DERBYSHIRE County Council

Thriving with Nature

A Local Nature Recovery Strategy for Derbyshire

Non-Technical Guide

Contents

Right: Burbage Brook stream running through lush trees at Padley Gorge in the Peak District National Park, England, UK

DERBYSHIRE County Council

England is one of the most nature-depleted countries in the world and wildlife is in crisis. Targeted, coordinated and collaborative action is needed to address nature loss and can have a range of environmental, social and economic benefits.

An Introduction to Derbyshire

Derbyshire is…

- a rural county
- at the centre of England
- the meeting place of upland and lowland habitats in England
- the transition from pastoral dairy belt in the west to arable farmlands in the east

Derbyshire has…

- one city, Derby
- iconic landscapes, with the Peak District National Park being the first landscape designation of its type
- a diversity of habitats – upland bogs and heaths in the high peaks, through ancient woodlands of the Derwent Valley, to the broad floodplain of the River Trent

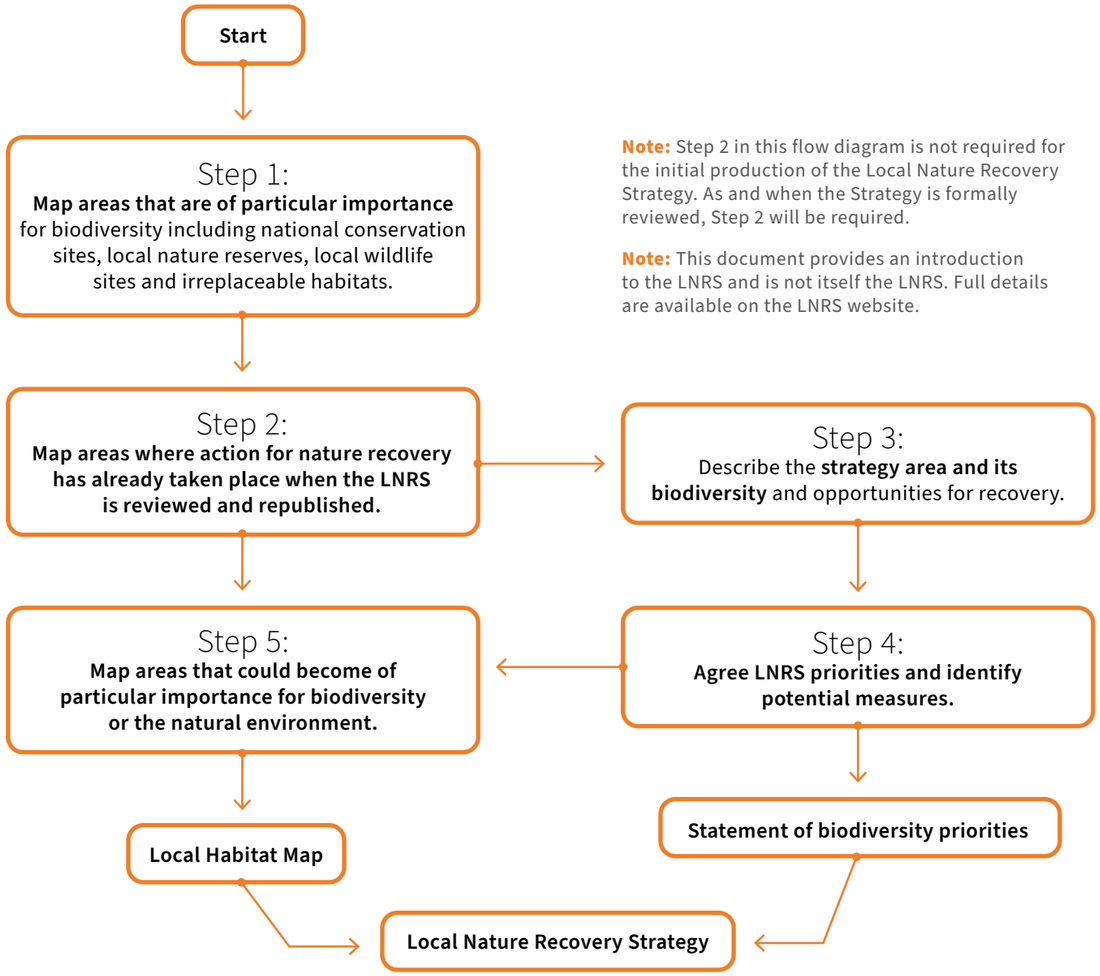
The natural environment of Derbyshire is a cornerstone of our economy. However, some of our landscapes and habitats are in decline because of pressures such as changing climate and land use.

Our vision is to work together to deliver a thriving natural environment for Derbyshire, with bigger, better, more joined up wildlife sites for the benefit of all.

Purpose of this document

In accordance with the requirements of the Environment Act 2021, Derbyshire County Council has produced a locally led nature recovery strategy for Derbyshire. Each LNRS (48 in total) will contribute to the national Nature Recovery Network.

This document is the non-technical guide to the full LNRS document. It provides an introduction to the LNRS, with hyperlinks to relevant sections of the full strategy. This guide provides a starting point for exploring the LNRS.



Note: Step 2 in this flow diagram is not required for the initial production of the Local Nature Recovery Strategy. As and when the Strategy is formally reviewed, Step 2 will be required.

Note: This document provides an introduction to the LNRS and is not itself the LNRS. Full details are available on the LNRS website.

Where to find more information

The Derbyshire Local Nature Recovery Strategy website can be found here.

Step One: Mapping the areas which are known to be of 'particular importance for biodiversity' and the natural environment which can be found on our **LNRS** mapping portal.

Step Two: As mentioned above, this step is not needed at this Stage.

Step Three: Summarised in this document, with more information available in the detailed 'Thriving with Nature - A Local Nature Recovery Strategy for Derbyshire: Statement of Biodiversity Priorities' document.

Step Four: Summarised in this document, under the 'Nature Recovery Priorities' section – The full Local Natural Recovery Strategy for Derbyshire can be found here.

If you have any questions, please contact us on **place.lnrs@derbyshire.gov.uk**

Approach

Derbyshire's LNRS is approached through the consideration of 10 **National Character Areas,** as shown below. There are 159 National Character Areas in England. Areas are defined by their geology, landscape, biodiversity and culture. This is helpful for the LNRS as these characteristics often influence where different habitat and land management opportunities can be supported, focusing on bigger, better, more joined-up habitats.

Specifically, for each NCA, the following elements are considered:

- Description of the area
- Land-use Mapping, Habitats and Species
- Key sites for nature
- Species present
- Benefits provided from nature
- Land use pressures, constraints and other factors affecting nature recovery
- Descriptions of potential opportunities for nature recovery

Derbyshire defined National Character Areas

National Character Areas

- Dark Peak and South-West Peak
- White Peak
- Peak Fringe & Lower Derwent
- S Yorkshire Notts & Derbyshire Coalfield
- Southern Magnesian Limestone
- Needwood & South Derbyshire Claylands
- Trent Valley Washlands
- Melbourne Parklands
- Leices & South Derbyshire Coalfield
- Mease/Sence Lowlands

This document provides a high-level overview of the strategy area, associated biodiversity and opportunities for recovery.

For more detailed information, please refer to the main strategy document 'Thriving with Nature. A Local Nature Recovery Strategy for Derbyshire: Statement of Biodiversity Priorities', which provides more information across all elements but particularly Key Sites for Nature, where details for each designation is provided.

Benefits from Nature

The natural environment provides a wealth of benefits to us which underpin human life and economic activity. Derbyshire's Natural Capital Strategy outlines the extent and value of these benefits, and can be found here.

A key output of the Natural Capital Strategy was the production of a map showing the spatial distribution of the main habitat types across the county.

For the LNRS, the following benefits are considered:

Surface water regulation and natural flood management *– some habitats and land cover can minimise flood risk through 'slowing down the flow' of water, for example.*

Water quality regulation *– some habitats have properties which can improve the quality of water, through removing pollutants, for example.*

Carbon storage and sequestration *– habitats such as woodlands are able to remove carbon from the atmosphere and store it within plants and soils.*

Water supply *– some habitats can retain water within the environment, beyond rivers for example.*

Recreation, health and wellbeing *– some habitats support active leisure, contributing to the physical and mental health of visitors and residents.*

Agriculture and food production *– some land is suited for different forms of farming, boosting rural economies.*

Leisure and tourism *– habitats with public and visitor access provide recreation opportunities, supporting the economy.*

The level of benefits provided by nature have been assessed for each NCA and are shown in this document using a red, amber, green colour coding system:

Green: Benefits from nature are significant

Amber: Benefits from nature are moderate **and/or** there may be instances where benefits are compromised because of environmental pressures

Red: Benefits from nature are limited **and/or** there are significant environmental pressures preventing benefits from nature being realised

Audience

The LNRS is for everyone, supporting communities, businesses, developers, planning authorities, farmers, land managers and public bodies to take appropriate action for nature.

Working with Partners in preparing the Strategy

Derbyshire County Council are responsible for the preparation and publishing of the LNRS. This has involved fulfilling the following requirements:

- A collaborative and evidence-based approach to enhance biodiversity

- Creation of an action plan to deliver priorities until 2033 and beyond

- A public consultation on the draft LNRS

- Seeking approval from district and borough councils, the Peak District National Park Authority and the County Council's Cabinet.

Three core governance groups have been established:

1 **Supporting Authorities Group:** To enable the involvement of the supporting local authorities in the preparation of the LNRS. Made up of Derbyshire's borough and district councils, East Midlands Combined County Authority, Natural England, and the Peak District National Park Authority.

2 **Steering Group:** To provide technical expertise, oversee the development of the LNRS and promote stakeholder involvement. Made up of Country Land and Business Association, Derby City Council, Derbyshire County Council, Derbyshire's district and borough councils, Derbyshire and Nottinghamshire Entomological Society, Derbyshire Wildlife Trust, Environment Agency, Forestry Commission, Harworth Group, National Trust, The National Farmers Union, the Peak District National Park Authority, The Royal Society for the Protection of Birds, The Devonshire Group, The Institute of Quarrying, and University of Derby.

3 **Advisory Group:** To make recommendations to Derbyshire County Council's Cabinet to fulfil its duties as responsible authority. Made up of political and officer representatives from Derbyshire County Council, Derby City Council, and the Peak District National Park Authority, as well as representatives from Natural England, the Supporting Authorities Group, and the Chair of the Steering Group.

In addition to these six groups, the development of the LNRS was supported by the following project partners:

- The University of Derby
- The Young Foundation
- Derbyshire Wildlife Trust
- Jacobs
- Diva Creative Ltd
- Designing Dialogue CIC.

An additional three working groups were established to refine key elements of the LNRS:

Priorities and Measures Group: Made up of representatives from the Peak District National Park Authority, University of Derby, Eastern Moors Partnership, The Royal Society for the Protection of Birds, The National Farmers Union, Derbyshire Wildlife Trust and the Environment Agency.

Mapping Group: Made up of representatives from Derbyshire Wildlife Trust, Peak District National Park Authority, Natural England, the Environment Agency, the National Forest and Derbyshire County Council.

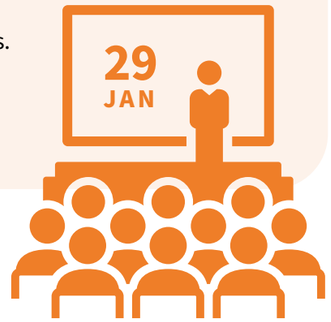
Species Technical Group: Made up of representatives from Derbyshire Biological Records Centre, Sorby Natural History Society, Derbyshire and Nottinghamshire Entomological Society, East Midlands Butterfly Conservation Derbyshire Ornithological Society, Derbyshire Wildlife Trust, Peak District National Park, Derbyshire Bat Group, Derbyshire Amphibian and Reptile Group, Derbyshire Flora Recorder, Mammal, fungi and lower plant experts, Natural England and Derbyshire County Council.

The Collaborative Process

We have undertaken a collaborative process in developing the LNRS.

LNRS Launch Conference

29th January 2024 attended by 120 delegates.



Developing Evidence Base

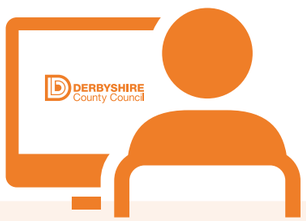
A broad review of existing plans and strategies was undertaken, including existing plans for nature and catchment management plans, among other things. Detailed landscape character assessments, a Natural Capital Strategy, and Habitat Asset Map were reviewed to inform LNRS development.

Full details are available in LNRS Appendix 1 here

Multiple Phases of Engagement

Dialogues with 67 individuals from 43 organisations were facilitated by The Young Foundation in partnership with the University of Derby. Five online and five in-person events were held across the county. In total, 151 individuals and over 60 organisations were represented.

Full details are available in LNRS Appendix 2 and Appendix 3



Online Public Survey

We gathered views from residents on nature to understand their priorities, which attracted over 1,000 responses.

Results of the public survey can be found in LNRS Appendix 4 here

Supporting important species

Through a series of online workshops with the Derbyshire Biological Records Centre, Natural England, and the Peak District National park Authority, the Council identified species that are local conservation priorities, and developed the measures and actions to support their recovery.

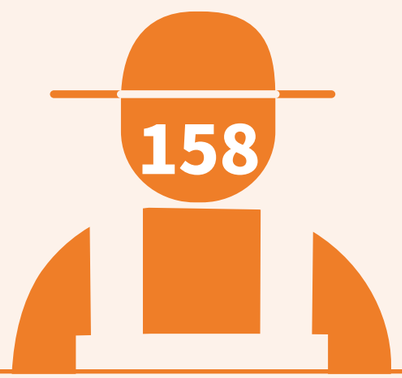
Detail on the methodology for priority species selection is available in LNRS Appendix 7 here.

Engagement with Farmers and Landowners

The Council sought to better understand the opinions and experiences of this crucial sector, including a targeted survey that attracted 158 responses.

Our learning report from engaging with farmers and landowners can be found in LNRS Appendix 5

The farmer and landowner survey results can be found in Appendix 6



Locations that could have greatest value for nature

The Council worked with partners to build a Local Habitat Map, showing the areas that could become of particular importance for biodiversity, by mapping the Measures that have the potential to make the greatest contribution to our Strategy's priorities.

The methodology for mapped and unmapped measures can be found in LNRS Appendix 8

Maps can be viewed in our LNRS mapping portal here

Further information and detailed findings from each of these activities are available in the full LNRS documents on our website

DERBYSHIRE County Council

Vision

Working together to deliver a thriving natural environment for Derbyshire, with bigger, better, more joined up wildlife sites for the benefit of all.

Principles

- Bigger, better, more joined up
- Right Habitat: Right Place
- Connecting people and nature
- Maximising nature's benefits
- Inclusive and collaborative
- Ambitious, deliverable and realistic
- Evidence led
- Balances competing needs

Polemonium caeruleum (wild Jacob's ladder, was adopted as the county flower of Derbyshire in 2002).

Priority Themes

- Upland moorland and lowland heath
- Woodlands and trees
- Grassland
- Rivers, river corridors and other watercourses
- Farmland
- Wetlands
- Urban environment and infrastructure
- People and wildlife
- Species and species assemblages

Benefits from nature

- Surface water regulation and natural flood management
- Water quality regulation
- Carbon storage and sequestration
- Leisure and tourism
- Recreation, health and wellbeing
- Agriculture and food production
- Water supply

DERBYSHIRE County Council

Dark Peak and South West Peaks

68,410 ha

Spotlight: Set within the administrative boundary of the Peak District National Park, this area is of high value to the nation and one of the most extensive semi-natural wilderness areas in England.

Overview

Areas of iconic upland landscape due to their underlying geology of Millstone Grit interspersed with softer shales providing the distinctive 'high moors' landscape with gritstone edges and tors alongside broad valleys.

Habitats

Grassland is the main habitat including acidic, neutral and wet grassland. Valley slopes include enclosed farmland that supports patches of unimproved pasture and hay meadows. Some unimproved grasslands hold important populations of fungi, with internationally and nationally important sites for waxcaps. Upland areas can be species poor, however, this is valuable habitat for upland, ground-nesting birds such as the curlew and lapwing.

Wetland: Large expanses of blanket bog on deep peat define the upland summits and plateau areas. Blanket bog supports breeding birds such as the golden plover and dunlin as well as important moorland population of water vole. Common cotton-grass dominates alongside heather, bilberry and crowberry. Large parts of these blanket bogs are protected by international and national designations.

Heathland and scrub: On the lower moorland summits and slopes, shallower peat supports heather dominated upland heath. These areas support birds such as red grouse and short-eared owl whilst areas of bracken are important for breeding twite and whinchat.

Woodland and forest are typically associated with the lower valley slopes and urban areas but sometimes extend along watercourses, including patches of ancient woodland. Woodland on moorland slopes support a variety of ground flora. Characteristic birds include pied flycatcher and wood warbler. Conifer plantations are often associated with reservoir valley sides and can be important for fungi as well as goshawk, nightjar and crossbill birds

Rivers and lakes: The River Derwent, Etherow and Goyt, and the large reservoirs of the Derwent Valley and Longdendale, as well as the Fernilee and Errwood reservoirs in the Goyt Valley that are often associated with marshes around inlet streams with various ruses, tufted hairgrass, marsh bedstraw and water mint. Fast-flowing streams of upland cloughs are valuable for their diverse plants and animal species. The reservoirs support small numbers of wintering ducks and common sandpipers in the summer.

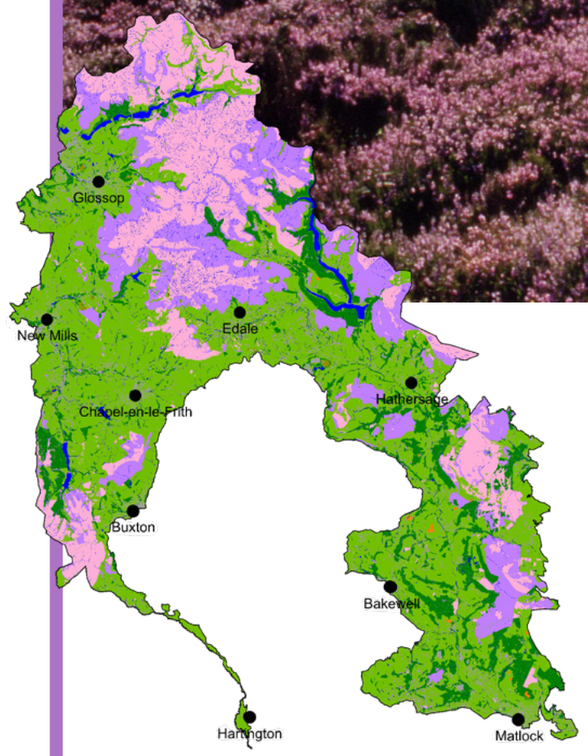
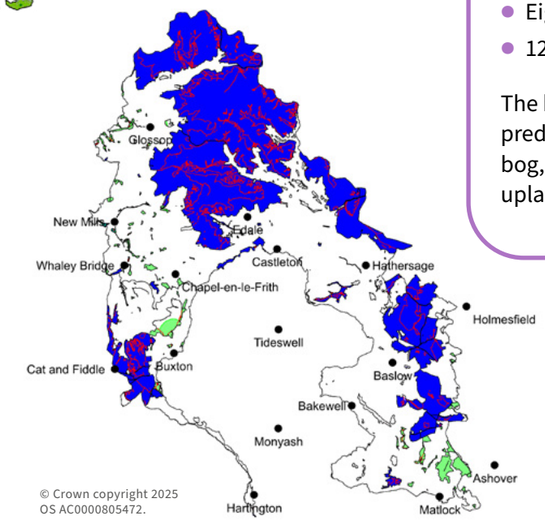


Figure 1: Habitat cover within the Dark Peak and South West Peaks

Habitat types

- Heathland and shrub
- Rivers and lakes
- Woodland and forest
- Urban
- Grassland
- Wetland
- Cropland
- Inland rock outcrop and scree habitats
- Sparsely vegetated land

Figure 2: Areas of particular importance for biodiversity within the Dark Peak and South West Peaks



Key sites for nature

- Statutory designations
- Local wildlife sites
- Irreplaceable habitats

Key Sites for Nature

41% of the area

is protected by international, national, and local designations.

- One International Special Protection Area (Peak District Moors)
- One International Special Area of Conservation(South Pennine Moors)
- 28 National Sites of Special Scientific Interest
- Irreplaceable habitats including:
  - Ancient and semi-natural woodland
  - Ancient replanted woodland
  - Blanket bog
  - Blanket, deciduous woodland
  - Lowland Fens
- One National Nature Reserve (Kinder Scout)
- Eight Local Nature Reserves
- 124 Local Wildlife Sires

The high level of designations predominantly relates to the blanket bog, mire, heathland and other upland habitats.

Dark Peak and South West Peaks

Species

Important moorland population of **water vole** within streams, gullies and blanket bog. The heather moorlands support notable bird species such as red grouse, meadow pipit, curlew, merlin, and shore-eared owl. Associated areas of bracken are important places for breeding twite and whinchat. There is the potential to become more valuable for species like hen harrier. The moorlands support the only mountain **hares** remaining in England. The Dark Peak is important for **waxcap fungi** within unimproved, permanent, grazed grasslands. There is potential to assist in the recovery of **white clawed crayfish** due to the isolated ponds and streams that protect them from invasive species.

Benefits from Nature

Surface water regulation and natural flood management – Upland areas have significant levels of natural flood management services due to the peaty soils that absorb and retain water. This protects downstream areas, such as Derby City, from flooding.

Water quality regulation – Peat habitats help maintain water quality downstream. However, degraded peat can put water quality at risk in the wider catchment.

Carbon storage and sequestration – Intact bog habitats provide significant carbon storage. However, degraded peat, particularly in the Dark Peak, is likely emitting carbon. Substantial benefits to carbon could be achieved through bog and heath restoration in the Dark Peak, and maintaining their functionality in the Southwest Peak.

Tourism – Extensive, open moorland landscapes are an important destination for residents and tourists, supporting a valuable visitor economy.

Recreation and public health – Supporting active leisure such as walking and cycling, benefiting physical health and mental wellbeing.

Food production – Farmland is generally graded as poor or very poor, however, livestock farming is an essential component of this landscape and the rural economy.

Land use pressures, constraints and other factors affecting nature recovery

Much of this area is located within the Peak District National Park which has largely protected the area from large developmental change. However, climate change, agricultural intensification, tourism and recreational demand, and the localised effects of expanding towns such as Buxton and Glossop and the impacts of deer in the Eastern Moors and Goyt areas provide some pressure for change. River habitats have been impacted by previous land use change.

Description of potential opportunities for nature recovery in the Dark and South West Peaks

DSP1 (Dark and South-west Peak) – Protection, conservation and enhancement of upland moorlands: Condition and function improvements to the existing resource including blanket bog, upland heath and associated habitats to maximise wider environmental benefits including carbon storage, reducing flood risk, and improving water quality.

DSP2 – Ancient woodland and other broadleaved woodland: Protecting, conserving and enhancing existing semi-natural woodland sites. Restoring plantation ancient woodland sites. Additional woodland focused on appropriate locations. Woodland action should maximise nature recovery with wider environmental benefits.

DSP3 – Grasslands: Protecting and enhancing unimproved grassland and conserving, restoring, creating and enhancing other grasslands. Delivering robust networks of structurally diverse, locally appropriate, functional and biodiversity rich grassland that support pollinators and other invertebrates. Providing improved and better-connected habitats for farmland birds.

DSP4 – Rivers, river corridors and other water courses: River restoration and enhancement to improve ecological connectivity and adapt to the impacts of climate change, reduce the risk of flooding, and provide habitat for native plants and animals. Land management decisions should seek to deliver downstream improvements in water quality and natural flood management benefits including the possible reintroduction of beaver.

DSP5 – Birds: Conservation action or species recovery work to support numbers and ensure viable populations through habitat enhancement to bog and upland heath alongside specific targeted interventions for birds of prey and the upland woodland bird assemblage.

DSP6 – Species assemblages: Improving the extent, quality and connectivity of blanket bog, heathland and other upland habitats to support the species associated with these habitats. Ensuring the diversity and extent of habitats can support thriving populations of these species.

DERBYSHIRE County Council

White Peak

39,130 ha

Spotlight: Significant as Britain's junction between southern and northern plant and animal species, which are varied in nature and of national and international importance.

Overview

Located largely within the Peak District National Park, the White Peak is an upland landscape, comprising limestone plateau and dales. The area is a stark contrast with the Dark and South-West Peak, which are gritstone landscapes.

Habitats

Grassland forms the main habitat dominated by agriculturally productive pastures on rich loamy soils, including areas of highly productive grass and clover leys. There are a limited number of surviving flower-rich hay meadows which support species like oxeye daisy and yellow rattle alongside species-rich unimproved grasslands. Historic lead mining has influenced the White Peak, supporting a range of grassland types including metal-tolerant plants such as 'leadwort'.

Semi-natural ash **woodland** (much of which is ancient) clothes extensive areas of steep slopes and collectively forms the largest extent of ravine ash wood in Britain. Ecologically important with international and national designation, the woodland floor is varied, with rare plants and animals.

There are areas of the White Peak which are **sparsely vegetated** due to large-scale quarrying of the limestone plateau which continues today. Restoration of these sites has created interesting opportunities for nature, such as providing nesting sites for peregrine falcon.

On higher ground, cooler and wetter conditions support the development of peaty topsoil and **heath** cover, yet limits agricultural productivity. In areas of limited agricultural potential (dales and edge of the limestone plateau), species rich grasslands are present. Small areas of scrub are also present, supporting species-rich hazel scrub and invasive hawthorn scrub.

Whilst **open water** is minimal due to the free draining limestone landscape, it is a key component of the habitat mosaics within the area.

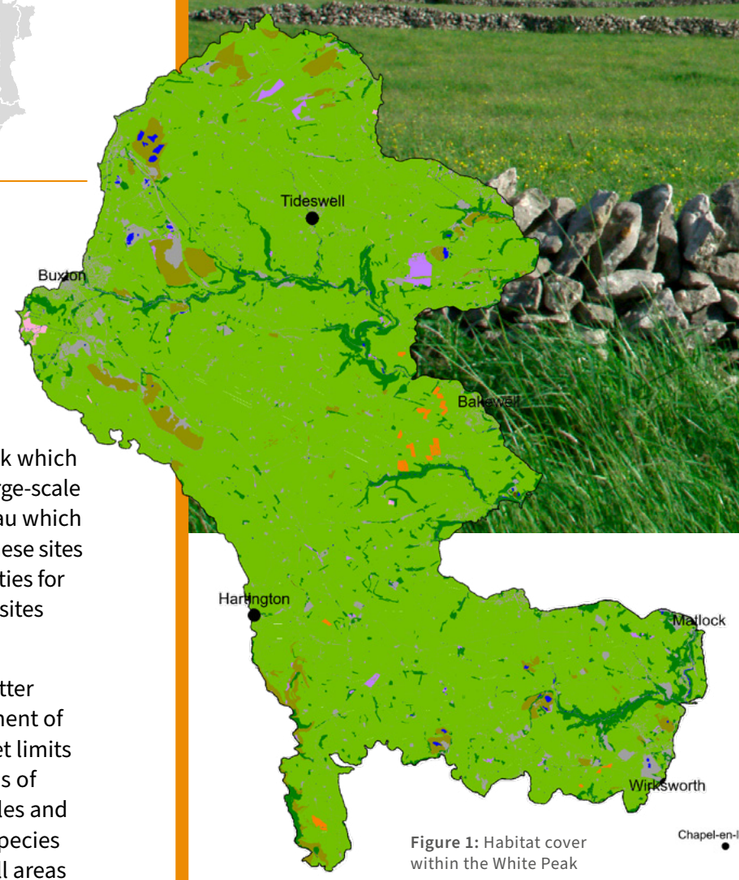


Figure 1: Habitat cover within the White Peak

Habitat types

- Heathland and shrub
- Rivers and lakes
- Woodland and forest
- Urban
- Grassland
- Wetland
- Cropland
- Inland rock outcrop and scree habitats
- Sparsely vegetated land

Key sites for nature

- Statutory designations
- Local wildlife sites
- Irreplaceable habitats

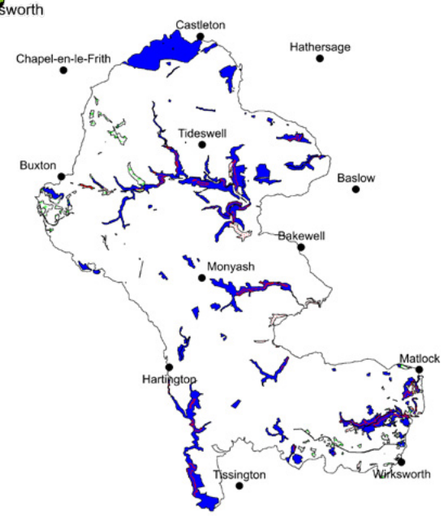


Figure 2: Areas of particular importance for biodiversity within the White Peak

Key Sites for Nature

11% of the area

is protected by international, national or local nature designations. Across Derbyshire, the White Peak NCA has the greatest number of statutory designations.

- Three International Special Areas of Conservation (Peak District Dales, Gang Mine, Bees Nest and Green Clay Pits)
- 47 National Sites of Special Scientific Interest
- Irreplaceable habitats including:
  - Ancient and semi-natural woodland
  - Ancient replanted woodland
  - Lowland fens
  - Limestone pavement
  - Blanket Bog
- Two National Nature Reserves (Derbyshire Dales and Dovedale)
- Three Local Nature Reserves
- 96 Local Wildlife Sites

SSSI coverage is primarily localised to the dales, with many sites designated for geological interest alone. Further ecological value relates to a range of different slope aspects, supporting a broad range of grass and woodland habitats.

White Peak

Species

Limestone grassland species assemblages support rich wildflower communities and are important for lichens, invertebrates and orchids. Metal-loving **(metallophyte)** species such as spring sandwort, alpine pennycress and moonwort are present on areas of spoil from historic lead mining ('lead rakes'). The White Peak is a hotspot for **great crested newts**. **Brown Hare** are relatively common in this area compared to the rest of Derbyshire. Clusters of **otter** records are notable around the River Dove. **Water vole** are recorded across the White Peak. **White clawed crayfish** remain, yet face pressure from invasive, non-native signal crayfish. Atlantic salmon have started to return to the River Dove to span and migratory **fish** continue to benefit from the removal of barriers to fish migration.

Natural Capital and Key Ecosystem Services Provided by Nature:

Surface water regulation and natural flood management – Whilst this is a freely draining landscape, peak river flows following rainfall events are delayed, demonstrating a level of natural flood management.

Water quality regulation – Diffuse and point sources of pollution are known to cause high nutrient levels in watercourses such as the Wye.

Carbon storage and sequestration – Ancient woodlands act as significant carbon stores, whilst grasslands are likely to be more modest and some areas may already be net emitters of carbon.

Tourism – Visitors are attracted to the good public access and facilities of the area for walking, cycling and quiet enjoyment of the open countryside.

Recreation and public health – The White Peak supports leisure activities including walking and cycling, supporting health and wellbeing.

Food production – Farming is a significant component of the rural economy although most agricultural land is generally poor.

Land use pressures, constraints and other factors affecting nature recovery

The primary driver of nature loss across the White Peak relates to land use change. However, the National Park designation will continue to control urban growth and maintain the rural nature of the area. Development pressure should therefore be limited and remain localised.

Regenerative agriculture could support the reestablishment of species rich grasslands, which could buffer, extend and connect high quality grassland sites. Quarrying can lead to permanent land take but creates opportunities for nature-based restoration.

Description of potential opportunities for nature recovery in the White Peak

WP1 – Protection, conservation, and enhancement of existing high-quality sites: To ensure extensive SSSI network is in optimal condition to become the cornerstone of nature recovery across the landscape. Land outside but immediately adjacent to these designated areas would be the focus for habitat creation and enhancement, to extend, buffer and connect core sites as well as create stepping-stones between them.

WP2 – Grasslands: Continued, large-scale restoration or reversion of grasslands to species rich meadow could provide significant ecological gains. Noting the improved nature of soils throughout the area, a more appropriate approach would be to promote the adoption of species rich herbal leys and local habitat improvements such as pond restoration and wildlife friendly field margins.

WP3 – Woodlands and trees: Protecting, restoring and enhancing woodland sites across the dales, supporting the management of plant disease and climate change. Sensitive, targeted woodland creation could be supported, where appropriate. Extend woodlands and improve connectivity towards the Derwent Valley and on the dale tops.

WP4 – Great Crested Newt: Improving terrestrial habitat adjacent to dew ponds, maintaining and enhancing connectivity across the landscape, and restoring derelict dewponds.

WP5 – Rivers, streams and watercourses: Address point and diffuse pollution in upper River Wye catchment. Wetland habitat protection and enhancement should ensure the conservation and recovery of key species such as Great Crested Newts, Water Voles, Otters and White-Clawed Crayfish.

WP6 – Lowland heath: Protection and enhancement of existing sites, whilst seeking opportunities to buffer and extend existing habitats where possible.

WP7 – Mineral Extraction: Large scale creation of biodiverse habitat mosaics including opportunities to create rare habitat as well as retaining rock faces for raptors such as peregrine falcon.

Peak Fringe & Lower Derwent

37,165 ha

Spotlight: A transitional landscape exclusive to Derbyshire, bordering the Coalfields to the east, Claylands to the south and the Peak District to the north-west.

Overview

The Derwent Valley stretches through this well-wooded, pastoral landscape. Small irregular fields contrast with more open moorlands and former common land, with ancient semi-natural woodland being a prominent characteristic.

Habitats

Grassland forms the main habitat, particularly when combined with intensive grass ley **cropland**. The underlying soils and topography restrict intensive agricultural practices, but the area continues to support dairy and livestock farming. As such, patches of unimproved pasture and flower-rich hay meadows remain. Neutral, calcareous and acid grassland are present across the area. Pockets of arable farmland occur along the lower slopes of the Ecclesbourne valley and along the eastern margins of this landscape.

Mixed broadleaf **woodland** is prominent, creating a network of interconnected woodland much of which is irreplaceable Ancient Semi-Natural Woodland that supports a range of key indicator species and birds. Some commercial, coniferous woodland is locally significant, supporting important ground nesting birds.

Hedgerows enclosing pastoral farmland include hazel, holly and numerous mature oak trees. In enclosed moorland areas, boundaries are dominated by simple hawthorn hedgerows or dry-stone walls. There are isolated patches of upland, dry heath which support heather with some bilberry and dense scrub along moorland edges.

The many **rivers** in the area (Ecclesbourne, Amber and Derwent) form an important habitat network, alongside several associated wetlands that support key species such as water vole and white-clawed crayfish.

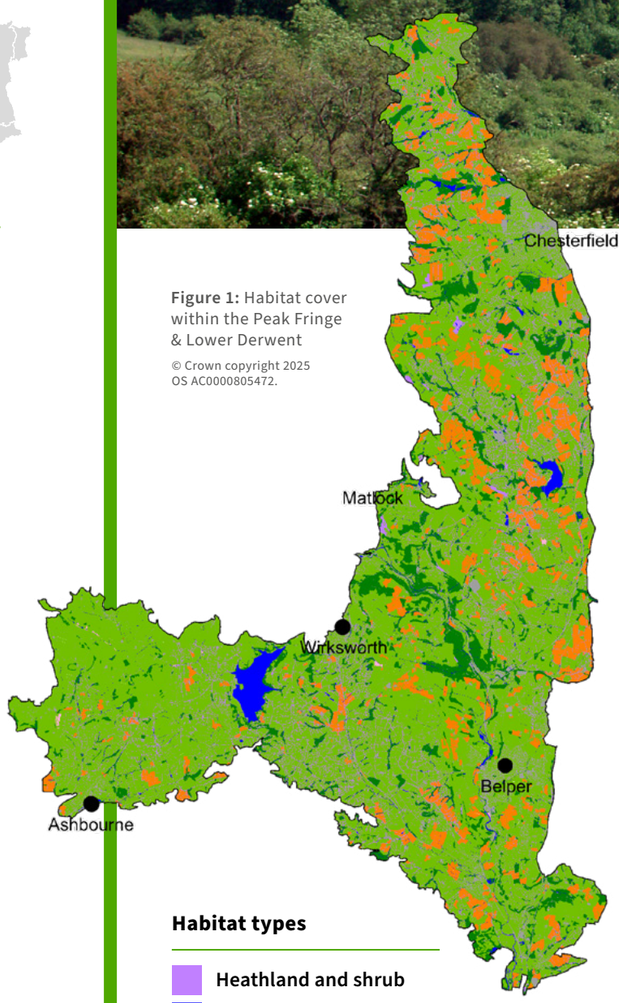


Figure 1: Habitat cover within the Peak Fringe & Lower Derwent

Habitat types

- Heathland and shrub
- Rivers and lakes
- Woodland and forest
- Urban
- Grassland
- Wetland
- Cropland
- Inland rock outcrop and scree habitats
- Sparsely vegetated land

The large reservoirs at Carsington and Ogston are important for their populations of resident and migratory wetland bird species. The Cromford Canal creates good linkages with other valuable habitats.

Key sites for nature

- Statutory designations
- Local wildlife sites
- Irreplaceable habitats

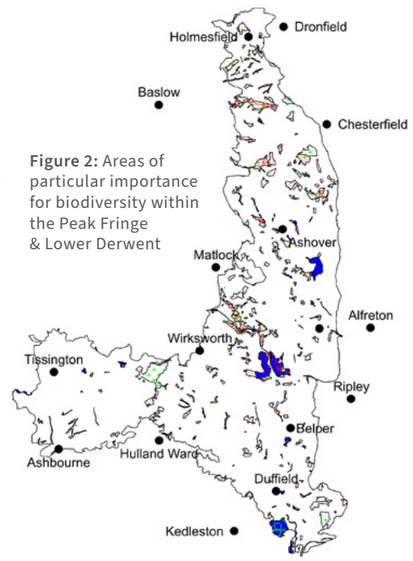


Figure 2: Areas of particular importance for biodiversity within the Peak Fringe & Lower Derwent

Key Sites for Nature

8% of the area is protected by international, national and local designations.

- One International Special Protection Area (Peak District Moors)
- Two International Special Areas of Conservation (Peak District Dales and South Pennine Moors)
- 17 National Sites of Special Scientific Interest
- Irreplaceable habitats including:
  - Ancient and semi-natural woodland
  - Ancient replanted woodland
  - Lowland fens
- One National Nature Reserves (Dovedale)
- 10 Local Nature Reserves
- 308 Local Wildlife Sites

The area contains a small, very limited range of land designated as internationally important for biodiversity. Whilst there are a moderate number of SSSIs covering a diversity of habitat types, many of those sites are small.

The area contains nearly a quarter of the county's designated Local Wildlife Sites. These sites are dominated by woodland and grassland.

Peak Fringe & Lower Derwent

Species

The area is a stronghold for **woodland species assemblages** associated with mature and ancient woodland and this area is important for woodland birds such as the tree pipit and willow warbler. **Dormice** were recorded in Derwent Valley in the early 20th century, but subsequent surveys have shown they have died out. A population was reintroduced in 2004 and may have colonised adjacent sites within the valley. **Otters** are found along the River Derwent with records also for Henmoore Brook and the River Ecclesbourne. **Water Voles** have been historically recorded but they are threatened by habitat loss and degradation, especially by the presence of mink. There are historic records of **white-clawed crayfish**, however their numbers have declined dramatically in watercourses where non-native crayfish have colonised. Isolated waterbodies provide refuge, with a healthy population at Wingerworth Lido. The River Derwent supports coarse **fish** species, brown trout and Atlantic Salmon. There are records for all four Derbyshire **reptile** species around the Cromford Canal, although this is dominated by grass snakes. Elsewhere, reptile records are scattered and localised.

Land use pressures, constraints and other factors affecting nature recovery

Whilst not particularly urbanised, key settlements within the periphery such as Matlock and Ashbourne have been the focus of urban expansion over recent years. It is likely that urbanisation will continue to occur around these settlements. The nature of the soils and topography of the land will continue to resist further agricultural intensification.

The only World Heritage Site in the East Midlands (Derwent Valley Mills) requires careful consideration in shaping appropriate land use change in the valley. Land use decisions, development proposals and habitat creation and enhancement should aim to support and enhance this important designation and must not undermine it.

Description of potential opportunities for nature recovery in the Derbyshire Peak Fringe & Lower Derwent

PF1 – Ancient woodland and other broadleaved woodland: Good woodland management to enhance the network and improve connectivity through new planting in appropriate locations.

PF2 – Hedgerows and hedgerow trees: Improving the protection and management of hedgerows, including the retention and planting of hedgerow trees.

PF3 – Grasslands: Potential to revert pastoral farmland to woodland alongside opportunities to reconnect grasslands. Enhancement and creation of species rich grasslands which would buffer and extend the grasslands of the White and Dark Peak areas.

PF4 – Rivers, river corridors and other watercourses: Enhancing key wetland corridors and improving connectivity, removing barriers to species movement, reconnecting watercourses to their floodplains and addressing watercourse pollution.

PF5 – Heathland: Protecting and enhancing this rare habitat and seeking opportunities to buffer, extend and connect these sites where possible.

PF6 – Riparian mammals: The survival and recovery of the water vole and otter will depend on the maintenance of high-quality habitats and connectivity between habitats up and downstream. The control and eradication of mink is essential for the success of water vole. The River Derwent could be a focus for the reintroduction of beaver.

Benefits from Nature

Agriculture and food production – Land is primarily used for pastoral farming, an important component of the rural environment for the area.

Carbon sequestration and storage – Woodland in the area provides both carbon storage and sequestration. However, agricultural soils are likely to be sequestering only limited amounts of carbon and are at risk of becoming net emitters. Carbon abatement needs to be improved in the area.

Leisure and recreation: Significant recreational attractions and sites of natural interest in the area such as Carsington Reservoir and Cromford Canal.

Water storage and supply: Carsington and Ogston Reservoirs provide important water storage and supply drinking water.

Natural flood management: Deciduous woodland along valley slopes help to control surface water run-off and deliver natural flood management.

Nottinghamshire, Derbyshire & Yorkshire Coalfield

40,900 ha

Spotlight: A characteristic series of sandstone ridges and gentle valleys form this area, where underlying geology supports a diversity of habitats.

Overview

A broad belt of low-lying land, strongly influenced by underlying coal geology. Widespread land use change has altered the landscape and ecology of the area, yet the underlying natural character remains evident and distinct, providing a range of habitat types. The area has traditionally supported dairy farming.

Habitats

The history of the coalfield has resulted in some of the lowest amounts of priority **grassland** in the county and today much of the grassland produces silage and haylage.

Arable **farmland** is a key component of the coalfield, comprising cereal crops and intensive grass leys with clover, supporting livestock farming.

Woodland is a combination of ancient semi-natural woodland, secondary woodland, and more recent plantation woodland created through restoration. The Moss Valley is an important area of ancient semi-natural woodland for its upland oak and wet woodland and is important for breeding birds. There are some significant concentrations of plantation woodland that define a locally, more wooded character.

Hedgerows enclose farmland and isolated patches of **scrub** are often found on derelict or neglected land. In areas of earlier enclosure, hedgerows are typically mixed species with hazel, holly and mature hedgerow trees including oak. The legacy of coal mining means that in many areas, hedgerows are often fragmented and species poor.

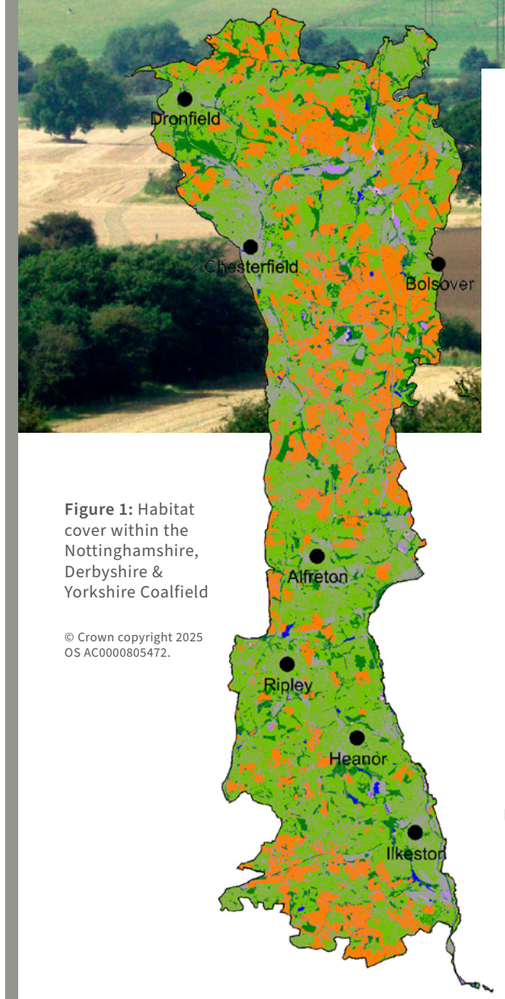


Figure 1: Habitat cover within the Nottinghamshire, Derbyshire & Yorkshire Coalfield

Habitat types

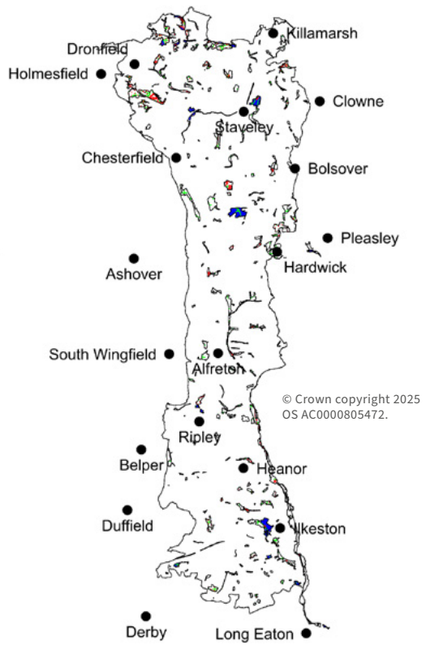
- Heathland and shrub
- Rivers and lakes
- Woodland and forest
- Urban
- Grassland
- Wetland
- Cropland
- Inland rock outcrop and scree habitats
- Sparsely vegetated land

Notable **rivers** in the area include Rother, Doe Lea and Erewash. Several tributaries feed into these rivers and contribute to the diversity of wetland habitats. There are many waterbodies associated with former collieries which provide important habitat for key species such as great-crested newt and water vole.

The area is highly **urbanised** from past mining and more recent regeneration schemes which have brought employment to the area.

Key sites for nature

- Statutory designations
- Local wildlife sites
- Irreplaceable habitats



Key Sites for Nature

Only 6% of the area is protected by national and local designations.

- Eight National Sites of Special Scientific Interest
- Irreplaceable habitats including:
  - Ancient and semi-natural woodland
  - Ancient replanted woodland
  - Lowland fens
- 24 Local Nature Reserves
- 337 Local Wildlife Sites

The relative lack of nationally important sites reflects both the underlying geology, prevailing environmental conditions, the intensity of settlement and land use change in the area.

The area contains the greatest number of Local Wildlife Sites, when compared to other NCAs across Derbyshire, suggesting there are many pockets of ecological interest. The area also supports significant proportions of the county's ancient woodland and lowland fen resources. The area contains the greatest number of Local Nature Reserves in the county, reflecting the steps taken to provide areas of high quality semi-natural greenspaces.

Nottinghamshire, Derbyshire & Yorkshire Coalfield

Species

Reptiles are recorded across the area, with grass snake especially numerous and widespread. Outside of the Peak District, the area is a comparative stronghold for **Dingy Skipper** with open grasslands and restored sites providing suitable habitat. Historically, the area supported healthy populations of **water vole**, however these populations are in sharp decline with predation by mink exacerbating this in addition to historic habitat loss. There are also existing populations of great crested newts in the area.

Land use pressures, constraints and other factors affecting nature recovery

The area faces continued pressure from housing and industrial development, which could exacerbate habitat fragmentation and lead to a degradation of water quality.

The statutory requirement for Biodiversity Net Gain could offer a mechanism for investment in biodiversity. Transport corridors may continue to impact the area.

Benefits from Nature

Recreation and public health – Access to nature is highly valued locally and will be particularly important for health and wellbeing of residents. However, many communities lack access to recreational sites within easy reach of their homes.

Water quality regulation – The river Erewash has previously been identified as a source of poor water quality due to diffuse pollution. Runoff and leachate from former mining sites contributes to poor water quality in the River Amber and Derwent.

Tourism – The area supports several key cultural heritage assets which are related to their surrounding natural environment and are somewhat dependent on this for their tourism offer.

Carbon storage and sequestration – Carbon storage is limited, and the area has been identified as a likely net emitter of carbon in some locations. There could be opportunities for improved carbon storage.

Agricultural productivity – Agricultural land is generally graded as poor with a mixture of arable and pastoral farming.

Description of potential opportunities for nature recovery in the Nottinghamshire, Derbyshire & Yorkshire Coalfield

DC1 – Rivers, river corridors and other watercourses: Improving connectivity in water corridors through managing the intervening land and creating additional wetlands. As many watercourses have been modified, they could be improved by restoring their alignments and natural profiles and reinstating natural processes. Water quality could be improved through nature-based solutions and targeted interventions.

DC2 – Woodlands and trees: Protect and connect woodland sites including into similar landscape within Nottinghamshire. Further woodland connected in some parts of the area to connect people to these habitats for recreation, health and wellbeing.

DC3 – Grasslands: Protecting and enhancing existing high-quality sites and sites of biodiversity value. Restoring and creating new grassland sites.

DC4 – Accessible semi-natural greenspaces: Habitat creation and enhancement which maximises both nature recovery and public access, particularly where limited. Utilising Biodiversity Net Gain to secure environmental enhancements in areas of high development pressure and urban growth.

DC5 – Farmland: Utilising nature-based solutions which improve the environment and incentivise sustainable farming practices.

DC6 – Great Crested Newts: Supporting great crested newts in the landscape and providing sustainable locations for stable, connected populations.

Southern Magnesian Limestone

9,320 ha

Spotlight: A gently rolling landscape where the magnesian limestone geology provides fertile soil, supporting intensive arable farming.

Overview

Located in the northeast of the county on a narrow belt of elevated land, the area is made of a gentle rolling plateau cut through by narrow river valleys and rocky gorges. The inaccessibility of such gorges has minimised disturbance and allowed many original habitats to survive. The remaining landscape is characterised by large arable fields enclosed by hedgerows. Many former colliery sites and their associated tips in the area have been restored to create country parks which contain a range of valuable habitats.

Habitats

Cropland forms the main habitat in the area thanks to the deep, fertile soils providing the perfect environment for arable farming. Most of this land use is for cereal cropping with some intensive grassland cultivation.

Grassland cover is dominated by intensively managed grassland. Relic grassland is found in small patches that are often neutral in character and isolated. The most significant grasslands in the area are those associated with reclaimed colliery sites. Unimproved magnesian limestone grassland is generally uncommon and is the main justification behind the SSSI designation of Markland Grips.

Areas of **woodland** are relatively few but are very large in size, often on ancient woodland sites as well as young plantations associated with the reclamation of former colliery tips. Most of the woodland is mixed broadleaf although commercial coniferous planting has taken place within large estate woodlands.

Mostly simple hawthorn **hedgerows** enclose this arable landscape. Hedgerow trees are notable by their absence.

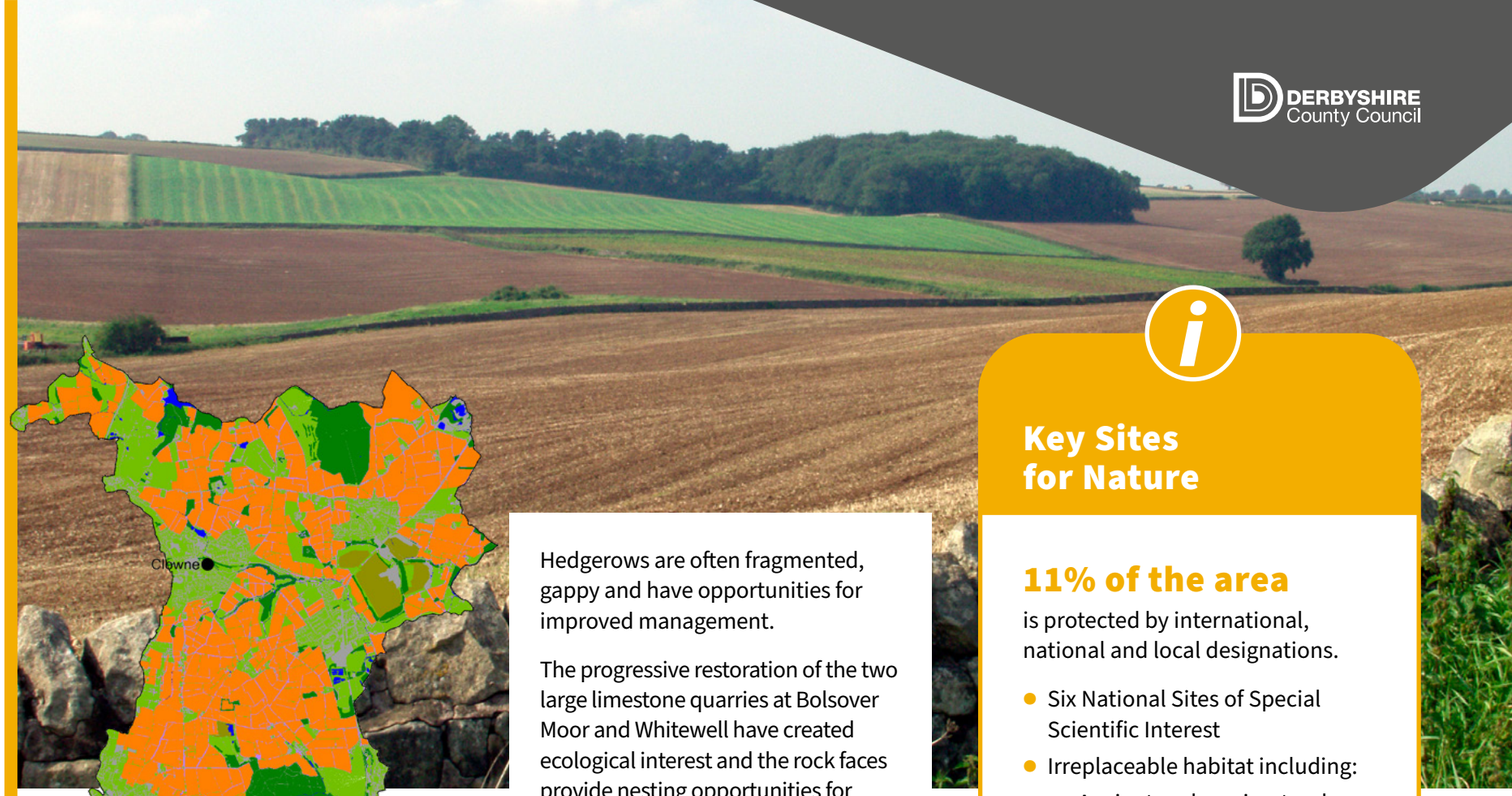


Figure 1: Habitat cover within the Southern Magnesian Limestone

Habitat types

- Heathland and shrub
- Rivers and lakes
- Woodland and forest
- Urban
- Grassland
- Wetland
- Cropland
- Inland rock outcrop and scree habitats
- Sparsely vegetated land

Hedgerows are often fragmented, gappy and have opportunities for improved management.

The progressive restoration of the two large limestone quarries at Bolsover Moor and Whitewell have created ecological interest and the rock faces provide nesting opportunities for raptors such as peregrine falcon.

Water is largely confined to the few infrequent streams that cut through the plateau and some water bodies formed from the reclamation of former colliery sites.

Key sites for nature

- Statutory designations
- Local wildlife sites
- Irreplaceable habitats

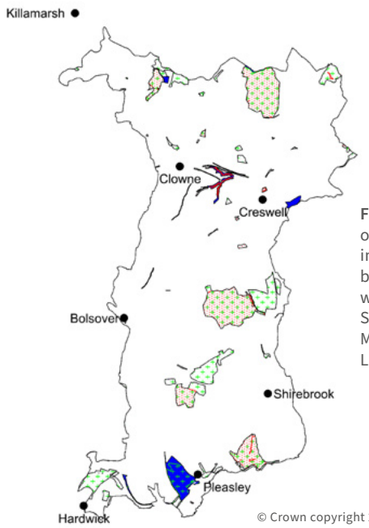


Figure 2: Areas of particular importance for biodiversity within the Southern Magnesian Limestone

Key Sites for Nature

11% of the area
is protected by international, national and local designations.

- Six National Sites of Special Scientific Interest
- Irreplaceable habitat including:
  - Ancient and semi-natural woodland
  - Ancient replanted woodland
  - Lowland fens
- Three Local Nature Reserves
- 71 Local Wildlife Sites

The area contains no internationally designated sites of biodiversity value. The relative lack of sites covered by statutory designations reflects the history of land use and more intensive agricultural practices.

Southern Magnesian Limestone

Species

The dominance of arable farmland makes this area an important place for **farmland birds**, although they have been in decline in recent years. Previously, this area has been identified as a target area for grey partridge, tree sparrow and yellow wagtail among other birds. Landscape is important for several notable **butterfly** species such as the dingy skipper and woodland butterfly species such as the white letter hairstreak.

Land use pressures, constraints and other factors affecting nature recovery

Historic, widespread intensive farming and coal mining has limited space for nature, yet may be addressed to some degree through regenerative farming techniques and the restoration of industrial sites. A continued focus on food security and the need for housing growth will mean these pressures continue in the area.

Biodiversity Net Gain could offer a mechanism for investment in biodiversity in this part of the county. Additionally, enhanced access to green open spaces to address current shortfalls and meet the needs of new residents will need to be provided. This could be achieved through the delivery of well-planned green infrastructure.

Description of potential opportunities for nature recovery in the Southern Magnesian Limestone

ML1 – Maintain, restore, enhance and expand key habitats in this area: Improving the condition of existing deciduous woodlands and extending them where appropriate as significant new woodland creation opportunities are likely to be limited. Including appropriate public access whilst conserving and enhancing grassland resources.

ML2 – Ecological connectivity: Landscape connections such as hedgerows between ancient woodland sites, the use of river corridors and floodplain habitats, field margins and highway verges, to create high quality networks across agricultural land.

ML3 – Farmland: Conservation measures to improve the value of the farmed landscape for small mammals, bats, invertebrates, arable plants, and bird species through habitat recreation.

ML4 – Accessible greenspaces: Habitat creation and enhancement to maximise natural recovery and public access, particularly in areas of disadvantage and green infrastructure deficit. Biodiversity Net Gain could secure environmental enhancements in this area for high development pressures and urban growth.

Benefits from Nature

Agriculture – Containing some of the county's best and most versatile farmland with land graded as very good and good.

Carbon sequestration and storage – The ancient woodland and plantation ancient woodland sites make a valuable contribution to carbon storage and sequestration. Agricultural land may have a limited, current value for carbon storage in soils, yet future regenerative approaches may address this.

Recreation and public health – There are areas with limited access to local semi-natural green spaces. The areas which do exist are important resources for the health and wellbeing of local people.

Tourism – Key sites in the area such as Hardwick Hall and Bolsover Castle provide an existing value for tourism. The delivery of interconnected green spaces using former railway lines asgreenways could boost this tourism offer.

Needwood and South Derbyshire Clayland

33,040 ha

Spotlight: A gently rolling pastoral landscape, with notable parkland and ancient woodland sites.

Overview

Alongside the largely pastoral landscape, localised arable habitats are present, typically on lower valley slopes. Remnants of unimproved pasture and meadows remain. Woodlands are more significant across Needwood. The dense network of small tributary streams provides important wetland habitats.

Habitats

Arable farming is becoming more prominent, associated with cereal cropping.

Most of the **grassland** is improved and modified pasture, with some neutral grassland remaining, despite fragmentation. There are small areas of unimproved pasture.

Hedgerows enclose this mixed farming landscape and can be species rich in areas of early enclosure, made up of holly, hazel and field maple. Areas of late enclosure are predominantly hawthorn.

Woodlands, combined with hedgerow, watercourse and parkland trees present a 'well treed' landscape, despite actual woodland cover being limited. Parkland includes wood pasture and veteran trees, supporting rare species such as the oak polypore fungus.

Water is not prominent and is confined to tributary streams. These corridors contribute to the diversity of wetland habitats including lowland fen.

Most of the area is sparsely settled, creating a deeply rural character. However, the western edge of Derby and the southern edge of Ashbourne have expanded into the area.

DERBYSHIRE County Council

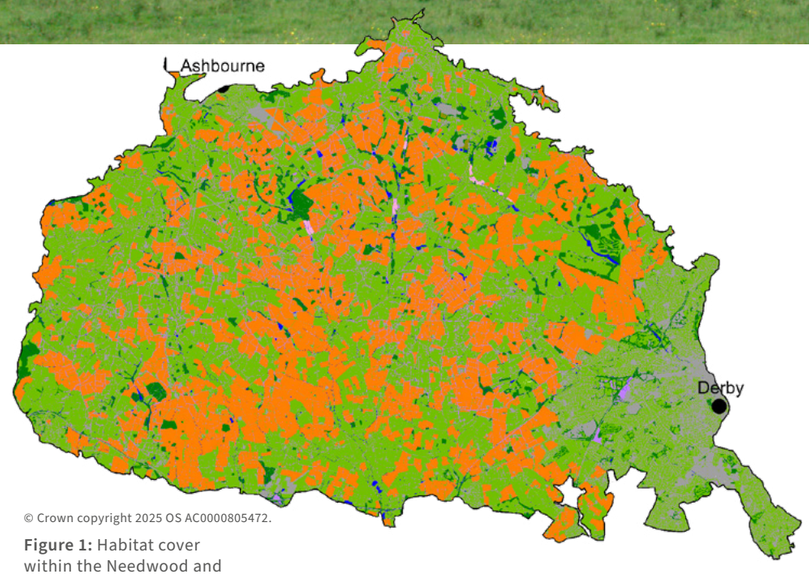


Figure 1: Habitat cover within the Needwood and South Derbyshire Claylands

Habitat types

- Heathland and shrub
- Rivers and lakes
- Woodland and forest
- Urban
- Grassland
- Wetland
- Cropland
- Inland rock outcrop and scree habitats
- Sparsely vegetated land

Key sites for nature

- Statutory designations
- Local wildlife sites
- Irreplaceable habitats

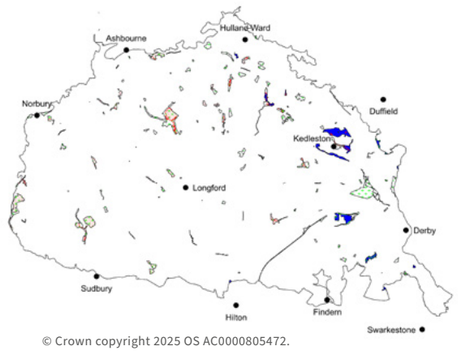


Figure 2: Areas of particular importance for biodiversity within the Needwood and South Derbyshire Claylands

Key Sites for Nature

3% of the area

is protected by international, national and local designations.

- Four National Sites of Special Scientific Interest
- Irreplaceable habitats including:
  - Ancient and semi-natural woodland
  - Ancient replanted woodland
  - Lowland fens
- Seven Local Nature Reserves
- 156 Local Wildlife Sites

The is a general lack of designated sites of ecological interest. However, the area does contain notable parkland and ancient woodland sites with smaller wetlands and grasslands.

Right: Regenerating sand and gravel site near Mercaston

DERBYSHIRE County Council

Needwood and South Derbyshire Claylands

Species

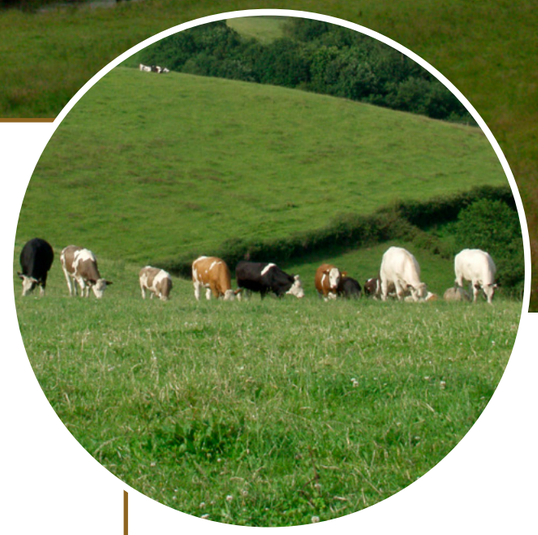
Otters have been recorded along the River Dove and smaller numbers recorded from Markeaton Brook. **Water vole** records have been noted along Markeaton Brook and occasionally in other watercourses. Rich and diverse **deadwood invertebrate** fauna are found in the Kedleston Park SSSI. **White-clawed crayfish** are limited in their occurrence and distribution. There is a strong cluster of records near Markeaton Brook. The population is under threat from non-native crayfish.

Benefits from Nature

Agriculture – The area supports moderate levels of agricultural productivity.

Carbon sequestration – Low levels of carbon sequestration and a risk of the area becoming a net carbon emitter.

Recreation and public health – Outside of Derby City and Kedleston Park, this area has relatively few sites of recreational importance. Communities have generally limited access to semi-natural green space but the rural nature of the area provides good access to the wider countryside.



Land use pressures, constraints and other factors affecting nature recovery

It is unlikely that this area will face significant urban growth pressures. Derby City, for instance, is expected to grow in a southerly direction. Mineral extraction may exert a development pressure.

Description of potential opportunities for nature recovery in the Needwood and South Derbyshire Claylands

CL1 – Maintain, restore, enhance, and expand key habitats in this area: Protecting and enhancing wood pasture, parkland, wetland, and neutral and acid grasslands.

CL2 – Ecological Connectivity: Extending and buffering existing ecological assets and improving connectivity via hedgerows, field margins and highway verges.

CL3 – Woodlands and Trees: Managing existing hedgerow trees and planting of replacements, supported by additional woodland planting in appropriate areas.

CL4 – Farmland: Biodiversity improvements in less productive farmland areas, such as the reversion of improved grasslands to species rich meadows. Nature-based solutions would deliver improved biodiversity and wider benefits from nature.

CL5 – Lowland Heath: There may be suitable opportunities to support lowland heath creation, particularly associated with the restoration of sand and gravel sites around Mercaston and Muggington. Farmland and road verges over suitable substrate could offer other opportunities.

Trent Valley Washlands

18,620 ha

Spotlight: A mixed farming landscape, associated with the floodplains of the River Trent and Dove. Willow pollards, wet woodland and scrub are locally distinctive, sitting alongside sand and gravel pits, which present unique opportunities for nature recovery.

Overview

A flat to gently rolling landscape, including farmland, urban development, transport routes and mineral extraction.

Habitats

Arable farming is mostly down to cereal cropping. **Grassland** is the dominant land use, most of this land is improved and modified pasture or intensively managed grass and clover leys. There are pockets of neutral grassland and areas of unimproved pasture persist along the lower reaches of the Dove Valley and in smaller field enclosures adjacent to the River Trent.

Woodland mainly occurs as fragmented blocks across the area. It is predominantly broadleaf with many riparian species including black poplar.

Open **water** has increased significantly in recent years through the restoration of sand and gravel sites to large, open waterbodies. Many of these are now associated with other habitat types such as wet woodland, reedbeds, wet grasslands, and rush pasture.

When the rivers flood, the adjacent land is turned into a temporary but very different wetland scene.

The Trent and Mersey Canal is an important heritage feature. **Hedgerows** enclose this mixed farming landscape and pockets of dense **scrub** can be found on derelict land.

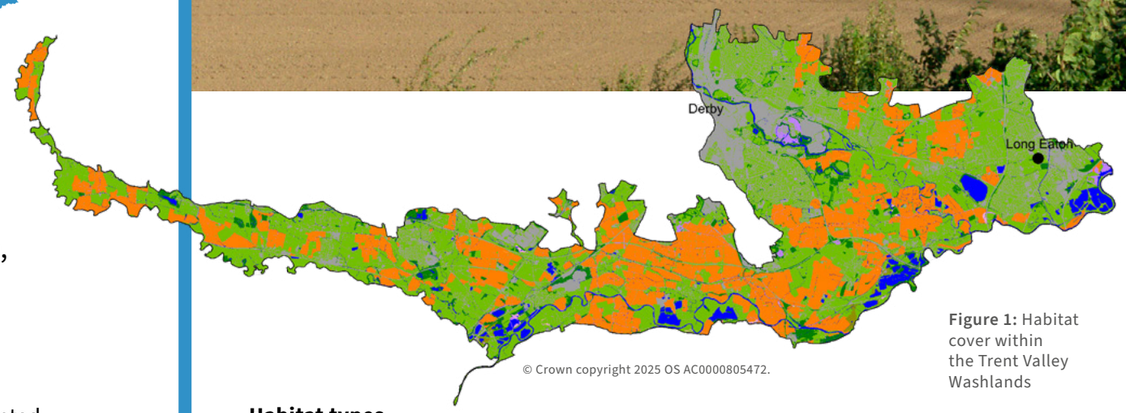


Figure 1: Habitat cover within the Trent Valley Washlands

Habitat types

- Heathland and shrub
- Rivers and lakes
- Woodland and forest
- Urban
- Grassland
- Wetland
- Cropland
- Inland rock outcrop and scree habitats
- Sparsely vegetated land

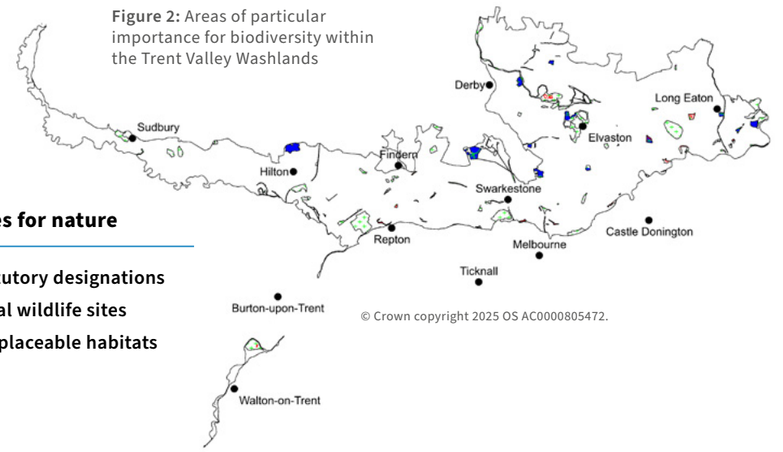


Figure 2: Areas of particular importance for biodiversity within the Trent Valley Washlands

Key sites for nature

- Statutory designations
- Local wildlife sites
- Irreplaceable habitats

Key Sites for Nature

5% of the area

is protected by international, national and local designations.

- Three National Sites of Special Scientific Interest
- Irreplaceable habitats including:
  - Ancient and semi-natural woodland
  - Lowland fens
- 13 Local Nature Reserves
- 133 Local Wildlife Sites

Wetland habitats dominate these designated areas. Local Nature Reserves are concentrated towards the eastern half of the valley.

Above: Reed Warbler bird perched amongst the reeds

Trent Valley Washlands

Species

The Trent Valley is notable for its value to species associated with rivers and riparian habitats. Forming part of the migratory route used by some **bird** species to cross Britain, former gravel pits along the river now provide habitats for breeding and overwintering birds. The Trent Valley offers opportunity for the creation and expansion of riparian woodland habitats which could benefit species like willow tit. Willington is home to the county's only **beavers** which bred for the first time in 2023. The Trent Valley is particularly important for **otter**. The installation of the **fish** passage at Colwich (Nottingham) will boost populations of migratory fish species, including salmon, trout and eels. **Water voles** are more commonly associated with the River Derwent, the Trent and Mersey Canal, the Erewash Canal, and minor watercourses. Remnant populations of **Black Poplar** can be found around and immediately north of Hatton and Hilton.

Left: Part of the trunk of old black poplar tree

Benefits from Nature

Water quality regulation – Water quality in the area is adversely impacted by diffuse pollution, catchment position, and upstream inputs from outside the county. Nature-based solutions in this area could significantly improve quality and flood attenuation.

Recreation and public health – In many areas, residents lack access to semi-natural green spaces. In these circumstances, access to the wider countryside (through the Rights of Way network) will be important.

Tourism – Limited tourism with the potential for enhancement if habitats associated with former mineral working can be restored and include recreational opportunities.

Agriculture – Moderate levels of agricultural productivity across and along the valley.

Land use pressures, constraints and other factors affecting nature recovery

The growth of Derby City will expand into Trent Valley. High levels of residential development may also increase the demand for employment land uses. Both existing and new communities will need access to green and blue infrastructure, and recreational landscapes.

The Trent Valley is an important area for mineral extraction, particularly for sand and gravels. Demand for these materials will be boosted by extensive developments.

The ongoing drive for domestic food production will maintain the need for farming within the valley. Land taken for housing development and mineral extraction could lead to fragmentation of farming units, making some areas less viable to farmers.

Description of potential opportunities for nature recovery in the Trent Valley Washlands

TV1 – Wetlands: Maintaining, restoring and expanding wetland habitats, focusing on floodplain grazing marsh, reedbed, wet woodland, lakes, swamp, and fen habitats. Enhancing ecological connectivity between wetland sites, providing habitats for birds and contributing to a vibrant leisure, recreation and tourism offer.

TV2 – Ecological Connectivity: Increasing the connectivity of other semi-natural habitats particularly alongside new development areas.

TV3 – Rivers, river corridors and other watercourses: Protecting, restoring and enhancing the ecological value of the River Trent and its tributaries to reinstate natural processes, connecting habitats and ensuring action taken is complementary to action up and downstream. Improving fish passage at Sawley for fish migration, designing and restoring sand and gravel sites for habitat creation and connection between the river and its floodplain. Nature-based solutions on land adjacent to watercourses could deliver improved environmental outcomes.

TV4 – Riparian mammals: Managing the river valley for otter and water vole by removing and addressing barriers to their movement and tackling mink populations to support water voles. Supporting the reintroduction and expansion of beaver along the valley.

TV5 – Woodlands and trees: Using large blocks of woodland planting to create new habitat that can add to biodiversity and support wider benefits from nature, alongside large-scale industrial development and mineral working. Opportunities for creation and expansion of riparian woodland habitats including wet woodland in the Trent Valley. Retention and expansion of the black poplar population should also be supported.

TV6 – Restoration of Mineral Sites: Multiple opportunities for habitat creation, public access and connecting people to nature.

Melbourne Parklands

7,560 ha

Spotlight: A rural landscape with large country houses and landscaped parks, providing commanding views.

Overview

A rolling landscape that is intensively farmed for arable crops, with limited semi-natural habitats. The geology has formed many valleys, two of which have been dammed to create reservoirs at Foremark and Staunton Harold. Woodland forms the main ecological value across the area and plays an important role in emphasising estate character.

Habitats

Arable **farmland** comprises mainly cereal crops and is more evident in the north where the terrain is less steep and more gently rolling.

Most of the **grassland** is improved, modified or down to intensive grass and clover leys. Some neutral grassland is present, particularly within and around the Calke parkland. Areas of unimproved pasture remain on the steep slopes with wet soils adjacent to minor streams.

Woodland is a key characteristic of the Melbourne Parklands, with most of the area located in the National Forest. Woodlands typically occur alongside estates, yet ancient semi-natural woodland or replanted woodland on ancient sites are present.

Hedgerows enclose this mixed farming landscape and contain a variety of species including holly and hazel.

Streams are not prominent in the landscape. The two large reservoirs at Foremark and Staunton Harold are important for their populations of resident and migratory wetland birds.

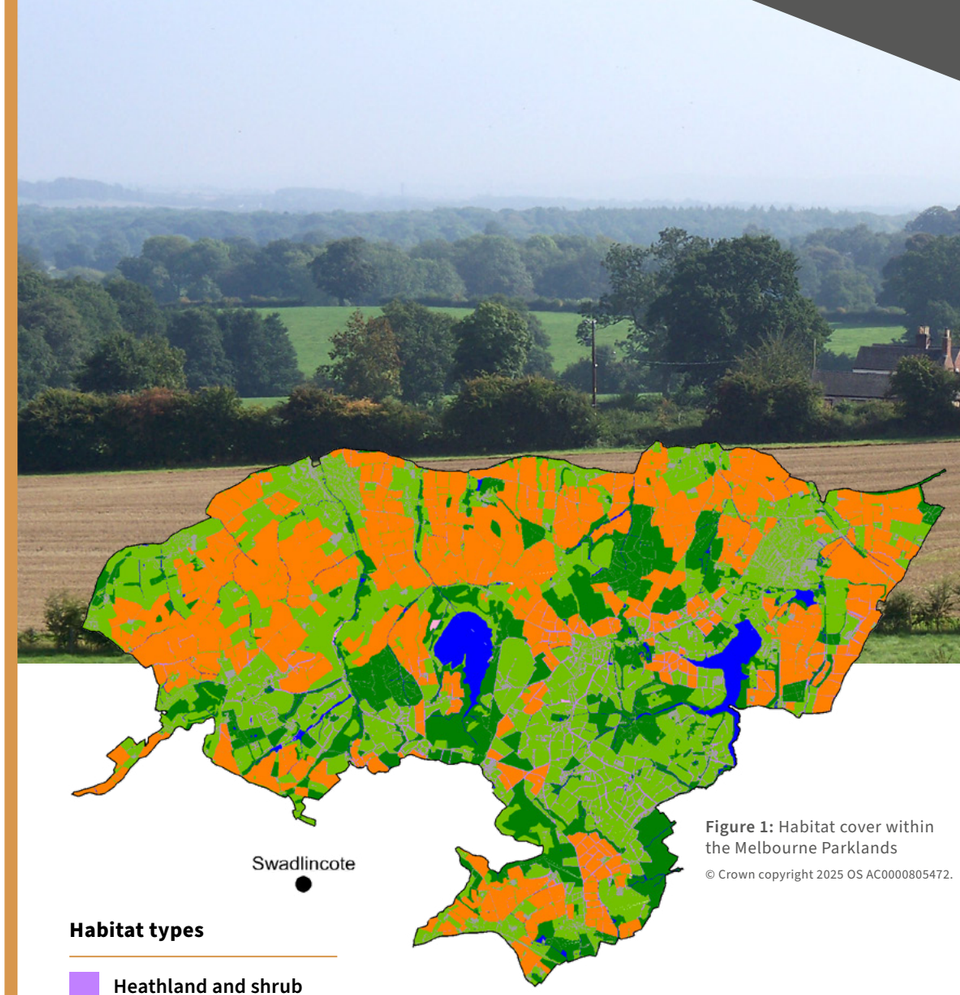


Figure 1: Habitat cover within the Melbourne Parklands

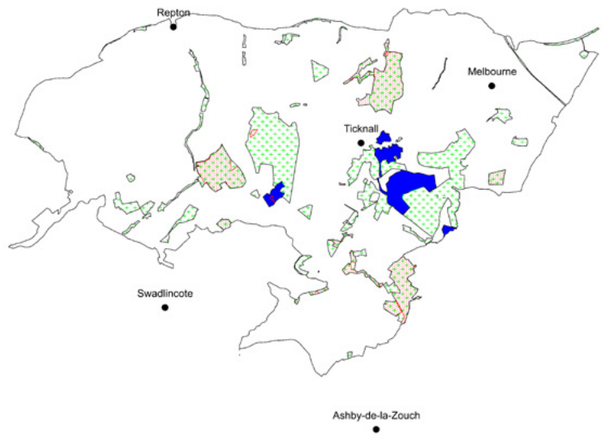


Figure 2: Areas of particular importance for biodiversity within the Melbourne Parklands

Key Sites for Nature

15% of the area is protected by National and local designations.

- Five National Sites of Special Scientific Interest
- Irreplaceable habitats including:
  - Ancient and semi-natural woodland
  - Ancient replanted woodland
  - Lowland Fens
- One National Nature Reserve (Calke Abbey)
- 58 Local Wildlife Sites

Outside of the Dark and South-West Peak, this NCA contains the highest proportion of land identified as 'Areas of Importance for Biodiversity', yet the NCA itself is much smaller.

This NCA contains the highest percentage of land designated as a Local Wildlife Site (across Derbyshire), due to a small number of very large sites such as Foremark Reservoir and Calke Abbey Parkland.

Despite the limited number of SSSIs, these sites contain a broad range of habitats including ancient woodland, wood pasture and veteran trees, calcareous and acid grasslands and a variety of wetland habitats.

Melbourne Parklands

Species

Historic records for protected and notable species including **white clawed crayfish, otter, great crested newts, common lizard** and **water vole**. These records are generally clustered around Calke Abbey and Ticknall Quarries. Calke Abbey and Park is notable for a significant and **diverse deadwood invertebrate assemblage**.Hazel **dormouse** has recently been reintroduced into woodland near Calke Park.

Above: The Staunton Harold reservoir in Derbyshire

Benefits from Nature

Agriculture – High levels of agricultural productivity are supported, particularly in the north of the area.

Water supply – Staunton Harold and Foremark reservoirs are important for water supply in the East Midlands.

Recreation, leisure and tourism – A large number of ecologically interesting sites provide recreation and leisure opportunities and associated health and wellbeing benefits.

Carbon sequestration –Carbon sequestration is significant in larger areas of woodland.

Land use pressures, constraints and other factors affecting nature recovery

The Melbourne Parklands retains its largely rural and undeveloped character and is unlikely to be a focus for significant development in the near future. Sites of ecological value are well used and appreciated by residents, supporting their future management. The National Forest provides a focus for protecting and enhancing established woodlands and mechanisms for creating new woodland.

Description of potential opportunities for nature recovery in the Melbourne Parklands

MP1 – Maintain, restore, enhance, and expand key habitats in this area: Particularly the core, large and strategically important sites in the area such as wood pasture parkland, lowland deciduous woodland, reservoirs, and ancient veteran trees.

MP2 – Woodland and trees: Plantation on ancient woodlands should be the focus of restoration replanting and diversification to improve biodiversity and secure wider environmental benefits. Connectivity between sites could be improved with a focus on creating new habitat around the reservoirs at Foremark and Staunton Harold and the parkland at Calke Abbey. The planting of long-lived tree species should be promoted to replace trees lost to ash dieback.

MP3 – Lowland heath: Whilst not a common habitat in the Melbourne Parklands, certain local conditions are potentially suitable to support lowland heath creation, particularly around areas such as Ticknall, Bretby and northeast of Swadlincote.

MP4 – Farmland: Conservation measures to improve the value of the farmed landscape for small mammals, bats, invertebrates, arable plants, and bird species through habitat recreation.

Leicester and South Derbyshire Coalfield

2,820 ha

Spotlight: A landscape which reflects the industrial legacy of the region, alongside urban and farmland environments.

Overview

Located across South Derbyshire including areas of Hartshorne, Swadlincote and Overseal, it is part of a much wider landscape that extends into north-west Leicestershire. The underlying Coal Measures geology transitions into gentle ridges and shallow valleys. The landscape is predominantly a mixture of farmed, urban and derelict land.

Habitats

Grassland in the area includes areas found within domestic gardens and urban green space. Other grassland exists in improved pasture for silage and haylage production whilst isolated pockets of neutral and acid grassland remain.

Intensive arable **farmland** comprising mostly cereals reflects the generally poor quality of soils.

Swadlincote is the dominant **urban** settlement, pockets of green space emerge from town parks, playing fields and a golf course whilst Swadlincote Woodlands Forest Park provides some interest to wildlife.

The National Forest Initiative has created most of the **woodland** in the area. Pockets of ancient semi-natural woodland do exist, alongside alder and willow trees along streams.

Hedgerows enclose the mixed farming landscape and small amounts of **scrub** are associated with former railway lines. Hedgerows from historic boundaries are a mix of holly, hawthorn, hazel and field maple.

Watercourses in the area are confined to small streams and some localised ponds at Tetron Point.

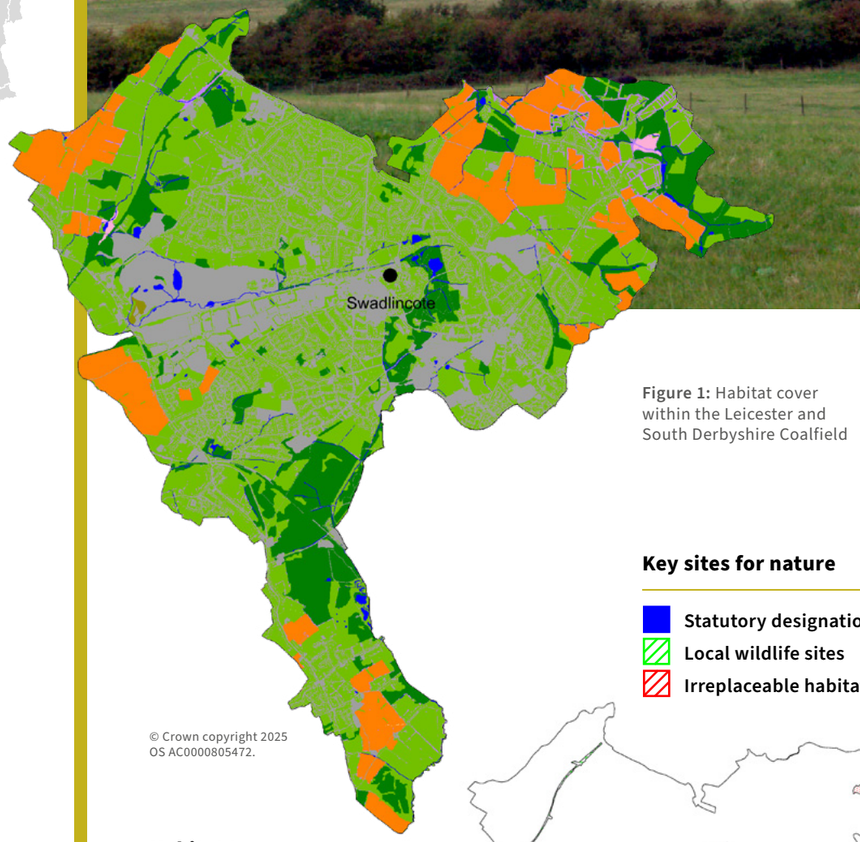


Figure 1: Habitat cover within the Leicester and South Derbyshire Coalfield

Habitat types

- Heathland and shrub
- Rivers and lakes
- Woodland and forest
- Urban
- Grassland
- Wetland
- Cropland
- Inland rock outcrop and scree habitats
- Sparsely vegetated land

Key sites for nature

- Statutory designations
- Local wildlife sites
- Irreplaceable habitats

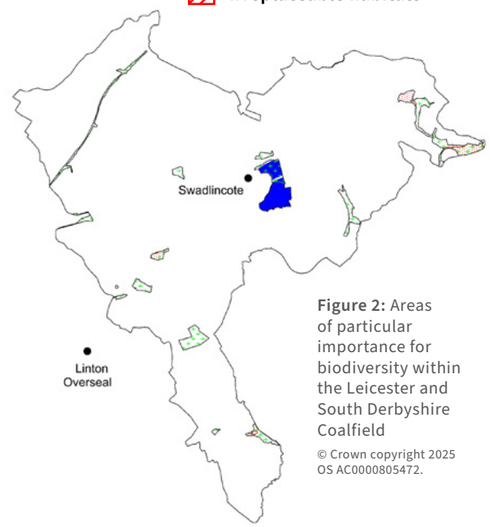


Figure 2: Areas of particular importance for biodiversity within the Leicester and South Derbyshire Coalfield

Key Sites for Nature

The South Derbyshire Coalfield has very few key sites for nature, with only

4% of the area
being protected by international, national and local designations.

- Irreplaceable habitats including:
  - Ancient and semi-natural woodland
  - Lowland fens
- One Local Nature Reserve
- 19 Local Wildlife Sites

Swadlincote Woodlands Forest Park as the sole Local Nature Reserve makes a significant contribution to local accessible semi-natural green space. Local Wildlife Sites are dominated by broadleaved woodland, neutral grassland and open mosaic habitats on previously developed land.

Right: Swadlincote Park

Leicester and South Derbyshire Coalfield

Species

Dingy Skipper has been repeatedly recorded around areas with sparse vegetation associated with former industrial sites or open vegetation in recently planted woodlands. **Great Crested Newts** are frequently recorded in the area, often associated with former and restored colliery sites. **Grass snakes** are recorded around Swadlincote and Overseal.

Above: Common Lizard

Land use pressures, constraints and other factors affecting nature recovery

High levels of development, urbanisation and the continued redevelopment of former industrial sites puts increasing pressure on the natural environment yet poses opportunities.

Description of potential opportunities for nature recovery in the Leicestershire & South Derbyshire Coalfield

SDC1 – Habitat Creation: Creation of new grassland, wetland and particularly woodland as part of the National Forest Initiative. Delivering benefits such as access to semi-natural greenspaces for communities, providing replacement habitats for species at risk of being lost from urban areas, and by improving the ability of species to move through the landscape.

SDC2 – Management of existing woodlands: Many existing woodlands would benefit from positive management to diversify their structure and species composition, and to address ash dieback. Squirrel damage is a significant issue and should be addressed to ensure the long-term health of the young woodland.

Benefits from Nature

Leisure and recreation – The local population benefits from their ability to access semi-natural green spaces.

DERBYSHIRE County Council

Mease/Sence Lowlands

5,920 ha

Spotlight: An area underlain by Mercia mudstones geology, giving rise to a rolling lowland which becomes almost flat around the River Mease, which is an internationally important site outside of the Peak District.

Overview

Predominantly an open agricultural landscape with small groups of trees which provide the main ecological value of the area. The area's productive soils result in the land being used for intensive agriculture whilst several new woodlands and other habitats have been created through the National Forest Initiative.

Habitats

Arable **farmland**, largely cereal cropping, is the dominant land use in the area due to the gentle rolling nature of the landform and generally base-rich soils.

Over half of the **grassland** in the area is improved and modified or temporary grass and clover leys. There are patches of neutral grassland which remain in smaller fields around villages.

Woodland cover is varied across the area but is dominated by more recent planting undertaken through the National Forest Initiative. The area retains an estate influence with small ornamental plantations of species such as chestnut, oak, lime and redwoods. There are remnants of ancient semi-natural woodland.

Hedgerows enclose this mixed arable farmland. They are generally simple thorn boundaries with occasional trees, mostly oak and ash. The hedgerow network is particularly strong in the central belt but is fragmented elsewhere.

The **River** Mease is important for a range of aquatic plants and animals, particularly for its freshwater fish communities that include spined loach and bullhead.

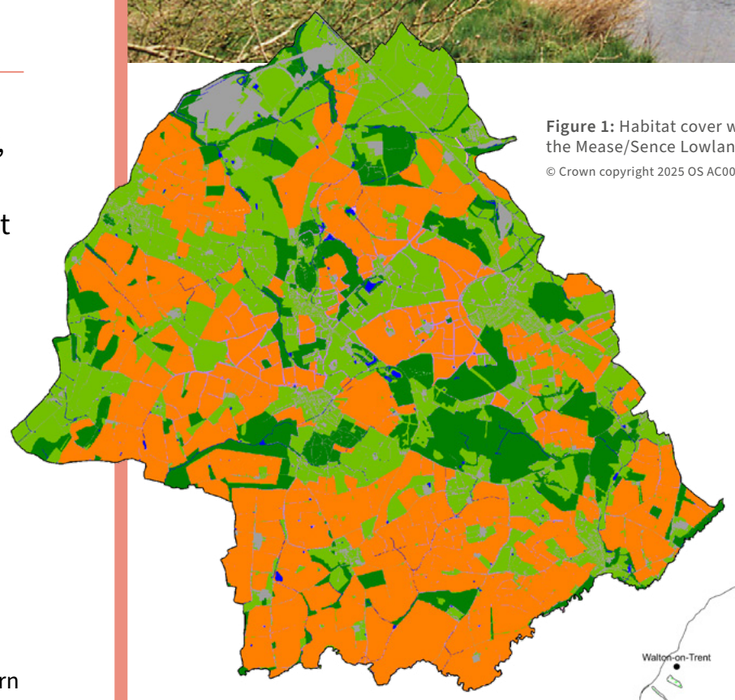


Figure 1: Habitat cover within the Mease/Sence Lowlands

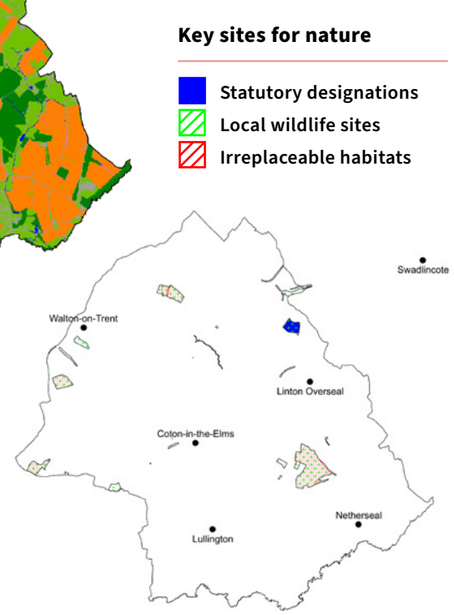


Figure 2: Areas of particular importance for biodiversity within the Mease/Sence Lowlands

Key Sites for Nature

2% of the area
is protected by international, National and local designations.

- One International Special Area of Conservation (River Mease)
- One National Site of Special Scientific Interest (River Mease)
- Irreplaceable habitat including:
  - Ancient and semi-natural woodland
  - Ancient replanted woodland
  - Lowland fens
- One Local Nature Reserve
- 21 Local Wildlife Sites

Despite its rural nature, this area has some of the lowest levels of recognised ecological interest in the county.

Right: Village Estate Farmlands

Mease, Sence Lowlands

Species

The River Mease is especially important for its freshwater **fish** communities, including nationally and internationally important populations of spined loach and bullhead.

Benefits from Nature

Agriculture – Agricultural land is a mixture of grade two and grade three, exhibiting moderate to high levels of productivity.

Carbon Sequestration – Woodland habitats actively store carbon; however other parts of the landscape are likely to be net emitters of carbon.

Leisure and recreation – Populations are relatively well served with access to semi-natural green space. The sparse levels of settlement across the area means relatively few people receive this benefit.

Land use pressures, constraints and other factors affecting nature recovery

This area has experienced limited urban growth and is unlikely to see extensive development pressure in the future. Redevelopment at the scale of the Drakelow power station site is unlikely to be repeated in the area. Great care is being taken to ensure that housing growth within South Derbyshire does not affect water quality.

Description of potential opportunities for nature recovery in the Mease/Sence Lowlands

MSL1 – Rivers, river corridors and other watercourses: Protecting and enhancing the water quality of the River Mease. Efforts should ensure the stretch of the river through Derbyshire maintains linkages with up and downstream sections. Action should be coordinated with neighbouring LNRS authorities.

MSL2 – Woodland and Trees: Further planting and positive management of existing woodland to diversify their structure and species composition, and to address ash dieback. Squirrel damage is a significant issue and should be addressed to ensure the long-term health of the young woodland.

MSL3 – Ecological Connectivity: Restoring and reinstating hedgerows, including hedgerow trees. Promoting connectivity between woodlands in the area.

MSL4 – Farmland: Conservation measures to improve the value of the farmed landscape for small mammals, bats, invertebrates, arable plants, and bird species through habitat recreation.

DERBYSHIRE County Council

The Urban Environment

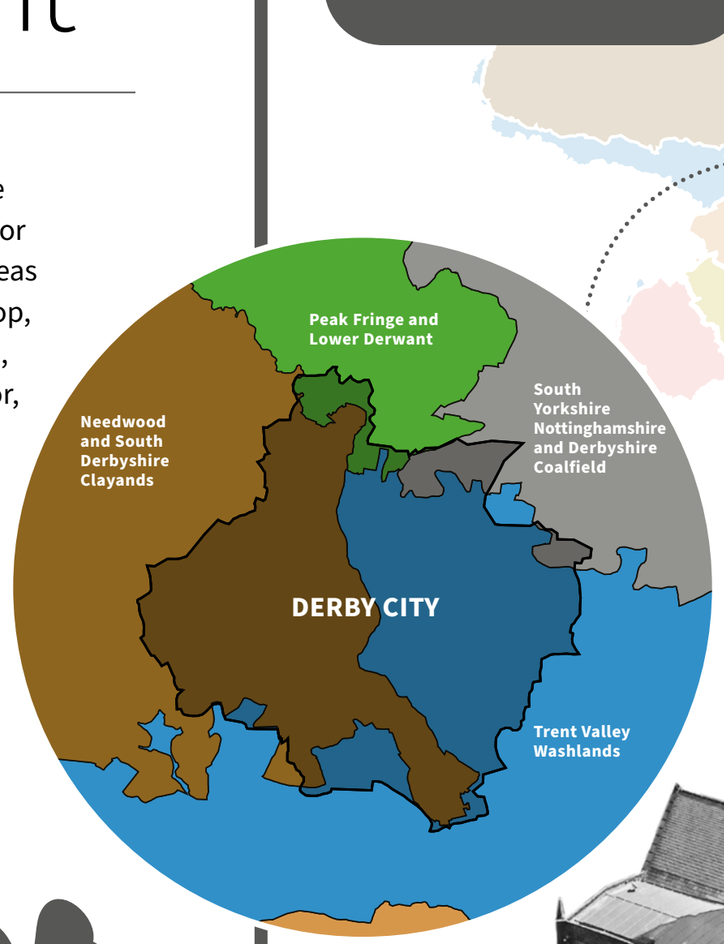
The urban environment can provide valuable spaces for wildlife, providing wider benefits for people and the economy. The main urban areas include the city of Derby, Chesterfield, Glossop, Buxton, Matlock, Dronfield, Staveley, Clowne, Bolsover, Shirebrook, Alfreton, Ripley, Heanor, Ilkeston, Long Eaton and Swadlincote.

Derby City

Spotlight: As the only city in Derbyshire, Derby extends across several National Character Areas, which combine to give a unique character and landscape.

Overview

Derby is a pioneering, industrial city that has undergone much expansion and sits across the Needwood and South Derbyshire Claylands, the Trent Valley Washlands, the Peak Fringe and Lower Derwent area, and the Derbyshire Coalfield. The Derwent Valley Mills World Heritage Site extends into the city.



Key sites for nature

- Statutory designations
- Local wildlife sites
- Irreplaceable habitats

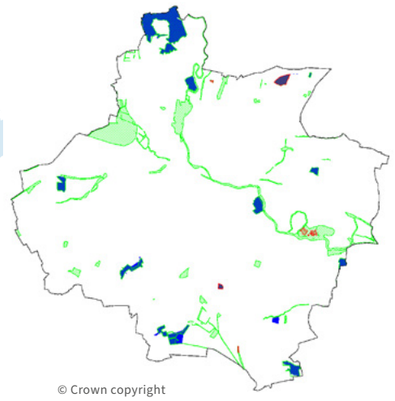


Figure 1: Areas of particular importance for biodiversity within the Derby City

Clockwise: Church of St Mary and All Saints, Chesterfield, Elvaston Castle

Key Sites for Nature

8% of the area

is protected by international, national and local designations.

- One National Site of Special Scientific Interest (Boulton Moor)
- Irreplaceable habitat including:
  - Ancient and semi-natural woodland
  - Lowland fens
- 11 Local Nature Reserves
- 69 Local Wildlife Sites

The Local Nature Reserves are quite sizeable and form part of the green infrastructure network of the city. The smaller Local Wildlife Sites protect a range of habitat types including woodland, grassland and wetland as well as habitat mosaics often associated with previously developed land.

Derby City

Species

Migratory **fish** species benefit from the removal of barriers to migration on the Rivers Trent and Derwent. Records for **otter** are strongly tied to the River Derwent corridor. **Water vole** have been recorded along the Markeaton Brook all the way into the city with isolated records elsewhere. **White clawed crayfish** are historically well recorded from Markeaton Brook and park although this population is severely threatened by signal crayfish. White clawed crayfish have also been recorded along the River Derwent. There are records for **bats** across the city. **Peregrine falcons** nest on Derby Cathedral and are a much-loved example of wildlife in the heart of the city.

Land use pressures, constraints and other factors affecting nature recovery

As a highly developed and urbanised area, green spaces are already constrained and experience significant pressure from recreational demands and environmental pressures such as pollution etc.

In recent years, urban expansion has been channelled southwards of Derby City. The continued push for urban growth, new housing and employment will exert further pressure on undeveloped land within and around the city which may impinge on some of the remaining habitats in the area and on some of the green space. Recreational demand is also likely to increase.

Description of potential opportunities for nature recovery in Derby City

DE1 – Protection, conservation, and enhancement of existing high-quality sites: Managing existing Local Nature Reserves, large or strategically located parks, Local Wildlife Sites, areas of interconnected habitats along river corridors and other core green infrastructure assets to improve their biodiversity value. Retaining an open mosaic habitat resource to compensate for brownfield sites lost to development.

DE2 – Rivers, streams, and watercourses: The ecological function and connectivity of the River Derwent corridor should be protected and enhanced through positive management and expansion and reconnection of complementary habitats.

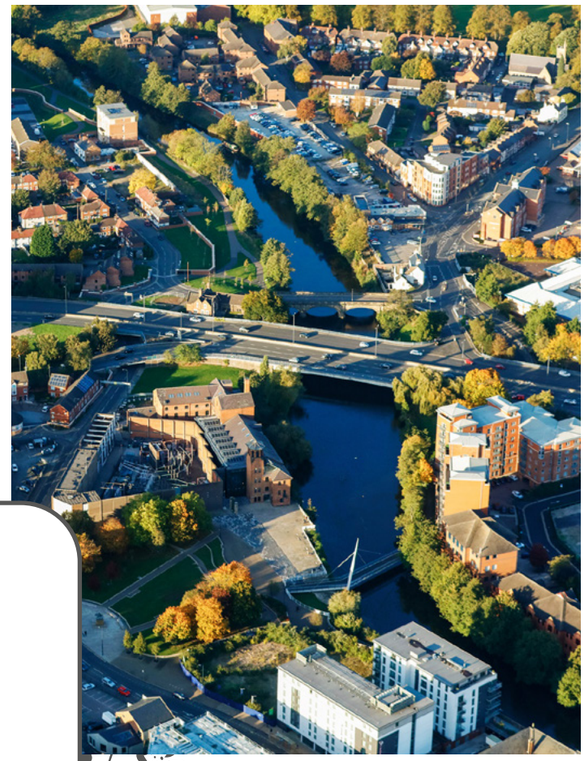


Photo by Dave Farmer at easyphotography.co.uk

DE3 – Accessible semi-natural greenspaces: Maximising both nature recovery and public access benefits through habitat creation and enhancement, with a focus on areas of deprivation and/or green infrastructure deficit. Biodiversity Net Gain could be utilised to secure environmental enhancements.

DE4 – Ecological connectivity: Enhancing ecological connectivity and reducing the impacts of climate change to support biodiversity in parks and other green infrastructure assets. Significant and strategically located ecological enhancement of 'green wedges' should be considered. In more confined areas, solutions such as green roofs and living walls can be considered.

DE5 – Street trees: Introducing nature into the urban environment and providing ecological connectivity even in heavily developed areas, which will provide wider benefits such as shading and urban cooling, removal of pollution and contribution towards clean air.

DE6 – Species: Conserving and enhancing populations of protected and notable species, ensuring that they can persist and migrate through the city. Work should also focus on species which are associated with Derby's urban environment such as swifts, bats and peregrines.

Benefits from Nature

The urban character of Derby City means it does not perform strongly for ecosystem services. Larger green spaces do provide some benefits such as natural flood management or carbon storage depending upon the land use. The largest benefit associated with green space is public access and opportunities for recreation which has wider health and wellbeing benefits. However, many of these green spaces are quite small or are amenity spaces which do not offer semi-natural habitats.

Derby's 13 Green Wedges provide separation between the different neighbourhoods and land uses within the city whilst acting as a valuable, uninterrupted link to the open countryside.

Potential opportunities for nature recovery in Other Urban Areas

Opportunities for nature recovery in Other Urban Areas align well to those listed for Derby City, as follows:

- U1 – Protection, conservation, and enhancement of existing high-quality sites
- U2 – Rivers, streams and watercourses
- U3 – Accessible semi-natural greenspaces
- U4 – Ecological Connectivity
- U5 – Street trees
- U6 – Species

Highway and Transport Infrastructure

Several important, strategic road and railway corridors have impacted upon Derbyshire's natural environment through habitat loss or severance. However, in agricultural landscapes such as the White Peak and Magnesian Limestone plateau, road verges could contribute to the habitat network and connectivity, through sympathetic management. Former railway corridors can also be enhanced as green infrastructure assets, providing public access and habitat connectivity.

Description of potential opportunities for nature recovery across the transport and highway network

T1 – Ecological connectivity: Identifying and addressing ecological severance caused by major transport infrastructure offers great potential to reconnect species across landscapes. Road verges and other land alongside transport infrastructure offers significant potential to enable ecological connectivity, this could be achieved by modifying existing management practices to enable biodiversity to recover.

T2 – Creation of new habitats: New transport infrastructure and/or new urban development offers opportunities to create verges and other land which will benefit biodiversity. This can be most successful if both ecological connectivity and future management requirements are considered and planned at the outset.

DERBYSHIRE County Council

Nature Recovery Priorities

Priorities for nature recovery have emerged following a long period of development, iteration and refinement with partners. These Priorities inform the measures (actions) required to support nature recovery and other ecosystem services across Derbyshire. Priorities and measures were set to achieve bigger, better, more, and more connected and protected spaces for nature to thrive, and deliver National Environmental Objectives set by government. Our Priorities focus on the protection and enhancement of our most valuable and irreplaceable habitats and most threatened species. In this section of the summary document we set out those priorities under broad habitat themes and in relation to species.

This section provides a summary of the Priorities established in the Strategy. Further information, including the full list of measures that will deliver on these priorities are explained in section 4 of the full LNRS document on our website.

Upland Moorland and Lowland Heath

The range of benefits provided by the Peak District peatlands makes them highly important. The deep peaty soils provide protected blanket bog, heathland habitats which support specialist bird species, and are essential for carbon capture and storage, water management, and recreational space. These areas must be protected and enhanced as their opportunities for expansion are more limited due to the specific physical conditions these habitats need. There will be opportunities for creating complimentary habitats around the moorland fringe to assist in their protection whilst providing other benefits.

Upland Moorland and Lowland Heath priorities:

- Safeguard and improve the condition of upland moorland habitats (including a mosaic of upland heath, blanket bog and associated grassland, wetland, scrub and trees) and its transitional fringe, including for the benefit of associated breeding birds and other dependent species.
- Expand the upland moorland habitats (including a mosaic of upland heath, blanket bog and associated grassland, wetland, scrub and trees) and its transitional fringe, into appropriate areas where conditions allow, providing expanded habitat for breeding birds and other dependent species.
- Improve the condition of upland peatland to support ecological functionality and increase carbon sequestration, natural flood management and water quality benefits.
- Lowland heathland in Derbyshire is safeguarded and well managed, and the resource is expanded wherever appropriate.

Woodlands and Trees

Woodlands and trees support a rich diversity of species and provide benefits across Derbyshire, including carbon capture and storage, natural flood management, improved air quality, timber production, and recreational opportunities. Parts of Derbyshire are particularly rich in irreplaceable ancient semi-natural woodland and areas to the south of the county are becoming more wooded from the National Forest project. Derbyshire's Heartwood Community Forest initiative will further this trend in the east of the county. The protection, management, enhancement and expansion of this habitat will help to address the impacts of climate change and enhance the wellbeing of residents.

Woodlands and Trees priorities:

- Ancient woodland, historic wood pasture parkland and veteran trees are safeguarded, managed and in good ecological condition.
- Existing woodland is well managed and better for wildlife.
- New woodland creation delivers more, bigger, and better-connected woodland, maximising ecosystem service benefits.
- Increase trees in the wider landscape, including field trees, fruit trees, hedgerow trees and watercourse trees, and agroforestry especially where they can reinforce the local character as well as contributing to biodiversity.
- Trees in the wider landscape are positively managed, and ancient and veteran trees are safeguarded.
- Urban trees become more common throughout towns and cities, for amenity, urban shading, and air quality benefits as well as biodiversity.

Grassland

Many grasslands in Derbyshire have been lost to modern, more productive agricultural practices. This has resulted in habitats that are often fragmented and isolated. Grasslands are important for a range of plant and animal species, some of which are now becoming endangered. Protecting, enhancing, expanding and creating the habitat to develop a more connected network will boost biodiversity. Additional grassland habitat will provide wider benefits such as improving agricultural productivity through more pollinators, better soil protection, buffering the effects of diffuse pollution, and create beautiful landscapes that people visit, which promotes cultural connections to the land.

Grassland priorities:

- Safeguard and enhance high quality and species rich grassland habitats including unimproved grassland, species rich grassland and meadows, and calaminarian grassland (grassland on lead spoil).
- Existing grasslands are managed, restored and enhanced to increase biodiversity (including pollinators and other invertebrates), improve resilience to climate change, and maximise wider environmental benefits such as natural flood management or carbon sequestration.
- There is more species-rich and semi-natural grassland, which is more diverse, larger and better connected.

Rivers, river corridors and other watercourses

Watercourses are vital in supporting aquatic habitats and species, as well as providing clean water for human consumption. Riverside habitats play a key role in natural flood management and water purification. Flooding has been a major issue in recent years. By improving rivers along their length through removing barriers to species migration and better connect watercourses to the wider catchment, resilience to flooding can be improved alongside diversified habitats, improved water quality, and enhanced recreational opportunities.

Rivers, river corridors and other watercourses priorities:

- Improve and restore connectivity of river corridors to restore natural processes and support the free movement of in-channel and riparian species.
- Improve connectivity between watercourses and their floodplains to restore dynamic natural processes, reduce flood risk and create high quality semi-natural riparian habitats.
- Improve and increase the biodiversity value of reservoirs and canals, their associated habitats and surrounding land, whilst safeguarding their role in water supply, transport and recreation.
- Improve the water quality of rivers and watercourses.

Farmland

Derbyshire continues to be a rural county and retains large areas of highly productive farmland. Stock rearing is prevalent within the Peak District and its fringes, and mixed arable farmland is more common to the east and south of the county. Agricultural habitats support a range of wildlife, particularly when managed alongside sustainable farming practices to increase food security and provide economic benefits to local communities. Protecting, enhancing and connecting farmland creates more space for nature, improves soil quality and supports pollinators.

Farmland priorities:

- Improve ecological connectivity through the farmed landscape.
- The farmed landscape is more favourable and permeable to wildlife, particularly plants, pollinators and invertebrates, and farmland birds.
- Land use practices are modified to avoid adverse impacts on the wider environment, including freshwater habitats, air quality, and soil health.

Wetlands

Beyond the wet blanket bogs of the Peak District, Derbyshire has other wetland habitats. These are especially evident in coalfield landscapes, often associated with former colliery lagoons or subsidence flashes caused by former underground coal mining, and along the Trent Valley due to sand and gravel extraction. Many of these wetlands can be isolated but can provide valuable habitat in often fragmented landscapes. These habitats can be supported through protecting, enhancing, and buffering existing sites as well as creating new wetlands to connect the wetland network, particularly using sustainable urban drainage schemes as part of new urban development.

Wetlands priorities:

- Safeguard and enhance wetland habitats including ponds, lowland fen, swamp, marsh, reedbed etc.
- Existing wetlands are managed and enhanced to support greater levels of biodiversity, for example for amphibians and invertebrates.
- The wetland resource is increased, connected, and existing sites are extended and buffered through the creation of new semi-natural wetlands.

Urban Environment and Infrastructure

Protecting, enhancing and linking urban habitats can contribute to nature recovery and help connect urban areas to their surrounding countryside for the benefit of its residents. Public health benefits can be gained through greater access to natural green space which can also contribute to climate resilience through better natural flood management and by reducing the urban heat effects. Existing environmental initiatives such as the National Forest and Heartwood Community Forest will be key mechanisms for connecting people with nature. Road and other transport networks criss-cross the county and create barriers to habitat connectivity, but there are opportunities to increase these connections, especially when applied alongside other measures in the wider landscape.

Urban environment and infrastructures priorities:

- Urban environments become more biodiverse and permeable to wildlife.
- Urban wildlife species are supported, particularly where those species are in need of conservation action.
- Habitat creation and enhancement delivers for nature recovery and wildlife whilst maximising opportunities to deliver an improved network of locally appropriate, accessible, multifunctional green spaces, for the benefit of people.
- Roads and other transport networks contribute positively to biodiversity.

People and Wildlife

Through better education, developing more opportunities for people to access and engage with wildlife, and working collaboratively with other sectors to create partnerships, best practices can be shared to deliver benefits for nature across Derbyshire.

People and wildlife priorities:

- People across Derbyshire are better informed about and more engaged with the natural environment, through education and awareness raising activities for the benefit of nature.
- People have more opportunities to actively engage with the natural environment, supporting and delivering nature recovery in their area.
- Promote the sharing of knowledge, information, and best practice to enable better stewardship and effective nature recovery.
- Safeguard high quality habitats and sensitive species by reducing the impact from people and managing visitor pressure.

Species and Species Assemblages

The habitat-based Priorities will benefit many species by delivering a larger and more robust habitat network consisting of bigger and better managed sites for nature recovery, creating new areas of habitats and improving habitat connectivity across Derbyshire and beyond.

This improved habitat network will help to halt the decline in species abundance and should deliver increased species abundance over time. However, where species are at risk of extinction within England, additional action is needed to promote their recovery.

Our species Priorities were identified following the Natural England advice and methodology for addressing species recovery in the LNRS. This led to the detailed review of more than 750 species of interest, resulting in a 'long-list' of 477 species of conservation interest known to occur in Derbyshire. From this, a shortlist of 199 potential priority species for Derbyshire were identified – these are the species of conservation interest that the Derbyshire LNRS can best support. Finally, an assessment was undertaken to identify the highest priority species for inclusions in the LNRS.

This includes:
Species Assemblages: Species that have been grouped together according to their conservation requirements.

Priority Species: Species that need bespoke conservation actions.

Species Reintroduction Priorities: Species not currently present in the wild in Derbyshire, but have the greatest potential to be reintroduced.

Priority Species

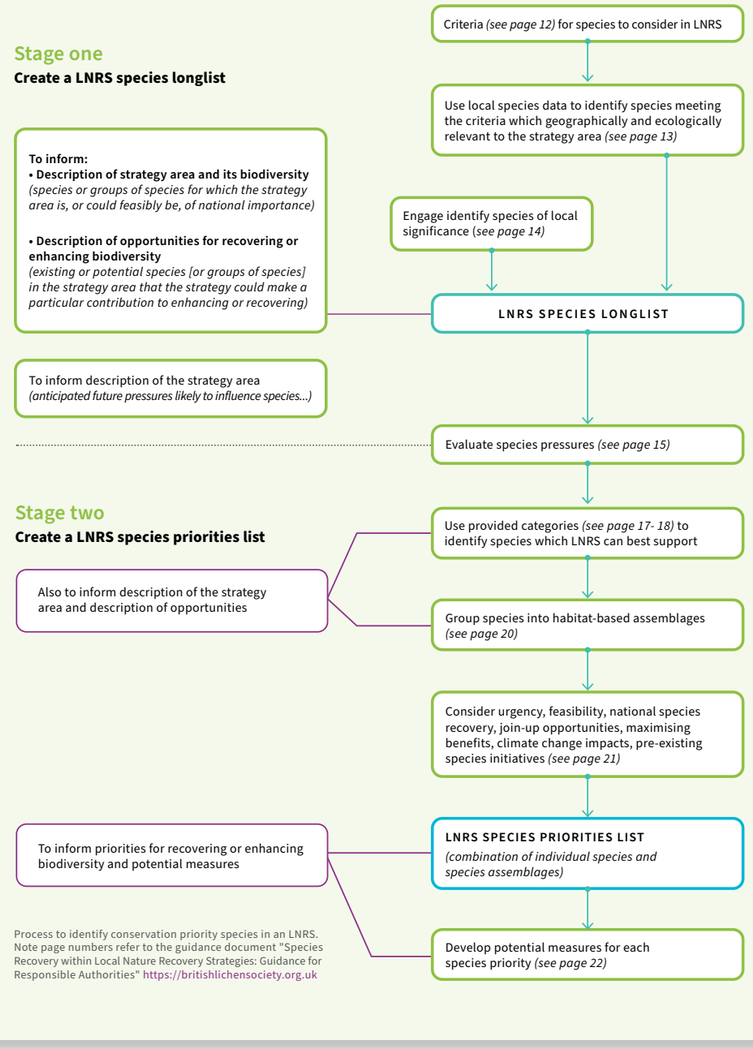
- **Adder** *(Vipera berus)*
- **Black Poplar** *(Populus nigra ssp. Betulifolia)*
- **Common Toad** *(Bufo bufo)*
- **Hedgehog** *(Erinaceus europaeus)*
- **Hen Harrier** *(Circus cyaneus)*
- **Leisler's Bat** *(Nyctalus leisleri)*
- **Ring Ouzel** *(Turdus torquatus)*
- **Water Vole** *(Arvicola amphibius)*
- **White-clawed Crayfish** *(Austropotamobius pallipes)*
- **White-letter Hairstreak** *(Satyrium w-album)*
- **Willow Tit** *(Poecile montanus)*

Species Reintroductions

- **Beaver** *(Castor fiber)*
- **Pine marten** *(Martes martes)*
- **Black grouse** *(Lyrurus tetrix)*
- **Red-backed shrike** *(Lanius collurio)*

Species Assemblages

- **Deadwood species assemblage** *(16 species)*
- **Grassland fungi** *(20 species)*
- **Threatened grassland flora and fauna** *(35 species)*
- **Threatened wetland flora and fauna** *(22 species)*
- **Farmland wader assemblage** *(curlew, snipe, lapwing, redshank)*
- **Mixed farming bird and plant assemblage** *(24 species)*
- **Urban bird assemblage** *(4 species)*
- **Landscape mosaic assemblage** *(18 species)*

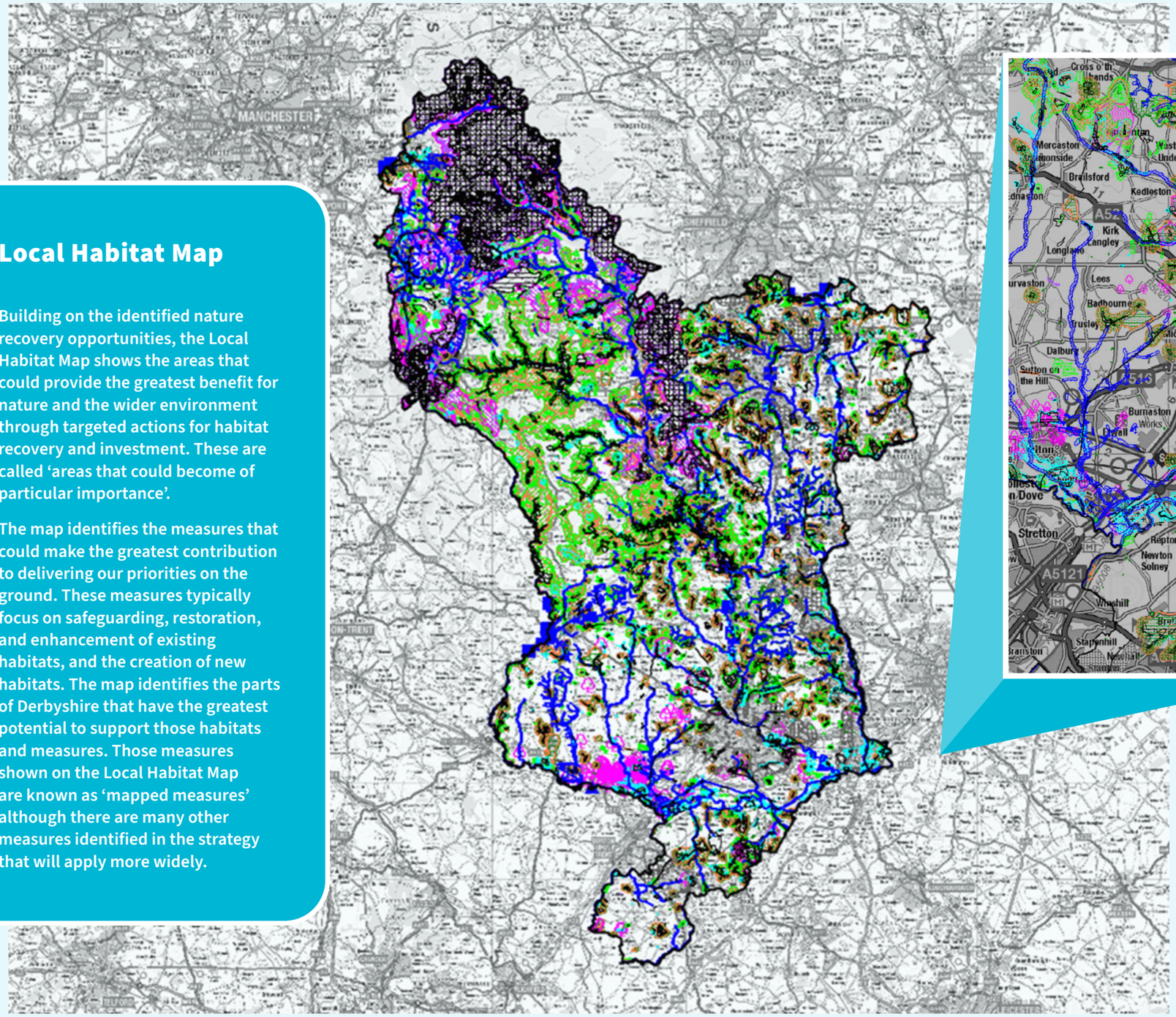


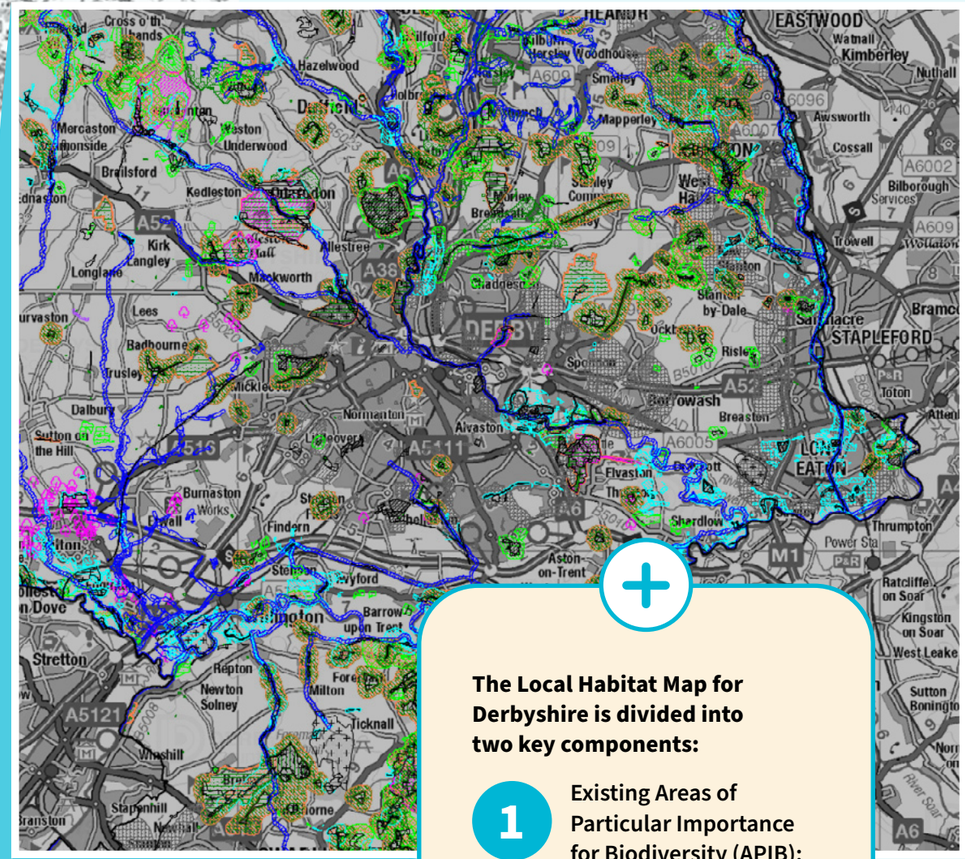
Process to identify conservation priority species in an LNRS

Local Habitat Map

Building on the identified nature recovery opportunities, the Local Habitat Map shows the areas that could provide the greatest benefit for nature and the wider environment through targeted actions for habitat recovery and investment. These are called 'areas that could become of particular importance'.

The map identifies the measures that could make the greatest contribution to delivering our priorities on the ground. These measures typically focus on safeguarding, restoration, and enhancement of existing habitats, and the creation of new habitats. The map identifies the parts of Derbyshire that have the greatest potential to support those habitats and measures. Those measures shown on the Local Habitat Map are known as 'mapped measures' although there are many other measures identified in the strategy that will apply more widely.





The Local Habitat Map for Derbyshire is divided into two key components:

1 **Existing Areas of Particular Importance for Biodiversity (APIB):** This mapping shows those areas that are already recognised for their importance for biodiversity. It includes designated sites and areas of irreplaceable habitat.

2 **Areas that Could Become of Particular Importance (ACB):** This mapping shows the areas that have been prioritised for habitat creation, enhancement, or management.

Mapping data can be explored through our LNRS website by following this link

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For more information please visit **derbyshirenaturerecovery.co.uk**