Ecological Sub-area Statement of Biodiversity Priorities – Technical Appendix			
Sub-area ref.	CL05	**Sub-area name**	Barr Beacon, Druid's Heath and Shire Oak
NCA ref.	67	**Natural Character Area**	Cannock Chase & Cank Wood
Area km^2	10.79	**Local Authority Area**	Walsall

Ecological Sub-area Description

Overview

Barr Beacon, Druid's Heath and Shire Oak comprises the rural eastern part of both the borough of Walsall and of the Black Country, with Staffordshire to the north and east, the Black Country Settlements of Brownhills, Walsall Wood and Aldridge to the north-west, rural parts of Great Barr to the south-west and the modern settlements of Pheasey and Streetly to the south and south-east. Sutton Park (Birmingham) lies approximately 1 km to the south-east beyond Streetly.

Historically parts of the parishes of Shenstone and Aldridge (including the township of Great Barr), the landscape is dominated by rectilinear fields and some plantation woodlands that were enclosed from commons and open fields through Parliamentary Acts in the late 18th and early 19th centuries. Close to historic settlements there are earlier piecemeal and irregular enclosed fields.

Land Use

Predominantly arable agricultural with areas of pasture and dispersed farms. There are smaller areas of woodland and semi-natural mosaic habitat. There are a number of disused sand quarries including those at what are now Shire Oak Park Local Nature Reserve and Pinfold Lane Quarry Local Nature Reserve. Barr Beacon Local Nature Reserve is in the south of the sub-area comprising acid grassland, scrub, plantation woodland and recently created dry heathland. Druid's Heath Golf Course and Streetly Crematorium are also within the sub-area.

Topography

In the south of the sub-area Barr Beacon is the highest point in Walsall at 236 metres. From here the land falls away and levels out to the north and east to 130 metres, before rising again to 180 m at Shire Oak Park.

Geology

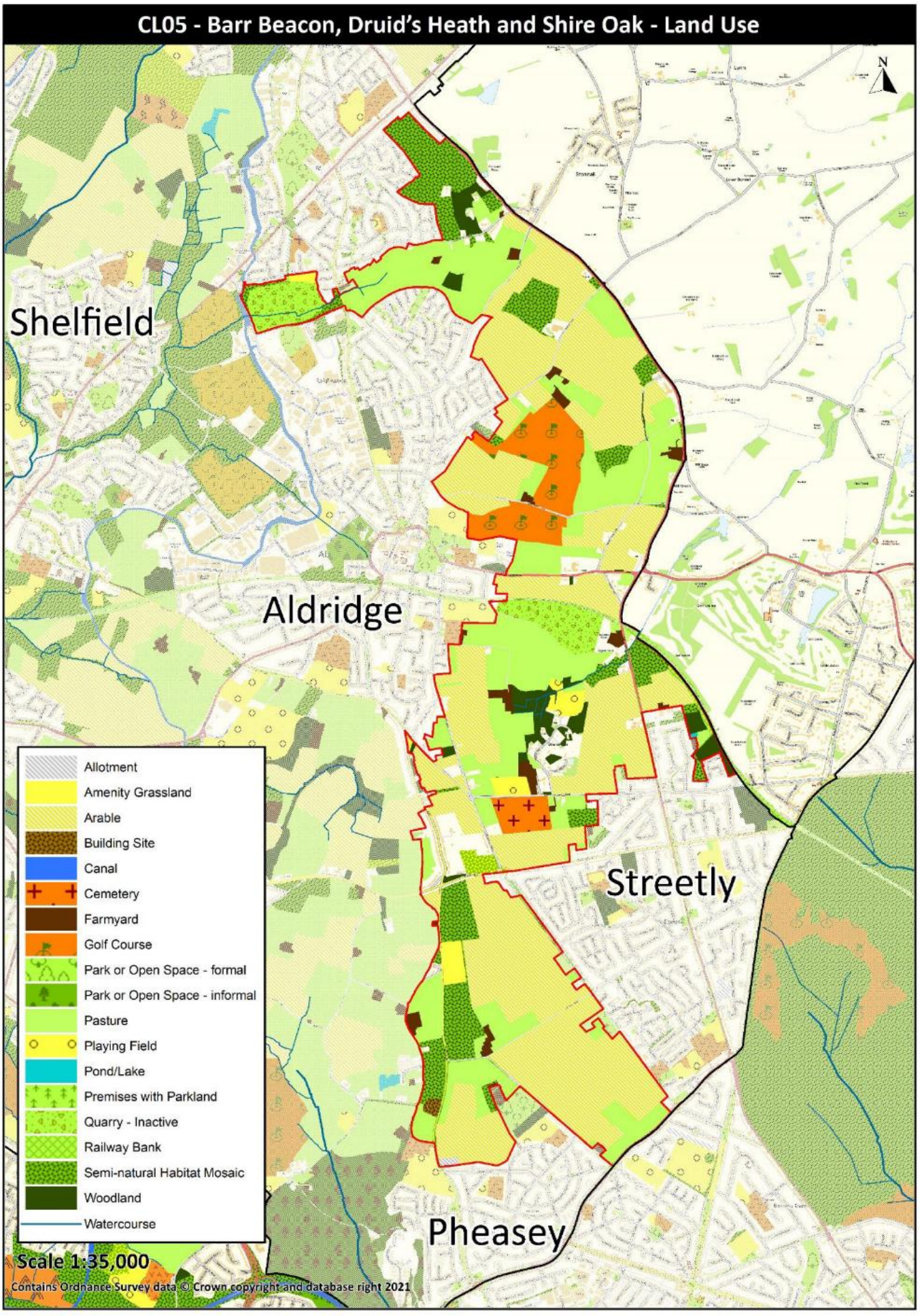
Dominated by Triassic Rocks (undifferentiated) Sandstone and Conglomerate, Interbedded sedimentary bedrock formed approximately 200 to 251 million years ago in the Triassic Period. In the north-west of the sub-area are Warwickshire Group Siltstone and Sandstone with Subordinate Mudstone. These sedimentary bedrocks formed approximately 271 to 312 million years ago in the Permian and Carboniferous Periods.

Geopark Sites

- Shire Oak Quarry Local Nature Reserve (GR SK060037)
- Barr Beacon Local Nature Reserve and Pinfold Lane Quarry (GR SP06099723)

Soils

The ecological sub-area is dominated by freely draining slightly acid sandy soils, whilst in the south-west is an area of freely draining very acid sandy and loamy soils. There are also small areas of freely draining slightly acid loamy soils, slightly acid loamy and clayey soils with impeded drainage, and in the east around the Footherley Brook loamy and sandy soils with naturally high groundwater and a peaty surface.


CL05 - Barr Beacon, Druid's Heath and Shire Oak - Land Use
N
Shelfield
Aldridge
Streetly
Pheasey
Allotment
Amenity Grassland
Arable
Building Site
Canal
Cemetery
Farmyard
Golf Course
Park or Open Space - formal
Park or Open Space - informal
Pasture
Playing Field
Pond/Lake
Premises with Parkland
Quarry - Inactive
Railway Bank
Semi-natural Habitat Mosaic
Woodland
Watercourse
Scale 1:35,000
Contains Ordnance Survey data © Crown copyright and database right 2021

Historic Landscape Character Areas			
Reference	WL09	**Name**	Barr Beacon & Aldridge Fields
The ecological sub-area is dominated by the eastern part of WL09 Barr Beacon & Aldridge Fields. This Character Area is situated in the east of the borough and is the most rural landscape in Walsall, with field systems covering 66% of its area. It has a mixed geology situated on mudstone and limestone in the west, sandstone, mudstone and conglomerate in the in the centre and sandstone in the east. The modern character of the area is defined largely by agricultural land and dispersed farms. The area also includes modern recreational land (golf courses), woodland, two areas of settlement, and an area of surviving ancient heathland (Barr Beacon). Historically the Character Area was in use as medieval open fields associated with Walsall, Aldridge, Stonnall and Great Barr. In the centre of the Character Area there were several medieval moated sites and many of the trackways and roads in this area are likely to be medieval in origin. The earliest settlement in the area is Great Barr, which was mentioned in a charter of AD 957. The surviving field systems in the Character Area were enclosed by either piecemeal enclosure in the late medieval/ early post-medieval periods from open field or were enclosed out of Aldridge Heath by Parliamentary Act.			

Historic Environment Area Designations [1]			
Reference	AHHLV 19	**Name**	Shire Oak Quarry
A large former sand and gravel extraction site which started as a marl pit in the early 19th century.			
Reference	AHHLV 15	**Name**	Kings Hayes Historic Field System
A well-preserved historic field system, which contains evidence of medieval strip fields and a mixture of cropmark and earthwork ridge and furrow.			
Reference	APA 5	**Name**	Castlefort
A scheduled Iron Age hillfort called Castlefort (NHLE ref: 1017244). The scheduled hillfort covers a 1.5ha area and is set in a naturally defensible position.			
Reference	APA 19	**Name**	Earthwork Mound at Aldridge
A small Tumulus, possibly the remains of a Bronze Age Barrow or a Windmill mound.			
Reference	AHHLV 3	**Name**	Bourne Vale
Was part of the open fields associated with Aldridge during the medieval period. It has a high potential to contain prehistoric remains and contains an area of ancient woodland, eroded ridge and furrow.			
Reference	APA 3	**Name**	Bourne Pool Area
Contains a range of archaeological remains including the site of a medieval iron mill and pool, a 15th-century charcoal burning site, a possible burnt mound and a Mesolithic - Neolithic flint scatter.			
Reference	AHHLV 11	**Name**	Great Barr Beacon
Contains an isolated north-south ridge of Bunter Pebble Beds and is the possible site of an Anglo-Saxon beacon. A number of prehistoric and Roman finds have been recorded within the area and the AHHLV contains the proposed location of an Iron Age Hillfort although no evidence of the hillfort has been discovered here.			
Reference	AHHTV 1	**Name**	Scattered Settlement at Over End
Comprises the remains of a dispersed linear settlement formed from a cluster of buildings probably built in the 18th century.			

Waterbody Catchments			
River Basin District	Humber	**Management Catchment**	Tame, Anker and Mease
Waterbody Catchment	**Overall Classification**	**Ecological**	**Chemical**
Crane Brook - source to Footherley Brook	Poor (2019)	Poor (2019)	Fail (2019)
Footherley Brook from Source to Black-Bourne Brook	Poor (2019)	Poor (2019)	Fail (2019)
Plants Brook Catchment (trib of Tame)	Moderate (2019)	Moderate (2019)	Fail (2019)
Ford Brook from Source to River Tame	Moderate (2019)	Moderate (2019)	Fail (2019)
Tame - conf two arms to R Rea	Moderate (2019)	Moderate (2019)	Fail (2019)

Key Habitats [2]			
Broad Habitat Type	Arable & Horticultural	**Priority Habitat**	
Arable agriculture dominates much of the sub-area. These fields are mostly of 18th and 19th century Parliamentary enclosure origin. No Priority Habitat Arable Field Margins have been recorded.			
Broad Habitat Type	Boundary & Linear Features	**Priority Habitat**	Hedgerows
Numerous field boundary hedgerows throughout the sub-area associated with mostly rectilinear fields created through Parliamentary enclosure, though some may be from earlier piecemeal enclosure in the late medieval/ early post-medieval periods. Only a small proportion of the hedgerows have been assessed against the Local Wildlife Sites selection criteria and of these a number in the central and northern parts of the sub-area have been selected as SLINCs. These are described as having a diverse woody component with mature standards and an acidic field-layer. The designated hedgerows form the boundaries to roads and tracks and are likely to be of more ancient origin than the more numerous rectilinear field boundary hedgerows of 18th and 19th century enclosures.			
Broad Habitat Type	Standing Open Waters	**Priority Habitat**	Ponds
A number of ponds have been recorded within designated SINCs.			
Broad Habitat Type	Rivers and Streams	**Priority Habitat**	Rivers
Two headwater streams have been recorded in the sub-area. These are a tributary of the Anchor Brook which rises in the north-west of the sub-area and flows west, and the Footherley Brook which rises in the centre of the sub-area in Corporation Wood and flows east.			
Broad Habitat Type	Acid Grassland	**Priority Habitat**	Lowland Dry Acid Grassland
Species-poor lowland dry acid grassland is present at Barr Beacon Local Nature Reserve. A small number of pastures within the sub-area are described as unimproved and supporting acid to neutral grassland with a diverse flora. 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.			
Broad Habitat Type	Neutral Grassland	**Priority Habitat**	
Areas of grazed pastures, roadside grasslands and grasslands of more recent origin - such as at inactive quarries - may be neutral.			
Broad Habitat Type	Dwarf Shrub Heath	**Priority Habitat**	Lowland Heathland
There are small areas of lowland heathland at Barr Beacon Local Nature Reserve which have been created via the strewing of cuttings from nearby semi-natural lowland heathland sites. There are records of Heather and other heathland species at Branton Hill Quarry and Shire Oak Local Nature Reserve.			
Broad Habitat Type	Improved Grassland	**Priority Habitat**	Coastal and Floodplain Grazing Marsh

Key Habitats [2]			
There are potentially areas of coastal and floodplain grazing marsh along the Footherley Brook.			
Broad Habitat Type	Broadleaved, Mixed and Yew Woodland	**Priority Habitat**	
The woodlands in the sub-area are mostly of planted or recent secondary origin and are described as having a botanically poor acidic field-layer. A number of these sites are designated as SLINC.			
Broad Habitat Type	Broadleaved, Mixed and Yew Woodland	**Priority Habitat**	Traditional Orchards
A number of small orchards associated with houses have been recorded on the Traditional Orchards HAP Inventory 2020.			

Key Species [3]	
Bird indicators	
Farmland	Common Reed Bunting, Eurasian Skylark, Goldfinch, Greenfinch, Jackdaw, Kestrel, Lapwing, Linnet, Rook, Starling, Stock Dove, 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, Garden Warbler, Goldcrest, Great Spotted Woodpecker, Great Tit, Jay, Lesser Redpoll, Long-tailed Tit, Robin, Siskin, Song Thrush, Sparrowhawk, Treecreeper, Willow Warbler.
Water & Wetland	Common Reed Bunting, Eurasian Coot, Grey Heron, Grey Wagtail, Kingfisher, Lapwing, Little Grebe, Mallard, Moorhen.
Other	Black-headed Gull, Buzzard, Carrion Crow, Collared Dove, Common House Martin, Cuckoo, Eurasian Magpie, Greylag Goose, House Sparrow, Meadow Pipit, Mistle Thrush, Northern Raven, Pied Wagtail, Swallow, Swift, Whinchat.
Amphibians & Reptiles	
Amphibians	*Common Frog, Common Toad, Great Crested Newt, Smooth Newt.*
Reptiles	none
Mammals	
Bats	*Brown Long-eared Bat, Common Pipistrelle, Daubenton's Bat, Lesser Noctule, Natterer's Bat, Noctule Bat, Soprano Pipistrelle, Whiskered/Brandt's Bat.*
Other	*Eurasian Badger, West European Hedgehog.*
Fish	
Bony Fish	none
Jawless Fish	none
Invertebrates	
Assemblage type	
Flora (axiophytes)	
Woodland	*Ajuga reptans, Allium ursinum, Anemone nemorosa, Angelica sylvestris, Athyrium filix-femina, Brachypodium sylvaticum, Bromopsis ramosa, Caltha palustris, Carex paniculata, Carex remota, Carex sylvatica, Chaerophyllum temulum, Deschampsia flexuosa, Dioscorea communis, Equisetum sylvaticum, Equisetum telmateia, Frangula alnus, Lysimachia nemorum, Malus sylvestris, Mercurialis perennis, Moehringia trinervia, Oxalis acetosella, Persicaria hydropiper, Quercus petraea, Stellaria holostea, Teucrium scorodonia.*
Grassland	*Achillea ptarmica, Agrimonia eupatoria, Aira caryophyllea, Ajuga reptans, Brachypodium sylvaticum, Caltha palustris, Campanula rotundifolia, Centaurium erythraea, Cerastium semidecandrum, Cirsium dissectum, Cirsium palustre, Dactylorhiza praetermissa, Danthonia decumbens, Daucus carota subsp. carota, Deschampsia flexuosa, Equisetum sylvaticum, Galium saxatile, Isolepis setacea, Leontodon hispidus, Lotus pedunculatus, Nardus stricta,*

	Odontites vernus, Phleum bertolonii, Potentilla erecta, Potentilla sterilis, Rhinanthus minor, Sherardia arvensis, Silene flos-cuculi, Stellaria holostea, Succisa pratensis, Trifolium medium, Trifolium arvense, Trifolium medium, Vicia tetrasperma.
Heathland	*Aira praecox, Calluna vulgaris, Campanula rotundifolia, Carex nigra, Carex pilulifera, Danthonia decumbens, Deschampsia flexuosa, Erica cinerea, Galium saxatile, Luzula multiflora, Nardus stricta, Potentilla erecta, Salix aurita, Teucrium scorodonia, Ulex gallii.*
Mires	*Achillea ptarmica, Angelica sylvestris, Athyrium filix-femina, Caltha palustris, Carex nigra, Carex panicea, Carex paniculata, Carex viridula subsp. oedocarpa, Cirsium dissectum, Cirsium palustre, Dactylorhiza praetermissa, Dryopteris carthusiana, Eleocharis palustris, Galium palustre, Glyceria declinata, Isolepis setacea, Juncus acutiflorus, Juncus bulbosus, Lotus pedunculatus, Luzula multiflora, Mentha arvensis, Persicaria hydropiper, Pulicaria dysenterica, Ranunculus hederaceus, Silene flos-cuculi, Stellaria alsine, Succisa pratensis, Triglochin palustre, Veronica beccabunga.*
Open Water	*Butomus umbellatus, Carex paniculata, Eleocharis palustris, Galium palustre.*
Post-industrial (water-stressed)	*Agrimonia eupatoria, Aira caryophyllea, Aira praecox, Centaurea scabiosa, Centaurium erythraea, Cerastium semidecandrum, Daucus carota subsp. carota, Deschampsia flexuosa, Filago vulgaris, Jacobaea erucifolia, Reseda lutea, Senecio viscosus, Sherardia arvensis, Trifolium arvense, Trifolium medium, Vicia tetrasperma.*
Cultivation	*Apera spica-venti, Fumaria muralis subsp. boraei, Thlaspi arvense, Vicia tetrasperma.*

Ecological Connectivity

Local Habitat Network

Direct ecological connection to the local habitat network in Core Landscape 04 (Brownhills Common & Pelsall) and Core Landscape 06 (Park Lime Pits, Cuckoo's Nook & Great Barr Hall).

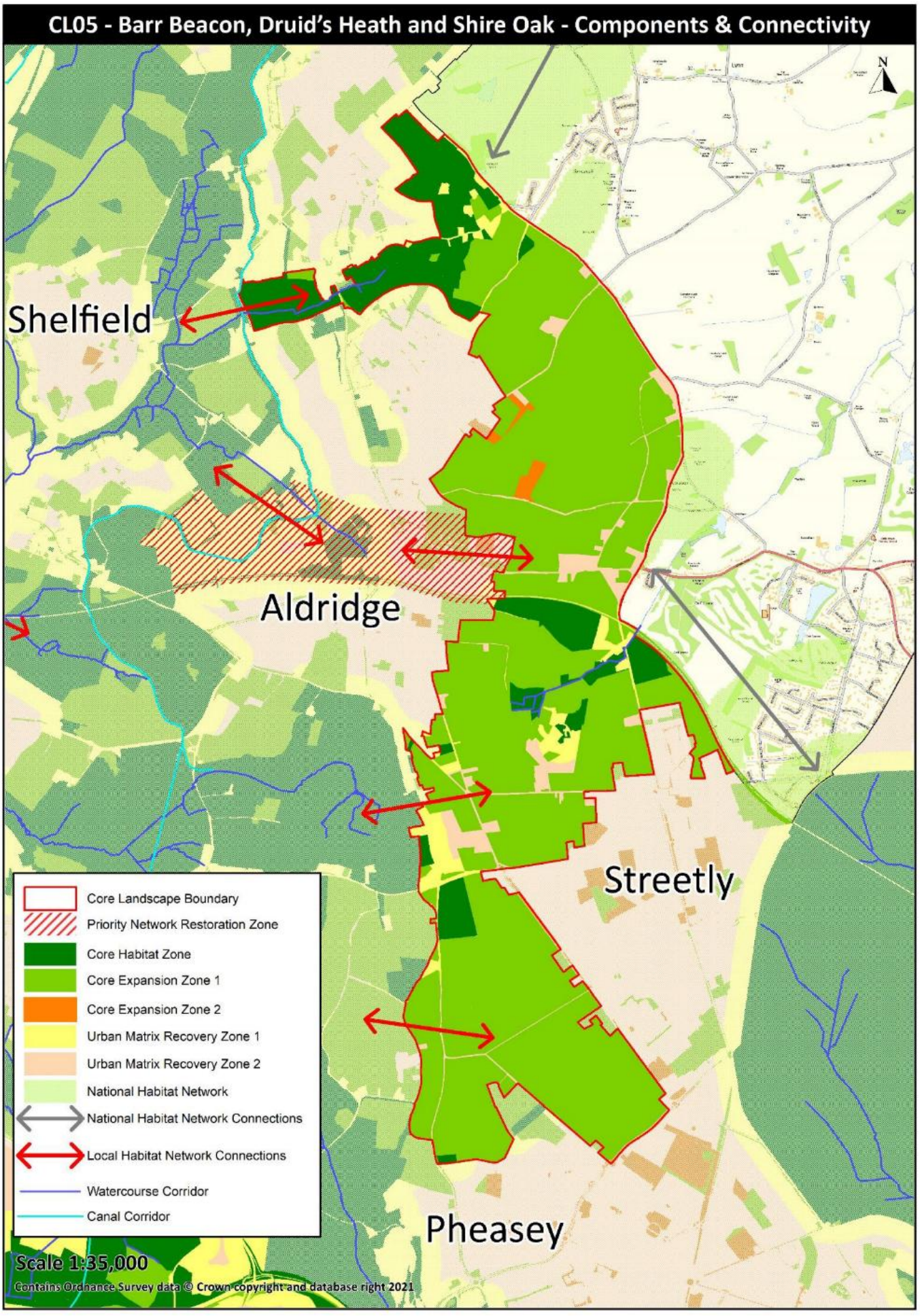
Midlands Heathland Heartland Lowland Heathland Nature Recovery Opportunity Mapping (EcoRecord and Staffordshire Ecological Record, 2021) identifies a heathland connectivity bottleneck between the two main heathland sites within the ecological sub-area (Shire Oak Park and Barr Beacon) which are located at the north and south of the sub-area respectively.

National Habitat Network

Direct ecological connection to the National Habitat Network in rural South Staffordshire.

Indirect connection to Sutton Park NNR (Birmingham) via Little Aston Golf Course and approximately 0.5 km urban development (Garden - large, mature). Midlands Heathland Heartland Lowland Heathland Nature Recovery Opportunity Mapping identifies a heathland connectivity bottleneck between Shire Oak Park and Sutton Park NNR (Birmingham).

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.


CL05 - Barr Beacon, Druid's Heath and Shire Oak - Components & Connectivity
N
Shelfield
Aldridge
Streetly
Pheasey
Core Landscape Boundary
Priority Network Restoration Zone
Core Habitat Zone
Core Expansion Zone 1
Core Expansion Zone 2
Urban Matrix Recovery Zone 1
Urban Matrix Recovery Zone 2
National Habitat Network
National Habitat Network Connections
Local Habitat Network Connections
Watercourse Corridor
Canal Corridor
Scale 1:35,000
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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
	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
	Create new	New habitat at existing and new sites
Ponds	Restore existing	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)	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**
Pinfold Lane Quarry	Vegetation removal/alternative Focus Habitat restoration or creation	Improved access to exposures/ alternative Focus Habitat restored or created
Shire Oak Quarry	Vegetation removal/alternative Focus Habitat restoration or creation	Improved access to exposures/ alternative Focus Habitat restored or created

Connectivity Opportunities	
Local Habitat Network	
Connection	**Action**
Within Core Landscape CL05	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.
Priority Network Restoration Zone linking CL04 and CL05	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 street trees along urban roads.
	Planting of standard trees in parks, green spaces and school grounds.
	Creation of new ponds.
	Enhancement of Daw End Branch Canal corridor including increasing extent of adjoining terrestrial habitats.
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.
Sutton Park	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.	2021
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) *Draft Black Country Local Nature Recovery Opportunity Map*	2021
	EcoRecord et al. (2021) *Midlands Heathland Heartland Lowland Heathland Nature Recovery Opportunity Mapping*.	2021
Historic Landscape Character Areas	Wolverhampton City Council (2010) *Black Country Historic Landscape Characterisation* [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.