



## Introduction

As part of Natural England's responsibilities as set out in the Natural Environment White Paper<sup>1</sup>, Biodiversity 2020<sup>2</sup> and the European Landscape Convention<sup>3</sup>, we are revising profiles for England's 159 National Character Areas (NCAs). These are areas that share similar landscape characteristics, and which follow natural lines in the landscape rather than administrative boundaries, making them a good decision-making framework for the natural environment.

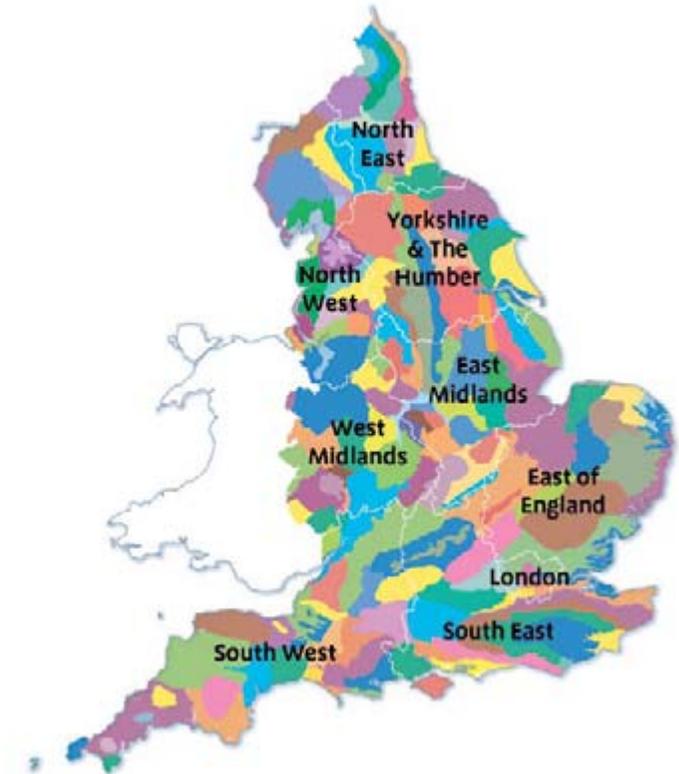
NCA profiles are guidance documents which can help communities to inform their decision-making about the places that they live in and care for. The information they contain will support the planning of conservation initiatives at a landscape scale, inform the delivery of Nature Improvement Areas and encourage broader partnership working through Local Nature Partnerships. The profiles will also help to inform choices about how land is managed and can change.

Each profile includes a description of the natural and cultural features that shape our landscapes, how the landscape has changed over time, the current key drivers for ongoing change, and a broad analysis of each area's characteristics and ecosystem services. Statements of Environmental Opportunity (SEOs) are suggested, which draw on this integrated information. The SEOs offer guidance on the critical issues, which could help to achieve sustainable growth and a more secure environmental future.

NCA profiles are working documents which draw on current evidence and knowledge. We will aim to refresh and update them periodically as new information becomes available to us.

We would like to hear how useful the NCA profiles are to you. You can contact the NCA team by emailing [ncaprofiles@naturalengland.org.uk](mailto:ncaprofiles@naturalengland.org.uk)

## National Character Areas map



<sup>1</sup> The Natural Choice: Securing the Value of Nature, Defra (2011; URL: [www.official-documents.gov.uk/document/cm80/8082/8082.pdf](http://www.official-documents.gov.uk/document/cm80/8082/8082.pdf))

<sup>2</sup> Biodiversity 2020: A Strategy for England's Wildlife and Ecosystem Services, Defra (2011; URL: [www.defra.gov.uk/publications/files/pb13583-biodiversity-strategy-2020-111111.pdf](http://www.defra.gov.uk/publications/files/pb13583-biodiversity-strategy-2020-111111.pdf))

<sup>3</sup> European Landscape Convention, Council of Europe (2000; URL: <http://conventions.coe.int/Treaty/en/Treaties/Html/176.htm>)

## Summary

Tyne and Wear Lowlands National Character Area (NCA) is an area of gently undulating or rolling land, incised by the valleys of the major rivers and their tributaries. It is densely populated and heavily influenced by urban settlement, industry and infrastructure. Between settlements there are wide stretches of agricultural land.

The undulating land and broad valleys of the Tyne and Wear Lowlands are underlain almost entirely by Coal Measures rocks of Upper Carboniferous age. Mineral extraction has played a considerable role in the area and the legacy of coal mining remains evident in the landscape, although much restoration has occurred in recent years. Spoil heaps have been restored to pastures, mixed/coniferous plantations, amenity ponds and lakes (former open cast mines) and accessible green spaces such as country parks, and new networks of footpaths and cycle routes have been created along former wagonways.

Newcastle upon Tyne and the surrounding settlements cover a large area in the north of the NCA. Newcastle lies on the site of the Pons Aelius, a Roman fort on Hadrian's Wall, at a strategic crossing point of the River Tyne. Hadrian's Wall, which extends north-west from this NCA, is a World Heritage Site and the Hadrian's Wall Path National Trail provides recreational opportunities for visitors and local people. During the Industrial Revolution, engineering, mining, ship-building and chemical industries grew along with the populations of Newcastle upon Tyne, Gateshead and Tynemouth.

The major settlements in the NCA are distinctive. On the southern bank of the Tyne, Newcastle upon Tyne and Gateshead are linked by a series of dramatic

bridges, including the Tyne, High Level and Gateshead Millennium bridges. The historic centre of Durham is located on a prime defensive site, high up on a bluff in the middle of a tight, incised meander on the River Wear. The castle, cathedral and historic centre combine to form an historic landscape which has been designated a World Heritage Site.

As the settlements expanded, semi-natural habitats became fragmented. Sparse, lowland mixed deciduous woodland is the largest semi-natural habitat, sometimes strongly contributing to sense of place, such as the steep-sided, wooded river valley of the Wear in Durham. Although limited in extent, the Site of Special Scientific Interest (SSSI) known as Waldridge Fell is the largest and most diverse lowland heathland in the north-east of England.

In the east of the NCA, there is a small coastal area bordering the Tyne as it flows out into the sea. Sandy beaches backed by sea cliffs are found at Tynemouth and there are fragmented intertidal habitats along the heavily defended Tyne estuary. This habitat supports many wading birds, and is important for otters and migratory salmon. Part of the coastline in North Tyneside is a designated Ramsar site, an SSSI and a Special Protection Area

**Click map to enlarge; click again to reduce.**

as it supports nationally important numbers of wintering shore birds and the Tynemouth to Seaton Sluice SSSI is a fine example of Coal Measures strata in Great Britain. Hard rock headlands and foreshore outcrops occur in between defended beach frontages and Tyneside is a major port for commercial fishing and a sea ferry terminal. The coast is also popular with visitors for beach use, watersports and walking.

The rivers Tyne and Wear contribute a strong sense of landscape character to the area. These major catchments supply public water for large settlements such as Newcastle upon Tyne and Gateshead and the headwaters emerge in the North Pennines NCA. Water quality is affected by pollution from former mining activity and diffuse pollution from agriculture. Flood risk occurs during heavy rainfall, emerging from rapid water flow over moorland in upland areas such as in the North Pennines NCA.



Wooded river valleys are a key characteristic of Tyne and Wear Lowlands.

## Statements of Environmental Opportunity

**SEO 1:** Reverse the fragmentation of semi-natural habitats due to the industrial and urban expansion of Tyneside by extending, creating and linking habitats in rural areas, developing or regenerating urban green spaces/urban fringe and protecting brownfield sites with high biodiversity interest.

**SEO 2:** Enhance and manage the Tyne and Wear river network and Tyneside coastal area to improve water quality and reduce flood risk, and to mitigate the effects of climate change.

**SEO 3:** Conserve and enhance the network of green infrastructure – broadleaved woodlands characteristic of the Tyne and Wear river valleys, country estates in and around urban settlements and restored coal mining sites – to increase biodiversity, improve water and soil quality, provide tranquillity and recreation and enhance landscape character.

**SEO 4:** Use an understanding of the unique historic landscape and heritage features of the Tyne and Wear Lowlands NCA to provide opportunities for interpretation, education, wellbeing, recreation and tourism, and to inform good design in new development that respects the setting of heritage assets.



Creation of wetland habitats on brownfield land at Newburn Riverside.

## Description

### Physical and functional links to other National Character Areas

Centred on the lower valleys of the Tyne and Wear, these lowlands are bounded to the south and east by the prominent escarpment of the Durham Magnesian Limestone Plateau National Character Area (NCA). To the west, the land rises through the Durham Coalfield Pennine Fringe NCA to the uplands of the North Pennines NCA. To the north, the extensive conurbation lying in the broad valley of the Tyne merges into the South East Northumberland Coastal Plain NCA. In the north-east of the area there is a short section of coastal boundary bordering the Tyne as it flows into the sea.

The River Wear with its tributaries rises in the North Pennines NCA and drains higher land in the west before meandering north-eastwards and draining into the North Sea through the Durham Magnesian Limestone Plateau NCA. The River Tyne rises in the uplands of the Border Moors and Forests NCA, and flows from west to east through the wide Tyne valley in the north of the Tyne and Wear Lowlands NCA. It then enters the North Sea at Tynemouth. These rivers are a source of potable water for domestic and industrial use in the conurbations of Tyneside and Wearside. A water transfer system ensures that supplies are maintained and the ecological condition of the rivers is protected by capturing and diverting water from the uplands of the North Pennines and the Border Moors and Forests NCAs. High rainfall in these uplands can cause rapid run-off and downstream flooding in the Tyne and Wear Lowlands NCA which is best addressed through management in upstream areas.



View from the Durham Magnesian Limestone Plateau NCA looking towards Durham.

Poor water quality caused by disused mines and spoil heaps remains an issue, shared with the North Pennines and Durham Coalfield Pennine Fringe NCAs, which also have a coal mining heritage, and with the North Pennines NCA which has lead and copper mining industries.

In the coastal area, the Tyne estuary is a key migration route for salmon on their journey from the sea to spawning grounds in the North Pennines. Some of the coastline in North Tyneside shares the Northumbria Coast Ramsar and Special Protection Area (SPA) designations with the South East Northumberland Coastal Plain NCA. Both NCAs support seabirds such as wintering populations of purple sandpiper and turnstone and breeding populations of little tern. In South Tyneside, the tidal area of the River Tyne supports wintering waterbirds and breeding shelduck, with intertidal habitats occurring along the foreshore, extending south into the Durham Magnesian Limestone Plateau NCA.

Major communication routes crossing the area include the A1, the main north-south road, and the East Coast Main Line railway. Other road and rail links cross the uplands to link the east coast conurbations with the west by following the Tyne valley through the Tyne Gap.

Hadrian's Wall Path National Trail is an unbroken 135-km trail stretching coast-to-coast from Wallsend in the east to Bowness-on-Solway in the west, some of which passes through Newcastle upon Tyne, providing links from the city to the wider countryside.



River Wear, one of the major river catchments in the NCA.

## Key characteristics

- Undulating landform incised by the river valleys of the Tyne and the Wear and their tributaries.
- Widespread urban and industrial development with a dense network of major road and rail links and the spreading conurbations of Tyneside in the north. Dispersed towns and villages further south.
- Historic riverside cities of Newcastle upon Tyne and Durham, strategically located at bridging points of the rivers Tyne and Wear.
- Between settlements, wide stretches of agricultural land with large, regular, arable fields bordered by hedgerows with few hedgerow trees, often with large farmsteads and urban fringe pasture land with pony and cattle grazing.
- Strong legacy of mining, much restored to agriculture, forestry, industry, housing and amenity uses such as country parks, linking urban areas with countryside and coast by transforming wagonways to cycle routes and footpaths.
- Industrial prosperity reflected in the large number of 18th- and 19th-century country houses, set within parkland in the vicinity of major settlements.
- Mixed woodland estates and plantations on restored spoil heaps provide woodland cover in some areas, although sparse elsewhere.
- Oak or oak/birch broadleaved woodland, a characteristic feature on steep sides of narrow river valleys, with some river flood plains holding pockets of fen, reedbed and species-rich grasslands.
- Important relic of lowland heath survives at Waldridge Fell, one of few remaining areas of common land.
- Small area of coastline between Whitley Bay and South Shields consisting of sand, rocky foreshore habitats and maritime cliffs, with historic landmarks such as St Mary's lighthouse and Tynemouth Priory.

- Heavily modified, Tynemouth estuary supports regionally important numbers of wintering waterbirds and breeding shelduck and North Shields is a busy port terminus for sea ferries to Norway and Denmark.
- Part of North Tyneside coast supports seabirds: purple sandpiper, ruddy turnstone and breeding little tern.
- Long history of settlement, mining and industry evidenced through historic buildings and settlement patterns which form a core part of today's landscape.
- Important tourist attractions include Durham, Newcastle upon Tyne, Whitley Bay and two World Heritage Sites – Hadrian's Wall and Durham Castle and Cathedral.



Owned by the National Trust, Gibside country estate near Gateshead is set within parkland.



North Pier at Tynemouth with view of the lighthouse and incoming ferry.