreplaceable habitat, which form the core of our nature network.

Priority habitat within our National Parks

In developing our approach to mapping for the LNRS, stakeholders highlighted the importance of mapping areas of existing priority habitat within our National Parks to become part of the nature network, as there are no locally designated sites (e.g. Local Wildlife Sites) within their geography.

Nature recovery areas – Areas that Could Become of Particular Importance for Biodiversity (ACBs)

Additionally, we are required to map areas that could become of particular importance for biodiversity (ACBs) in the future. These are areas where the responsible authority and our local partners propose that nature recovery efforts should be focused to achieve the greatest benefits for biodiversity and the wider environment.



Bigger, better, more, and more joined up – the Lawton Principles

A key approach to the development of this LNRS are the Lawton Principles. These emerged from a review by Sir John Lawton (2010) to assess how England's nature sites and wider ecological networks could be improved to help nature thrive in the face of climate change and other pressures. The review concluded that England's nature sites did not comprise a coherent or resilient ecological network and that a step change was needed in nature conservation action.

The Lawton Principles guide our nature recovery network by identifying areas where it may be possible to increase the size of existing areas of core habitat (including core sites), improve their condition, and provide additional protection through buffering (offsetting by a certain distance from the perimeter of the existing habitat), create areas of new habitat, and create new linkages across our landscape. Each of these principles has been incorporated into our mapping process and the development of our nature network, as set out adjacent.

Bigger

Working out from our existing core sites in nested concentric rings to identify opportunities to expand or buffer areas of existing habitats and create sympathetic habitats in close proximity to existing ones.

Better

The mapping process involved first identifying all core areas of existing habitat, where their condition can potentially be improved through enhanced habitat management.

More

Alongside the existing core areas, the process then identified opportunity areas where additional areas of key habitat could be created.

More joined up

The process then looked for opportunities to link these clusters of existing and new habitat across the landscape with stepping-stones and corridors to increase their ecological functionality and allow for enhanced movement of species throughout our region.

For each of these elements, we have followed an evidence-based modelling process to create a bigger, better and more joined-up strategic nature network.

The diagrams below are intended to demonstrate how a fragmented landscape, without a coherent or resilient ecological network can be transformed into a healthy and resilient landscape by following the Lawton Principles.

A fragmented landscape

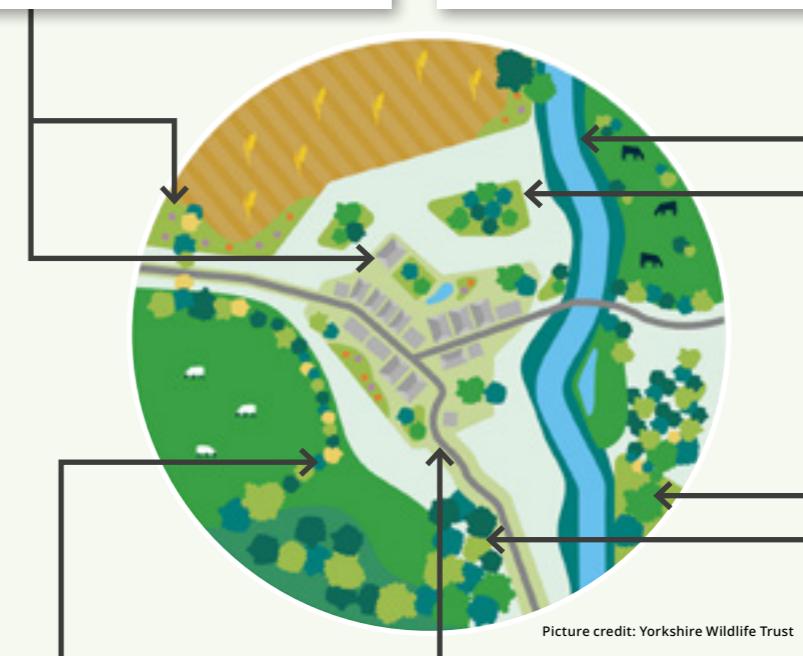


Picture credit: Yorkshire Wildlife Trust

A healthy and resilient landscape

More – increase the overall extent of land and water dedicated to nature conservation. E.g. Create arable margins and more urban green spaces benefiting both nature and people, as well as new protected areas

Better – improve the quality of existing habitats through better management and restoration. E.g. Improved management of woodlands and re-naturalising rivers, improving water quality, removing artificial barriers



Picture credit: Yorkshire Wildlife Trust

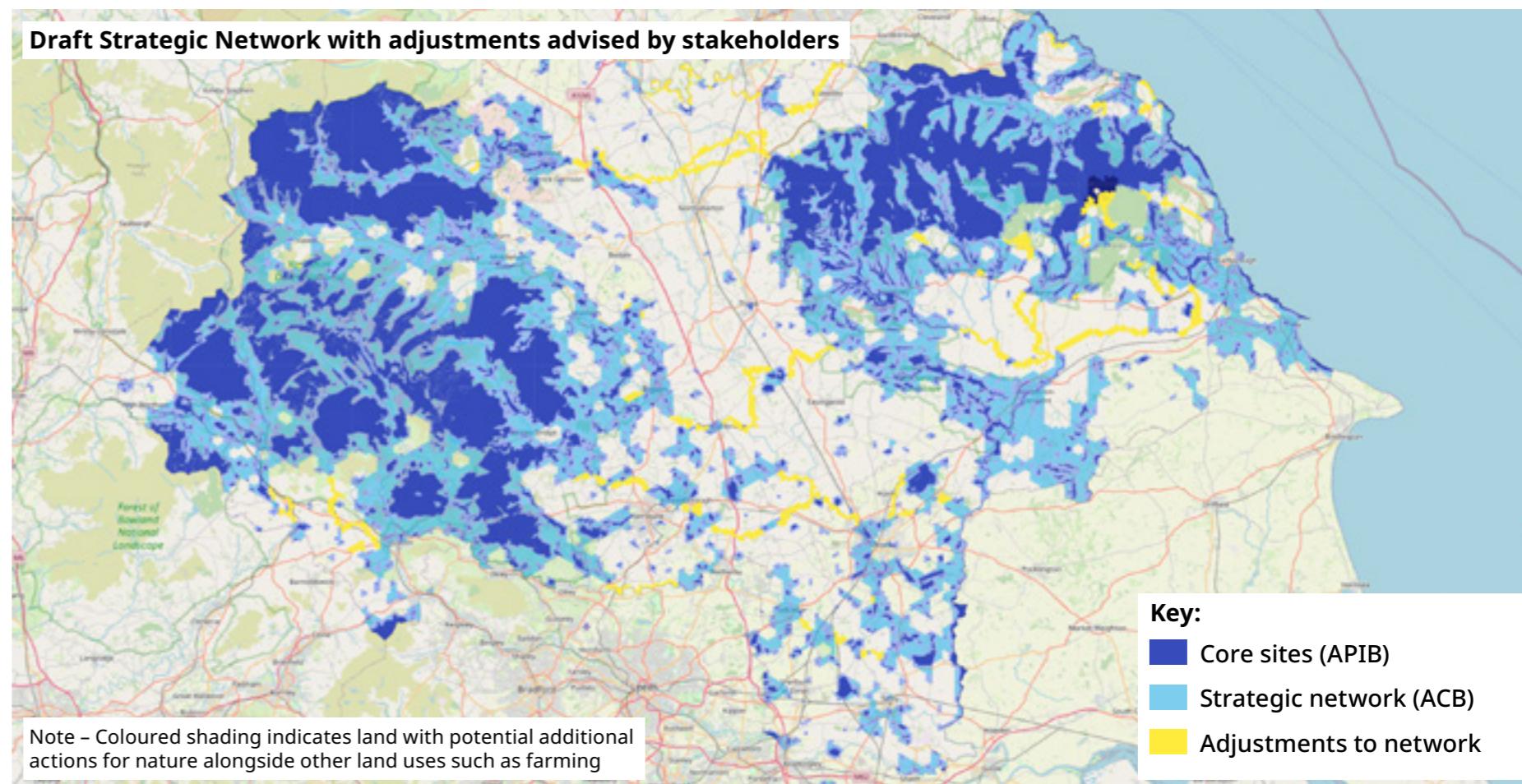
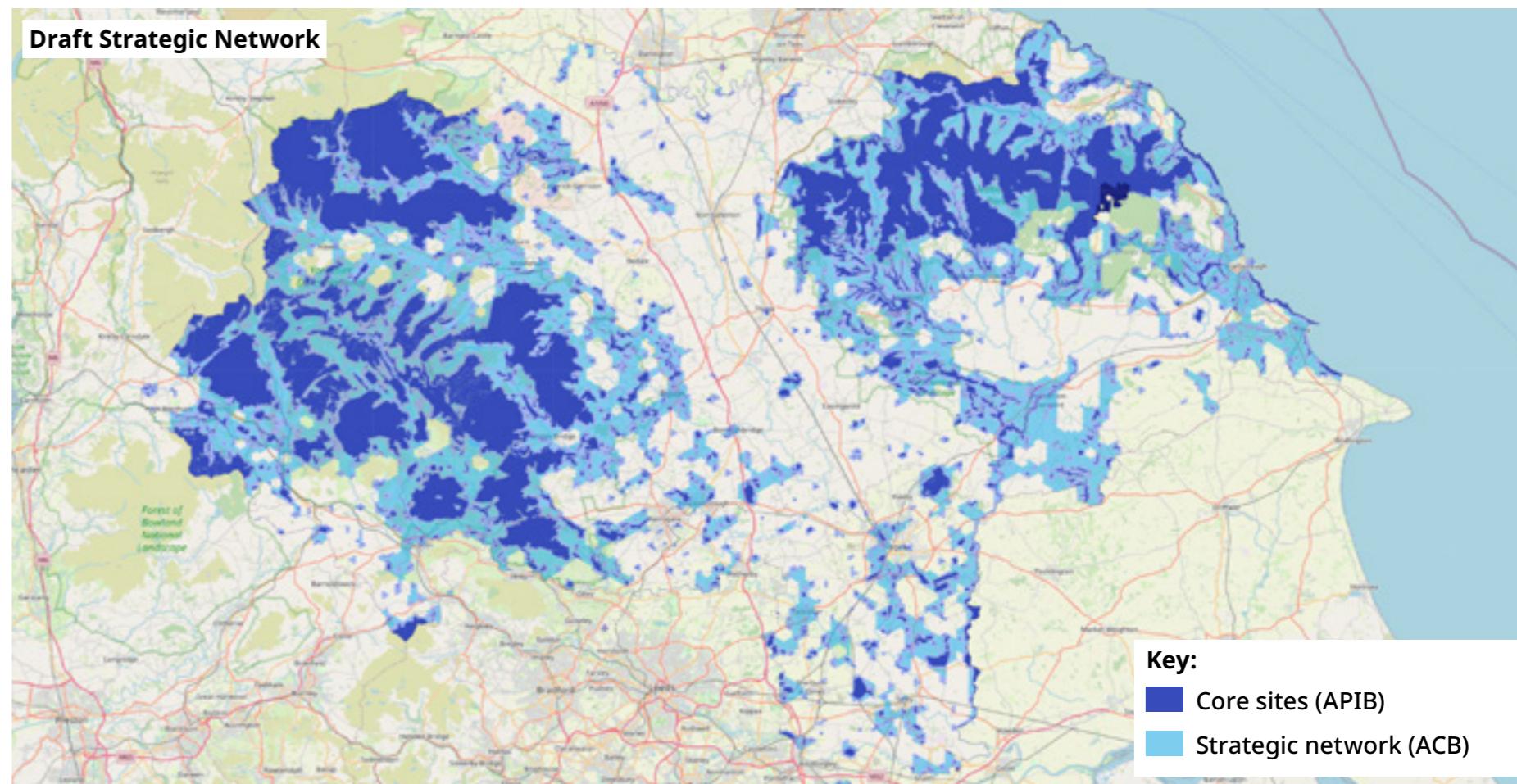
Joined – create connections on and between land, water and sea, allowing for wildlife movement and genetic exchange through corridors and stepping stones. E.g. Create and restore hedgerows and manage road verges to increase biodiversity

Bigger – create larger, more contiguous areas of habitat, to reduce fragmentation. E.g. Increase the extent of woodlands and create buffer zones around sensitive sites

Creating a strategic network

Underpinning this first iteration of the LNRS is the need to identify an optimum nature network that can contribute to an overarching target across our geography. To identify an optimum network we employed the modelling software tool Marxan, which is based on the well-established methodology of Systematic Conservation Planning.²² In summary, the procedural steps of the methodology were:

- Establish a regular grid of hexagonal ‘planning units’ across our geography, each with an area of 20 hectares (ha)²³
- Programme the software to include all existing core sites (APIBs) as part of the network solution
- Set targets for each habitat and opportunity type such that the total area of the optimised network would cover approximately 55% of the total area of North Yorkshire and York
- Inform the software’s selection of an optimised network with additional data relating to wider benefits from nature (the software is more likely to select planning units that align with wider benefits from nature)
- The software generates many network solutions by selecting individual planning units, and the optimum solution is chosen that best meets the target criteria with the most efficient network footprint
- The optimum network solution generated by the software is scrutinised by expert stakeholders and any necessary adjustments to the network are made



²² Systematic Conservation Planning - an overview | ScienceDirect Topics www.sciencedirect.com/topics/earth-and-planetary-sciences

²³ 20ha equates to the approximate footprint of 28 football pitches

How do priorities and measures relate to the nature network (Local Habitat Map)?

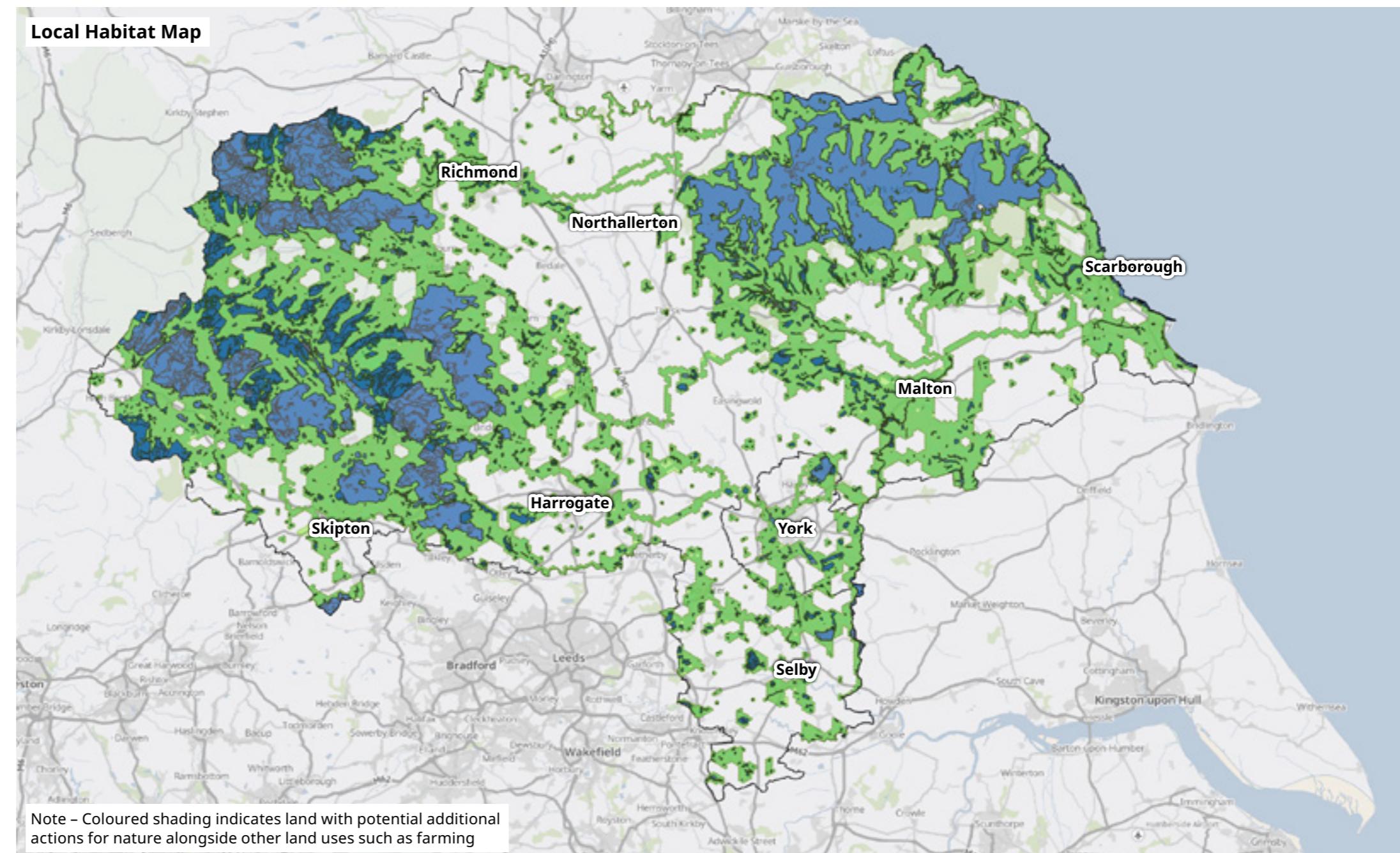
Our priorities and measures are directly linked to the Local Habitat Map. The map layer titled 'Areas that could become of particular importance for biodiversity (ACB)' shows the strategic network that has been identified as the most beneficial places for habitat enhancements to be undertaken across North Yorkshire and York. Each hexagonal 'planning unit' has several measures associated with it, which are considered to be the most appropriate and beneficial measures that could be implemented in that location.

Clicking into a hexagonal 'planning unit' within the ACB layer will show the relevant measures that could be implemented along with the priorities that those measures are associated with.

Unmapped measures

Measures can be undertaken anywhere in North Yorkshire and York (not just within the strategic nature network) and there are a large number of more generic, unmapped measures that are not location-specific (e.g. all of the farmland measures) which could be undertaken more widely across our geography.

Unmapped measures are particularly relevant to the 'central belt' of North Yorkshire (the area in between the A1 and A19 road corridors), with the Vale of York and Vale of Mowbray having a relatively small number of focus areas with mapped measures in the Local Habitat Map. The prevalence of agricultural land in these areas of the county provides considerable opportunity to enhance linear connectivity for nature through implementing the unmapped Farmland measures. Unmapped measures are covered in more detail in the Statement of Biodiversity Priorities (Document 4).



To access the Local Habitat Map, please visit: www.northyorks.gov.uk/ltrs-documents

8. Links to other plans and strategies



8. Links to other plans and strategies

Many organisations are already engaged in nature recovery activity across North Yorkshire and York and we have engaged with them and associated plans and strategies to ensure that the LNRS aligns with their work.

Nature North

Nature North is a cross sector, pan-regional partnership of businesses and agencies working for nature recovery across the North of England. The collaboration is led by the Environment Agency; Natural England; National Landscapes in the North of England; the National Parks in the North of England; The National Trust; The Wildlife Trusts; RSPB England; The Rivers Trust; The Woodland Trust; The National Lottery Heritage Fund and the Esmée Fairbairn Foundation. Nature North's 'Investing in Nature for the North, A Strategic Plan for a Nature Positive Regional Economy',²⁴ launched in February 2025, aims to scale up green investment across the region.

River Basin Management Plans

North Yorkshire and York's river network falls under three river basin districts - the Humber, Northumbria and the North West. The Humber River Basin District is the largest and covers the majority of the LNRS area. Within the Humber



River Basin there are five management catchments, each with its own catchment management plan: Derwent, Esk and Coastal Streams, Wharfe and Lower Ouse, SUNO (Swale, Ure, Nidd and Upper Ouse), Aire and Calder in addition to the Tees (Northumbria), Lune and Ribble (North West). The Humber River Basin is the largest in England and drains approximately 20% of the country's total land area. The Catchment Based Approach is a policy framework which established catchment partnerships to work collaboratively across each of the River Management Catchments to help deliver water quality and River Basin Management Plan objectives, whilst involving local communities in decision-making.

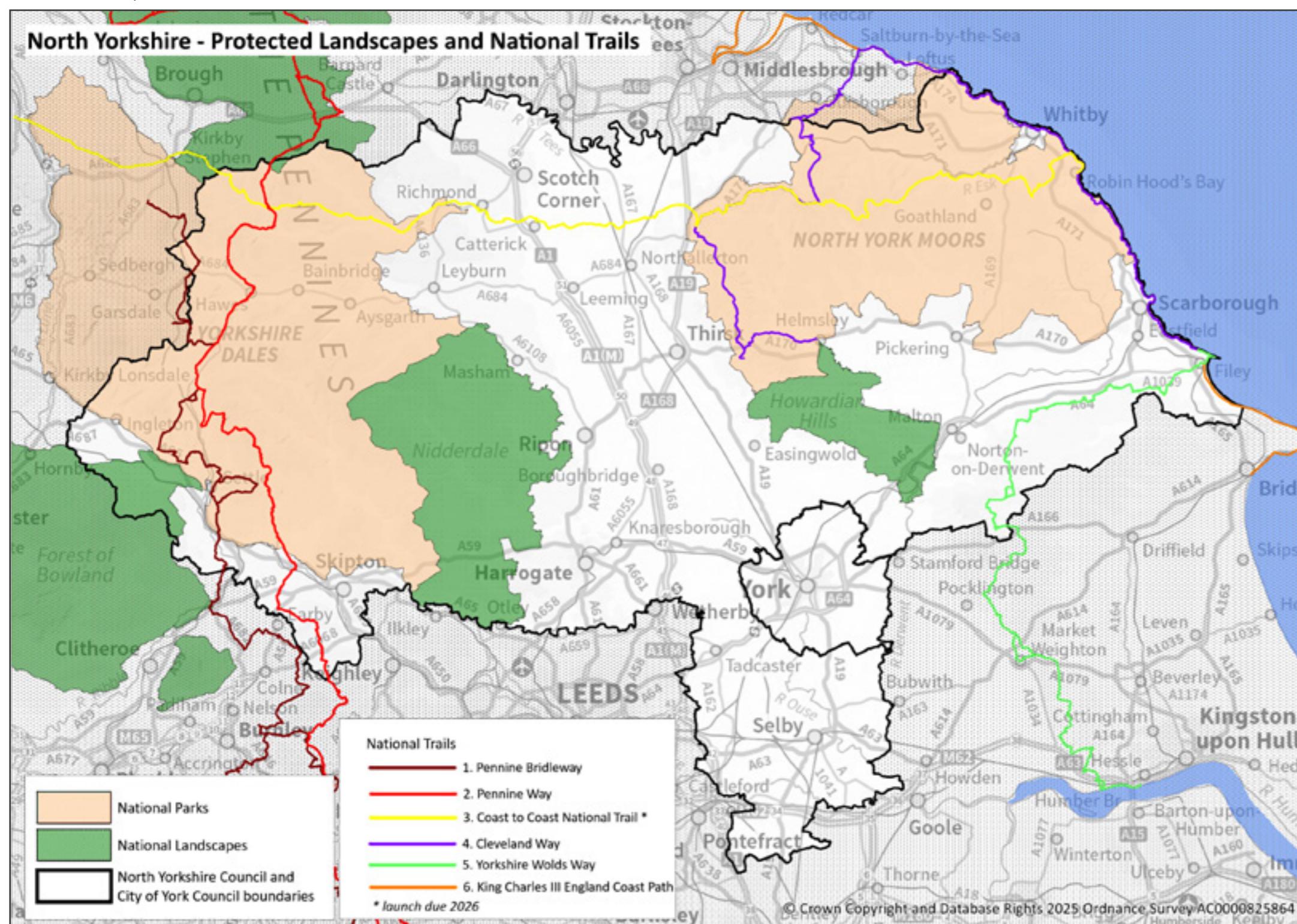
Flood Risk Management Plans

These set out how flood risk management authorities and stakeholders will work together to manage flood risk in England. Land use and management is closely linked to flood risk management. Land drainage can speed up the rate at which water can get into rivers and land management can increase erosion. Natural flood management and working with natural processes play an increasingly important role in managing flood risk at the catchment scale, and often go hand-in-hand with benefits for ecology and water quality.

National Trails

National Trails are long-distance footpaths and bridleways in England and Wales, managed by local trail partnerships with guidance and support from Natural England. Six National Trails pass through the North Yorkshire area and these are shown on the map overleaf.

Protected landscapes



Nature Recovery Plans

North Yorkshire's five protected landscapes: Yorkshire Dales National Park, North York Moors National Park, Forest of Bowland National Landscape, Nidderdale National Landscape and Howardian Hills National Landscape cover approximately 50% of the county's footprint. Each has its own Nature Recovery Plan (NRP) setting out a vision for an enhanced natural environment and describing what action is needed, within a prescribed period, whilst also informing the LNRS. It is a statutory requirement for each protected landscape to periodically update its own Management Plan aligned to its statutory purpose(s), which the NRP will also feed into.

State of Yorkshire's Nature

Yorkshire Wildlife Trust's (YWT) State of Yorkshire's Nature Report (2024) is based on new analysis of the distribution and abundance of Yorkshire's biodiversity. It recognises that Yorkshire is important for British biodiversity, but that the region's nature is under threat. YWT's goal is for a nature network extending across the region with a broad range of habitats. YWT considers that all areas of Yorkshire have a role to play in nature's recovery, including farmland, urban areas, protected landscapes and the coast and sea, but highlight that water and limestone are significant key habitats in the national context.

Bringing Yorkshire's Nature Back – a blueprint for nature's recovery

During late 2025 Yorkshire Wildlife Trust (YWT) published its blueprint to secure a third of Yorkshire's land and sea for nature. It identifies seven opportunities for delivering 30 by 30 in Yorkshire. The blueprint aims to be complementary to Yorkshire's four LNRSs – each of which will contribute to a county-wide nature network, delivered through collaboration and strong partnerships.



White Rose Forest led community tree planting at Broughton Hall Sanctuary, near Skipton

Picture credit: White Rose Forest

White Rose Forest

The White Rose Forest is the community forest for North and West Yorkshire, working in partnership with local authorities, landowners, businesses and communities to increase woodland cover across the region and improve our natural environment. The White Rose Forest Strategic Plan 2025-50 sets out the vision, aspirations and targets for tree and woodland establishment and management in North and West Yorkshire over the next 25 years.

York and North Yorkshire's strategy for a sustainable future

The Strategy aims to deliver a step-change in climate action that transforms the economy and supports healthy, thriving communities, ensuring York and North Yorkshire becomes England's first carbon negative region by 2040. The implementation of the Strategy seeks to achieve three key outcomes for the region:

- economic transformation
- healthy and thriving communities
- England's first carbon negative region by 2040

Three strategic pillars will help deliver these key outcomes: securing energy independence, moving towards circular economy and enhancing our environment.

The latter pillar sets out to use nature to capture carbon and support climate resilience. This will improve the quality of the natural environment for local people and support key sectors that are reliant on the environment, including farming, food and drink manufacturing, and tourism. It is expected that the Strategy will be adopted by the York and North Yorkshire Combined Authority during 2026.

Climate Change Strategies

Our constituent local authorities (North Yorkshire Council and City of York Council) have recently adopted Climate Change Strategies arising from their declared climate emergencies. The three pillars of the strategy in North Yorkshire (2023 to 2030) sets out the plan to:

- reduce greenhouse gas emissions;
- prepare for the changing climate; and
- support nature to thrive

Underpinning the strategy is for the Council to work with partners to achieve the ambition to be a carbon negative region by 2040 and encourage residents, businesses and visitors to take climate responsible actions.

City of York Council announced a climate emergency in 2019 and set an ambition for York to be a net-zero carbon city by 2030.

Local Investment in Natural Capital

The Local Investment in Natural Capital (LINC) programme is a Defra and Environment Agency initiative designed to mobilise private investment to deliver nature recovery, climate adaptation and climate resilience across the region. North Yorkshire and York LINC was one of four pilots set up in 2023. It aims to unlock institutional investment into nature across our geography and is developing over 50 nature-led infrastructure schemes that will become investible. Initial investments into the pipeline are likely to be on a project-by-project basis, matching those projects ready for investment to investors' mandates, returns horizons and risk appetite. Initial investments will aim to dovetail with other strategic programmes such as the LNRS.

Planning Practice Guidance

In February 2025, the Ministry of Housing, Communities and Local Government (MHCLG) published the planning practice guidance (PPG) providing guidance on the role of LNRS in planning.²⁵ The guidance explains how local planning authorities (LPAs) should interpret their legal duty to "have regard" to LNRS and how LNRS should be used to help meet existing national planning policy on protecting and enhancing biodiversity.

Local Plan

North Yorkshire Council (NYC) started work on its Local Plan following its investiture in April 2023 and plans for its adoption anticipated to be in 2029. We have worked closely with a group of NYC planning policy officers to keep them updated on the strategy. NYC will be preparing a Green and Blue Infrastructure Strategy (GBIS) as an evidence-base for the Local Plan and we are establishing

links with the officer team leading on the GBIS to create alignment with the LNRS.

City of York Council's (CYC) Local Plan was adopted in February 2025 and we have worked closely with the CYC Planning Policy team to ensure they have been engaged with the process of preparing the LNRS.

Health and Wellbeing Strategies

Our constituent local authorities (NYC and CYC) both have adopted health and wellbeing strategies which aim for residents to enjoy happier, healthier and longer lives. They set out key priorities and approaches to improve health and wellbeing for the local population. These include goals to reduce sedentary lifestyles amongst adults so they become more physically active and live with good mental health. Good access to nature and greenspace is an incentive to encourage more people to engage with these goals and the nature network proposed by the LNRS will help to support these initiatives.

Alignment to other plans and strategies

We are confident that our LNRS aligns with other plans and strategies in our locality, following our document and policy review and through ongoing engagement with representatives from the protected landscapes, Yorkshire Wildlife Trust, river catchment partnerships and local authorities. These representatives have been involved in key decisions during the development of the strategy, to ensure the outputs of their own plans and strategies inform the LNRS.

9. Delivery – who can do what?



9. Delivery – who can do what?

Everyone in North Yorkshire and York can contribute to our vision *'to work together to enhance, expand, restore and connect our region's habitats for thriving nature across North Yorkshire and York'*. In Section 2, we established five 'How we can do it' principles for the delivery of nature recovery, these are:

1. Working across communities, businesses, public bodies and non-governmental organisations (NGOs) to help nature to thrive
2. Putting nature at the heart of policy and decision-making
3. Attracting funding and green finance into nature
4. Promoting jobs, education, apprenticeships, and skills in delivering nature recovery
5. Monitoring and evaluating change – recording uplifts to species, tree cover and habitats over time

Working across communities, businesses, public bodies and non-governmental organisations (NGOs) to help nature to thrive

Residents and community groups can help nature to thrive in their local area, while landowners, land managers, farmers and non-governmental organisations (NGOs) can work at a more strategic scale to aid nature recovery, particularly by working in partnership.

To date, Defra has confirmed one year of LNRS 'transition to delivery' funding and the expectation is that an LNRS delivery team will be set up by the responsible authority to coordinate and support communities, businesses and organisations with their plans for nature.



Workshop with land managers & farmers, Selby Auction Mart



Landowners, land managers and farmers

Why?

Over 70% of our land area is farmed and we also have a number of large estates across our geography. Much of this land is managed for food, fuel or timber, but there is great potential to better integrate natural habitats alongside these productive uses, bringing down costs for farmers through reduced input costs, supporting nature and making our land more resilient to climate change.

How?

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

- understand how their land fits within the Local Habitat Map and the strategic nature recovery network
- inform the measures (actions) they could carry out on their land
- inform and support applications for funding and delivery of projects

NGOs and partnerships

Why?

NGOs and partnerships such as Yorkshire Wildlife Trust, White Rose Forest, the Lower Ure Conservation Trust (LUCT) and the Dales to Vales River Network have established action plans and management plans and are already leading on nature recovery projects, working with volunteers, landowners and farmers to take action and demonstrate the importance of partnership working for nature recovery. These organisations have been closely involved in the preparation of the LNRS.

How?

NGOs and partnerships can use the LNRS to:

- help galvanise collaborative working with their partners
- inform the measures (actions) they can carry out on their land
- inform and support applications for funding and delivery of projects

Developers and planners

Why?

There are targets to build approximately 20,500 homes across North Yorkshire, and 4,100 homes in the City of York, over the next five years. Future growth and development in our area will depend upon, and benefit from, a healthy natural environment and there is great opportunity to fully embed nature into our plans for growth.

How?

Developers and planners can use the LNRS to:

- support the integration of nature into the planning and development process
- understand how development sites fit with the Local Habitat Map and the strategic nature recovery network
- inform the selection of on-site and off-site Biodiversity Net Gain (BNG) sites
- inform the formulation of Local Plan policies on the protection, enhancement and recovery of nature

Under the Environment Act 2021, local planning authorities and decision-makers must have regard to the LNRS in their policies, including those within their Local Plans. Taking account of the LNRS when considering proposed developments can help developers move more smoothly through the planning process.

Investors

Why?

Private sector investors are increasingly factoring environmental concerns into their investment decisions, including their dependency on natural capital or need to mitigate offsets for water or greenhouse gas emissions. The Local Investment in Natural Capital (LINC) programme is designed to mobilise private investment and to support landowners and farmers in the delivery of nature recovery, climate adaptation and climate resilience actions across our geography.

How?

Investors can use the LINC programme and the LNRS to:

- connect with landowners and farmer clusters who are seeking the finance for nature-based solutions and nature-led infrastructure projects on the land they manage
- understand how these potential projects fit with the LNRS priorities, Local Habitat Map and the strategic nature recovery network





Local authorities, Town and Parish Councils and Community groups

Why?

Local organisations and coalitions, such as Holmedale Nature Network in Richmondshire, Kirkbymoorside Town Council and North Yorkshire Climate Coalition, are at the forefront of nature recovery and other causes, such as action for climate change. They work to bring together groups of volunteers to survey their local area, draft management plans and schedule tasks and operations to benefit wildlife species and habitats. Those involved in these activities also benefit from their involvement through learning new skills and enhancing their health and wellbeing.

How?

Local authorities, Town and Parish Councils and Community groups can use the LNRS to:

- understand their local natural environment in the context of the Local Habitat Map and the strategic nature recovery network
- inform the measures (actions) they can carry out in their local community
- inform and support applications for funding and delivery of projects
- create their own nature recovery plan for their area, town or parish

Schools, nurseries and colleges

Why?

This is a significant opportunity to transform the way climate and natural environment education is taught in schools, nurseries, colleges and youth councils and to support young people to act and increase biodiversity across England. The National Education Nature Park programme²⁶ has been developed for this purpose and is led by the Natural History Museum with the Royal Horticultural Society and partner organisations. The programme aims to embed nature-based learning in the curriculum, and encourage children and young people all over the country to take action to improve their site for both people and wildlife. The programme involves a five-step process:

1. Getting to know your space
2. Identifying opportunities
3. Making decisions
4. Making change happen
5. Recording change

Barrowcliff School in Scarborough has a volunteer-led garden club which is incorporating nature into the site, including corners of the playing field with an orchard, an area for compost and hedgerow planting along the site boundary.

During 2024, the school and garden club was in receipt of a National Education Nature Park grant which has funded some large timber planters sited in the playground with space for planting and seating and plans for a small pond. The monies have also covered the cost of wildflower planting along the margins of the playing field.

How?

Schools, nurseries and colleges can use the LNRS to:

- understand their local natural environment in the context of the Local Habitat Map, the strategic nature recovery network and biodiversity priorities
- inform the measures (actions) they can carry out on their site
- inform and support applications for funding and delivery of projects
- create their own nature recovery plan for their site





Residents

Why?

North Yorkshire and York has a population of over 800,000 and there is significant scope to harness volunteer activity for our gardens, parks and open public spaces. Private gardens can make up a significant proportion of our total land area²⁷ and there are measures (actions) within the strategy that can be undertaken in gardens to benefit nature, such as planting native trees, shrubs and wildflowers, reducing the frequency of lawn mowing, and creating small areas of water such as ponds and rainwater gardens. Collective action across a neighbourhood can expand and connect natural habitats, supporting a wide variety of species.

How?

Residents can use the strategy to:

- create their own nature recovery plan for their street, village or parish
- inform the measures (actions) they can carry out in parks and gardens
- understand how private gardens, parks and open spaces fit with the Local Habitat Map and the strategic nature recovery network
- join volunteer programmes run by organisations such as Yorkshire Wildlife Trust (Team Wilder), St Nicks (Green Corridors), and the Lower Ure Conservation Trust (LUCT)



²⁷ Oldham Council; private gardens comprise 11.62% of total land area, Oldham's Green Infrastructure Strategy (2022)

Putting nature at the heart of policy and decision-making

Local politicians

Why?

Politicians have a great opportunity to offer leadership and they can do this by championing nature recovery with members of parliament (MPs), cabinet members, portfolio holders and fellow decision-makers. They can also champion nature recovery in the wider policy context of climate change, planning and public health.

How?

Politicians can use the LNRS to:

- understand their local natural environment in the context of the LNRS priorities, Local Habitat Map and the strategic nature recovery network
- support Council funding of nature recovery projects (capital and revenue)
- Champion nature recovery within their local communities

Attracting funding and green finance into nature

Recently published natural capital investment plans²⁸ identify the relatively limited suite of financing strategies for nature recovery including: public sector grants, public sector service provision, private developer investment and community-level action. These are both narrow in scope and vulnerable to future changes to the financial and economic landscape. To address these shortcomings, natural capital investment plans consider a broader range of investment sources into nature and natural capital, including philanthropy, corporate and institutional investors.

Government has committed £5 billion to farming in the next two years (FY '25-'26 and '26-'27)²⁹ and there is opportunity to lever private sector funding alongside this. Locally, it is anticipated that the North Yorkshire and York Local Investment in Natural Capital (LINC) programme will help to mobilise private investment to deliver nature recovery, climate adaptation and climate resilience across the region. It will become one of the key delivery mechanisms of the LNRS.

²⁸ Greater Manchester Natural Capital Investment Plan [Greater-Manchester-Natural-Capital-Investment-Plan-January-2019.pdf](https://www.gmca.gov.uk/gmca/our-work/natural-capital/greater-manchester-natural-capital-investment-plan-january-2019.pdf)

²⁹ Land Use Consultation - Defra - Citizen Space <https://consult.defra.gov.uk/land-use-framework/land-use-consultation/>

Promoting jobs, education, apprenticeships, and skills in delivering nature recovery

Nature North has highlighted how investment in nature recovery can play a key role in the generation of green jobs. Targeting disadvantaged urban communities and rural and coastal regions can result in jobs and skills generation in economically vulnerable areas. The expectation is that jobs can be created at both entry and graduate level. Skilled staff are required in the restoration and creation of habitats as well as in their maintenance, monitoring and management. Nature North references a study by RSPB and Cambridge Econometrics³⁰ which estimates that a significant number of temporary and long-term jobs would be established through initiatives such as woodland creation and peatland restoration.

More locally, the York and North Yorkshire Combined Authority is funding a series of initiatives to support our working population with specific pathways into green jobs. These include the York & North Yorkshire Careers Hub for young people, Skills Bootcamps, Adult Skills Fund and the Skills Innovation Fund.³¹ Askham Bryan College is a land-based college with a campus on the western fringes of York. A significant proportion of the 1,500 students on the site are engaged in agriculture, horticulture, arboriculture, nature or conservation studies, meaning there is a pool of talent to take up green jobs in the region.

We have already highlighted the work of NGO's such as Yorkshire Wildlife Trust, St Nicks and the Lower Ure Conservation Trust, who

facilitate apprenticeships and volunteering. Through these initiatives, individuals enter into the nature recovery sector gaining knowledge, expertise and experience with the anticipation that they choose to stay in the nature sector for the duration of their career or remain supportive throughout it.



Young people at Nature North event



Picture credit: Askham Bryan College

Askham Bryan College, York



Yorkshire Wildlife Trust apprenticeships

Monitoring and evaluating change – recording uplifts to species, tree cover and habitats over time

Government has mandated that LNRS responsible authorities monitor changes in nature recovery that occur as a result of the published strategies. At the outset of the preparation of the LNRS for North Yorkshire and York the Advisory Group (steering group) highlighted the importance of making use of monitoring and reporting tools to verify the impact of changes taking place over time.

During December 2024 over 30 locally-based stakeholders contributed to a workshop considering 'What does LNRS delivery look like?' for our region. This included a section on monitoring and reporting requirements, with some of the key findings including:



Recording nature on site

Picture credit: Simon Pickles



Devising a reporting system for mapping changes in natural species

Picture credit: NEYEDC

30 The economic costs & benefits of nature-based solutions_final report_FINAL_V3.docx
www.camecon.com/wp-content/uploads/2021/03

31 Skills in York and North Yorkshire
<https://yorknorthyorks-ca.gov.uk/what-we-do/skills>

Glossary

Acid Grassland: Grassland that grows on nutrient-poor, free-draining soils with a low pH of approximately 4 to 5.5. It often occurs on acidic rocks or superficial deposits such as sands and gravel.

Agroforestry: The practice of integrating trees and shrubs into farming systems, combining agriculture and forestry on the same land, while maintaining or enhancing agricultural outputs.

Ancient Woodland: Woodland that has existed continuously since at least 1600 CE (common era), supporting unique biodiversity and ecosystems.

Ancient Trees: A tree that has reached full maturity and is old, or aged, in comparison with other trees of the same species. In this ancient stage the tree may remain alive and healthy for many decades and often centuries.

Areas of Particular Importance for Biodiversity (APIBs): An LNRS category used to refer to all existing nationally and internationally designated conservation sites (such as Sites of Special Scientific Interest), Local Nature Reserves, Local Wildlife Sites, and areas of irreplaceable habitat. APIBs form the core of the LNRS's strategic nature network.

Areas that Could Become of Particular Importance for Biodiversity (ACBs): An LNRS category used to refer to areas identified within the LNRS where nature recovery efforts should be focused to achieve the greatest benefit for biodiversity and the wider environment. ACBs form the remainder of the LNRS's strategic nature network (outside of APIB areas).

Biodiversity: The variety of plant, animal, and microbial life within a specific habitat or ecosystem.

Biodiversity Net Gain (BNG): A legislative requirement for development to leave biodiversity in a measurably better state than before development took place. Achieved through habitat creation, restoration, or enhancement.

Blanket Bog: A type of peatland found in cool, wet climates, characterised by layers of peat that cover large, undulating areas of ground. Generally an upland habitat, it can be found where peat has accumulated to a depth of at least 0.5 metres, typically on flat or gently sloping ground where drainage is poor.

Citizen Science: Research that is undertaken by members of the public, often in collaboration with a research organisation or a non-governmental organisation (NGO), and often utilising modern recording technologies such as smartphone apps.

Climate Resilience: The ability of habitats or species to adapt to, and recover from, the impacts of climate change, such as increases in extreme weather events over time.

Connectivity: The degree to which different habitats are linked to allow the movement of species and the flow of ecological processes, essential for maintaining biodiversity and ecosystem health.

Corridors: Linear features (e.g. hedgerows and rivers) that can connect fragmented habitats, allowing species movement between them.

Countryside Stewardship Scheme: Countryside Stewardship (CS) sits under ELMs (see below) and provides financial incentives for farmers, foresters and land managers to look after and improve the environment, including setting aside part of their land for nature.

ELMs (Environment Land Management Schemes)

ELMs (Environment Land Management Schemes): Environmental land management schemes pay farmers and landowners to deliver environmental benefits and is an umbrella term covering the following schemes: Sustainable Farming Incentive (SFI), Countryside Stewardship (CS) schemes and Landscape Recovery (LR) schemes.

ELMs replace the Basic Payment Scheme (BPS) which existed under the Common Agricultural Policy (CAP).

Fen: A wetland, groundwater-fed habitat that supports a wide range of plant and animal life. Fens are usually peat-forming habitats and the water table is near the ground surface for much of the year.

Floodplain Meadow: Wet grassland in lowland floodplains, crucial for flood management, biodiversity, and pollinators.

Flush: A wetland habitat where groundwater emerges at the surface and is held up by impermeable soils and rock creating a linear flow of water across the ground.

Focus Species: A condensed list of species that have been identified as top priorities for nature recovery action within the LNRS. The species have been selected for their strategic importance for nature recovery and can be used to help monitor changes and engage land managers and the public.

Green and Blue Infrastructure: A network of multi-functional green and blue spaces and other natural features, both urban and rural, which is capable of delivering a wide range of environmental, economic, health and wellbeing benefits for nature, climate, local and wider communities and their prosperity.³²

Hedgerow: Lines of shrubs or small trees often used as field boundaries, essential for wildlife corridors, shelter, and pollination.

Invasive Non-Native Species (INNS): Species introduced to an area that are not native to that area, such as Signal Crayfish or Himalayan Balsam, that harm local ecosystems.

Landscape Recovery (LR): A scheme that sits under ELMs (see above) and aims, through financial incentives, to support large-scale projects that deliver landscape-scale environmental benefits. This could include actions such as flood alleviation, natural flood management, and improving water quality.

Local Habitat Map: An online map developed as part of the North Yorkshire and York LNRS that shows existing Areas of Particular Importance for Biodiversity (APIBs) and a strategic network of Areas that Could Become of Particular Importance for Biodiversity (ACBs).

Local Nature Recovery Strategy (LNRS): A strategic plan developed at a local level to guide actions for nature recovery, enhancements to biodiversity, and improvements to ecosystem services, involving collaboration among various stakeholders. LNRS are a statutory requirement, introduced by the Environment Act 2021.

Long Established Woodland: Woodlands that have been present for a significant period, typically since at least 1893.

Lowland Calcareous Grassland: Grasslands on lowland limestone or chalk soils, known for their rich plant diversity, including rare orchids.

Lowland Heath: Heathlands typically found below 300m above sea level and characterised by infertile soils, heathers, and gorse.

Lowland Meadow: Grasslands traditionally used for hay production, rich in wildflowers and supporting pollinators and ground-nesting birds.

Magnesian Limestone Grassland: Grasslands that are unique, species-rich habitats that grow on outcrops of Magnesian Limestone.

Measures: Practical 'on the ground' actions that will help to deliver the aims of an LNRS priority.

National Landscape: A designated area of land in the UK, previously known as an Area of Outstanding Natural Beauty (AONB), that is of national importance for its natural beauty and is protected in the national interest. The Nidderdale National Landscape and the Howardian Hills National Landscape both sit within North Yorkshire.

National Park: An area of the UK countryside that is protected by law to conserve and enhance the natural beauty, wildlife and cultural heritage of the area and to promote public understanding and enjoyment of these qualities. Both the North York Moors National Park and the Yorkshire Dales National Park are primarily located within North Yorkshire.

Nature Recovery Network (NRN): A strategic network of ACBs where nature recovery activity should be focused to create bigger, better, and more joined up natural habitats.

Natural Capital: Elements of nature (e.g. rivers, woodlands, soil) that provide goods and services essential for human life and well-being.

Non-governmental Organisation (NGO): An entity that is not part of government and can include non-profit or for-profit entities.

Open Mosaic Habitat: A biodiversity-rich mix of different habitats that features a patchwork of bare ground, patchy grassland and other vegetation like scrub and flowers. They are an important habitat for a large number of rare invertebrates.

Parkland: A mosaic habitat with grazing animals, valued for their trees, especially veteran or ancient trees, and the plants and animals they support. They have their origins in medieval hunting forests and 19th Century designed landscapes.

Priority: An objective that has been identified as being particularly important for our region and can contribute to the end results that an LNRS is seeking to achieve. In essence what we are seeking to do and why we are seeking to do it.

Priority Species: A longlist of 634 species that are in decline or suffering persecution and require some form of intervention. These species are included in the LNRS so they can be prioritised for funding and further projects to enable their recovery.

Riparian Woodland: Wooded areas along rivers and streams that support rich biodiversity, prevent erosion, and improve water quality.

Saltmarsh: A coastal wetland ecosystem regularly flooded by saltwater tides and characterised by salt-tolerant plants and fine sediments.

Species-rich Grassland: An open, grassy habitat with a high diversity of native wildflowers and grasses, maintained by traditional methods like grazing and cutting.

Stepping Stones: Small areas of habitats that provide refuge and facilitate species movement between larger habitat areas.

Sustainable Farming Incentive (SFI): A scheme that sits under ELMs (see above) and rewards farmers financially to undertake sustainable farming practices. This includes actions such as improving soil health, managing hedgerows and field margins, growing cover crops and reducing inorganic fertiliser use.

Veteran Trees: Trees that are usually in their second or mature stage of life and have developed some features found on ancient trees, such as decay or dead wood.

Upland Calcareous Grassland: Grassland habitat found at higher altitudes on shallow, lime-rich soils over underlying rock such as limestone, typically occurring at elevations of 250-300 metres above sea level.

Wet Grassland: Floodplain habitats with seasonal waterlogging that support diverse wildlife, including breeding waders and pollinators.

Wet Heath: Damp areas found within lowland and upland heathlands normally found on flat ground between dry heath and valley mires.

Wet Woodland: Waterlogged woodlands dominated by species like Willow, Alder, and Birch, providing flood control and biodiversity benefits.

Wood Pasture: A mosaic habitat with trees and grazing animals, created through traditional management like grazing and pollarding. Veteran and ancient trees can often be associated with this habitat.

To access other LNRS documents

Online: www.northyorks.gov.uk/lnrs-documents

A paper copy of the documentation is available to view at the North Yorkshire Council Customer Services Hub, Campus Buildings, Treadmills, East Road, Northallerton, DL6 1AU (open office hours, Monday to Friday)

Contact us

Online: northyorks.gov.uk/contact-us

By telephone: For further information call **0300 131 2131** and say '**nature recovery**' when prompted

North Yorkshire Council, County Hall, Northallerton, North Yorkshire, DL7 8AD

You can request this information in another language or format at
northyorks.gov.uk/accessibility