

Ecological Sub-area Statement of Biodiversity Priorities – Technical Appendix

Sub-area name	Park Lime Pits, Cuckoo's Nook, The Dingle & Great Barr Park	Sub-area ref.	CL06
Natural Character Area	Cannock Chase and Cank Wood	NCA ref.	67
Local Authority Area	Walsall	Area km²	11.38

Ecological Sub-area Description

Overview

Park Lime Pits, Cuckoo's Nook, The Dingle & Great Barr Park comprises an area of the Walsall green belt that stretches from Aldridge in the north to Great Barr in the south, and to the north-west reaches almost to Walsall town centre at Walsall Arboretum. To the east of the ecological sub-area lies Core Landscape CL05 Barr Beacon, Druid's Heath & Shire Oak, whilst the remainder of the area is surrounded by the urban settlements of Aldridge, Rushall, Walsall, Great Barr and Pheasey.

Historically within the parishes of Rushall, Walsall and the township of Great Barr, the field systems in the area were enclosed by either piecemeal enclosure in the late medieval/early post-medieval periods from open fields, or were enclosed by later Parliamentary Acts. There are a number of former limestone quarries which now comprise public open spaces and are designated for their wildlife value. A section of the Daw End Branch Canal and linked Rushall Canal bisect the northern part of the ecological sub-area.

Park Lime Pits, Cuckoo's Nook, The Dingle & Great Barr Park is distinguished from the adjoining Core Landscape CL05 Barr Beacon, Druid's Heath & Shire Oak by its underlying geology and derived soils which are less acidic and did not historically support heathland.

Land Use

Predominantly arable and pastoral agricultural with dispersed farms. There are clusters of small woodlands in the central and southern parts of the area, and newly planted woodland at public open space sites including Aldridge Airport and Walsall Arboretum Extension. Semi-natural mosaic habitat has developed at sites including Hay Head Wood and the former quarry at Park Lime Pits Local Nature Reserve. There are two golf courses (Calderfields Golf & Country Club and Great Barr Golf Club) and the formal urban park Walsall Arboretum is located in the north-west. In the south of the ecological sub-area are the landscaped grounds of Great Barr Hall which are managed as farmland and public open space.

Topography

Generally sloping from highest elevations of 190 meters in the east and south-west to the valleys of the Rough Brook, Hoar Brook and Perry Brook which lie at an elevation of 150-120 meters.

Geology

The bedrock in of the north-western part of the ecological sub-area is sedimentary mudstone, siltstone and sandstone of Pennine Lower Coal Measures Formation formed between 319 and 318 million years ago during the Carboniferous period. The central area is Coalbrookdale Formation mudstone formed between 433.4 and 427.4 million years ago during the Silurian period, and the southern area Enville Member sandstone, conglomerate and argillaceous rocks formed between 309.5 and 272.3 million years ago during the Carboniferous and Permian periods.

Between the north-western and central areas there are several small formations of Lower Quarried Limestone formed between 430.5 and 427.4 million years ago during the Silurian period, and between the central and southern area a formation of Barr Limestone formed between 433.4 and 430.5 million years ago during the Silurian period.

The northern part 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.

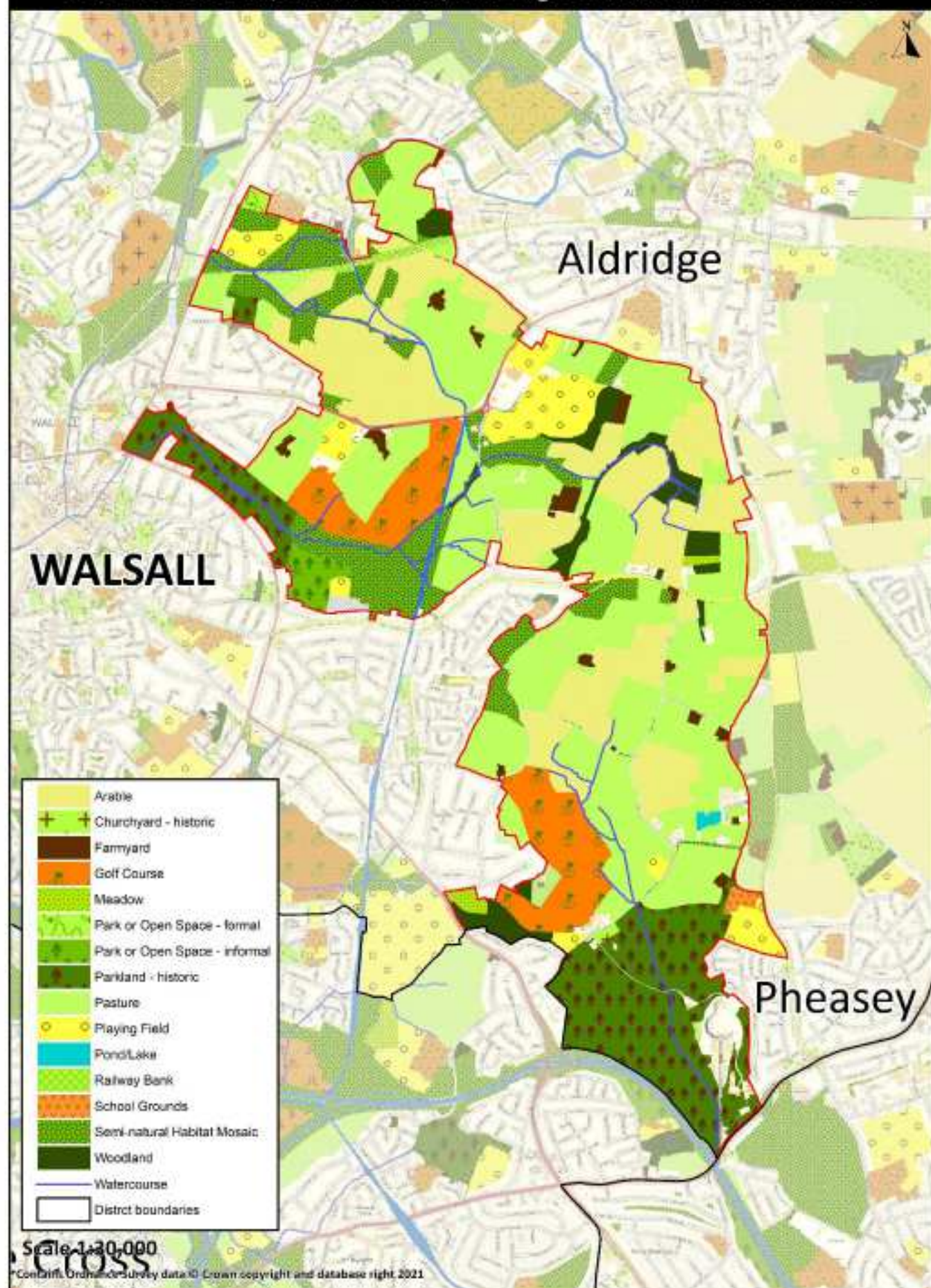
Geopark Sites

- Park Lime Pits Local Nature reserve (GR SK032001)
- Daw End Railway Cutting and Linley wood (GR SK035002)
- Walsall Arboretum (GR SP01959906)
- Hay Head and The Dingle LNR (GR SP050990)

Soils

The soils in the eastern 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. In the western section the soils are lowly permeable seasonally wet acid loamy and clayey soils, with low fertility and impeded drainage.

CL06 Park Lime Pits, Cuckoo's Nook, The Dingle & Great Barr Park- Land Use



Historic Landscape Character Areas

Reference	WL09	Name	Barr Beacon & Aldridge Fields
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The ecological sub-area is dominated by the western 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. Rushall Hall in the west lies on coal measures. 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, Rushall, Stonnal 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 settlements in the area are Great Barr, which was mentioned in a charter of AD 957, and Rushall, which was recorded in the Domesday Survey of 1086. 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 16	Name	Daw End Lime Works
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The AHHLV contains the remains of the Daw End, Winterley Lane, Phoenix, and Linley Limeworks and the associated Daw End Canal Branch. The limeworks were active in the area from the late 18th/early 19th century. A number of old tramways are recorded within the AHHLV (no longer visible) and there are records of Roman lime working within Linley Wood, although these may have been destroyed by later activity. The area is currently in agricultural use but evidence of the old lime workings pits can still be seen on the ground and there is a clear relationship between these features and the canal.

The AHHLV also contains a nationally important geoscientific site, featuring a reef formation from the marine Silurian. In the south east of the AHHLV there is an important unconformity within the Pennine Lower Coal Measures Strata and a geological fault.

Reference	APA 18	Name	Winterley Limeworks
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The APA is situated in an area formerly occupied by the Winterley Limeworks. The APA covers the site of eight limekilns fronting the canal, as shown on the 1st edition Ordnance Survey map and an extant stable building formerly associated with works. Archaeological work associated with the limeworks showed that there were still extant remains here in 2013, but the area has subsequently been cleared without archaeological monitoring. The extent of the clearance is unknown and it is possible that the area containing the limekilns was not part of the land clearance. Accordingly, the APA has the potential to contain archaeological deposits associated with limekilns. Upstanding remains of the stables associated with the limeworks are present in the west part of the APA.

Reference	APA 7	Name	Rushall Hall Moated Manor Site
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The APA contains the remains of a 13th to 14th century moated manor site, a medieval to post-medieval graveyard and earthworks associated with mining activities within the area. To the north west of the manor site, there are cropmark remains of a ring ditch and an enclosure, which are suggestive of below-ground archaeological remains. There is potential for archaeological remains associated with the manor site to be present and also some potential for organic preservation within the infilled moat. The graveyard has the potential to contain 17th -19th century burials. The site of the manor house, Rushall Hall (NHLE ref: 1013153) is a scheduled monument and dates to at least the 13th century. A scheduled burial mound (hlaew) with an encircling ditch (NHLE ref: 1009772) is also present within the APA.

Reference	APA 8	Name	Lavender Limeworks
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The APA contains the surviving remains of the Lavender Limestone Pit, including the site of a late 19th or early 20th century engine house, mine shafts and condensers pits. These features are associated with the Lavender Mine, which was opened in 1902 to extract 'Fuller's Earth' (a deposit of bentonitic (green) clay). The APA covers the area of the limeworks shown on the first edition OS map. The area contains surviving remains of an old works and has the potential to contain further archaeological evidence of post-medieval lime working.

Reference	APA 9	Name	Iron Furnace at Ladypool
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Historic Environment Area Designations [1]

The APA contains the site of an iron furnace, which is recorded as standing in a park near Mill Meadow. The APA covers Ladypool and an area of slag, cinder and charcoal to the west of the pool. Ladypool, is believed to be a medieval fishpond that was later used to power the iron forge. The APA contains a concentration of finds, which suggests the location of an early post-medieval forge that was still standing in the 17th century. The APA has the potential to contain archaeological remains associated with the forge. There is also potential for archaeological evidence associated with the creation of Ladypool, although no trace of the original sluice or other structures associated with the pool or iron works has been observed. The APA has the potential to contain waterlogged deposits which may contain preserved organic remains.

Reference	AHHLV 17	Name	Park Lime Pits
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The AHHLV contains a flooded limestone quarry adjacent to the Daw End Branch Canal (opened in 1800). The area is thought to have been in use for mineral extraction during the Roman and medieval periods and fell out of use in the mid-19th century when it was converted into a park. The quarry pits were flooded at this time. Old brick kilns are recorded within the park on the 1st edition Ordnance Survey (OS) map. The AHHLV has the potential to contain evidence of quarrying activity from many periods, which may provide insight into technological development.

Reference	APA 10	Name	Cropmarks north of Berryfields Farm
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The APA demarks an area of cropmarks recorded on the HER. These remains suggest the presence of surviving archaeological remains. While the presence of the remains has not been ground truthed by excavation, the morphology of the cropmarks suggests the presence of a large prehistoric enclosure.

Reference	AHHTV 14	Name	Daw End Branch Canal
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The AHHTV covers part of the Daw End Branch Canal (opened in 1800), which runs off from the Wyrley and Essington Canal Extension at Catshill down to the Longwood Junction. The canal has suffered from mining subsidence and now the embankments are much taller than when they were constructed. The AHHTV contains the Grade II listed building Brawns Work Bridge, and the Grade II listed Riddion Bridge. It also contains the locally listed buildings Stone House and a 19th century Lock-Keepers Cottage. In addition, the AHHTV has the potential to contains 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 14	Name	Bosty Lane, Ridge and Furrow and Settlement
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The AHHLV contains the remains of Aldridge Lodge (now Lodge Farm) and the Grade II listed buildings Bosty Lane Farmhouse and its associated barn. Both settlements are shown on the 1817 Ordnance Surveyors Drawings (OSD) of the area. Aldridge Lodge was originally an early 19th century shooting lodge; the lodge was demolished in 1958 but associated outbuildings may survive within the AHHLV. The remains of a ha-ha are recorded within the mature trees in the AHHLV. A prominent earthwork bank appears on LiDAR along the eastern boundary of the APA, perhaps marking the extent of the Park. Bosty Lane Farmhouse lies to the east and has been dated to the mid-18th century. Both settlements are surrounded by land that contains well-preserved ridge and furrow earthworks, surviving relics of the pre-enclosure landscape

Reference	APA 22	Name	Aldridge Airfield
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The APA covers the extent of Aldridge Airfield, which was in use between 1935 and 1956 and still retains an aircraft hangar as a heritage asset. Aerial photographs show circular cropmark remains and an old field system within the area. The cropmarks suggest that there may be surviving features such as ring-ditches within the airfield. The line of the runway can also be observed as a cropmark running through the APA and there is potential for archaeological evidence relating to the WWII airfield.

Reference	AHHLV 26	Name	Wigmore Farm Ridge and furrow
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The AHHLV contains the several areas of surviving earthwork ridge and furrow and a (possibly) medieval holloway. These features are surviving remnants of the open field system within the area. The field system in this area appears to date back to at least the 19th century, and may form part of a pre-enclosure field system that has been subject to some more recent boundary loss. Remnants of a watercourse and two ponds (fish ponds?) of unknown date are present within the AHHLV.

Reference	APA 11	Name	Calderfields Moated Site
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The APA contains earthwork remains of a possible medieval moated site. The moat is depicted on the 1st edition OS Map but no associated buildings are present. There is no evidence of the site on Yates' 1778 map of Staffordshire or the Ordnance Surveyors Drawings (OSD) of the area. Earthwork remains and water channels associated with the moated site are shown on the Environment Agency LiDAR survey of the area and the APA has

Historic Environment Area Designations [1]

the potential to contain below-ground archaeological remains associated with a medieval /post medieval building. The infilled water channel/moat may contain rare preserved organic remains and could contain environmental evidence that would provide insight into the local environment and land use in the area during the medieval period. To the south of the moated site is an area of associated ridge and furrow earthworks.

Reference	AHHLV 4	Name	Cuckoo's Nook and Hay Head Lime Works
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The AHHLV contains the remains of the Hay Head Lime Works and an area of Ancient Woodland (Cuckoo's Nook). The ancient woodland has the potential to contain features associated with medieval and post-medieval woodland management. A scatter of Neolithic finds was recorded in the field to the south, highlighting the potential for the preservation of earlier remains in this area away from the former quarry pits. The AHHLV has the potential to contain archaeological remains associated with the limeworks, and contains the earthwork remains of several quarry pits and spoil heaps associated with the limeworks. The pond within the woodland was part of the canal network until it was cut off from the main line in the 1930s. The woodland has been subject to limited modern disturbance and has the potential for below ground archaeological remains such as kilns and other industrial structures.

Reference	AHHLV 6	Name	Birch Wood
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Birch Wood is primarily an oak woodland overcrowded with birch and rowan. The AHHLV is semi-natural ancient woodland and on the western side of the woodland there is a large pool. The AHHLV 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.

Reference	AHHLV 7	Name	Potters Wood and Moat Farm Ridge and Furrow
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The AHHLV contains an area of ridge and furrow earthworks centred on APA 13 Moat Farm Moated site. The ridge and furrow earthworks are possible remnants of the medieval open field system, and are directly associated with the medieval moated site. To the north of APA 13 is Potters Wood, an area of semi-natural ancient woodland, which has the potential to contain well-preserved prehistoric and Roman archaeological remains (although none are currently known). The woodland may contain features associated with medieval and post-medieval woodland management.

Reference	APA 13	Name	Moat Farm Moated site
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The APA contains the scheduled moated site at Moat Farm (NHLE ref: 1008547). The site encloses an area of around 0.25ha. Access to the interior is via a brick bridge across the eastern arm of the moat, which is thought to mark the site of the original entrance. During the early 14th century the site, known as the Moat House at Heyhead, was in the possession of Robert Stapleton. Nineteenth century sources indicate that at this date there was a house, the southern end of which was half-timbered, within the moated area. LiDAR clearly shows earthwork remains associated with the moat. The APA has been extended to cover the area around the moated site, which may contain associated archaeological remains.

Reference	AHHLV 10	Name	Great Barr Deer Park
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The AHHLV contains the remains of Great Barr Deer Park which is predominantly in use as a golf course. The western part of the former deer park has been developed for housing. Ground works associated with the housing development would have removed any archaeological remains and earthworks associated with deer park, and accordingly this part of the deer park has been excluded from the AHHLV. The golf course contains archaeological remains and earthworks associated with the medieval landscape, including areas of ridge and furrow and the remains of the later park pale. These archaeological features contribute to the archaeological interest of the AHHLV and illustrate the development of this landscape throughout the medieval and post-medieval period.

Great Barr Deer Park is first mentioned in 1335 and the 1850s Tithe Map of Aldridge shows a number of fields labelled as 'Old Barr Park'. The probable extent of the park is visible on the 1st edition Ordnance Survey (OS) map which shows a series of hedgerows enclosing all but the south-east of an oval area, five furlongs long by five furlongs wide. This oval shape is typical of a medieval deer park and surviving elements of the park pale are present within the modern hedgerows of the AHHLV, including a large bank (5m wide by 0.5m). The modern hedgerows within the area preserve the form and extent of the medieval deer park allowing it to be appreciated within the modern landscape. The hedgerows contain earthwork remains of the park pale which are of archaeological interest.

Historic Environment Area Designations [1]

The AHHLV also contains archaeological evidence of medieval and post-medieval agricultural activity. Cropmark remains indicative of below ground archaeological features show the extent of possible enclosure or an early field system within the golf course and earthwork remains of ridge and furrow cultivation are recorded in places across the former park. The line of the stream passing through the former deer park is also of archaeological interest as it was apparently imposed during landscaping works associated with the Great Barr Estate. The earthwork and below ground archaeological remains within the golf course provide evidence for past land usage and animal management and contribute to the archaeological and historic interests of the AHHLV. The AHHLV contains area of ridge and furrow, which could represent the pre-parkland landscape.

Reference	APA 15	Name	Site of Great Barr medieval settlement
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The APA contains the possible site of the medieval village of Great Barr. A settlement is recorded at Great Barr in the Domesday Survey. The exact location of the settlement is unknown but it is believed to be in the vicinity of the Church and Manor House, which both fall within the APA. There is a large bank and ditch in the field to the north of Chapel Farm and this may be the remains of either a park pale associated with the deer park or a holloway and possible house platforms. The APA contains the 19th Century Great Barr Chapel, which is believed to be built on the site of a 12th century chapel. The site of a medieval manor is also recorded at this location although there are no above ground remains present. The APA has the potential to contain early medieval or medieval settlement remains, medieval to post medieval burials and remains of a park pale associated with the medieval deer park.

Reference	AHHTV 1	Name	Scattered Settlement at Over End
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The AHHTV comprises the remains of a dispersed linear settlement formed from a cluster of buildings probably built in the 18th century. The buildings labelled as Over End are shown on the 1816 Ordnance Surveyors Drawings of the area. The AHHTV contains four Grade II listed buildings Old Hall Farmhouse, Barn Approximately 20m north of Old Hall Farmhouse, The Pinfold and Coxfold Farmhouse. In addition, it contains several non-designated buildings, which are shown on the early 19th century Ordnance Survey maps including Crook Farm (formerly Brook Farm now called Old Court Farm), Beacon Farm and Crook Cottage Farm. These traditional farm buildings survive within the AHHTV with some modern additions preserving the historic layout of the farmsteads. An area of ridge and furrow lies to the west of Old Hall Farmhouse; this has been included in the AHHTV as it is a relic of an earlier land use within the area and can shed light on past land management and use.

Reference	APA 16	Name	Great Barr Moated site
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The APA contains the remains of a possible medieval moated site. The eastern part of the moat is still water-filled but the rest is dry. Ordnance Surveyors drawings of the site show a building at approximately this location, Barr Hall, but this is not shown on the 1st edition Ordnance Survey map. The APA contains earthwork remains of a moat, and has the potential to contain the remains of medieval or post-medieval buildings. The moat has the potential to contain waterlogged deposits.

Waterbody Catchments

River Basin District	Humber	Management Catchment	Tame, Anker and Mease
Waterbody Catchment	Overall Classification	Ecological	Chemical
Ford Brook from Source to River Tame	Moderate (2019)	Moderate (2019)	Fail (2019)
River Basin District	Humber	Management Catchment	Tame, Anker and Mease
Waterbody Catchment	Overall Classification	Ecological	Chemical
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 covers about 20% of the sub-area. These fields are mostly of 18 th and 19 th century Parliamentary enclosure origin. No Priority Habitat Arable Field Margins have been recorded.			
Broad Habitat Type	Boundary & Linear Features	Priority Habitat	Hedgerows
<p>Numerous field boundary hedgerows throughout the sub-area associated with piecemeal enclosure in the late medieval/early post-medieval periods or later Parliamentary enclosure. Early enclosures are represented by irregular field patterns and these are likely to be the more ecologically valuable hedgerows in the area. The remaining field pattern is more regular and planned, though significantly less rectilinear than the adjoining Core Landscape 05 Barr Beacon, Druid's Heath and Shire Oak and therefore likely pre-dates this. Hedgerows trees are frequent throughout, with these apparently more abundant in areas of earlier enclosure.</p> <p>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 and central parts of the sub-area have been selected as SLINCs. These are described as well-maintained mature hedgerows with traditional bank and ditch systems and good species-richness.</p>			
Broad Habitat Type	Standing Open Waters	Priority Habitat	Ponds
There are a number of field and farm ponds scattered throughout the ecological sub-area, with a concentration in the south, a number of which are designated as SLINC. Ponds at Park Lime Pits LNR and Walsall Arboretum are flooded lime workings. There are large ornamental pools in the landscaped former grounds of Great Barr Hall that are fed by the Perry Brook.			
Broad Habitat Type	Rivers and Streams	Priority Habitat	Rivers
Three watercourse and their minor tributaries rise in the ecological sub-area. These are an unnamed tributary of the Ford Brook in the north which feeds the ponds at Park Lime Pits; the Hoar Brook which flows east-west through the northern part of the area and feeds the ponds at Walsall Arboretum; and the Perry Brook which flows north-south through the southern part of the area and feeds the pools in the landscaped former grounds of Great Barr Hall. Survey information for the watercourses is not known, however, each of these appears artificially straightened along at least some of its length.			
Broad Habitat Type	Neutral Grassland	Priority Habitat	
Permanent pastures comprise up to approximately 40% of the ecological sub-area. A number of these are designated as SINC or SLINC and are described as neutral, dry to marshy, relatively species-rich and with associated features including ponds and hedgerows.			
Broad Habitat Type	Calcareous Grassland	Priority Habitat	Lowland calcareous grassland
There are small areas of calcareous grassland at the former limestone extraction sites Park Lime Pits LNR, Jack Holes and Hay Head Wood. These have developed on lime-rich spoil and are described as botanically-rich with associated species including Quaking Grass, Woolly Thistle, Greater Knapweed and Hoary Ragwort.			
Broad Habitat Type	Broadleaved, Mixed and Yew Woodland	Priority Habitat	Lowland mixed deciduous woodland
A number of woodlands in the ecological sub-area are designated by Natural England as ancient woodland. In the central area there is a group of woodlands that are described as botanically-rich and influenced by the presence of lime. One of these, The Dingle, is thought to be of more recent origin and to have developed spontaneously on the site of a former limestone quarry. In the landscaped former grounds of Great Barr Hall in the south of the ecological sub-area is a further group of woodlands. These may be ancient and modified and extended for aesthetic landscape purposes, or may be of wholly recent planted origin.			
Broad Habitat Type	Standing Open Water and Canals	Priority Habitat	
A section of the Daw End Branch Canal and linked Rushall Canal bisect the northern part of the ecological sub-area. The Daw End Branch was constructed to transport extracted lime and is linked to the Wyrley and Essington Canal to the north. The canal has generally good quality water supporting a diverse aquatic flora, with a range of associated habitats within the corridor. The Rushall Canal was constructed later to link the Daw End Branch to the			

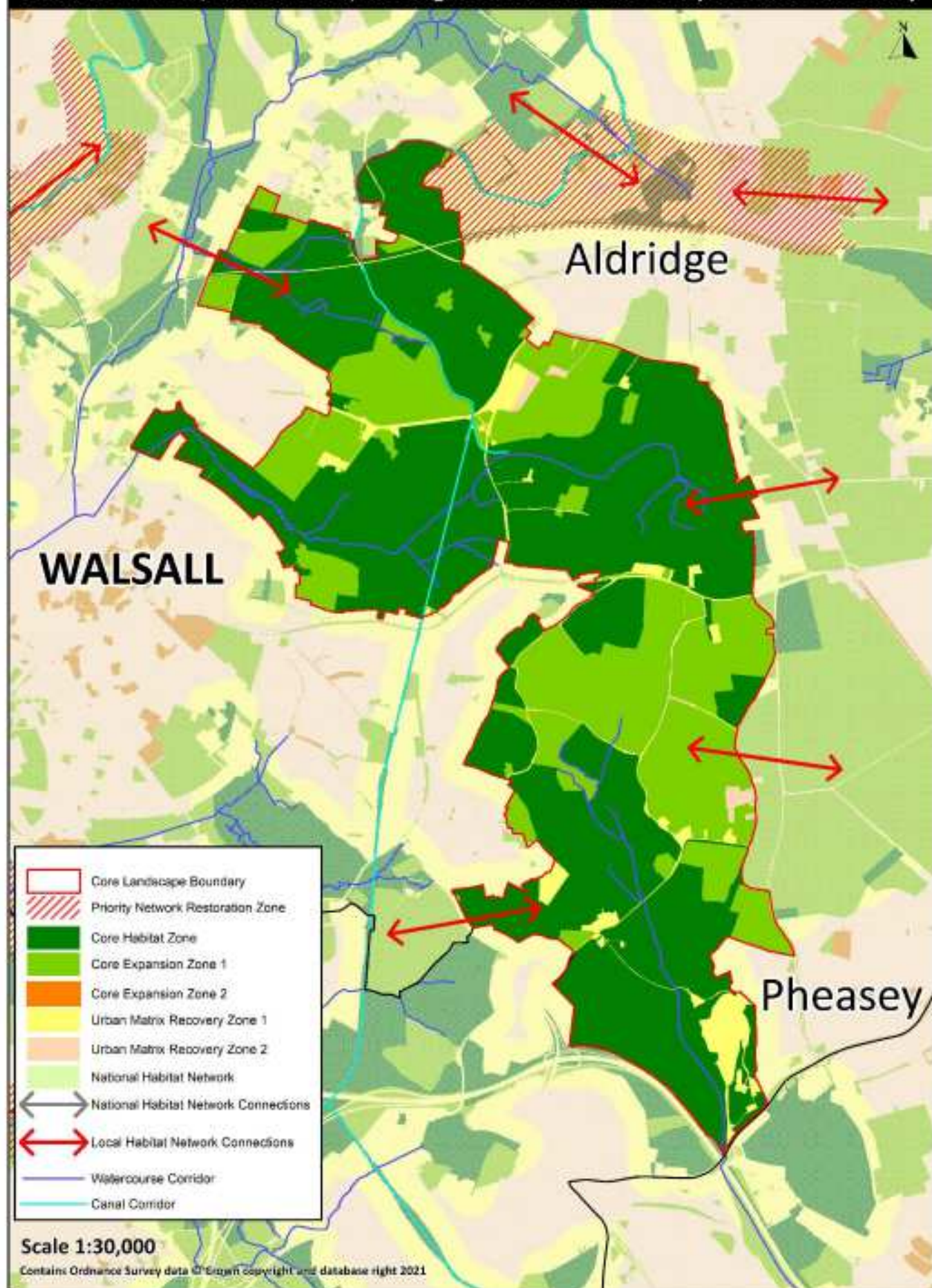
Key Habitats [2]
Tame Valley Canal and follows a linear route. Sharing a water source with the Daw End Branch, this supports a similarly diverse aquatic flora.

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, Western Yellow Wagtail, 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, Goldcrest, Great Spotted Woodpecker, Great Tit, Jay, Lesser Spotted Woodpecker, Lesser Whitethroat, Long-tailed Tit, Marsh Tit, Redstart, Robin, Siskin, Song Thrush, Sparrowhawk, Spotted Flycatcher, Tawny Owl, Treecreeper, Willow Tit, Willow Warbler.
Water & Wetland	Common Reed Bunting, Common Sandpiper, Eurasian Coot, Great Crested Grebe, Grey Heron, Grey Wagtail, Kingfisher, Lapwing, Little Grebe, Mallard, Moorhen, Mute Swan, Reed Warbler, Sand Martin, Sedge Warbler, Snipe, Teal, Tufted Duck, Western Yellow Wagtail.
Other	Black-headed Gull, Buzzard, Carrion Crow, Collared Dove, Common House Martin, Cuckoo, Eurasian Magpie, Greylag Goose, Hobby, House Sparrow, Meadow Pipit, Mistle Thrush, Northern Raven, Pied Wagtail, Pied Wagtail, Swallow, Swift, Whinchat.
Amphibians & Reptiles	
Amphibians	Common Frog, Common Toad, Great Crested Newt, Smooth Newt.
Reptiles	none
Mammals	
Bats	Brandt's Bat, Brown Long-eared Bat, Common Pipistrelle, Daubenton's Bat, Lesser Horseshoe Bat, Lesser Noctule, Nathusius's Pipistrelle, Natterer's Bat, Noctule Bat, Serotine, Soprano Pipistrelle, Whiskered Bat.
Other	Eurasian Common Shrew, European Otter, European Water Vole, Polecat, West European Hedgehog.
Fish	
Bony Fish	none
Jawless Fish	none
Invertebrates	
Assemblage type	
Flora (axiophytes)	
Woodland	<i>Adoxa moschatellina</i> , <i>Ajuga reptans</i> , <i>Allium ursinum</i> , <i>Anemone nemorosa</i> , <i>Angelica sylvestris</i> , <i>Athyrium filix-femina</i> , <i>Brachypodium sylvaticum</i> , <i>Bromopsis ramosa</i> , <i>Caltha palustris</i> , <i>Cardamine amara</i> , <i>Carex remota</i> , <i>Carex sylvatica</i> , <i>Chaerophyllum temulum</i> , <i>Deschampsia flexuosa</i> , <i>Dioscorea communis</i> , <i>Dryopteris affinis</i> subsp. <i>affinis</i> , <i>Equisetum sylvaticum</i> , <i>Equisetum telmateia</i> , <i>Festuca gigantea</i> , <i>Filipendula ulmaria</i> , <i>Fragaria vesca</i> , <i>Frangula alnus</i> , <i>Galium odoratum</i> , <i>Lamium galeobdolon</i> subsp. <i>montanum</i> , <i>Lysimachia nemorum</i> , <i>Malus sylvestris</i> , <i>Melica uniflora</i> , <i>Mercurialis perennis</i> , <i>Milium effusum</i> , <i>Moehringia trinervia</i> , <i>Oxalis acetosella</i> , <i>Poa nemoralis</i> , <i>Quercus petraea</i> , <i>Sanicula europaea</i> , <i>Stellaria holostea</i> , <i>Teucrium scorodonia</i> , <i>Tilia cordata</i> , <i>Torilis japonica</i> , <i>Valeriana officinalis</i> , <i>Veronica montana</i> , <i>Viola reichenbachiana</i> .
Grassland	<i>Agrostis canina</i> , <i>Ajuga reptans</i> , <i>Alchemilla filicaulis</i> subsp. <i>vestita</i> , <i>Brachypodium sylvaticum</i> , <i>Briza media</i> , <i>Caltha palustris</i> , <i>Centaurium erythraea</i> , <i>Cerastium semidecandrum</i> , <i>Cirsium palustre</i> , <i>Dactylorhiza fuchsii</i> , <i>Dactylorhiza praetermissa</i> , <i>Danthonia decumbens</i> , <i>Daucus carota</i> subsp. <i>carota</i> , <i>Deschampsia flexuosa</i> , <i>Equisetum sylvaticum</i> , <i>Euphrasia officinalis</i> agg., <i>Filipendula ulmaria</i> , <i>Fragaria vesca</i> , <i>Galium saxatile</i> , <i>Leontodon hispidus</i> , <i>Linum catharticum</i> , <i>Lotus pedunculatus</i> , <i>Odontites vernus</i> , <i>Parentucellia viscosa</i> , <i>Persicaria bistorta</i> , <i>Phleum bertolonii</i> , <i>Pimpinella saxifraga</i> , <i>Plantago media</i> , <i>Polygala vulgaris</i> , <i>Potentilla anglica</i> , <i>Potentilla erecta</i> , <i>Potentilla sterilis</i> , <i>Rhinanthus minor</i> , <i>Sanguisorba officinalis</i> , <i>Silene silaus</i> , <i>Silene flos-cuculi</i> , <i>Stachys officinalis</i> , <i>Stellaria holostea</i> , <i>Succisa pratensis</i> , <i>Trifolium medium</i> .

Heathland	<i>Agrostis canina</i> , <i>Calluna vulgaris</i> , <i>Carex nigra</i> , <i>Danthonia decumbens</i> , <i>Deschampsia flexuosa</i> , <i>Galium saxatile</i> , <i>Potentilla erecta</i> , <i>Salix aurita</i> , <i>Teucrium scorodonia</i> , <i>Ulex gallii</i> , <i>Vaccinium myrtillus</i> .
Mires	<i>Agrostis canina</i> , <i>Alchemilla filicaulis</i> subsp. <i>vestita</i> , <i>Angelica sylvestris</i> , <i>Athyrium filix-femina</i> , <i>Briza media</i> , <i>Caltha palustris</i> , <i>Cardamine amara</i> , <i>Carex acutiformis</i> , <i>Carex nigra</i> , <i>Carex panicea</i> , <i>Carex pseudocyperus</i> , <i>Carex rostrata</i> , <i>Cirsium palustre</i> , <i>Dactylorhiza fuchsii</i> , <i>Dactylorhiza praetermissa</i> , <i>Epilobium palustre</i> , <i>Equisetum fluviatile</i> , <i>Equisetum palustre</i> , <i>Filipendula ulmaria</i> , <i>Galium palustre</i> , <i>Galium palustre</i> subsp. <i>palustre</i> , <i>Glyceria notata</i> , <i>Hypericum tetrapterum</i> , <i>Jacobaea aquatica</i> , <i>Juncus acutiflorus</i> , <i>Lotus pedunculatus</i> , <i>Pulicaria dysenterica</i> , <i>Ranunculus aquatilis</i> , <i>Ranunculus hederaceus</i> , <i>Silene flos-cuculi</i> , <i>Sparganium emersum</i> , <i>Stachys palustris</i> , <i>Stellaria alsine</i> , <i>Succisa pratensis</i> , <i>Valeriana officinalis</i> , <i>Veronica beccabunga</i> .
Open Water	<i>Bidens cernua</i> , <i>Bidens tripartita</i> , <i>Butomus umbellatus</i> , <i>Carex acutiformis</i> , <i>Carex pseudocyperus</i> , <i>Equisetum fluviatile</i> , <i>Galium palustre</i> , <i>Galium palustre</i> subsp. <i>palustre</i> , <i>Glyceria notata</i> , <i>Potamogeton lucens</i> , <i>Potamogeton perfoliatus</i> , <i>Ranunculus aquatilis</i> , <i>Sagittaria sagittifolia</i> , <i>Schoenoplectus lacustris</i> .
Post-industrial (water-stressed)	<i>Centaurea scabiosa</i> , <i>Centaureum erythraea</i> , <i>Cerastium semidecandrum</i> , <i>Daucus carota</i> subsp. <i>carota</i> , <i>Deschampsia flexuosa</i> , <i>Erophila verna</i> , <i>Fragaria vesca</i> , <i>Jacobaea erucifolia</i> , <i>Linum catharticum</i> , <i>Ophrys apifera</i> , <i>Parentucellia viscosa</i> , <i>Silene vulgaris</i> , <i>Silene vulgaris</i> subsp. <i>vulgaris</i> , <i>Trifolium arvense</i> , <i>Trifolium medium</i> , <i>Trifolium micranthum</i> , <i>Vicia tetrasperma</i> .
Cultivation	<i>Stachys arvensis</i> , <i>Thlaspi arvense</i> , <i>Veronica polita</i> , <i>Vicia tetrasperma</i>

Ecological Connectivity
Local Habitat Network
Direct ecological connection to the local habitat network in Core Landscape 05 Barr Beacon, Druid's Heath & Shire Oak with which it shares an extensive boundary. Direct connection via narrow corridors to Core Landscape 04 Brownhills Common & Pelsall and Core Landscape 07 Sandwell Valley.
National Habitat Network
Park Lime Pits, Cuckoo's Nook, The Dingle & Great Barr Park is entirely surrounded by other core landscapes or urban settlements and therefore does not link directly to the National Habitat Network.

CL06 Park Lime Pits, Cuckoo's Nook, The Dingle & Great Barr Park – Components & Connectivity



Ecological Sub-area Opportunities

Focus Habitats		
Habitat	Action	Measure
Canals	Identify and reduce artificial inputs	Improved chemical status
Lowland calcareous grassland	Restore existing	Habitat in good condition
	Create new	New habitat at existing and new sites
Hedgerows	Improve management of existing	Habitat in good condition
	Restore through gapping up	Habitat in good condition
	Establish hedgerow trees	Habitat structure improved
Lowland meadows	Enhance existing neutral grasslands	Increased floral diversity
	Create new species-rich neutral grasslands	Increased floral diversity and habitat structure improved
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
Rivers	Restore hydromorphology (naturalise modified channels)	Improved ecological status
	Reduce artificial inputs	Improved chemical status

Target Species	
Species/Species Group	Measure
Barn Owl	Confirmed recent records
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
Cuckoo	Confirmed recent records
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
Grassland axiophytes	Recent records and increased abundance
Heathland axiophytes	Recent records and increased abundance
Mires axiophytes	Recent records and increased abundance
Open Water axiophytes	Recent records and increased abundance
Post-industrial axiophytes	
Woodland axiophytes	Recent records and increased abundance

Geodiversity		
Site	Action	Measure
n/a		

Connectivity Opportunities	
Local Habitat Network	
Connection	Action
Within Core Landscape CL06	Restoration of modified channel watercourse.
	Species-rich calcareous neutral grassland enhancement and creation.
	Plantation woodland enhancement.
	Creation of new ponds.
	Field boundary hedgerow restoration and creation.

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.