

## Ecological Sub-area Statement of Biodiversity Priorities – Technical Appendix

<b>Sub-area name</b>	Brownhills Common & Pelsall	<b>Sub-area ref.</b>	CL04
<b>Natural Character Area</b>	Cannock Chase and Cank Wood	<b>NCA ref.</b>	67
<b>Local Authority Area</b>	Walsall	<b>Area km<sup>2</sup></b>	12.43

### Ecological Sub-area Description

#### Overview

Brownhills Common & Pelsall comprises the northern Walsall green belt around the settlements of Brownhills, Pelsall and Aldridge, along with the undeveloped valleys of the Ford Brook and its tributaries which flow southwards towards Walsall town centre. To the north lies the open countryside of South Staffordshire, whilst to the south is Core Landscape CL06 Park Lime Pits, Cuckoo's Dingle & Great Barr Hall.

Historically part of Cannock Forest and later the parishes and townships of Norton Canes, Walsall Foreign, Pelsall and Bloxwich, the area contains a number of commons that were formally surrounded by open fields. Today the landscape is dominated by mostly rectilinear fields that were enclosed during the late medieval and post medieval periods.

Brownhills Common & Pelsall is the only area in the Black Country with surface peat which is present along the eastern boundary and to the west of Pelsall.

#### Land Use

The land use in the northern part of Brownhills Common & Pelsall is dominated by agriculture (permeant grassland and arable) with substantial areas of semi-natural habitat including woodland, heathland, grassland and wetland, much of which is public open space or de facto accessible green space, and primarily post-industrial. Bloxwich Golf Club is situated in the north-west of the ecological sub-area. In the south-east there are a number of active quarries from which clay is extracted for brick manufacture. The land use in the south-eastern section is more diverse and modified through proximity to the urban environment, but retains a significant area of agricultural permanent grassland comprised of small fields, often with defunct or removed hedgerows. Other land use includes allotments, playing fields, Ryecroft Cemetery, a sewage treatment works and semi-natural green space including Mill Lane nature reserve and Goscote Wedge.

#### Topography

The highest points in the ecological sub-area at an elevation of 150 metres are in the north-west and at Brownhills Common in the north. From here the levels gradually fall away to the bottom of watercourse valleys of the Rough Brook, Ford Brook and Anchor Brook along which ecological sub-area is focused. These lie at an elevation of 140 to 120 metres.

#### Geology

The bedrock in of the north-western part of the ecological sub-area is sedimentary mudstone, siltstone and sandstone of Pennine Middle Coal Measures Formation formed between 318 and 309.5 million years ago during the Carboniferous period. The central and southern area is mudstone, siltstone and sandstone of the Pennine Lower Coal Measures Formation and Pennine Middle Coal Measures Formation formed between 319 and 309.5 million years ago during the Carboniferous period. The eastern section is Alveley Member sandstone formed between 309.5 and 308 million years ago during the Carboniferous period. In the north-east there is a small area of Chester Formation sandstone and conglomerate, interbedded, formed between 250 and 247.1 million years ago during the Triassic period.

Most of the ecological sub-area is overlain with superficial deposits of Devensian diamicton till, with some areas of glaciofluvial sand and gravel in the central and north-eastern sections, formed between 116 and 11.8 thousand years ago during the Quaternary period.

#### Geopark Sites

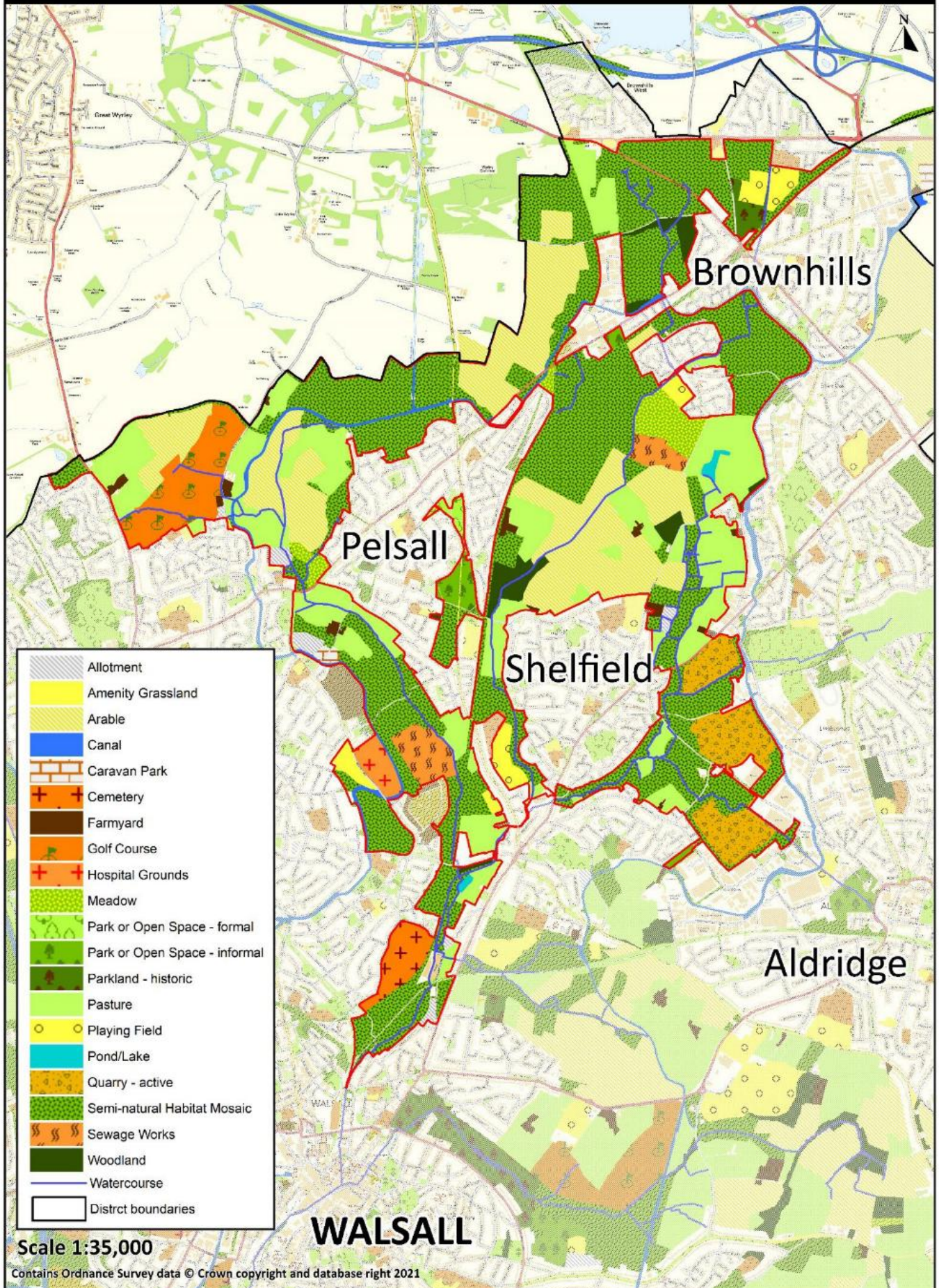
n/a

## Soils

The soils in the western section of the ecological sub-area are predominantly slowly permeable, seasonally wet and slightly acid, but base-rich loamy and clayey, with moderate fertility and impeded drainage. The eastern section is dominated by naturally wet loamy and sandy soils with naturally high groundwater and a peaty surface, with low to high fertility. There are areas throughout the ecological sub-area where, as a legacy of industrial activity including coal mining, the soils are restored, mostly from quarry and opencast spoil, loamy, and with low to moderate fertility and variable drainage.



# CL04 Brownhills Common and Pelsall – Land Use





Historic Landscape Character Areas			
Reference	WL13	Name	Pelsall
<p>Most of the ecological sub area lies within HLCA WL13 Pelsall. This Character Area is situated in the north of the Walsall borough, on the eastern edge of the South Staffordshire coalfield. The modern character of the area is defined by field systems, open land, and dispersed settlements. The largest settlement, Pelsall, occupies the centre of the Character Area and has a large central common. Pelsall is first mentioned in a charter of AD 994, when it was granted to the church at Wolverhampton. The early settlement is likely to have been situated around Pelsall Hall. Medieval Pelsall was likely to have been surrounded by open fields that were enclosed during the late medieval and post medieval periods. Several parts of the area have been used for 19<sup>th</sup> and 20<sup>th</sup> century coal extraction although most of the collieries in the area were closed by 1900. The Character Area is crossed by several railways, all of which have fallen out of use.</p>			
Reference	WL04	Name	Brownhills & Walsall Wood
<p>The eastern part of the ecological sub-area includes a small part of WL04 Brownhills &amp; Walsall Wood comprising a school playing field and SINC WA017 Walsall to Lichfield Railway Line.</p>			

Historic Environment Area Designations [1]			
Reference	APA 4	Name	Watling Street
<p>The APA contains the remains of the Roman road, Watling Street, the Wroxeter to Wall (<i>Letocetum</i>) section. The road runs in a westerly direction from Wall to Brownhills Common, marked by the present-day road, which is raised in places (Margary 1967). The modern road was extensively widened during the 1970s, revealing archaeological evidence of the Roman road suggesting that the road had developed from an earlier prehistoric route way. The road continued in use from the Roman period and in the 17th century was the alternative road between London and Chester.</p>			
Reference	AHHLV 8	Name	Brownhills Common
<p>The AHHLV is located on Brownhills Common, a tract of ancient waste land. The common was subject to intensive industrial activity during the post-medieval period and contains a concentration of industrial remains associated with Coppice and Watling Street Collieries. A brick works is shown immediately to the north of Coppice Colliery on the 1883 Ordnance Survey (OS) map. The remains of an area of open cast mining (up to 15 pits), including bell pits representing an older phase of mining activity, are present in this area. The earlier workings were largely replaced by deeper pits when the Wyrley &amp; Essington Canal was built in 1794 and the earlier bell pits could no longer meet the demand for coal. The remains of railway lines and tramways associated with the industrial usage of the site are also present and the AHHLV contains the site of the Brownhills Midland Railway Station, which opened in 1882.</p>			
Reference	AHHLV 2	Name	Birch Grove Coppice
<p>The AHHLV is semi-natural ancient woodland. Accordingly, it has the potential to contain well-preserved prehistoric archaeological remains (although none are currently known) and may contain features associated with medieval and post-medieval woodland management.</p>			
Reference	APA 17	Name	Slough Colliery Lime Kilns
<p>The APA contains the site of the Slough Colliery Lime Kilns. The kilns are marked on the 1st edition Ordnance Survey map as old kilns, and buildings are shown at this location on the 1816 Ordnance Surveyors drawings. The area is now overgrown but it may contain upstanding remains associated with the lime kilns. The Slough Colliery was served by three canal wharves (no longer present). The APA may contain archaeological remains associated with the canal. The site is shown as flooded on the 1827 Parish Map.</p>			
Reference	AHHLV 1	Name	Pelsall Works
<p>The AHHLV is situated upon the coal measures, and contains areas of ridge and furrow which may date back to the medieval period and could provide archaeological evidence for medieval and early post-medieval land use. The area also contains the remains of the Pelsall Iron Works.</p> <p>The AHHLV contains several extant remains associated with the industrial use of the area, including the listed Wyrley and Essington Canal foot bridge at Pelsall Junction, the Pelsall Works Bridge and the locally listed buildings of Friar Bridge, Pelsall Common Bridge and the stables adjacent to the Cannock Extension Canal. The last are a nationally rare example of stables originally used to house canal tow horses. In addition, the area contains non-designated archaeological remains associated with the Pelsall Iron Works and colliery and parts of the Cannock Extension Canal (1821-1880) and Wyrley and Essington Canal (1791-1800).</p>			

## Historic Environment Area Designations [1]

The Pelsall Iron Works was opened in 1832 by Mr Richard Fryer, and after his death (1846) it was sold to Davis and Bloomer. It is listed in William White's 1851 History, Gazetteer and Directory of Staffordshire as producing the highest quality bar and sheet iron. The Pelsall Iron Works grew into an extensive facility with two blast furnaces, forty puddling furnaces, seven mills and forges, a gashouse and gasometer, and a large tramway with locomotive and wagon sheds. While none of these buildings are visible within the AHHLV, the area has the potential to contain previously unidentified structures and below ground archaeological remains associated with the ironworks (History Website 2018).

<b>Reference</b>	AHHLV 18	<b>Name</b>	Fishley Farm
------------------	----------	-------------	--------------

The AHHLV contains evidence of past mineral extraction and also contains a possible medieval moated site, which could provide evidence about the pre-industrial land usage in the area. The moat appears to have been infilled but could still contain waterlogged remains, which could reveal further information about the medieval landscape. A locally listed late 18th century barn also survives within the moated site.

A number of industrial buildings associated with Fishery Colliery and Shaft are also present within the AHHLV providing evidence of former coal extraction. A watermill is also recorded within the AHHLV. Some of the structures associated with the Colliery appear to survive, including a mid-19th century former engine and boiler house (now locally listed). The Wyrley and Essington Canal Extension passes through the eastern part of the AHHLV.

<b>Reference</b>	AHHLV 43	<b>Name</b>	Pelsall Common
------------------	----------	-------------	----------------

The AHHLV contains Pelsall Common. Pelsall was first mentioned in a charter of 994 AD amongst various lands granted to the monastery at Wolverhampton. The land was still part of the monastery lands at the time of the Domesday Survey in 1086, which describes the area as wasteland (probably an area of lowland heath similar to that found at Brownhills Common or Cannock Chase). The common is shown as unenclosed on Yates' 1798 map of Staffordshire and continues to be so marked until the 1920-24 Ordnance Survey map, when it appears to have been utilised as parkland, although it is still referred to as Pelsall Common. The tree lined avenues were present by the 1902-1904 Ordnance Survey map while the routes that they line are present on the 1st edition Ordnance Survey map of 1887-89.

The first known settlement in the area is recorded in the 14th century and was focused in the area now known as Old Town outside the AHHLV. Common edge settlement appeared on the edges of the common during the 19th century as a result of the industrialisation of the area. The northern part of the common was used as an iron works during the 19th century, and a gravel pit is shown within the common from the 1st edition Ordnance Survey map, highlighting the early industrial exploitation of it.

The AHHLV draws archaeological interest from the industrial features within it. It also represents a surviving expanse of common land that does not appear to have been developed or farmed. Away from the disturbance caused by mineral activities within the common there is the potential for well-preserved archaeological remains to survive.

<b>Reference</b>	AHHLV 12	<b>Name</b>	Rails Wood
------------------	----------	-------------	------------

Rails Wood is an area of semi-natural ancient woodland. It has the potential to contain well preserved prehistoric and Roman 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.

<b>Reference</b>	APA 1	<b>Name</b>	Pelsall Burnt Mound
------------------	-------	-------------	---------------------

The APA contains black earth and burnt stones, which have been recorded in the area since the early 20th century. These remains are thought to be the surviving elements of a prehistoric burnt mound. A mound was recorded at this location but this has since been eroded by the stream. The APA has the potential to contain below-ground archaeological remains associated with the burnt mound. These remains are rare as there is very little surviving prehistoric archaeology in Walsall.

<b>Reference</b>	AHHTV 3	<b>Name</b>	Wyrley and Essington Canal extension through Bloxwich, Pelsall and Brownhills
------------------	---------	-------------	---

The AHHTV contains the Wyrley and Essington Canal Extension. The canal extension was opened in 1794 as an extension to link the original Wyrley and Essington Canal (opened in 1794) to the Birmingham and Fazeley canal. This extension linked the Bloxwich, Pelsall and Brownhills areas with the rest of Staffordshire. The canal was used to export coal from the Wolverhampton area. The presence of this new transport link led to the development and industrialisation of this part of Walsall.

### Historic Environment Area Designations [1]

The AHHTV contains Four Grade II listed buildings (the Wyrley and Essington Canal Foot Bridge at Pelsall Junction, the Pelsall Works Bridge, the aqueduct over the railway line to the north of Number 50 Raymond Close, and the Railway bridge, approximately 100m south east of Backs Bridge, Pelsall Road) and two locally listed buildings (Yorks Bridge and Coopers Bridge). 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.

The AHHTV interacts with the industrial landscapes at Brownhills Common, Pelsall Works and Fishley Farm showcasing the connection between the canal and the industrial development of the area. The listed buildings within the AHHTV are all directly associated with the canal which makes a significant contribution to the setting of these buildings.

<b>Reference</b>	APA 23	<b>Name</b>	Coal Pool Mill
------------------	--------	-------------	----------------

The APA contains an old mill pool (now dried up) and the earthwork remains of a dam. The dam stretches across the valley floor and there is a general scatter of forge cinder surrounding it. Yates' 1778 map shows a pond at this location. It is thought to be the site of a possible medieval bloomery and later post-medieval mill. The area has the potential to contain evidence of medieval iron working. Bloomery sites were widely spread across the country but physical remains are rare and often represented by concentrations of ironworking debris.

<b>Reference</b>	APA 20	<b>Name</b>	Goscote Bloomery
------------------	--------	-------------	------------------

The APA contains a mound of ash cinder and early bloomery slag of suggested medieval date and has been interpreted as the remains of a medieval bloomery. Bloomery sites were widely spread across the country but physical remains are rare and often represented by concentrations of ironworking debris.

### Waterbody Catchments

<b>River Basin District</b>	Humber	<b>Management Catchment</b>	Tame, Anker and Mease
<b>Waterbody Catchment</b>	<b>Overall Classification</b>	<b>Ecological</b>	<b>Chemical</b>
Ford Brook from Source to River Tame	Moderate (2019)	Moderate (2019)	Fail (2019)

Key Habitats [2]			
Broad Habitat Type	Arable & Horticultural	Priority Habitat	
There is a concentration of arable fields in the north of the ecological sub-area which are mostly rectilinear and therefore of later enclosure origin, however, in the north-east there is an area of irregular fields which may be earlier. Many of the arable fields have been created through the amalgamation of a number of smaller fields, and in some cases the former hedgerows are represented by field trees.			
Broad Habitat Type	Boundary & Linear Features	Priority Habitat	Hedgerows
Numerous field boundary hedgerows throughout the sub-area associated with rectilinear fields created through Parliamentary enclosure, and in the north-west some which may be from earlier piecemeal enclosure in the late medieval/ early post-medieval periods. Hedgerow trees are scarce in the former but frequent in the latter. Only a small proportion of the hedgerows have been assessed against the Local Wildlife Sites selection criteria and of these a number in the northern (e.g. Farmland at Yorks Bridge) and central parts (High Heath Common Farmland) of the ecological sub-area have been selected as SLINCs. Assessment of aerial photography suggests many of the hedgerows are defunct and there is significant variation in hedgerow size (i.e. management practice).			
Broad Habitat Type	Standing Open Water	Priority Habitat	Ponds
There is a relatively high number of ponds within the ecological sub-area, many of which are within sites designated for their ecological value (SSSI, LNR, SINC and SLINC). Some of the ponds are likely to be field ponds of pre-industrial origin and are depicted on historic mapping (19 <sup>th</sup> century OS) in areas unaffected by 19 <sup>th</sup> and 20 <sup>th</sup> century industry. Many are, however, associated with former industrial land use including mine subsidence and other extraction industries. Due to both the underlying geology/soil conditions and the legacy of industrial activity, the vegetation communities of many of the ponds are likely to be influenced by acidic conditions.			
Broad Habitat Type	Standing Open Water	Priority Habitat	Eutrophic Standing Waters
There are two waterbodies in Brownhills Common & Pelsall which are over 2 hectares in extent and which, although the trophic status of these isn't confirmed, are likely to meet the definition of Eutrophic Standing Waters. These are Ryders Hayes Mere in the north of the ecological sub-area which was created in the 1990s on the site of an opencast coal mine, and The Swag in south-east, part of which is designated as a SSSI for its value to roosting hirundines.			
Broad Habitat Type	Standing Open Water	Priority Habitat	
<p>The Wyrley &amp; Essington Canal is a significant feature in Brownhills Common &amp; Pelsall, with a substantial section of this meandering through the northern and western parts of 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 as populations of coarse fish, freshwater invertebrates and wetland birds.</p> <p>A short stretch of the Cannock Extension Canal is situated within Pelsall North Common in the north of the ecological sub-area from its junction with the Wyrley &amp; Essington. The canal is designated as both a SSSI and SAC for its rich aquatic flora.</p>			
Broad Habitat Type	Rivers and Streams	Priority Habitat	Rivers
There are three watercourses (the Grange Brook and Ford Brook which rise in the north, and the Anchor Brook that rises in the east) along with numerous minor tributaries and drains within Brownhills Common & Pelsall. The confluences of the three watercourses are in the south of the ecological sub-area, eventually becoming the Ford Brook which flows southwards towards Walsall town centre. The channels of the watercourses are frequently modified and support few natural features associated with sediment erosion and deposition, however, some stretches within parts of the agricultural landscape are less modified and support more diverse natural features. There is a known barrier to fish movement at the confluence of the Ford Brook and Rough Brook in the south of the ecological sub-area.			
Broad Habitat Type	Acid Grassland	Priority Habitat	Lowland Dry Acid Grassland
Lowland dry acid grassland is present within Brownhills Common & Pelsall on both undisturbed and post-industrial substrates, more frequently on the latter at sites including Pelsall North Common and Brownhills Common.			

**Key Habitats [2]**

Pastures are frequent throughout the sub-area and further areas of acidic grassland may be present. Some roadside grasslands may also support the Priority Habitat.

<b>Broad Habitat Type</b>	Dwarf Shrub Heath	<b>Priority Habitat</b>	Lowland Heathland
---------------------------	-------------------	-------------------------	-------------------

There are areas of remnant lowland heathland dominated by Common Heather at Pelsall North Common, Brownhills Common and Pelsall Common. Heather and other associated heathland species have also become established on post-industrial substrates at Pelsall North Common and Brownhills Common.

<b>Broad Habitat Type</b>	Bog	<b>Priority Habitat</b>	Lowland raised bog
---------------------------	-----	-------------------------	--------------------

Stubber's Green Bog SSSI in the south-east of the ecological sub-area is a heavily degraded area of peat bog which has been partially drained and is heavily scrubbed over.

<b>Broad Habitat Type</b>	Fen, Marsh and Swamp	<b>Priority Habitat</b>	Purple Moor Grass and Rush Pasture
---------------------------	----------------------	-------------------------	------------------------------------

Areas of floristically diverse damp and marshy grassland, some of which meets the description of Purple Moor Grass and Rush Pasture, are present on poorly drained acidic soils on both undisturbed and post-industrial substrates at sites including Jockey Fields, Brownhills Common, Pelsall North Common and Clayhanger.

<b>Broad Habitat Type</b>	Broadleaved, Mixed and Yew Woodland	<b>Priority Habitat</b>	Lowland mixed deciduous woodland
---------------------------	-------------------------------------	-------------------------	----------------------------------

There are two areas of woodland within Brownhills Common & Pelsall that are designated as Ancient Semi-natural Woodland by Natural England, both of which are remnants of larger sites as depicted on 19<sup>th</sup> century OS mapping. Birch Coppice in the north of the ecological sub-area is Oak and Birch-dominated, has been heavily disturbed by historic industrial activity including tipping of colliery waste, and supports a typical acidic woodland flora. Rails Wood in the south is Birch-dominated, supports a similar flora and may have been clear-felled in the early 20<sup>th</sup> century.

<b>Broad Habitat Type</b>	Broadleaved, Mixed and Yew Woodland	<b>Priority Habitat</b>	
---------------------------	-------------------------------------	-------------------------	--

There are several small mature Oak-dominated woodlands in the ecological sub-area which are considered to be old plantations and not ancient. These include Grange Farm Wood and Turner's Wood off Pelsall Common.

There are substantial areas of secondary woodland in the north of the ecological sub-area, with a concentration at Brownhills Common that has colonised large areas of colliery workings and spoil. This is predominantly Birch-dominated and supports a species-poor field-layer. Young Birch woodland has also colonised parts of Pelsall North Common and Mill Lane nature reserve in the south of the ecological sub-area.

There are a number of areas of young planted woodland throughout Brownhills Common & Pelsall, predominantly of native broad-leaved species, at sites including Ryder's Hayes Mere, Goscote Wedge, Clayhanger Common and to the south of Rails Wood, as well as between the fairways of Bloxwich Golf Club.



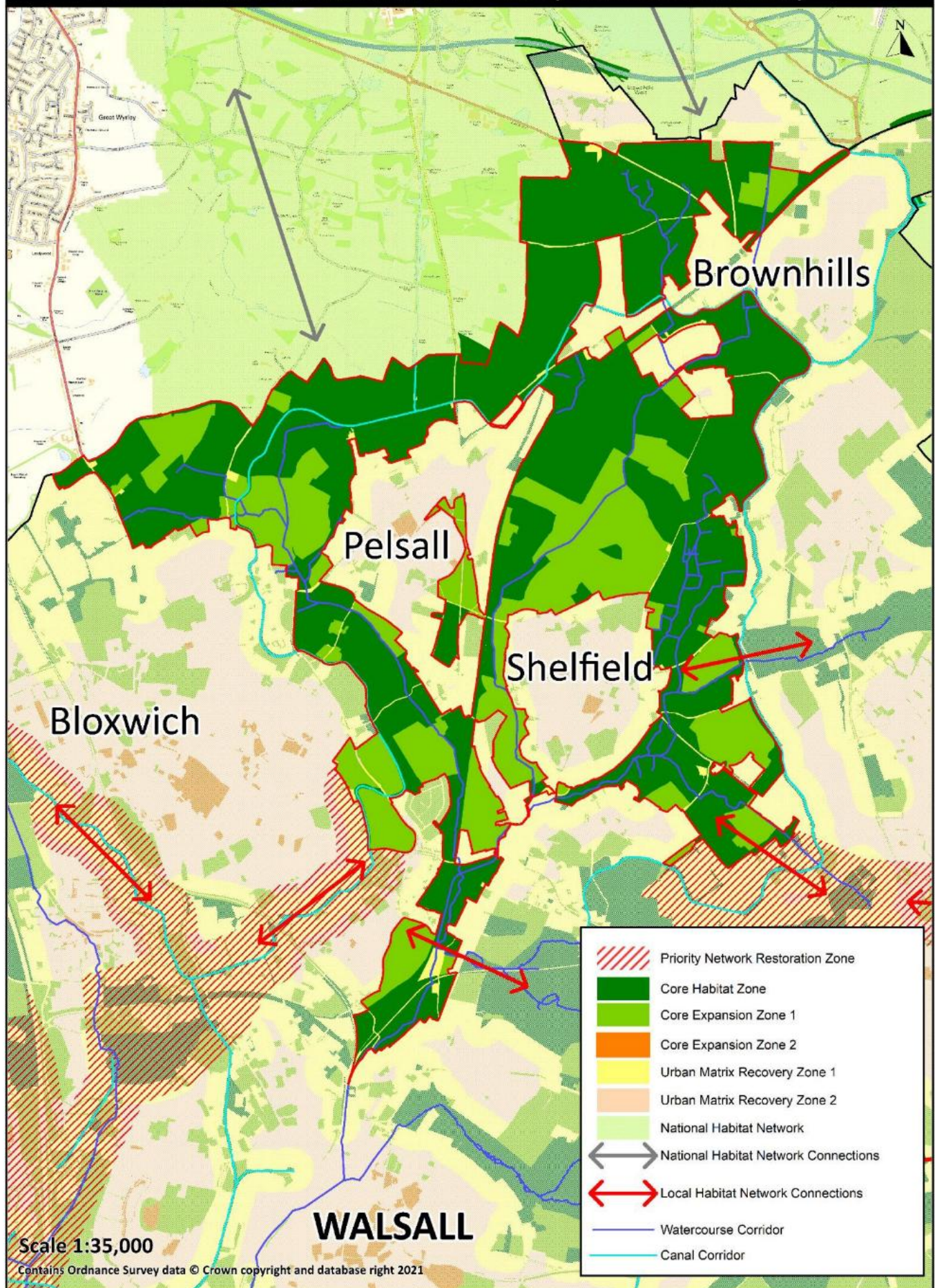
Key Species [3]	
Bird indicators	
Farmland	Common Reed Bunting, Eurasian Skylark, Goldfinch, Greenfinch, Grey Partridge, Jackdaw, Kestrel, Lapwing, Linnet, Rook, Starling, Stock Dove, Tree Sparrow, Whitethroat, Woodpigeon, Yellowhammer.
Woodland	Blackbird, Chiffchaff, Coal Tit, Common Chaffinch, Dunnock, Eurasian Blackcap, Eurasian Blue Tit, Eurasian Bullfinch, Eurasian Nuthatch, Eurasian Wren, European Green Woodpecker, Great Spotted Woodpecker, Great Tit, Jay, Lesser Spotted Woodpecker, Lesser Whitethroat, Long-tailed Tit, Robin, Song Thrush, Sparrowhawk, Tawny Owl, Tree Pipit, Treecreeper, Willow Tit, Willow Warbler, Wood Warbler.
Water & Wetland	Common Merganser, Common Reed Bunting, Common Sandpiper, Eurasian Coot, Great Crested Grebe, Grey Heron, Grey Wagtail, Kingfisher, Lapwing, Little Grebe, Mallard, Moorhen, Mute Swan, Oystercatcher, Reed Warbler, Sand Martin, Snipe, Teal, Tufted Duck
Other	Black-headed Gull, Buzzard, Carrion Crow, Collared Dove, Common Firecrest, Common House Martin, Cuckoo, Eurasian Magpie, Gadwall, Hobby, House Sparrow, Meadow Pipit, Mistle Thrush, Northern Raven, Pied Wagtail, Pied Wagtail, Pochard, Shoveler, Stonechat, Swallow, Swift, Whinchat.
Amphibians & Reptiles	
Amphibians	Common Frog, Common Toad, Great Crested Newt, Smooth Newt.
Reptiles	Common Lizard
Mammals	
Bats	Brown Long-eared Bat, Common Pipistrelle, Daubenton's Bat, Noctule Bat, Soprano Pipistrelle.
Other	Brown Hare, Eurasian Badger, European Otter, European Water Vole, Polecat, West European Hedgehog.
Fish	
Bony Fish	Barbel
Jawless Fish	none
Invertebrates	
Assemblage type	
Flora (axiophytes)	
Woodland	<i>Ajuga reptans</i> , <i>Angelica sylvestris</i> , <i>Athyrium filix-femina</i> , <i>Blechnum spicant</i> , <i>Brachypodium sylvaticum</i> , <i>Bromopsis ramosa</i> , <i>Caltha palustris</i> , <i>Cardamine amara</i> , <i>Carex remota</i> , <i>Deschampsia flexuosa</i> , <i>Dryopteris affinis</i> , <i>Festuca gigantea</i> , <i>Filipendula ulmaria</i> , <i>Fragaria vesca</i> , <i>Frangula alnus</i> , <i>Lysimachia vulgaris</i> , <i>Malus sylvestris</i> , <i>Mercurialis perennis</i> , <i>Milium effusum</i> , <i>Molinia caerulea</i> , <i>Persicaria hydropiper</i> , <i>Poa nemoralis</i> , <i>Polystichum setiferum</i> , <i>Quercus petraea</i> , <i>Scirpus sylvaticus</i> , <i>Stellaria holostea</i> , <i>Teucrium scorodonia</i> , <i>Tilia cordata</i> , <i>Torilis japonica</i> , <i>Veronica montana</i>
Grassland	<i>Achillea ptarmica</i> , <i>Agrimonia eupatoria</i> , <i>Agrostis canina</i> , <i>Aira caryophyllaea</i> , <i>Ajuga reptans</i> , <i>Blechnum spicant</i> , <i>Brachypodium sylvaticum</i> , <i>Briza media</i> , <i>Caltha palustris</i> , <i>Campanula rotundifolia</i> , <i>Carex caryophyllaea</i> , <i>Centaureum erythraea</i> , <i>Cerastium semidecandrum</i> , <i>Cirsium dissectum</i> , <i>Cirsium palustre</i> , <i>Dactylorhiza fuchsii</i> , <i>Dactylorhiza fuchsii</i> x <i>praetermissa</i> = <i>D. x grandis</i> , <i>Dactylorhiza praetermissa</i> , <i>Dactylorhiza praetermissa</i> x <i>purpurella</i> = <i>D. x insignis</i> , <i>Danthonia decumbens</i> , <i>Daucus carota</i> subsp. <i>carota</i> , <i>Deschampsia flexuosa</i> , <i>Euphrasia</i> , <i>Euphrasia nemorosa</i> , <i>Euphrasia officinalis</i> agg., <i>Festuca filiformis</i> , <i>Filipendula ulmaria</i> , <i>Fragaria vesca</i> , <i>Galium saxatile</i> , <i>Isolepis setacea</i> , <i>Lathyrus nissolia</i> , <i>Leontodon hispidus</i> , <i>Linum catharticum</i> , <i>Lotus pedunculatus</i> , <i>Nardus stricta</i> , <i>Odontites vernus</i> , <i>Ononis repens</i> , <i>Persicaria bistorta</i> , <i>Plantago media</i> , <i>Potentilla erecta</i> , <i>Poterium sanguisorba</i> subsp. <i>sanguisorba</i> , <i>Rhinanthus minor</i> , <i>Sanguisorba officinalis</i> , <i>Sherardia arvensis</i> , <i>Silene flos-cuculi</i> , <i>Stachys officinalis</i> , <i>Stellaria holostea</i> , <i>Succisa pratensis</i> , <i>Taraxacum</i> sect. <i>Erythrosperma</i> , <i>Trifolium medium</i> .
Heathland	<i>Agrostis canina</i> , <i>Agrostis vinealis</i> , <i>Aira praecox</i> , <i>Blechnum spicant</i> , <i>Calluna vulgaris</i> , <i>Campanula rotundifolia</i> , <i>Carex nigra</i> , <i>Carex pilulifera</i> , <i>Dactylorhiza maculata</i> , <i>Danthonia decumbens</i> , <i>Deschampsia flexuosa</i> , <i>Erica cinerea</i> , <i>Erica tetralix</i> , <i>Festuca filiformis</i> , <i>Galium saxatile</i> , <i>Juncus squarrosus</i> , <i>Luzula multiflora</i> , <i>Luzula multiflora</i> subsp. <i>congesta</i> , <i>Molinia caerulea</i> , <i>Nardus stricta</i> , <i>Oreopteris limbosperma</i> , <i>Pedicularis sylvatica</i> , <i>Polygala serpyllifolia</i> , <i>Potentilla erecta</i> , <i>Salix aurita</i> , <i>Senecio sylvaticus</i> , <i>Teucrium scorodonia</i> , <i>Ulex gallii</i> , <i>Vaccinium myrtillus</i> , <i>Vaccinium vitis-idaea</i> .

<b>Mires</b>	<i>Achillea ptarmica</i> , <i>Agrostis canina</i> , <i>Agrostis vinealis</i> , <i>Anagallis tenella</i> , <i>Angelica sylvestris</i> , <i>Apium inundatum</i> , <i>Athyrium filix-femina</i> , <i>Briza media</i> , <i>Calamagrostis epigejos</i> , <i>Caltha palustris</i> , <i>Cardamine amara</i> , <i>Carex acuta</i> , <i>Carex acutiformis</i> , <i>Carex nigra</i> , <i>Carex panicea</i> , <i>Carex pseudocyperus</i> , <i>Carex riparia</i> , <i>Carex rostrata</i> , <i>Carex viridula</i> subsp. <i>oedocarpa</i> , <i>Cirsium dissectum</i> , <i>Cirsium palustre</i> , <i>Dactylorhiza fuchsii</i> , <i>Dactylorhiza fuchsii</i> x <i>praetermissa</i> = <i>D. x grandis</i> , <i>Dactylorhiza maculata</i> , <i>Dactylorhiza praetermissa</i> , <i>Dactylorhiza praetermissa</i> x <i>purpurella</i> = <i>D. x insignis</i> , <i>Dryopteris carthusiana</i> , <i>Eleocharis palustris</i> , <i>Eleogiton fluitans</i> , <i>Epilobium palustre</i> , <i>Equisetum fluviatile</i> , <i>Equisetum palustre</i> , <i>Erica tetralix</i> , <i>Eriophorum angustifolium</i> , <i>Eriophorum vaginatum</i> , <i>Filipendula ulmaria</i> , <i>Galium palustre</i> , <i>Galium palustre</i> subsp. <i>palustre</i> , <i>Glyceria declinata</i> , <i>Glyceria notata</i> , <i>Hydrocotyle vulgaris</i> , <i>Hypericum tetrapterum</i> , <i>Isolepis setacea</i> , <i>Jacobaea aquatica</i> , <i>Juncus acutiflorus</i> , <i>Juncus bulbosus</i> , <i>Juncus squarrosus</i> , <i>Lotus pedunculatus</i> , <i>Luzula multiflora</i> , <i>Luzula multiflora</i> subsp. <i>congesta</i> , <i>Lysimachia vulgaris</i> , <i>Lythrum portula</i> , <i>Molinia caerulea</i> , <i>Pedicularis sylvatica</i> , <i>Persicaria hydropiper</i> , <i>Potamogeton polygonifolius</i> , <i>Potentilla palustris</i> , <i>Pulicaria dysenterica</i> , <i>Ranunculus aquatilis</i> , <i>Ranunculus aquatilis</i> , <i>Ranunculus circinatus</i> , <i>Ranunculus flammula</i> , <i>Ranunculus hederaceus</i> , <i>Scirpus sylvaticus</i> , <i>Silene flos-cuculi</i> , <i>Sparganium emersum</i> , <i>Stachys palustris</i> , <i>Stellaria alsine</i> , <i>Succisa pratensis</i> , <i>Triglochin palustre</i> , <i>Veronica beccabunga</i> , <i>Veronica scutellata</i> .
<b>Open Water</b>	<i>Apium inundatum</i> , <i>Bidens cernua</i> , <i>Bidens tripartita</i> , <i>Butomus umbellatus</i> , <i>Carex acuta</i> , <i>Carex acutiformis</i> , <i>Carex pseudocyperus</i> , <i>Carex riparia</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>Luronium natans</i> , <i>Lythrum portula</i> , <i>Potamogeton friesii</i> , <i>Potamogeton lucens</i> , <i>Potamogeton perfoliatus</i> , <i>Potamogeton polygonifolius</i> , <i>Ranunculus aquatilis</i> , <i>Ranunculus aquatilis</i> , <i>Ranunculus circinatus</i> , <i>Sagittaria sagittifolia</i> , <i>Schoenoplectus lacustris</i> , <i>Veronica catenata</i> , <i>Veronica scutellata</i> .
<b>Post-industrial (water-stressed)</b>	<i>Agrimonia eupatoria</i> , <i>Aira caryophylla</i> , <i>Aira praecox</i> , <i>Anthyllis vulneraria</i> , <i>Arenaria serpyllifolia</i> , <i>Arenaria serpyllifolia</i> , <i>Arenaria serpyllifolia</i> subsp. <i>serpyllifolia</i> , <i>Asplenium adiantum-nigrum</i> , <i>Blechnum spicant</i> , <i>Centaurea scabiosa</i> , <i>Centaureum erythraea</i> , <i>Cerastium semidecandrum</i> , <i>Chaenorhinum minus</i> , <i>Daucus carota</i> subsp. <i>carota</i> , <i>Deschampsia flexuosa</i> , <i>Erigeron acris</i> , <i>Erophila verna</i> , <i>Erophila verna</i> , <i>Filago vulgaris</i> , <i>Fragaria vesca</i> , <i>Jacobaea erucifolia</i> , <i>Linum catharticum</i> , <i>Ophrys apifera</i> , <i>Polygala serpyllifolia</i> , <i>Poterium sanguisorba</i> subsp. <i>sanguisorba</i> , <i>Reseda lutea</i> , <i>Senecio viscosus</i> , <i>Sherardia arvensis</i> , <i>Silene vulgaris</i> , <i>Silene vulgaris</i> subsp. <i>vulgaris</i> , <i>Taraxacum sect. Erythrosperma</i> , <i>Trifolium arvense</i> , <i>Trifolium medium</i> , <i>Vicia tetrasperma</i> .
<b>Cultivation</b>	<i>Chenopodium polyspermum</i> , <i>Vicia tetrasperma</i> .

<b>Ecological Connectivity</b>
<b>Local Habitat Network</b>
<p>Direct ecological connection to the local habitat network in Core Landscape 05 (Barr Beacon, Druid's Heath &amp; Shire Oak) and Core Landscape 06 (Park Lime Pits, Cuckoo's Nook and Great Barr Hall).</p> <p>Midlands Heathland Heartland Lowland Heathland Nature Recovery Opportunity Mapping (EcoRecord and Staffordshire Ecological Record, 2021) identifies a heathland connectivity bottleneck within the ecological sub-area and this and between Core Landscape 05.</p> <p>Link via Priority Network Restoration Zone Daw End Branch Canal &amp; Aldridge Town linking CL04 to CL05 and CL06.</p>
<b>National Habitat Network</b>
<p>There is a direct ecological connection along almost the entire northern boundary to the National Habitat Network in rural South Staffordshire.</p> <p>Indirect connection to Cannock Chase SAC (Staffordshire) via rural heathland sites in Walsall and Staffordshire (inc. Chasewater and The Southern Staffordshire Coalfield Heaths SSSI) identified in Midlands Heathland Heartland Lowland Heathland Nature Recovery Opportunity Mapping.</p>



## CL04 - Brownhills Common and Pelsall - Components & Connectivity



## Ecological Sub-area Opportunities

Focus Habitats		
Habitat	Action	Measure
Arable Field Margins	Create new	New habitat
Hedgerows	Improve management of existing	Habitat in good condition
	Restore through gapping up	Habitat in good condition
	Reinstate lost field-boundary hedgerows	New habitat
	Establish hedgerow trees	Habitat structure improved
Lowland Heathland	Improve habitat at existing sites	Habitat in good condition
	Create new	New habitat at existing and new sites
Lowland dry acid grassland	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
Ponds	Restore existing	Habitat in good condition
	Create new	New habitat at existing and new sites
Purple Moor Grass and Rush Pasture	Improve habitat at existing sites	Habitat in good condition
	Create new	New habitat at existing and new sites
Rivers	Improve soil management	Reduced silt inputs to watercourses
	Reduce artificial inputs	Improved chemical status
	Restore hydromorphology (naturalise modified channels and mitigate barriers)	Improved ecological status

Target Species	
Species/Species Group	Measure
Adder	Confirmed recent records
Breeding farmland birds (specialists)	Increased species and abundance
Breeding woodland birds (specialists)	Increased species and abundance
Brown Long-eared Bat	Confirmed recent records
Common Lizard	Confirmed recent records
Cuckoo	Confirmed recent records
Great Crested Newt	Increased abundance and number of sites
Heather	Increased abundance and number of sites
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
Post-industrial axiophytes	Recent records and increased abundance

Geodiversity		
Site	Action	Measure
None	n/a	



Connectivity Opportunities	
Local Habitat Network	
Connection	Action
Within Core Landscape CL04	Heathland associated habitat enhancement and creation at arable and other undeveloped land including golf courses, school grounds and substantial road verges.
	Woodland enhancement and planting on non-grassland or heathland sites.
	Field boundary hedgerow restoration and creation.
	Restoration and creation of peat-forming habitats.
Priority Network Restoration Zone Wyrley & Essington Canal linking CL04 to CL03 and wider ecological network.	Reduction of artificial inputs to canal waterbody.
	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.
	Planting of standard trees (including fruit trees) along canal corridor.
Priority Network Restoration Zone Daw End Branch Canal & Aldridge Town linking CL04 to CL05 and CL06.	Reduction of artificial inputs to canal waterbody.
	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.
	Planting of standard trees (including fruit trees) along canal corridor.
National Habitat Network	
Staffordshire Heathlands inc. Chasewater and The Southern Staffordshire Coalfield Heaths SSSI	Heathland associated habitat enhancement and creation at arable and other undeveloped land including golf courses, school grounds and substantial road verges.
	Field boundary hedgerow restoration and creation.
	Planting of street trees along urban roads.
	Creation of new ponds and wetlands.



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: <a href="http://mapapps.bgs.ac.uk/geologyofbritain/home.html">http://mapapps.bgs.ac.uk/geologyofbritain/home.html</a>	2021
	Black Country UNESCO Global Geopark sites names and location information <a href="https://blackcountrygeopark.dudley.gov.uk/bcg/">https://blackcountrygeopark.dudley.gov.uk/bcg/</a>	2021
Soils	Soilscapes, Cranfield Soil & Agricultural Institute website: <a href="http://www.landis.org.uk/soilscapes/">http://www.landis.org.uk/soilscapes/</a>	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] <a href="https://doi.org/10.5284/1000030">https://doi.org/10.5284/1000030</a>	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.