

Ecological Sub-area Statement of Biodiversity Priorities – Technical Appendix

Sub-area name	Rough Wood Chase & Sneyd Reservoir	Sub-area ref.	CL03
Natural Character Area	Cannock Chase and Cank Wood	NCA ref.	67
Local Authority Area	Walsall	Area km²	2.08

Ecological Sub-area Description

Overview

Rough Wood Chase & Sneyd Reservoir was significantly impacted by coal mining in the 19th and early 20th centuries, and the landscape today is dominated by areas of open space that have developed spontaneously or have been landscaped on former collieries. A significant feature of the ecological sub-area is the Wyrley and Essington Canal corridor and the associated Sneyd Reservoir (canal feeder) which bisects the area.

Historic mapping depicts that prior to industrialisation the area comprised a complex of small fields, however, very little of this landscape remains. Areas of Rough Wood in the south of the ecological sub-area are designated by Natural England as Ancient Semi-natural Woodland, however, how much of this escaped the impact of industrial activity is not clear.

Semi-natural habitats within the ecological sub-area include numerous subsidence pools, mature woodland, scrub and rough grassland.

Land Use

Just under 50% of the ecological sub-area is public open space designated as Rough Wood Chase Local Nature Reserve. This is comprised of woodland, scrub, grassland and ponds, and includes Sneyd Reservoir in the north. This area is well accessed for recreation by the local community.

In the north of the ecological sub-area are a community centre (former secondary school) and primary school with associated sports grounds, areas of planted woodland, scrub, rough grassland and a large artificial pool. The remainder of the ecological sub-area comprises playing fields, school grounds and the Wyrley and Essington Canal corridor.

Topography

Rough Wood Chase & Sneyd Reservoir is naturally relatively level with elevations ranging from 130 to 150 metres. The topography of the area has been modified by industrial activity including mining.

Geology

The entire ecological sub-area is located on bedrock of sedimentary Pennine Middle Coal Measures Formation, Mudstone, siltstone and sandstone formed between 318 and 309.5 million years ago during the Carboniferous period, overlain with superficial deposits of Devensian diamicton till formed between 116 and 11.8 thousand years ago during the Quaternary period.

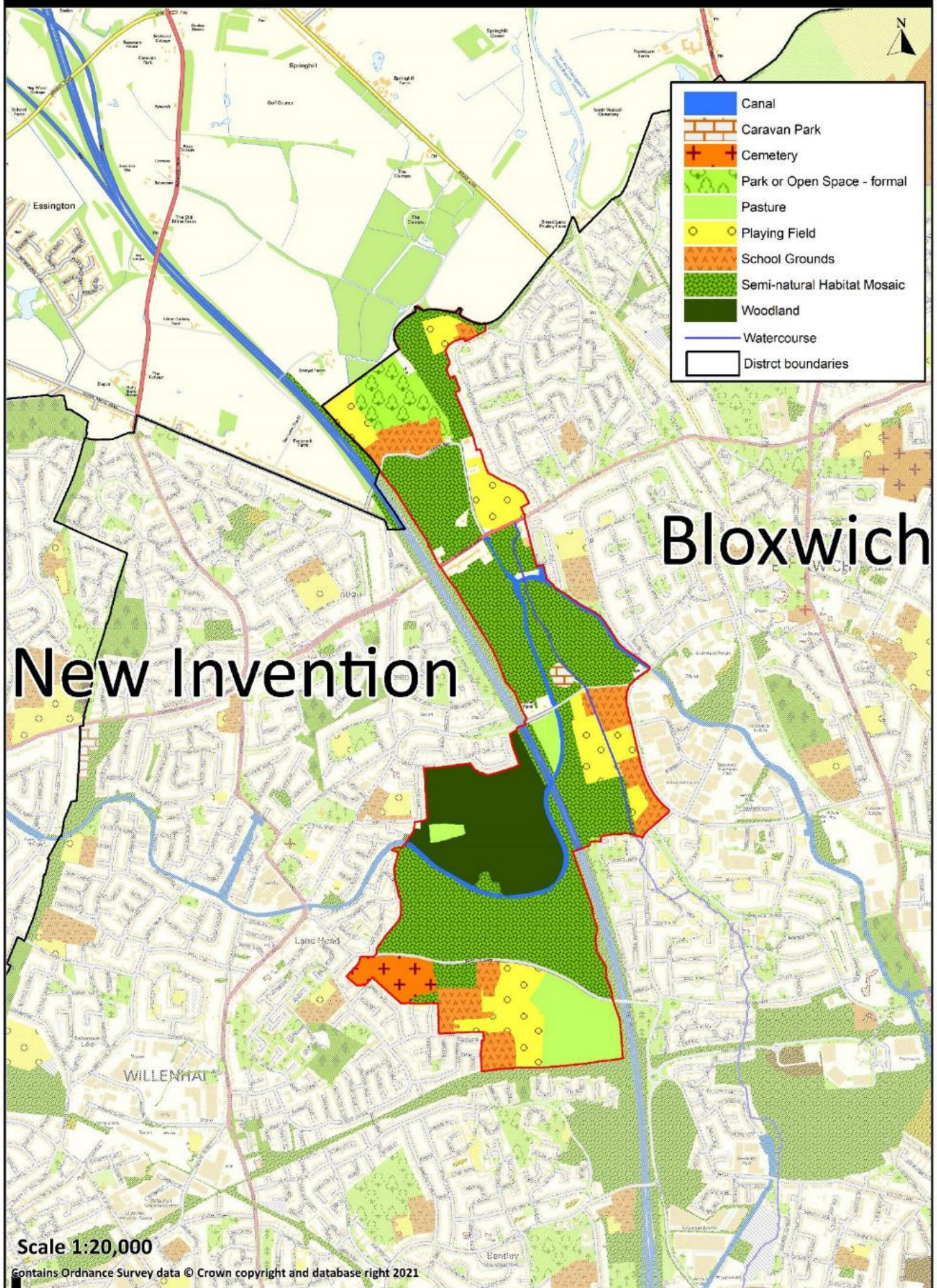
Geopark Sites

n/a

Soils

In the northern section of the ecological sub-area the soils are restored, mostly from quarry and opencast spoil, loamy, and with low to moderate fertility and variable drainage. In the southern section the soils are slowly permeable, seasonally wet and slightly acid but base-rich loamy and clayey, with moderate fertility and impeded drainage.

CL03 Rough Wood Chase & Sneyd Reservoir – Land Use



Historic Landscape Character Areas

Reference	WL07	Name	Bentley
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The entire ecological sub-area is within WL07 Bentley. The Character Area lies in the north-west of the Walsall borough. It is dominated by areas of modern housing and is situated almost wholly on the coalfield. Few pre-19th century houses survive in the borough, and these are concentrated in Bescot and the Birchills area of Walsall. Further 18th and 19th century houses survive in the historic settlement cores of the area. There are a number of important recreation areas within the Character Area, including the Rough Wood Country Park, which was established in the mid/late 20th century from reclaimed coal extraction sites.

The medieval character of the area was a combination of open field and common (which was part of Cannock Forest) with small medieval settlements at Bescot and Bentley. By the late 19th century the area was dominated by coal mining and collieries, resulting in the expansion of the 17th- and 18th-century settlements of Lane Head, New Invention and Short Heath.

Historic Environment Area Designations [1]

Reference	AHHTV 127	Name	Wyrley and Essington Canal
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The AHHTV contains the Wyrley and Essington Canal which was built along the northern boundary of Pelsall in 1794 to carry coal and other raw materials necessary to the development of industry in the Black Country. The canal was built following the 1790s Act authorising a canal from Wolverhampton to the collieries and Wyrley Bank and Essington. The canal was built using the early contour construction method, where by the canal followed the natural contours of the landscape. However, land subsidence caused by the surrounding mining activity and continual repair work along the canal has caused some parts of the present-day canal to run on high embankments.

The AHHTV has the potential to contain non-designated historically important buildings such as locks, canal bridges and industrial buildings associated with the early usage of the canal. These nationally and locally important buildings are directly associated with the creation and development of the canal and make a positive contribution to the quality of the historic environment.

Reference	AHHLV 31	Name	Rough Wood Country Park
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The AHHLV contains a number of mines and shafts associated with the Rough Wood Colliery. The workings were situated to the west and east of the canal, to the east of Rough Wood. The site of a cluster of buildings thought to be associated with the mine workings is recorded to the south of the Canal. The Wyrley and Essington Canal (built 1794) passes through the AHHLV and was directly associated with the coal mining in this area. The area to the north contains the 18th/early 19th century Sneyd Reservoir, which supplied water to the canal.

The AHHLV contains two areas of semi-natural ancient woodland, Rough Wood and Rough Wood South. The woodland has the potential to contain well-preserved archaeological remains (although none are currently known), and may contain features associated with medieval and post-medieval woodland management. Ancient Woodlands represent surviving patches of the historic landscape that date back to the early post-medieval period.

Waterbody Catchments

River Basin District	Humber	Management Catchment	Tame Anker and Mease
Waterbody Catchment	Overall Classification	Ecological	Chemical
Sneyd Brook from Source to Tame	Bad (2019)	Bad (2019)	Fail (2019)

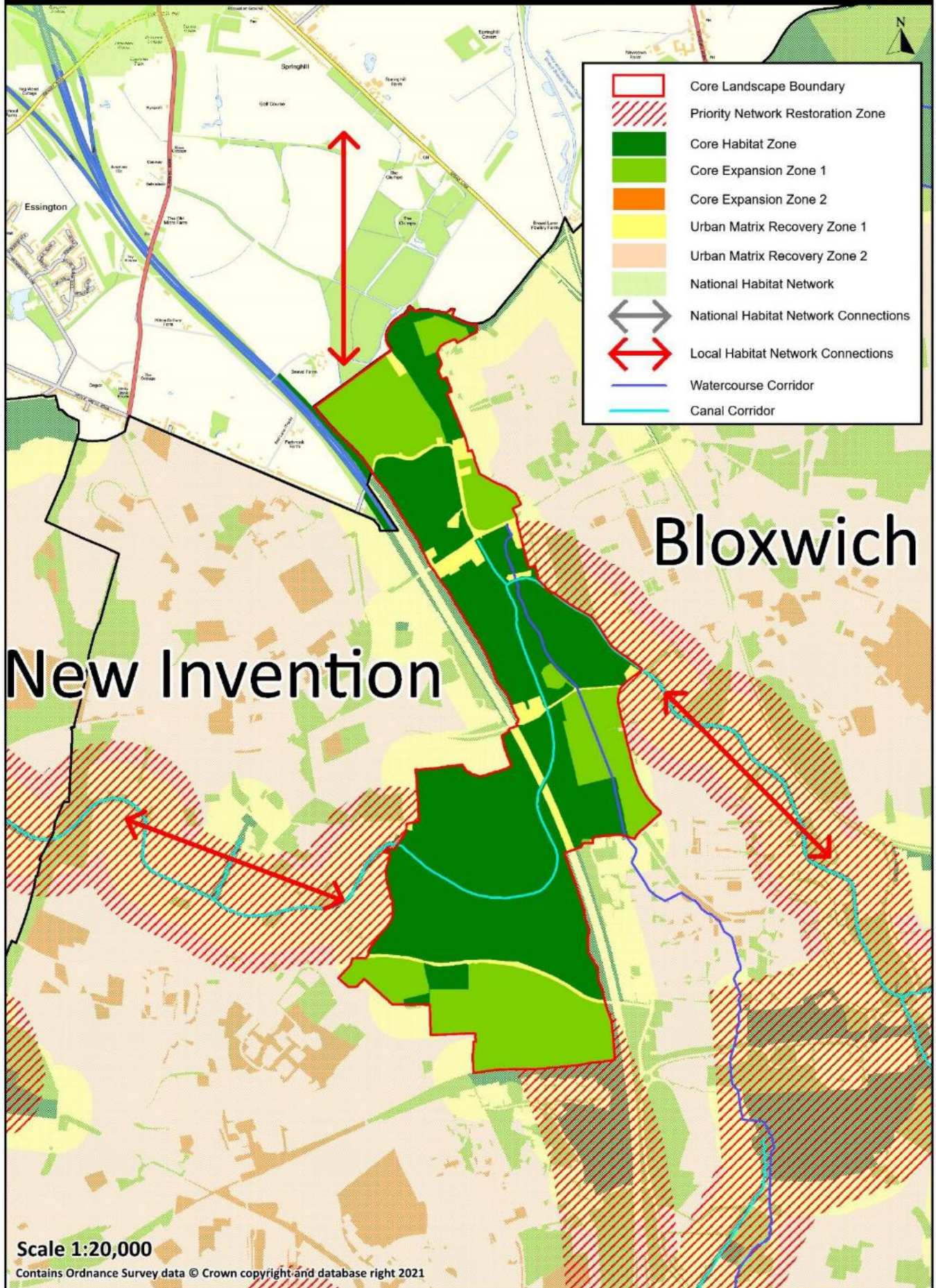
Key Habitats [2]			
Broad Habitat Type	Broadleaved, Mixed and Yew Woodland	Priority Habitat	Lowland mixed deciduous woodland
Areas of Rough Wood in the south of the ecological sub-area are designated by Natural England as Ancient Semi-natural Woodland. Historic mapping and habitat descriptions of the area suggest, however, that much of this area was subject to industrial activity and it is not clear how much of the area meets the definition of ASNW. The mature woodland that does remain on site is dominated by Oak with frequent Birch and Hawthorn, with some Guelder-rose, Alder Buckthorn and Wild Privet occur in the shrub layer.			
Broad Habitat Type	Broadleaved, Mixed and Yew Woodland	Priority Habitat	
Scrub and young woodland cover have increased significantly since the middle of the 20 th century through both planting (in Rough Wood Chase) and natural succession. The composition and structure of these habitats is not known.			
Broad Habitat Type	Acid Grassland	Priority Habitat	Lowland Dry Acid Grassland
There are thought to be areas of remnant acid grassland within Rough Wood Chase, the extent and condition of which is not known.			
Broad Habitat Type	Neutral Grassland	Priority Habitat	
Much of the semi-natural grassland habitats in the ecological sub-area are unmanaged, tussocky and rank, and are dominated by species that ubiquitous in habitats of this type. The habitat type has decreased significantly in recent decades through woodland planting and natural succession.			
Broad Habitat Type	Dwarf Shrub Heath	Priority Habitat	Lowland Heathland
There are records of small areas of lowland heathland at Rough Wood Chase, the extent and condition of which is not known.			
Broad Habitat Type	Standing Open Water and Canals	Priority Habitat	Ponds
There are numerous mining subsidence pools throughout the ecological sub-area that support important amphibian populations. The condition and number of waterbodies has, however, apparently reduced over recent decades through seral succession to reedswamp and scrub/woodland.			
Broad Habitat Type	Standing Open Water and Canals	Priority Habitat	Eutrophic Standing Waters
In the north of the ecological sub-area is a small canal feeder reservoir (Sneyd Reservoir) that is entirely surrounded by scrub/woodland but retains a large area of open water. To the north of this there is more recent artificial pool which is used for recreational activities.			
Broad Habitat Type	Standing Open Water and Canals	Priority Habitat	
A section of the Wyrley & Essington Canal bisects the ecological sub-area. The canal is fed by Chasewater reservoir and is of low chemical and nutrient status, consequently being of high ecological value in the context of the Black Country canal network. The canal supports a diverse assemblage of aquatic vegetation, as well of populations of coarse fish, freshwater invertebrates and wetland birds.			
Broad Habitat Type	Rivers and Streams	Priority Habitat	Rivers
The Sneyd Brook flows north-south through the ecological sub-area. This is situated either within a highly modified channel or culverted along the entire section within the ecological sub-area and is classified as Bad status by the Environment Agency.			

Key Species [3]	
Bird indicators	
Farmland	Common Reed Bunting, Goldfinch, Greenfinch, Kestrel, Rook, Starling, Stock Dove, Tree Sparrow, Western Yellow Wagtail, Woodpigeon.
Woodland	Blackbird, Chiffchaff, Coal Tit, Common Chaffinch, Dunnock, Eurasian Blackcap, Eurasian Blue Tit, Eurasian Bullfinch, Eurasian Wren, European Green Woodpecker, Goldcrest, Great Spotted Woodpecker, Great Tit, Jay, Long-tailed Tit, Robin, Song Thrush, Sparrowhawk, Willow Tit.
Water & Wetland	Common Reed Bunting, Eurasian Coot, Great Crested Grebe, Grey Heron, Grey Wagtail, Kingfisher, Little Grebe, Mallard, Moorhen, Mute Swan, Western Yellow Wagtail.
Other	Black-headed Gull, Buzzard, Carrion Crow, Collared Dove, Common House Martin, Eurasian Magpie, House Sparrow, Meadow Pipit, Mistle Thrush, Northern Raven, Pied Wagtail, Swallow.
Amphibians & Reptiles	
Amphibians	Common Frog, Great Crested Newt, Smooth Newt
Reptiles	Common Lizard
Mammals	
Bats	Brown Long-eared Bat, Common Pipistrelle, Daubenton's Bat, Noctule Bat, Soprano Pipistrelle, Whiskered/Brandt's Bat
Other	Eurasian Badger, European Otter, European Water Vole, West European Hedgehog
Fish	
Bony Fish	none
Jawless Fish	none
Invertebrates	
Assemblage type	
Flora (axiophytes)	
Woodland	<i>Allium ursinum</i> , <i>Angelica sylvestris</i> , <i>Blechnum spicant</i> , <i>Brachypodium sylvaticum</i> , <i>Caltha palustris</i> , <i>Deschampsia flexuosa</i> , <i>Dryopteris affinis</i> , <i>Equisetum sylvaticum</i> , <i>Frangula alnus</i> , <i>Galium odoratum</i> , <i>Luzula pilosa</i> , <i>Malus sylvestris</i> , <i>Mercurialis perennis</i> , <i>Milium effusum</i> , <i>Molinia caerulea</i> , <i>Populus nigra</i> subsp. <i>betulifolia</i> , <i>Stellaria holostea</i> , <i>Torilis japonica</i> .
Grassland	<i>Achillea ptarmica</i> , <i>Agrimonia eupatoria</i> , <i>Agrostis canina</i> , <i>Blechnum spicant</i> , <i>Brachypodium sylvaticum</i> , <i>Caltha palustris</i> , <i>Centaureum erythraea</i> , <i>Cirsium palustre</i> , <i>Dactylorhiza fuchsii</i> , <i>Dactylorhiza praetermissa</i> , <i>Daucus carota</i> subsp. <i>carota</i> , <i>Deschampsia flexuosa</i> , <i>Equisetum sylvaticum</i> , <i>Euphrasia</i> , <i>Euphrasia officinalis</i> agg., <i>Leontodon hispidus</i> , <i>Lotus pedunculatus</i> , <i>Nardus stricta</i> , <i>Odontites vernus</i> , <i>Odontites vernus</i> subsp. <i>serotinus</i> , <i>Ononis repens</i> , <i>Parentucellia viscosa</i> , <i>Phleum bertolonii</i> , <i>Potentilla anglica</i> , <i>Potentilla erecta</i> , <i>Sanguisorba officinalis</i> , <i>Silene flos-cuculi</i> , <i>Stellaria holostea</i> , <i>Trifolium medium</i> .
Heathland	<i>Agrostis canina</i> , <i>Blechnum spicant</i> , <i>Calluna vulgaris</i> , <i>Carex nigra</i> , <i>Deschampsia flexuosa</i> , <i>Luzula multiflora</i> , <i>Luzula multiflora</i> subsp. <i>congesta</i> , <i>Molinia caerulea</i> , <i>Nardus stricta</i> , <i>Potentilla erecta</i> , <i>Vaccinium myrtillus</i> .
Mires	<i>Achillea ptarmica</i> , <i>Agrostis canina</i> , <i>Angelica sylvestris</i> , <i>Apium inundatum</i> , <i>Calamagrostis epigejos</i> , <i>Caltha palustris</i> , <i>Carex acutiformis</i> , <i>Carex nigra</i> , <i>Carex panicea</i> , <i>Cirsium palustre</i> , <i>Dactylorhiza fuchsii</i> , <i>Dactylorhiza praetermissa</i> , <i>Eleocharis palustris</i> , <i>Equisetum fluviatile</i> , <i>Equisetum palustre</i> , <i>Galium palustre</i> , <i>Galium palustre</i> subsp. <i>palustre</i> , <i>Glyceria notata</i> , <i>Hydrocotyle vulgaris</i> , <i>Hypericum tetrapterum</i> , <i>Jacobaea aquatica</i> , <i>Lotus pedunculatus</i> , <i>Luzula multiflora</i> , <i>Luzula multiflora</i> subsp. <i>congesta</i> , <i>Molinia caerulea</i> , <i>Pulicaria dysenterica</i> , <i>Ranunculus aquatilis</i> , <i>Ranunculus circinatus</i> , <i>Ranunculus flammula</i> , <i>Silene flos-cuculi</i> , <i>Sparganium emersum</i> , <i>Veronica beccabunga</i> .
Open Water	<i>Apium inundatum</i> , <i>Butomus umbellatus</i> , <i>Carex acutiformis</i> , <i>Eleocharis palustris</i> , <i>Equisetum fluviatile</i> , <i>Galium palustre</i> , <i>Galium palustre</i> subsp. <i>palustre</i> , <i>Glyceria notata</i> , <i>Potamogeton perfoliatus</i> , <i>Potamogeton pusillus</i> , <i>Ranunculus aquatilis</i> , <i>Ranunculus circinatus</i> , <i>Sagittaria sagittifolia</i> , <i>Schoenoplectus lacustris</i> .

Post-industrial (water-stressed)	<i>Agrimonia eupatoria, Asplenium adiantum-nigrum, Blechnum spicant, Centaurium erythraea, Chaenorhinum minus, Clematis vitalba, Daucus carota subsp. carota, Deschampsia flexuosa, Erigeron acris, Jacobaea erucifolia, Ophrys apifera, Parentucellia viscosa, Poa compressa, Reseda lutea, Silene vulgaris, Trifolium medium.</i>
Cultivation	None

Ecological Connectivity
Local Habitat Network
There are links from the ecological sub-area to the Priority Network Restoration Zones Wyrley & Essington Canal and M6 Motorway Corridor. These link Rough Wood Chase & Sneyd Reservoir to Core Landscapes CL01 Smestow Valley & Tettenhall Ridge, CL04 Brownhills Common and Pelsall and CL07 Sandwell Valley.
National Habitat Network
The north of the ecological sub-area links directly with the South Staffordshire countryside but not the National Habitat Network as defined by Natural England.

CL03 - Rough Wood Chase & Sneyd Reservoir - Components & Connectivity



Ecological Sub-area Opportunities

Focus Habitats		
Habitat	Action	Measure
Ponds	Restore existing	Habitat in good condition
	Create new	New habitat at existing and new sites
Rivers	Restore hydromorphology (naturalise modified channels)	Improved ecological status
	Reduce artificial inputs	Improved chemical status
Eutrophic Standing Waters	Enhance marginal and emergent vegetation	Increased floral diversity and habitat structure improved
	Reduce artificial inputs	Improved chemical status
Canals	Identify and reduce artificial inputs	Improved chemical status
Lowland meadows	Enhance existing neutral grasslands	Increased floral diversity
	Create new species-rich neutral grasslands	Increased floral diversity and habitat structure improved
Lowland Heathland	Confirmed extent and improve habitat at existing sites	Habitat in good condition
	Create new	New habitat at existing and new sites
Lowland dry acid grassland	Confirmed extent and improve habitat at existing sites	Habitat in good condition
	Create new	New habitat at existing and new sites
Lowland mixed deciduous woodland	Coppice	Habitat structure improved
	Create woodland edge	Habitat structure improved
	Diversify woody component	Habitat structure improved
	Diversify field-layer component of plantations	Increased floral diversity

Target Species	
Species/Species Group	Measure
Bats	Increased abundance of confirmed species
Breeding farmland birds (specialists)	Increased species and abundance
Breeding water & wetland birds (specialists)	Increased species and abundance
Breeding woodland birds (specialists)	Increased species and abundance
European Otter	Increased signs, confirmed breeding population
European Water Vole	Confirmed recent records
Great Crested Newt	Increased abundance and number of breeding ponds
Hedgehog	Confirmed recent records
Woodland axiophytes	Recent records and increased abundance
Grassland axiophytes	Recent records and increased abundance
Mires axiophytes	Recent records and increased abundance
Open Water axiophytes	Recent records and increased abundance

Geodiversity		
Site	Action	Measure
n/a		

Connectivity Opportunities	
Local Habitat Network	
Connection	Action
Within Core Landscape CL03	Restoration of modified channel of the Sneyd Brook.
	Species-rich neutral grassland enhancement and creation at sites including areas of public open space, school grounds and sports fields.
	Plantation woodland enhancement.
	Creation of new ponds.
	Planting of standard trees in parks, green spaces and school grounds.
Connection	Action
Priority Network Restoration Zone (M6 Motorway Corridor)	Species-rich neutral grassland enhancement and creation on undeveloped land including parks, green spaces, school grounds and substantial road verges.
	Woodland enhancement and small-scale planting in adjacent areas of open space.

Information and Data Sources		
	Source	Date
Landuse	Ecological Evaluation of Birmingham and Black Country GIS data set, EcoRecord.	2021
Topography	OS Terrain 50 GIS data set, Ordnance Survey.	2017
Geology	British Geological Society 1:625,000 bedrock & superficial GIS web map services from BGS website: http://mapapps.bgs.ac.uk/geologyofbritain/home.html	2021
	Black Country UNESCO Global Geopark sites names and location information https://blackcountrygeopark.dudley.gov.uk/bcg/	2021
Soils	Soilscapes, Cranfield Soil & Agricultural Institute website: http://www.landis.org.uk/soilscapes/	2021
Species and Habitats	EcoRecord species and habitat databases.	2021
Ecological Connectivity	EcoRecord, The Wildlife Trust for Birmingham and the Black Country (2021) <i>Draft Black Country Local Nature Recovery Opportunity Map</i>	2021
	EcoRecord et al. (2021) <i>Midlands Heathland Heartland Lowland Heathland Nature Recovery Opportunity Mapping</i> .	2021
Historic Landscape Character Areas	Wolverhampton City Council (2010) <i>Black Country Historic Landscape Characterisation</i> [data-set]. York: Archaeology Data Service [distributor] https://doi.org/10.5284/1000030	2010
Historic Environment Area Designations	Black Country Historic Landscape Characterisation Study, Oxford Archaeology.	2019

[1] HISTORIC ENVIRONMENT AREA DESIGNATIONS

The Black Country Historic Landscape Characterisation Study has divided the Historic Environment Area Designations into four categories:

Archaeological Priority Areas (APA): sites with a high potential for archaeological remains of regional or national significance that have not been considered for designation as scheduled monuments, or where there is insufficient data available about the state or preservation of any remains to justify a designation. APAs are likely to have high archaeological and historic interest.

Areas of High Historic Townscape Value (AHHTV): areas where built heritage makes a significant contribution to local character and distinctiveness. The significance of AHHTVs is likely to be derived primarily from their architectural and historic interests. However, these areas may also have artistic and archaeological interests. Areas of High Historic Townscape Value are not limited to towns or cities, they also include villages, hamlets and areas of industry where the built heritage is considered to make a positive contribution to the historic environment of an area.

Designed Landscapes of High Historic Value (DLHHV): landscape areas that make an important contribution to local historic character but do not meet the criteria for inclusion on the national Register for Parks and Gardens. The significance of these areas is likely to arise from their historic, artistic and architectural interests, although such areas may also contain remains of archaeological interest.

Areas of High Historic Landscape Value (AHHLV): these recognise the quality of the wider landscape and their relative values. The significance of these areas arises from the natural and historic features contained within them (e.g. woodland, watercourses, hedgerows, and archaeological features). The significance of these areas is likely to be derived from their archaeological and historic interests.

[2] KEY HABITATS follows the UK Biodiversity Action Plan (BAP) Broad & Priority Habitat definitions

This is a UK-habitat classification prepared by the UK Biodiversity Group that classifies all terrestrial and freshwater habitats in the UK into 37 broad habitat types. UK BAP Priority Habitats are a range of semi-natural habitat types that were identified as being the most threatened and requiring conservation action. The original Priority Habitat list was created between 1995 and 1999 and revised in 2007. The list of Priority Habitats has been used to help draw up statutory lists of habitats of principal importance for the conservation of biodiversity in England, Scotland, Wales and Northern Ireland. The suite of habitats of principal importance for the conservation of biodiversity (formerly Priority Habitats) nest into the defined Broad Habitat Types.

[3] KEY SPECIES

Bird Indicators: Species listed under UK Biodiversity Indicator C5, Birds of the wider countryside and at sea (JNCC). The indicator shows changes in the breeding population sizes of common native birds of farmland and woodland and of freshwater and marine habitats in the UK.

Amphibians & Reptiles: All amphibian and reptile species native to the UK are included.

Mammals: Those protected by UK or EU law, included on the current list of Principal Importance in England under Section 41 of the NERC Act (2006 or amended), and those included on the latest B&BC LBAP list of Priority Habitats/Species.

Fish: Those protected by UK or EU law, included on the current list of Principal Importance in England under Section 41 of the NERC Act (2006 or amended), and those included on the latest B&BC LBAP list of Priority Habitats/Species.

Invertebrates: Pantheon Assemblage Types Analysis.

Flora (axiophytes): Those included on the Birmingham & the Black Country list of axiophytes (administered by EcoRecord) by four locally defined habitat types.