Thomas William Lench Ltd, Land off Carnegie Road, Blackheath, West Midlands

An Historic Environment Impact Assessment 2004

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# Thomas William Lench Limited, Land off Carnegie Road, Blackheath, West Midlands

**An Historic Environment Impact Assessment** 

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for

# **David Wilson Homes**

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# Thomas William Lench Ltd, Land off Carnegie Road, Black Heath, West Midlands An Historic Environment Impact Assessment 2004

# **Summary**

Birmingham Archaeology carried out an historic landscape appraisal of the Thomas William Lench Limited nut and bolt factory, Black Heath, West Midlands (NGR SO968867) for David Wilson Homes. The work was prompted by plans to redevelop the site, a project involving the demolition of the existing buildings. The appraisal revealed that prior to 1884 the study area comprised open fields and a few small isolated buildings. There is some cartographic evidence to suggest that one of these properties may have been moated, and of medieval date. In 1884 a small factory was established on the east side of the site, from which the current complex gradually evolved into one of the largest nut and bolt factories in the country. The existing buildings range in date from the late 19th century to the late 20th century. One building from the late 19th-century factory survives largely intact and although most of the earlier structures have been considerably altered, large parts of the two main frontages survive and are of good architectural quality. Recommendations are made for more detailed recording of the main elevations and the early core of the factory, for an archaeological evaluation on the site of the putative moat and for archaeological monitoring of future ground breaking activities on the site of the early factory.

#### 1.0 Introduction

In June 2004 Birmingham Archaeology carried out an historic landscape appraisal of land off Carnegie road including the Thomas William Lench Limited nut and bolt factory, Blackheath, West Midlands. The work, which was commissioned by David Wilson Homes, was occasioned by an archaeological condition attached to the planning permission for the forthcoming redevelopment of the site, during which the existing buildings within the street block are to be demolished. The intention is that Sandwell Metropolitan Borough Council will use the appraisal as the basis for preparing further briefs for recording the historic resource. The appraisal was carried out according to a written scheme of investigation prepared by Birmingham Archaeology (Birmingham Archaeology 2004) which was itself based on a brief supplied by Sandwell Council (Sandwell Metropolitan Borough Council 2004).

#### 2.0 Site Location and Present Character

The study area is located on the western outskirts of Blackheath, Sandwell MBC, West Midlands, centred on NGR SO 968867 (Fig.1). It comprises most of the street block formed by Carnegie Road (south and west), Ross (East) and Churchill Drive (north), the greater part of which is covered by the (partially demolished) industrial complex of Thomas William Lench Limited, a nut and bolt factory established in 1884 (Fig. 2). Close to the southwest angle of the site, on the opposite side of Carnegie Road, is a smaller area of land currently occupied by a car park, which is also part of the study area.

#### 3.0 Objectives

- To establish the origins, chronology, technical history and significance of the site
- To produce a detailed inventory of the upstanding fabric.
- To consider the presence of any buried archaeological remains.
- To assess the ecology.
- To formulate a research strategy for the further assessment and recording of the resource.

#### 4.0 Methods

A documentary survey of all relevant and readily available published and non-published sources, including historic maps and photographs, was carried out in the Local Studies section of Smethwick Library, Dudley Record Office and the Library of the University of Birmingham. The Sandwell Sites and Monuments Record was also consulted.

A rapid survey of all standing buildings of any historic or architectural interest was undertaken consisting in each case of a written description and a black and white photograph. A large-scale block plan was made for the site identifying each building, structure, feature, area and significant boundaries by number, date and function together with zones of below-ground archaeological potential.

Based on an A4 pro-forma data sheet written observations were made for all those buildings, structures, features, archaeological areas and boundaries depicted on the block plan. An assessment was made of those structures that have been demolished whose archaeological remains may be important in the understanding/interpretation of the site.

The ecological inspection focused on three principal sources of potential constraints:

- important habitats or rare species present on the site
- species with legal protection under the Wildlife and Countryside Act 1981 and the Conservation (Natural Habitats etc) Regulations 1994 and
- Nature conservation designations on or immediately adjacent to the site

A rapid walk over of the site was undertaken in order to provide information on habitat types, key features and the presence/potential for any protected species. A data-gathering exercise was undertaken in order to provide information which would allow the appraisal to be as comprehensive as possible. Information on species, habitats and site designations was obtained from English Nature and EcoRecord, the biological records centre for Birmingham and the Black Country.

# **5.0** Previous Archaeological Work (Fig. 3)

In 1794 a hoard of about 1200 Romano-British coins was found inside an earthenware pot at Rowley Regis when a wall was demolished (BCSMR 2803). Another hoard was discovered in 1804 (BCSMR 2808), and two Roman coins and a medallion found in 1932 (BCSMR 6352). A watching brief was undertaken in 1991 on the foundation trenches and

other groundworks of a development in Camborne Road, half a mile to the northeast of the study area (BCSMR 6437). An undated dump was found to overlie buried ground surfaces but nothing of archaeological significance was revealed. In 1992 a fieldwalking exercise was carried out at Brittania Park, adjacent to the development area (BCSMR 6430, Fig.8). This did not produce any datable finds and again nothing of archaeological significance was noted. There have been no excavations or any other archaeological work carried out in the vicinity of the factory (within a ½ mile radius).

# 6.0 Historical Background

The geology of the Black Country was ideal for industrial growth, its readily available mineral and fuel supplies, meant its inhabitants had learnt how best to exploit their resources at an early date. Dud Dudley claimed to be the first to smelt iron with coal in 1621 and the presence of both iron and coal led to a proliferation of metal industries and to specialisation by different communities. Walsall was known for its buckle making, Wednesbury for its metal tubing, Cradley Heath for its nail making. Rowley Regis, immediately to the north and west of the study area, was a large manufacturer of rivets and chains.

Blackheath itself fell into this pattern of specialisation by town, being known for its chains and nails. Chains and nails as well as tramway ironwork and railway fastenings were all the products of the Lench factory, but all were later eclipsed by the production of nuts and bolts. The scale of nut and bolt production in the Black Country rapidly expanded after 1880, with small-scale manufacturing giving way to large factories by the early 20<sup>th</sup> century (Allen 1927, 77; VCH 1964, 148). The Lench factory evolved during this period of growth, and manufactured nuts and bolts from 1884 to the present. It held several lucrative contracts from the Admiralty (producing 'Admiral' TM bolts), war office and India office (Kelly's Directory 1921, 105), and by the 1950s had become the largest manufacturer of nuts and bolts in the country. The factory had an associated recreation ground with a small lake for its workers and the local community, located to the west.

# 7.0 Development of the Study Area

Little is known about the area. Blackheath was formerly included in the parish of Rowley Regis, and all historical record pertains to Rowley Regis, with Blackheath being mentioned only as an aside. Rowley Regis was part of the Mercian kingdom and its name is probably Anglo-Saxon in origin, meaning rough wood or clearing (Watts 2004). As the name suggests, Rowley Regis, and we can assume Blackheath, was held by the crown and in demense of the crown in the medieval period for about four hundred years. The earliest church is thought to be that of St Giles which originated in the 12<sup>th</sup> or 13<sup>th</sup> centuries (BCSMR 1423). This church is located to the north of the development area but has been destroyed and rebuilt three times, its latest rebuild being in 1923 (Pevsner 1968, 89. Historically the town's main reputation is for its nail-makers, who came to prominence in the 16<sup>th</sup> century (VCH Vol. 2).

The origins of Blackheath itself as a town are probably to be found in the late 18<sup>th</sup> century. The 19<sup>th</sup>-century estate and parish maps of Rowley Regis (1807 and 1841 respectively) include Blackheath as a very sparsely settled area (Figs 4 and 5). It was, like many Black Country settlements at that time, a small hamlet of scattered farmsteads upon heathland, the name Blackheath perhaps having a root as Bleak Heath. Such 'squatter' settlements suffered from poor communication routes and developed slowly, if at all, until the canal age (Palliser 1976:173). The result of this was poor agricultural performance, which had to be supplemented by small cottage industries such as nail making. It can be assumed that Blackheath was one of these very unprosperous hamlets. The map evidence can lead to the conclusion that before 1807 the landscape remained much the same, mostly fields with a few small farms and workshops.

The 1807 map (Fig. 4) depicts a building in the southwestern corner of the study area and another, of T-shaped plan, on the west side, approximately mid-way along Carnegie Road, at the junction with Yew Tree Lane. It was adjacent to a large pool which lay immediately to the north of the property. On the 1841 map (Fig. 5) the public house described on later maps as the Yew Tree is shown on the west side of Carnegie Road, within what is now the car park.

All three buildings appear in slightly altered forms on the first edition of the OS map of 1885 (Fig. 6). The structure at the southwest corner of the study area appears to have been a row of five cottages, whereas that on the east side of Carnegie Road has the appearance of a larger house divided into two. The pool shown on the 1807 and 1841 map is no longer visible but a different pool is depicted to the south of the house and there seems to have been a patch of rough or marshy ground to the northwest in the angle between Carnegie Road and Yewtree Lane. Add to these circumstances the curving boundary to the southeast of the building and there is a case for considering the property as a possible moated site.

The 1885 map also shows the beginnings of the Thomas William Lench nut and bolt factory on Ross Road. It is depicted as a small group of structures within an L-shaped enclosure, barely distinguishable from a small farmstead. It comprised two larger rectangular buildings bordering Ross, one parallel with and the other at right angles to the road, then, to the rear, three smaller structures.

Although it started as a small concern the factory quickly grew, bolstered by the canal and road systems that were beginning to spring up in the region. By 1904 the factory had clearly expanded, being described on the OS map of that date as the 'Excelsior Works' (Fig. 7). The two main buildings of the original group survived but were now dwarfed by a collection of additional buildings to the south and west. The gap between the two original buildings was now a covered carriage entrance. Further to the south there was a second carriage entrance within a new rectangular building fronting Ross. This building and its entrance survive (Building P). The building at the southwest corner of the study area had been demolished, whereas that on the west side survived.

By 1918 the Excelsior Works had expanded across the entire width of the study area from Ross to Carnegie Road, an expansion that resulted in the demolition of the earlier building on the western boundary of the site to make way for the present office block (Fig. 8). At the southeast corner of the site a row of terraced houses had been built along Ross, and a smaller row along Carnegie Road. Immediately to the rear of these properties were further factory buildings. Towards the southwest, fronting Carnegie Road, was a pair of semi-detached houses and a larger building.

The 1937 OS map shows that much, though not all of the current complex of buildings had been erected by this time (Fig.9). There is little to say about the factory once it reached its zenith of expansion. It is still producing nuts and bolts today and is shortly to move to more suitable premises as Blackheath is being redeveloped as more of a residential area. The land will be used for housing once the demolition is complete

# 8.0 Areas of Archaeological Potential

The earliest evidence for human activity in Blackheath comes from the area to the northeast of the factory (Fig.10). This is where the early church was located and where and Roman coin hoards were found. Within the study area itself, however, there is little evidence of occupation before the 18<sup>th</sup> century. One possible exception is the putative moated site recorded on the west side of the site beneath the present offices. Although approximately half the site lies outside the study area, and the half within the study area is largely built over, at least part of it falls within the open yard within the main entrance. This is the most likely area for any archaeology to survive. The other archaeologically sensitive area is the site of the earliest factory buildings on the east side of the study area. The original buildings have been replaced, but it is possible that below-ground evidence for their character and function survives.

# 9.0 Assessment of the Built Heritage

#### 9.1 Phasing

Phasing of the factory buildings is based on the sequence of construction depicted on the Ordnance Survey maps in concert with a site inspection. None of the surviving buildings within the study area predates the nut and bolt factory, but at least five (four extant) phases of the factory have been identified (Fig. 11)

Phase 0 (Pre 1885)

Although no factory buildings survive from the earliest period they are shown on the 1885 map, as described above.

Phase 1 (1885-1904)

Phase 1 represents a late 19<sup>th</sup>-century expansion of the earliest factory which was grouped around a second courtyard to the south and west of the primary buildings with its own entrance from Ross. Buildings I, P and Q all survive from this Phase.

Phase 2 (1905-1918)

In Phase 2 the factory was extended to the west. The majority of the buildings erected at this time survive in some measure, though the interiors of the workshop elements are generally very altered. The showpiece of this phase is the office block and adjacent main entrance

Phase 3 (1919-1937)

Large-scale expansion took place in Phase 3. One group of buildings was grouped around a courtyard to the south of the Phase 2 buildings; all seem to have been workshops. A second group was erected to the north, partially replacing the Phase 0 buildings and some of the Phase 1 buildings. These too were mostly workshops, though they included an extension to the office block.

Phase 4 (Post-1938)

Phase 4 included a further increase in the factory area with the covering over of most of the southern courtyard and the erection of new workshops at the northern end of the site.

#### 9.2 Assessment

One of the earliest surviving buildings on the site is Building P which, with its cast-iron framed windows, is a relatively complete and architecturally coherent small industrial building. Two other fragments of the early factory are Buildings I and Q, both of which have been considerably altered but which contribute to an understanding of the early factory.

The progressive development of the site has meant that there is little of significance left inside the complex. Externally, however, the buildings have a degree of architectural merit that enhances their surroundings, and a quiet authority that dominates the neighbourhood. Of the two main fronts, Carnegie Road is the public face and it is here that the modest ambitions of the architects were concentrated, but the verticality of the more simple multiple-gabled Ross elevation is in greater (though still asymmetrical) harmony with the rising topography and is arguably the more impressive. Both elevations will be a considerable loss to the locality.

Regarding the industrial archaeology, rather than the architectural aspects of the complex, probably the most rewarding will be group of redundant boilers and tanks situated on elevated land to the north of the site. All are later than 1937

# 10.0 Ecological Appraisal

The full details of the ecological survey are given in Appendix 2.

The site was found top contain a small amount of semi-natural habitat, comprising 0.2ha of broadleaved woodland, small pockets of scattered shrub and tall ruderals over bare ground/hard standing, and a small garden section of ornamental shrub species.

No rare or endangered, BAP or Red Data listed plant species were recorded, nor was there evidence of protected species, badgers or great crested newts. The woodland on the site may be used by bats for foraging, and will be used by birds for cover, foraging and nesting.

The woodland section is of low local nature conservation value, providing an important refuge for birds and small mammals, and is important for connectivity with other statutory and non-statutory nature designations in the area.

Impacts to the site and designated nature conservation sites within 2km are likely to be negligible. The site itself an SLINC, Land at Victory Avenue, immediately adjacent to the site may be subject to indirect disturbance of a short temporary nature, causing negligible impact.

It is recommended that the woodland embankment in the north of the site is retained. If the proposed development requires loss of any of the woodland section, it is advised that mitigation proposals should entail replanting of an equivalent area with native woodland and grassland species.

#### 11.0 Research Strategy

#### Below-Ground Archaeology

- It is recommended that an evaluation is undertaken in the area of the main entrance yard in order to test the hypothesis that there may have been a moated site in the vicinity.
- It is recommended too that a watching brief is undertaken during clearance and ground breaking activities on the site of the adjacent office buildings.

#### Above-Ground Archaeology

It is not considered that any of the buildings affected by the proposed redevelopment scheme is of sufficient architectural or historic interest to warrant statutory protection. Nevertheless, the factory has played a significant role in the local community for over one hundred years and makes an important contribution to the historic and architectural character of the locality and is certainly worthy of preservation by record in some measure. Of particular significance are the two main fronts along Carnegie Road and Ross, which have a strong architectural effect, and Buildings I, P and Q, which seem to have been in existence by 1904.

Varying RCHME levels of record, are recommended for these buildings according to their significance (RCHME 1996).

#### Level 3

- Carnegie Street front (Buildings A − G)
- Ross front (Buildings N S)
- Buildings I, P & Q

# Level 1

The remainder of the industrial complex.

# 11.0 Acknowledgements

This appraisal was carried out by Kristina Krawiec, and by Malcolm Hislop who also managed the project. Thanks are due to the staff of Dudley, Smethwick Archives and Staffordshire Record Office. The illustrations were prepared by Nigel Dodds and Bryony Ryder.

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- 1842 Rowley Regis Tithe Map
- 1885 Ordnance Survey 1:2500
- 1904 Ordnance Survey 1:2500
- 1918 Ordnance Survey 1:2500
- 1937 Ordnance Survey 1:2500

# **Appendix 1: Building Descriptions**

Building A (Plate 1)

Workshop. 1918-1937. Red brick (stretcher bond) with terracotta dressings, slate roof with full-length skylights and crested ridge tiles. Aligned northwest-southeast facing southwest. One storey with terracotta banding and bracketed eaves. Sixteen bays of windows with ovolo-moulded concrete lintels, boarded up at time of assessment and painted as windows. Interior: Concrete floor. Central row of steel columns by Dorman Long & Co. Ltd of Middlesborough supporting the ends of the double span steel roof trusses. Nothing else of interest.

Building B (Plate 2)

Workshop. 1918-1937. Red brick (stretcher bond) with terracotta dressings. Aligned east-west facing west. Single-storey gabled building with oversailing upper portion supported on a corbel course. Central goods entrance now with roller shutter. Terracotta lintel band joggled over entrance. Above is a terracotta panel embossed with the legend "GIRL'S HALL" flanked by drapes and containing a keyed roundel embossed around the circumference "THOMAS WILLIAM LENCH LIMITED", and in the centre with crossed bolts.

Building C (Plate 3)

Workshop. 1904-1918. Breaks forward from Building B. Aligned east-west facing west. Red brick (English bond) gable end with raised tile-coped verges and angle pedestals with ball finials. Keyed oculus with terracotta surround. Right-hand (south) elevation rebuilt in stretcher bond, probably contemporary with Building B.

Building D (Plate 4)

Offices. 1904-1918. with later alterations and additions. Aligned north-south facing west. Red brick (English bond) with terracotta dressings. Two stories with coped parapet, 1:6:1 bays, each end bay articulated by pilaster buttresses rising from a corbel course and contains a four-light bay window. The other windows are wood-mullioned and transomed with joggled lintels. Main entrance to the works to the left within a screen wall with blue brick jambs and terracotta three-centred arch springing from egg and dart-moulded imposts (Plate 5). To the right of and immediately inside the entrance, is a partially rebuilt gatekeeper's lodge with slate roof.

Building E (Plate 6)

Link between gatekeeper's lodge and Building G. 1918-1937. Aligned north-south. Red brick (English bond), slate roof with crested ridge tiles. Blind towards the west.

Building F (Not illustrated)

Office. Mid-late 20<sup>th</sup> century. Not of special interest.

Building G (Plate 7)

Workshop. 1904-1918. Red brick (English bond) gable with keyed oculus in terracotta surround. Single boarded window to ground floor left with chamfered blue brick surround and concrete lintel. Brick wall to south has inserted mid-20<sup>th</sup> century windows. Interior Nothing of interest. Concrete floor, steel roof trusses. No internal division between this building and Building H.

Building H (Not illustrated)

Workshop. Mid to late 20<sup>th</sup> century. Concrete floor, steel roof trusses. Not of special interest.

Building I (Not illustrated)

Workshop. 1881-1904. <u>Interior</u> Largely late 20<sup>th</sup> century in character with concrete floors and office accommodation inserted. However, it retains its original timber tie-beam roof with raking struts.

*Buildings J* (Not illustrated)

Workshops. Mid to late 20<sup>th</sup> century. Not of special interest.

*Building K* (Not illustrated)

Workshop. 1918-1937. Red brick, slate roof with crested ridge tiles and continuous skylights. Inserted mid-20<sup>th</sup> century windows to the north. Concrete floor, steel roof trusses.

Building L (Plate 8)

Workshops. 1904-1918 with later additions. Aligned east-west facing east. Red brick laid in English bond up to mid-height then Flemish stretcher bond above. Single-storey building, double pile building with gable ends towards Ross (east), framed by pilaster buttresses continued above eaves level as pedestals surmounted by cornice caps and ball finials. 3:3 bays of segmental-arched windows with blue brick surrounds. Interior Concrete floor, steel roof trusses with asbestos board lining and continuous skylights. Timber rafters survive behind the asbestos boarding. The building was extended towards the west between 1918 and 1937.

Building M (Plate 9)

Workshop. 1904-1918 with later alterations. Aligned east west facing east towards Ross. Red brick. Interior Concrete floor. Timber tie-beam roof trusses with raking struts.

Buildings N (Plate 10)

Workshops. 1918-1937 with later alterations. Aligned east-west facing east towards Ross. Red brick (English garden wall bond) with blue brick and terracotta dressings. Roofed in a mixture of slate and corrugated asbestos, with raised tile-coped verges. One storey. The Ross front presents a series of eight gables graduated in height, with cast iron drainpipes at the junctions, and, at eaves level, some pedestals carrying cornice caps and ball finials. Blocked segmental-arched windows. Gateway beneath second gable from left with chamfered blue brick jambs and terracotta four-centred arch springing from imposts (Plate 11). Interior Concrete floors throughout. The southernmost bay retains timber king-post roof trusses with raking struts, plank ridge and two pairs of purlins. Otherwise, steel roof trusses prevail.

Buildings O (Not illustrated)

Workshops. Mid to late  $20^{th}$  century. Represent the roofing over of a yard between Buildings A and N. Concrete floors and steel roof trusses. Not of special interest.

Building P (Plates 12 & 13)

Warehouse/workshop. 1881-1904. Red and blue brick, English garden wall bond to just above ground floor windows, then Flemish stretcher bond. Hipped plain tile roof. Two stories with stepped eaves band. Carriage entrance to left with sliding door. Four segmental arched windows to right with small-pane cast iron frames. Six irregularly spaced first-floor windows of similar type but of reduced proportions. The right hand end of the building has been rebuilt and bonded into Building S. Interior Brick floor. Kingpost roof of machine-cut timbers with iron stirrups to king posts. Inserted trap over carriage entrance, so possibly a despatch warehouse. No other indication of use.

# Building Q

Red brick (English garden wall bond), slate roof. Taller, two-storey section to left has two segmental-arched cast iron framed windows, inserted door to left, and tank on roof. Lower section to right with cast iron frame window to left. Low flat roofed mid-20<sup>th</sup> century building in front of both also carrying a tank.

Buildings R (Plate 14)

Workshops. 1918-1937. Double pile aligned east-west facing east towards Ross. Red brick (English garden wall) with terracotta and blue brick dressings, corrugated plastic roofs with raised verges coped with blue tiles. Keyed oculus to each gable with terracotta surround.

# Building S (Plate 15)

Workshop. 1918-1937. Single range aligned east-west facing east towards Ross. Red brick (English garden wall bond), slate roof. Plain oculus in gable. Possibly part of the same build as Building R.

# Buildings T and Boilers

Workshops and boiler house. Mid-20<sup>th</sup> century. Aligned east-west facing west. Red brick (stretcher bond), corrugated iron roof. Boiler house at a higher level to the east entered from the north and south. Contains three boilers labelled 'Fuel Oil'. There are several other redundant boilers of similar date in the vicinity of this building.

# **BIRMINGHAM ARCHAEOLOGY**

Land off Carnegie Road, Blackheath

ECOLOGICAL APPRAISAL

July 2004

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Appendix 2 Nature Conservation Designations

Appendix 3 Protected and BAP Species Records

Appendix 4 Ratcliffe Criteria for Nature Conservation Evaluation

# **DRAWINGS**

CA02614/01 Site location & Phase 1 habitats

WM03023/J01 July 2004



#### 1 INTRODUCTION

#### Terms of reference

1.1 Wardell Armstrong were commissioned on June 14<sup>th</sup> 2004 by Malcolm Hislop of Birmingham Archaeology to undertake an ecological assessment of land at Carnegie Road, Blackheath, Birmingham.

#### **Description of the development**

1.2 The proposed development will involve demolition of existing factory buildings, and construction of residential dwellings.

## Site location and description

- 1.3 The factory is situated on the outskirts of Blackheath between Carnegie Road and Ross Road, Grid Reference SO 968 865. The site location is shown on Drawing Number WM03023/01. The site covers approximately 2 ha, the majority of which comprises covered factory warehouses and bare ground/hard standing.
- 1.4 The southern section of the plot had been recently demolished at the time of the survey. A section of broadleaved woodland remains at the northern perimeter of the site. An open area of hard standing adjacent to this contains some tall ruderals and scattered scrub. In the north-east of the site, adjacent to the office buildings, a small section of broadleaved woodland and a courtyard comprising ornamental planting exists.

#### Scope of the report

- 1.5 This ecological assessment includes:
  - An extended Phase 1 Habitat Survey of the area,
  - An assessment of the potential for protected species on the site,
  - An evaluation of the site in terms of its nature conservation value,
  - Data gathering of existing information for the site from appropriate sources,
  - An assessment of the potential impacts of the proposed development including habitat loss, fragmentation, disturbance and potential off-site impacts,
  - Proposed mitigation measures required in respect of adverse impacts.



#### 2 ASSESSMENT METHODOLOGY

# Surrounding area

2.1 As part of this assessment, consultations with the local English Nature team (North Mercia), the Wildlife Trust of Birmingham and the Black Country and Birmingham EcoRecord were carried out. Ecological information was requested for all land within a 2 km radius. Any existing records for protected species or habitats and designated nature conservation areas in the vicinity were considered in this assessment.

#### Habitat Assessment

2.2 An extended Phase 1 Habitat Survey was carried out on June 30<sup>th</sup> 2004, following the techniques outlined in the 'Handbook for Phase 1 Habitat Survey' (Joint Nature Conservation Committee, 1993). Details of semi-natural habitats, and the species recorded within them, are given in the form of Target Notes in Appendix 1. The Phase 1 Habitat Plan, Drawing No. WM03023/01, shows habitat types and Target Note locations.

#### Protected Species Assessment

2.3 As part of the extended Phase 1 Habitat Survey the site was assessed for evidence of, and its potential to support, protected species. The area was checked for potential signs of, and suitable habitats for, badgers, bats, water voles, herptiles (reptiles and amphibians) and birds, to ascertain any necessity for specialist surveys.



#### 3 BASELINE CONDITIONS

#### **Nature Conservation Designations**

3.1 Consultations with local nature conservation organisations revealed the following information relating to a 2 km radius from the centre of the survey site. Reference should be made to Appendix 2.

Statutory Designations

3.2 Several statutory nature conservation designations occur within 2 km of the survey site including several LNRs (designated for education and amenity purposes by the local planning authority in liaison with English Nature), including Land East of Brickhouse Road, Codsall Coppice and Land South of High Haden.

Non-statutory Designations

- 3.3 Non-statutory nature conservation sites include Sites of Importance for Nature Conservation (SINCs) at Waterfall Lane, HadenHill Park and Coombeswood North and South, Sites of Local Importance for Nature Conservation, (SLINCs), including Land At Victory Avenue, Allsopps Hill Quarry, Blackheath Tunnel, Darby End Disused Railway (two sites), Old Hill Disused Railway, Land North of High Haden, Coombeswood, (refer to Appendix 2).
- 3.4 The West Midlands Inventory of Ancient Woodland lists two sections of ancient woodland at Haden Cross, within 2 km of the survey site, (refer to Appendix 2).

#### **Protected Species Records**

3.5 Birmingham EcoRecord have provided information on the following records of protected species, found within 2 km of the survey site, (refer to Appendix 3).

Bats

3.6 Records of pipistrelle and noctule bats have been found within 1 km of the survey site, including records of a noctule roost at Haden Hill.

Water voles

3.7 Water voles have been recorded at the Dudley Canal.

Birds

3.8 A comprehensive list of all protected bird species have been recorded within 2 km of the survey site can be found in Appendix 3. In the 1 km grid square SO 96 86,



a number of species were recorded. Red list species of high conservation concern (RSPB) include: linnet, skylark, starling, bullfinch, song thrush, willow tit, spotted flycatcher. Amber listed species of medium conservation concern include: black-headed gull, dunnock, goldcrest, grey wagtail, kestrel, meadow pipit, mistle thrush, cuckoo, green woodpecker, house martin, redwing, stock dove, swallow, kingfisher.

#### Extended Phase 1 Habitat Survey

#### General overview

- 3.9 The site comprises industrial units and offices, hard standing/bare ground with tall ruderals, ephemeral/short perennials and scattered scrub, a section of ornamental planting and a wooded embankment.
- 3.10 A habitat plan showing semi-natural habitats present on the site shows habitat types and target note locations, is included as Drawing Number WM03023/01. Phase 1 Target Notes describing details of the habitats and species present, and highlighting features of ecological interest are given in Appendix 1.

#### Woodland

- 3.11 The embankment at the northern end of the site comprises frequent mature sycamore, goat willow, silver birch, hornbeam and horse chestnut with occasional hawthorn and common lime. A row of tall Lombardy poplar was present at the edge of the embankment (Target Note 2). Under the closed canopy of the wooded area, the ground flora comprised frequent bramble and hogweed, with occasional wood avens and holly.
- 3.12 In the more open areas, abundant bramble and stinging nettle dominate. A single many stemmed sycamore and a single sapling of yew was present on the eastern edge of the site. Male fern occurred occasionally on the embankment and was also present adjacent to the old fire/ambulance station (Target Note 6).

#### Scrub

3.13 Scattered scrub at the entrance to the site comprised sycamore and goat willow, elder and silver birch. Saplings of these species were found in conjunction with bare ground/hard standing. In the woodland section a mixed age stand of scrub species was present, including mature trees, medium age and young saplings of sycamore, willow, birch, elder and hawthorn.

# Tall Ruderal



3.14 Ruderal species were typically found on the open areas of hard standing, including road surfaces and the central courtyard areas, brick walls and neglected buildings. Species present typically comprise rosebay willowherb, broadleaved willowherb, foxglove, common evening primrose, broadleaved dock and bramble.

Ephemeral/short perennial

3.15 Semi-improved grassland species, including frequent oxeye daisy, red clover, common bent grass, yorkshire fog, false oat grass and black medic were found adjacent to the wooded embankment, on a short sloping section comprising thin soil and rubble. Bramble, broadleaved dock and field horsetail were also common.

Bare ground

3.16 A large proportion of the site comprises bare ground, including bitmac and concrete surfaces. Frequently ephemeral/short perennial species have colonised gaps and cracks within this surface, for example colt's foot, garlic mustard, creeping thistle, ragwort and rosebay willowherb.

Surrounding Areas

- 3.17 The land immediately adjacent to the Carnegie Road site is surrounded by residential properties and amenity grassland at Britannia Park with scattered broadleaved woodland. There are some small pockets of broadleaved woodland within 2 km of the site.
- 3.18 Statutory designations include three local nature reserves (LNRs), which occur within a 2 km radius of the survey site.
- 3.19 There are several non-statutory nature conservation designated sites, including four Sites of Importance for Nature Conservation (SINCs), eight Sites of Local Importance for Nature Conservation (SLINCs), two sections of ancient woodland at Haden Cross and two Wildlife Corridor Policy areas (Sandwell MBC), adjacent to major railways within 2 km of the survey site.

#### Fauna

Badgers

3.20 During the survey, no evidence of badgers such as tracks, latrines, snuffle holes or hairs were seen in the woodland and scrub section, or elsewhere on the site.

Bats



- 3.21 There was no evidence to suggest the site is used by bats for summer or winter roosts, either in trees or in gaps in roofs of existing buildings. The majority of the trees are unlikely to be suitable for bat summer roosts.
- 3.22 Many of the buildings were still in use as part of the factory and therefore too disturbed for bat settlement. A few derelict sheds at the edge of the woodland area in the north were too open and exposed to be suitable bat roost sites. It is likely that bats may however forage for insects in the woodland area between dawn and dusk.

Birds

3.23 Common woodland bird species including blackbird, chaffinch and bullfinch were present in the woodland section. The trees and scrub present on the site provide suitable cover, foraging and nesting opportunities for wild birds.

Herpetofauna

3.24 There were no aquatic habitats on the site, therefore the site provides little or no potential for amphibians including the protected species, great crested newt. The hard standing/short perennial habitat may be suitable for common species of reptile including common lizard, grass snake and slow worm, although no incidental sightings of reptiles were made during the survey.

Invertebrates

3.25 Caterpillars of the cinnabar moth were seen in the grass and short perennial vegetation, Target Note 4.



#### 4 NATURE CONSERVATION EVALUATION

- 4.1 A number of criteria have become accepted as a means of assessing the nature conservation value of a defined area of land. These are set out in 'A Nature Conservation Review' (Ratcliffe, 1977) and are summarised in Appendix 4.
- 4.2 The nature conservation value of the components of a site can be evaluated in the context of the terms listed below, and over the whole site using terms such as high, medium, low or negligible.
  - International Importance Special Areas of Conservation (SACs), Specially Protected Areas (SPAs), Ramsar International Wetland sites.
  - National Importance Sites of Special Scientific Interest (SSSIs), Areas of Outstanding Natural Beauty (AONBs), Biodiversity Action Plan Priority Habitats/Species (BAPs), Sites of Importance for Nature Conservation (SINCs), Local Nature Reserves (LNRs).
  - Regional/County Importance Sites of Local Importance for Nature Conservation (SLINCs), Ancient Woodland Inventory Sites (AWIs),
  - Local/parish/borough Importance Significant ecological features such as ancient or species rich hedgerows, ponds, woodlands and species rich grasslands.
  - Less than local importance Intensive agricultural land, areas of built development or active mineral extraction of negligible value.

These criteria have been used in assessing the nature conservation value of the habitats present.

# Semi-natural habitats

General

4.3 During the Phase I survey of the site, no legally protected rare or scarce flora species were recorded. None of the vascular plant species recorded in the habitats are Red Data book species (British Red Data Book 1: Vascular Plants, Wiggington, 1999¹) or nationally scarce species (Scarce Plants in Britain, Stewart *et al*, 1994²).

<sup>&</sup>lt;sup>1</sup> **Wigginton, W.J.** (1999). *British Red Data Book 1: Vascular Plants*. Joint Nature Conservation Committee, Peterborough.

<sup>&</sup>lt;sup>2</sup> **Stewart, A. Pearman, D.A. & Preston, C.D.** (eds). (1994). *Scarce Plants in Britain*. Joint Nature Conservation Committee, Peterborough



4.4 No records of Red Data species on or within 2 km of the survey site, were information received from the ecological consultations.

#### Ephemeral/short perennial

4.5 The majority of the site comprises buildings and hard standing, with occasional colonisation by ephemeral/short perennial and tall ruderal species. Overall, the site is therefore of negligible nature conservation value but could be said to have low local value for invertebrates such as bees and butterflies. None of the plant species present within the this semi-natural habitat type are protected or nationally or locally rare.

#### Broadleaved woodland/dense scrub

- 4.6 The broadleaved woodland and dense scrub section is of value to birds, small mammals, (including bats), and for woodland invertebrates. This habitat is of highest value of all habitats on the site but overall its value in a local context is considered to be low due to the small size of the woodland, the lack of ancient woodland indicator trees species and the poorly developed ground flora.
- 4.7 The dense scrub habitat that occurs in conjunction with the woodland provides important protection in the form of shelter and nesting sites for birds and other wildlife, but overall it is ascribed a low, local value for nature conservation.
- 4.8 The woodland scrub may provide linkage or connectivity to other similar habitats for birds and small mammals, such as adjacent SINCs, LNRs, SLINCs, ancient woodlands and Wildlife Corridors within two kilometres of the Carnegie Road site. It may also connect with the small woodland area and local park with amenity grassland and scattered broadleaved trees located to the east of the site.

#### **Protected species**

#### **Badgers**

4.9 There was no evidence to suggest that badgers were present in the woodland in the site. It is likely that the site and the surrounding area does not provide sufficient foraging territory to support a badger settlement.

## Bats

4.10 All bats are fully protected in the UK due to their inclusion on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Woodland habitats typically provide good foraging for bats. Linear features such as hedgerows and lines of trees can provide rich food sources, shelter and commuter corridors. Therefore



the row of poplars on the north of the site and the adjacent woodland section (Target Notes 2 & 3) are likely to be of local value to foraging bats.

Birds

- 4.11 All birds are protected by the Wildlife and Countryside Act 1981 which makes it an offence to intentionally kill, injure or take any wild bird; intentionally damage or destroy the nest of any wild bird while being built; or take or destroy an egg of any wild bird.
- 4.12 The broadleaved woodland and adjacent trees and scrub provide cover, nesting and foraging ground for wild birds. Overall, the site is considered to be of low, local importance for birds, due to the presence of woodland, scattered trees and scrub.
- 4.13 There may be potential for black redstarts, a species that nests in old buildings in urban sites which is known to be present in central Birmingham.

Other species

- 4.14 The site is of negligible conservation value for amphibians, otter and water vole, due to the lack of any natural waterbodies on the site. It is possible that open areas of hard standing with short vegetation cover could be suitable habitat for reptiles.
- 4.15 Invertebrates will be abundant in the woodland habitat, and bees and butterflies will be attracted to flowers of ruderal and short perennial species. Overall the site is of low local value for invertebrates.

Summary of Nature Conservation Value

- 4.16 In summary, the semi-natural broadleaved woodland and scrub present on the site provides a habitat of low, local nature conservation value. This is because of its importance for local populations of breeding wild birds and potential for foraging bats.
- 4.17 The woodland is also of value for improved connectivity between existing remaining woodland habitats and existing statutory and non-statutory nature conservation designations in the local area.
- 4.18 The site overall in terms of woodland, scrub and grassland habitat is of low local nature conservation value, for birds and bats. It is of negligible value for amphibians including great crested newts, due to the lack of aquatic habitats.



#### 5 POTENTIAL IMPACTS AND MITIGATION PROPOSALS

- 5.1 The assessment of the impacts of the proposed development needs to take into account both on-site effects as well as those which may impact on adjacent areas with a nature conservation value. Impacts can be permanent or temporary and can include:
  - Direct loss of wildlife habitats;
  - Fragmentation and isolation of habitats;
  - Disturbance to species using the site or adjacent sites.
- 5.2 The significance of adverse impacts is a combination of the size and duration of the impacts and the nature conservation value of the receptor (the wildlife habitats and their species). The significance of the impacts has been assessed, allowing for the loss of the entire study area to development, using the following criteria:
  - Major Significance: Loss of, or permanent damage to, any part of a
    nationally important site, or a significant part or key feature of a site of county
    importance, or the whole of a site of local importance, or the loss of nationally
    rare or nationally scarce or legally protected species.
  - Moderate Significance: Loss of, or permanent damage to, any part of a site
    of county importance, or a significant part or key feature of a site of local
    importance, or a significant reduction in the numbers of nationally scarce or
    legally protected species.
  - Minor Significance: Loss of, or permanent damage to, any part of a site of local importance, or a reduction in the numbers of a nationally rare or nationally scarce or legally protected species, or a significant reduction in the numbers of uncommon species.
  - Negligible Significance: Temporary damage to a small part of a site of local importance, or loss of, or damage to, land of negligible nature conservation value, not leading to any reduction in numbers of nationally rare, nationally scarce, legally protected or uncommon species.

#### Ecological impacts on semi-natural habitats

5.3 It is planned that the wooded embankment which is of low local nature conservation value, be retained within the new development proposal. In this



case there would be no or negligible ecological impacts. Any unavoidable loss of the woodland or trees along the northern perimeter of the site would represent an adverse ecological impact of local significance. It is recommended that replanting of an area of equivalent size with native woodland species would be appropriate mitigation.

5.4 The scrub, tall ruderal and semi-improved grassland species are not nationally rare, nationally scarce, legally protected or uncommon and as such, their loss constitutes an minor to negligible ecological impact.

#### Disturbance and off-site effects

- 5.5 There may be indirect effects of the development caused by disturbance arising from use of machinery and construction works. After completion of the development, there will be increased disturbance from use of the site, and potentially increased access and disturbance to retained semi-natural habitats.
- 5.6 As there is already some level of disturbance over much of the site due to the presence of the industrial estate, this is not likely to have significant effects, although some wildlife may be deterred from using the site during the construction phase.
- 5.7 Nearby local statutory nature conservation designations include various LNRs, non-statutory nature conservation sites, include SINCs, SLINCs, ancient woodland and Wildlife Corridors, occurring within 2 km would be subject to minimal off-site effects resulting from the development. The SLINC, Land at Victory Avenue, immediately adjacent to the west of the site, may be subject to indirect disturbance to birds and bats using the site but this will be of a temporary, short-term nature and will result in a negligible impact.

#### Fauna

- 5.8 As there were no signs of badger foraging within the site, the loss of habitat is considered to be a negligible impact.
- 5.9 The woodland and scrub habitats may be used for bat foraging at dusk and dawn, and loss of such habitats may have a minor impact on bat populations in the area. Proposals to mitigate for habitat loss would include replanting with native woodland species, including hawthorn, ash, oak, hazel, goat willow and silver birch.
- 5.10 Breeding birds and their nests are given protection under the Wildlife and Countryside Act 1981. Any disturbance to suitable bird breeding habitats should take place outside of the bird-breeding season, late February to August inclusive.



5.11 The site is of low, local nature conservation importance for birds. Any loss to the woodland and scrub, will result in a minor adverse impact on birds. Indirect disturbance to breeding birds using adjacent habitats may occur during the period of construction of the proposed development, but this will be of a temporary, short-term nature and will result in a negligible impact.

Other protected species

5.12 There were no suitable habitats present on the site and therefore no evidence to suggest the presence of other protected species including amphibians and reptiles, aquatic mammals including otter and water vole. Development of the site is therefore likely to have a negligible impact on these species.



#### 6 CONCLUSIONS

- 6.1 The old factory site, T. W. Lench, at Carnegie Road, Blackheath, comprises a small amount of semi-natural habitat, comprising 0.2 ha of broadleaved woodland, small pockets of scattered scrub and tall ruderals over bare ground/hard standing and a small garden section of ornamental shrub species.
- 6.2 There were no rare or endangered, BAP or Red Data listed plant species present on the site or any evidence of any protected species, badgers or great crested newts on the site. Bats may use the woodland on the site for foraging, and birds will use the woodland for cover, foraging and nesting.
- 6.3 The woodland section is of low local value to nature conservation, and as such it provides an important refuge for birds and small mammals and is important for connectivity with other statutory and non-statutory nature designations in the area.
- 6.4 Impacts to the site and designated nature conservation sites within 2 km are likely to be negligible. The site itself and an SLINC, Land at Victory Avenue, immediately adjacent to the site may be subject to indirect disturbance of a short term, temporary nature, causing negligible impact.
- 6.5 It is recommended that the woodland embankment in the north of the site is retained. If the proposed development requires the loss of any of the woodland section, it is advised that mitigation proposals should entail replanting of an equivalent area with native woodland and grassland species.



#### **APPENDIX 1 – TARGET NOTES**

# Land off Carnegie Road, Blackheath, Ecological Appraisal

The target notes are shown on the Habitat Plan (WM03023\03) The abundance of species is given using the DAFOR scale (Table 1).

Abundance	Approximate Percentage Cover
<b>D</b> ominant	> 50%
<b>A</b> bundant	30 - 50%
Frequent	Many individuals
Occasional	Few individuals
Rare	Isolated individuals
Local	Distinct population

Table 1. Descriptive table outlining the DAFOR index.

# **Target Note 1**

# Shrub border along site perimeter

A narrow border of shrubs and trees along the northern perimeter wall, comprising frequent rhododendron, an ornamental shrub sp., sycamore, elder, goat willow, and silver birch. The ground flora in this section comprised frequent yorkshire fog, cock's foot and bramble, with occasional dock, dandelion, foxglove, ragwort and broadleaved willowherb.

# **Target Note 2**

# Steep embankment with poplars

A steep bank at the northern perimeter comprises bare earth and a natural sandstone outcrop. A row of tall (lombardy) poplar, and occasional birch and goat willow scrub, is present at the base of the bank. Tall ruderal species such as frequent rosebay willowherb, broadleaved willowherb and abundant false oat grass have colonised the bank. (See Picture 1).

## **Target Note 3**

#### Embankment with broadleaved woodland

This wooded section covers approximately 0.5 ha at the northern end of the site. It comprises broadleaved woodland with a dense scrub understorey. The ground level in this section is approximately 1 m above the level of the rest of the site and in places has been artificially raised with brick wall embankments up to approximately 2 m, in order to support several now abandoned, rusty boilers. Trees species include, frequent sycamore, goat willow, birch, elder and occasional hornbeam, hawthorn, horse chestnut, common lime and yew. A multi-stemmed sycamore and a large rotten tree stump were observed. (See Pictures 2 and 3).

The ground flora includes locally abundant bramble and stinging nettle, frequent hogweed, wood avens, cleavers and black bent grass, occasional holly, creeping buttercup, male fern and laurel, a non-native shrub. Bullfinches were seen in the woodland.

#### **Target Note 4**

#### Ephemeral/short perennial

At the base of the wooded bank, herb and grass species typical of semi improved grassland occurred on rubble and old brick walls. Species included abundant false oat grass, yorkshire fog, locally abundant black medic and field horsetail, frequent common evening primrose, oxeye daisy, red clover, ragwort, groundsel, rosebay willowherb, creeping thistle and colt's foot, and occasional garlic mustard. Caterpillars of the cinnabar moth were seen here.

#### **Target Note 5**

# Courtyard and hard standing

A large open area in the centre of the site consisted mainly of concrete hard standing. Tall ruderals and ephemeral/short perennial were present here, including occasional sycamore and birch saplings, rosebay willowherb, elder, ragwort, common bent grass and yorkshire fog. Several pots with ornamental shrub and tree species were present here, for example wild cherry.

# **Target Note 6**

#### Garden section with scattered broadleaved woodland

One tall sycamore and two elder trees occurred in a narrow section between buildings in front of an old fire/ambulance station. The understorey here comprised bare ground and male fern. Adjacent to this, a planted garden section including one bed of solely coniferous planting with a large eucalytptus tree and another bed with ornamental shrub section, comprising buddlejia, cotoneaster, laurel, rock rose, lesser periwinkle, lavender, mock orange, fig and roses.

#### **Target Note 7**

# **Covered workshops**

The majority of the site is covered by old brick built workshops and sheds. Some of these are now derelict although others were still in use at the time of survey. Gaps between bricks in walls had frequently been colonised by ferns.

#### **Target Note 8**

#### Bare ground/rubble

This section in the south of the factory site has been completely cleared and comprises bare earth and rubble.

# **Target Note 9**

#### Car park

The car park to the east of Carnegie Road comprises bare ground and rubble, and is bordered by hedgerows and tall ruderals, including sycamore, birch, willow sp., rosebay willowherb and broadleaved dock.

Picture 1. Row of poplars (Target Note 2)

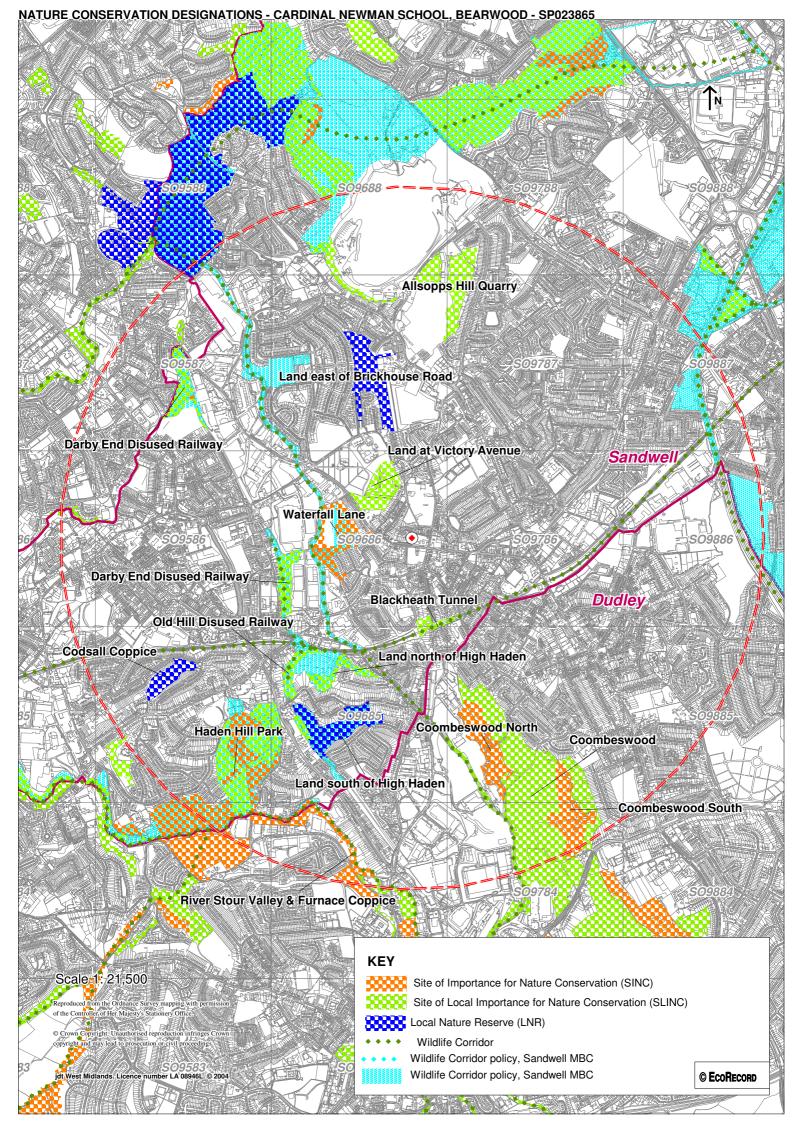


Picture 2. Broadleaved woodland (Target Note 3)



Picture 3.
Multi-stemmed sycamore (Target Note 3)





CommonName	SciName Sex/Stage	MainSiteName	SiteName	Date NGR
Bluebell	Hyacinthoides non-scripta	(X) Dudley Churchyards	St.Paul's Church of England, Blackheath (242)	15 MAY 199 SO976863
Black-headed Gull	Larus ridibundus	Allsopps Hill Quarry Complex		01-Sep-98 SO969878
Dunnock	Prunella modularis	Allsopps Hill Quarry Complex		03-Oct-88 SO969878
Dunnock	Prunella modularis	Allsopps Hill Quarry Complex		09-Dec-86 SO97058795
Goldcrest	Regulus regulus	Allsopps Hill Quarry Complex		03-Oct-88 SO969878
Grey Wagtail	Motacilla cinerea	Allsopps Hill Quarry Complex		03-Oct-88 SO969878
House Sparrow	Passer domesticus	Allsopps Hill Quarry Complex		01-Sep-98 SO969878
House Sparrow	Passer domesticus	Allsopps Hill Quarry Complex		03-Oct-88 SO969878
House Sparrow	Passer domesticus	Allsopps Hill Quarry Complex		09-Dec-86 SO97058795
Kestrel	Falco tinnunculus present	Allsopps Hill Quarry Complex	Allsopps Hill Quarry	03-Oct-88 SO969878
Linnet	Carduelis cannat present	Allsopps Hill Quarry Complex	Allsopps Hill Quarry	03-Oct-88 SO969878
Meadow Pipit	Anthus pratensis	Allsopps Hill Quarry Complex		03-Oct-88 SO969878
Meadow Pipit	Anthus pratensis	Allsopps Hill Quarry Complex		01-Sep-98 SO969878
Meadow Pipit	Anthus pratensis	Allsopps Hill Quarry Complex		09-Dec-86 SO97028778
Meadow Pipit	Anthus pratensis	Allsopps Hill Quarry Complex		09-Dec-86 SO97058795
Mistle Thrush	Turdus viscivorus	Allsopps Hill Quarry Complex		03-Oct-88 SO969878
Skylark	Alauda arvensis present	Allsopps Hill Quarry Complex	Allsopps Hill Quarry	03-Oct-88 SO969878
Starling	Sturnus vulgaris	Allsopps Hill Quarry Complex		03-Oct-88 SO969878
Starling	Sturnus vulgaris	Allsopps Hill Quarry Complex		01-Sep-98 SO969878
Starling	Sturnus vulgaris	Allsopps Hill Quarry Complex		09-Dec-86 SO97058795
Water Vole	Arvicola terrestris present	Birmingham and the Black Cor	u Birmingham and the Black Country (Overview)	1997 SO967846
Bluebell	Hyacinthoides non-scripta	Codsall Coppice (262)	Codsall Coppice (262)	29-Jul-86 SO95408570
Bluebell	Hyacinthoides non-scripta	Codsall Coppice (262)	Codsall Coppice (262)	29-Apr-87 SO954858
Bluebell	Hyacinthoides non-scripta	Codsall Coppice (262)	Codsall Coppice (262)	10-Apr-98 SO955855
Bullfinch	Pyrrhula pyrrhula present	Codsall Coppice (262)	Codsall Coppice (262)	29-Apr-87 SO954858
Dunnock	Prunella modularis	Codsall Coppice (262)		29-Apr-87 SO954858
House Sparrow	Passer domesticus	Codsall Coppice (262)		29-Apr-87 SO954858
Song Thrush	Turdus philomelo adult carrying	g tCodsall Coppice (262)	Codsall Coppice (262)	29-Apr-87 SO954858
Black-headed Gull	Larus ridibundus	Coombeswood s.l.		12-Feb-87 SO975852
Black-headed Gull	Larus ridibundus	Coombeswood s.l.		22-Jul-86 SO975852
Bluebell	Hyacinthoides no present	Coombeswood s.l.	Coombeswood	05-Jun-86 SO974850
Bluebell	Hyacinthoides no present	Coombeswood s.l.	Coombeswood	05-Jun-86 SO974850
Bluebell	Hyacinthoides no present	Coombeswood s.l.	Coombeswood (283)	05-Jun-86 SO97708520
Bullfinch	Pyrrhula pyrrhula present	Coombeswood s.l.	Coombeswood	12-Feb-87 SO975852
Bullfinch	Pyrrhula pyrrhula singing/matir	ng Coombeswood s.l.	Coombeswood	05-Jun-86 SO975852

Cuckoo	Cuculus canorus	Coombeswood s.l.		22-Jul-86 SO975852
Dunnock	Prunella modularis	Coombeswood s.l.		29-Oct-85 SO97228549
Dunnock	Prunella modularis	Coombeswood s.l.		05-Jun-86 SO975852
Dunnock	Prunella modularis	Coombeswood s.l.		12-Feb-87 SO975852
Dunnock	Prunella modularis	Coombeswood s.l.		14-Oct-85 SO97708485
Goldcrest	Regulus regulus	Coombeswood s.l.		14-Oct-85 SO97668500
Green Woodpecker	Picus viridis	Coombeswood s.l.		14-Oct-85 SO97668500
Green Woodpecker	Picus viridis	Coombeswood s.l.		14-Oct-85 SO97708485
House Martin	Delichon urbica	Coombeswood s.l.		22-Jul-86 SO975852
House Martin	Delichon urbica	Coombeswood s.l.		05-Jun-86 SO975852
House Sparrow	Passer domesticus	Coombeswood s.l.		05-Jun-86 SO975852
House Sparrow	Passer domesticus	Coombeswood s.l.		12-Feb-87 SO975852
House Sparrow	Passer domesticus	Coombeswood s.l.		22-Jul-86 SO975852
Kestrel	Falco tinnunculus	Coombeswood s.l.	Coombeswood (282)	29-Oct-85 SO97228549
Kestrel	Falco tinnunculus present	Coombeswood s.l.	Coombeswood	12-Feb-87 SO975852
Kestrel	Falco tinnunculus probable bree	ecCoombeswood s.l.	Coombeswood	05-Jun-86 SO975852
Lesser Black-backed	G Larus fuscus	Coombeswood s.l.		12-Feb-87 SO975852
Linnet	Carduelis cannat holding territo	r Coombeswood s.l.	Coombeswood	22-Jul-86 SO975852
Linnet	Carduelis cannat singing/mating	g Coombeswood s.l.	Coombeswood	05-Jun-86 SO975852
Meadow Pipit	Anthus pratensis	Coombeswood s.l.		14-Oct-85 SO97558490
Meadow Pipit	Anthus pratensis	Coombeswood s.l.		12-Feb-87 SO975852
Meadow Pipit	Anthus pratensis	Coombeswood s.l.		05-Jun-86 SO975852
Mistle Thrush	Turdus viscivorus	Coombeswood s.l.		12-Feb-87 SO975852
Redwing	Turdus iliacus present	Coombeswood s.l.	Coombeswood	12-Feb-87 SO975852
Skylark	Alauda arvensis probable bree	ecCoombeswood s.l.	Coombeswood	22-Jul-86 SO975852
Skylark	Alauda arvensis present	Coombeswood s.l.	Coombeswood	12-Feb-87 SO975852
Skylark	Alauda arvensis singing/matin	g Coombeswood s.l.	Coombeswood	05-Jun-86 SO975852
Song Thrush	Turdus philomelo present	Coombeswood s.l.	Coombeswood	12-Feb-87 SO975852
Song Thrush	Turdus philomelo possible bree	d Coombeswood s.l.	Coombeswood	05-Jun-86 SO975852
Starling	Sturnus vulgaris	Coombeswood s.l.		05-Jun-86 SO975852
Starling	Sturnus vulgaris	Coombeswood s.l.		22-Jul-86 SO975852
Starling	Sturnus vulgaris	Coombeswood s.l.		12-Feb-87 SO975852
Stock Dove	Columba oenas	Coombeswood s.l.		22-Jul-86 SO975852
Swallow	Hirundo rustica	Coombeswood s.l.		22-Jul-86 SO975852
Wall	Lasiommata megera	Coombs Road / Lodgefield Ro	oa Coombs Road / Lodgefield Road Embankment	Aug-80 SO965849
Black-headed Gull	Larus ridibundus	Darby End Disused Railway		31-Aug-88 SO958868

Bullfinch	Pyrrhula pyrrhula present	Darby End Disused Railway	Darby End Disused Railway	05-Sep-88 SO958868
Dunnock	Prunella modularis	Darby End Disused Railway		05-Sep-88 SO958868
Dunnock	Prunella modularis	Darby End Disused Railway		31-Aug-88 SO958868
Grey Wagtail	Motacilla cinerea	Darby End Disused Railway		31-Aug-88 SO958868
House Martin	Delichon urbica	Darby End Disused Railway		05-Sep-88 SO958868
House Martin	Delichon urbica	Darby End Disused Railway		31-Aug-88 SO958868
House Sparrow	Passer domesticus	Darby End Disused Railway		17-Jul-86 SO95558770
House Sparrow	Passer domesticus	Darby End Disused Railway		16-May-88 SO95558770
House Sparrow	Passer domesticus	Darby End Disused Railway		31-Aug-88 SO958868
House Sparrow	Passer domesticus	Darby End Disused Railway		18-Jul-86 SO96108643
Kestrel	Falco tinnunculus present	Darby End Disused Railway	Darby End Disused Railway	31-Aug-88 SO958868
Kingfisher	Alcedo atthis present	Darby End Disused Railway	Darby End Disused Railway	31-Aug-88 SO958868
Linnet	Carduelis cannat present	Darby End Disused Railway	Darby End Disused Railway	31-Aug-88 SO958868
Linnet	Carduelis cannat present	Darby End Disused Railway	Darby End Disused Railway	05-Sep-88 SO958868
Skylark	Alauda arvensis present	Darby End Disused Railway	Darby End Disused Railway	31-Aug-88 SO958868
Song Thrush	Turdus philomelo possible bre	eed Darby End Disused Railway	Darby End Disused Railway	31-Aug-88 SO958868
Song Thrush	Turdus philomelo present	Darby End Disused Railway	Darby End Disused Railway	05-Sep-88 SO958868
Starling	Sturnus vulgaris	Darby End Disused Railway		05-Sep-88 SO958868
Tree Pipit	Anthus trivialis	Darby End Disused Railway		31-Aug-88 SO958868
Willow Tit	Parus montanus	Darby End Disused Railway		05-Sep-88 SO958868
Willow Tit	Parus montanus	Darby End Disused Railway		31-Aug-88 SO958868
Black-headed Gull	Larus ridibundus	Dudley Canal Complex		29-Sep-88 SO960871
Dunnock	Prunella modularis	Dudley Canal Complex		29-Sep-88 SO960871
Grey Wagtail	Motacilla cinerea	Dudley Canal Complex		29-Sep-88 SO960871
Herring Gull	Larus argentatus	Dudley Canal Complex		18-Jul-86 SO96208684
House Martin	Delichon urbica	Dudley Canal Complex		29-Sep-88 SO960871
House Sparrow	Passer domesticus	Dudley Canal Complex		17-Jul-86 SO95898770
House Sparrow	Passer domesticus	Dudley Canal Complex		29-Sep-88 SO960871
House Sparrow	Passer domesticus	Dudley Canal Complex		18-Jul-86 SO96208684
Kestrel	Falco tinnunculus present	Dudley Canal Complex	Halesowen Arm, Sandwell	29-Sep-88 SO960871
Lesser Black-backe	ed G Larus fuscus	Dudley Canal Complex		29-Sep-88 SO960871
Linnet	Carduelis cannat present	Dudley Canal Complex	Halesowen Arm, Sandwell	29-Sep-88 SO960871
Starling	Sturnus vulgaris	Dudley Canal Complex		29-Sep-88 SO960871
Water Vole	Arvicola terrestris	Dudley Canal Complex	Halesowen Arm (280)	14-May-99 SO96978537
Water Vole	Arvicola terrestris	Dudley Canal Complex	Halesowen Arm (280)	14-May-99 SO96988535
Water Vole	Arvicola terrestris	Dudley Canal Complex	Halesowen Arm (280)	14-May-99 SO97028531

Water Vole	Arvicola terrestris	Dudley Canal Campley	Halasawan Arm (44)	14 May 00 CO07219401
Water Vole	Arvicola terrestris nest	Dudley Canal Complex Dudley Canal Complex	Halesowen Arm (41) Halesowen Arm (41)	14-May-99 SO97318491 14-May-99 SO97338489
Water Vole	Arvicola terrestris nest	Dudley Canal Complex  Dudley Canal Complex	Halesowen Arm (41)	14-May-99 SO97358486
Black-headed Gull	Larus ridibundus	Haden Hill Park s.l.	Halesowell Allii (41)	26-Feb-88 SO958853
Bluebell		Haden Hill Park s.l.	Haden Hill Park (267)	28-Jul-86 SO95858530
	Hyacinthoides non-scripta		Haden Hill Park	
Bluebell	Hyacinthoides non-scripta	Haden Hill Park s.l.		14-May-02 SO958851
Bluebell	Hyacinthoides non-scripta	Haden Hill Park s.l.	Haden Hill Park	12-May-87 SO958853
Bluebell	Hyacinthoides non-scripta	Haden Hill Park s.l.	Haden Hill Park	12-May-87 SO958853
Bluebell	Hyacinthoides non-scripta	Haden Hill Park s.l.	Haden Hill Park	21-May-01 SO958854
Bluebell	Hyacinthoides non-scripta	Haden Hill Park s.l.	Haden Hill Park	10 JUN 1975 SO958855
Bluebell	Hyacinthoides non-scripta	Haden Hill Park s.l.	Haden Hill Park	16-May-02 SO959853
Bluebell	Hyacinthoides non-scripta	Haden Hill Park s.l.	Haden Hill Park	14-May-02 SO960853
Bluebell	Hyacinthoides non-scripta	Haden Hill Park s.l.	Haden Hill Park	16-May-02 SO960854
Bluebell	Hyacinthoides non-scripta	Haden Hill Park s.l.	Haden Hill Park s.l.	10-Apr-98 SO960855
Bullfinch	Pyrrhula pyrrhula present	Haden Hill Park s.l.	Haden Hill Park	26-Feb-88 SO958853
Bullfinch	Pyrrhula pyrrhula	Haden Hill Park s.l.	Haden Hill Park	10-Jun-75 SO958853
Bullfinch	Pyrrhula pyrrhula	Haden Hill Park s.l.	Haden Hill Park	10-Jun-75 SO958855
Common Frog	Rana temporaria egg/ovum	Haden Hill Park s.l.	Haden Hill Park	26-Feb-88 SO958853
Common Frog	Rana temporaria egg/ovum	Haden Hill Park s.l.	Haden Hill Park	12-May-87 SO958853
Common Frog	Rana temporaria larva	Haden Hill Park s.l.	Haden Hill Park (268)	28-Jul-86 SO95958520
Dunnock	Prunella modularis	Haden Hill Park s.l.		26-Feb-88 SO958853
Dunnock	Prunella modularis	Haden Hill Park s.l.		16-May-02 SO958853
Dunnock	Prunella modularis	Haden Hill Park s.l.		12-May-87 SO958853
Goldcrest	Regulus regulus	Haden Hill Park s.l.		03-Oct-85 SO95778485
Goldcrest	Regulus regulus	Haden Hill Park s.l.		10-Jun-75 SO958853
Goldcrest	Regulus regulus	Haden Hill Park s.l.		12-May-87 SO958853
Goldcrest	Regulus regulus	Haden Hill Park s.l.		26-Feb-88 SO958853
Goldcrest	Regulus regulus	Haden Hill Park s.l.		10-Jun-75 SO958855
Green Woodpecker	Picus viridis	Haden Hill Park s.l.		14-May-02 SO958851
Green Woodpecker	Picus viridis	Haden Hill Park s.l.		16-May-02 SO958853
Grey Wagtail	Motacilla cinerea	Haden Hill Park s.l.		14-May-02 SO958853
House Martin	Delichon urbica	Haden Hill Park s.l.		12-May-87 SO958853
House Sparrow	Passer domesticus	Haden Hill Park s.l.		26-Feb-88 SO958853
House Sparrow	Passer domesticus	Haden Hill Park s.l.		12-May-87 SO958853
Kestrel	Falco tinnunculus present	Haden Hill Park s.l.	Haden Hill Park	26-Feb-88 SO958853
Kingfisher	Alcedo atthis	Haden Hill Park s.l.	Haden Hill Park	14-May-02 SO958853
			2-2-2	

Mistle Thrush	Turdus viscivorus	Haden Hill Park s.l.		16-May-02 SO958852
Mistle Thrush	Turdus viscivorus	Haden Hill Park s.l.		12-May-87 SO958853
Mistle Thrush	Turdus viscivorus	Haden Hill Park s.l.		26-Feb-88 SO958853
Mistle Thrush	Turdus viscivorus	Haden Hill Park s.l.		14-May-02 SO958853
Mistle Thrush	Turdus viscivorus	Haden Hill Park s.l.		16-May-02 SO959853
Mistle Thrush	Turdus viscivorus	Haden Hill Park s.l.		16-May-02 SO959855
Mistle Thrush	Turdus viscivorus	Haden Hill Park s.l.		16-May-02 SO960855
Noctule	Nyctalus noctula roosting	Haden Hill Park s.l.	Haden Hill Park	04-Mar-94 SO958852
Redwing	Turdus iliacus present	Haden Hill Park s.l.	Haden Hill Park	26-Feb-88 SO958853
Song Thrush	Turdus philomelo present	Haden Hill Park s.l.	Haden Hill Park (267)	28-Jul-86 SO95858530
Song Thrush	Turdus philomelo probable bree	e Haden Hill Park s.l.	Haden Hill Park	12-May-87 SO958853
Song Thrush	Turdus philomelo singing/mating	g Haden Hill Park s.l.	Haden Hill Park	26-Feb-88 SO958853
Song Thrush	Turdus philomelo singing/mating		Haden Hill Park	16-May-02 SO958854
Spotted Flycatcher	Muscicapa striata	Haden Hill Park s.l.	Haden Hill Park	10-Jun-75 SO958853
Spotted Flycatcher	Muscicapa striata	Haden Hill Park s.l.	Haden Hill Park	10-Jun-75 SO958855
Starling	Sturnus vulgaris	Haden Hill Park s.l.		26-Feb-88 SO958853
Starling	Sturnus vulgaris	Haden Hill Park s.l.		12-May-87 SO958853
Stock Dove	Columba oenas	Haden Hill Park s.l.		26-Feb-88 SO958853
Stock Dove	Columba oenas	Haden Hill Park s.l.		12-May-87 SO958853
Stock Dove	Columba oenas	Haden Hill Park s.l.		10-Jun-75 SO958853
Stock Dove	Columba oenas	Haden Hill Park s.l.		10-Jun-75 SO958855
Swallow	Hirundo rustica	Haden Hill Park s.l.		10-Jun-75 SO958853
Dunnock	Prunella modularis	Hurst Green Park		29-Oct-85 SO98508670
Snipe	Gallinago gallinago	Hurst Green Park	Dudley (247)	1985 SO98548675
Song Thrush	Turdus philomelos	Hurst Green Park	Dudley (250)	29-Oct-85 SO98498646
Song Thrush	Turdus philomelos	Hurst Green Park	Dudley (248)	29-Oct-85 SO98508670
Bluebell	Hyacinthoides non-scripta	Land at Victory Avenue	Land at Victory Avenue (228)	18-May-87 SO965867
Bluebell	Hyacinthoides non-scripta	Land at Victory Avenue	Land at Victory Avenue (227)	18-Jul-86 SO96608680
Bluebell	Hyacinthoides non-scripta	Land at Victory Avenue	Land at Victory Avenue (227)	18-May-87 SO966868
Bluebell	Hyacinthoides non-scripta	Land at Victory Avenue	Land at Victory Avenue (227)	18-May-87 SO966868
Bullfinch	Pyrrhula pyrrhula present	Land at Victory Avenue	Land at Victory Avenue	18-May-87 SO966868
Dunnock	Prunella modularis	Land at Victory Avenue		18-May-87 SO966868
House Sparrow	Passer domesticus	Land at Victory Avenue		18-Jul-86 SO96558670
House Sparrow	Passer domesticus	Land at Victory Avenue		18-May-87 SO966868
Spotted Flycatcher	Muscicapa striata present	Land at Victory Avenue	Land at Victory Avenue	18-May-87 SO966868
Starling	Sturnus vulgaris	Land at Victory Avenue		18-May-87 SO966868

Dunnock	Prunella modularis	Land E of Brickhouse Road (1	92)	12-Mar-93 SO967873
Dunnock	Prunella modularis	Land E of Brickhouse Road (1	92)	15-Aug-88 SO967873
Dunnock	Prunella modularis	Land E of Brickhouse Road (1	92)	12-Aug-88 SO967873
House Sparrow	Passer domesticus	Land E of Brickhouse Road (1	92)	12-Aug-88 SO967873
Kestrel	Falco tinnunculus present	Land E of Brickhouse Road (1	9 Land E of Brickhouse Road (192)	06-Aug-86 SO96548745
Kestrel	Falco tinnunculus present	Land E of Brickhouse Road (1	9 Land E of Brickhouse Road (192)	12-Aug-88 SO967873
Lesser Black-backed	I C Larus fuscus	Land E of Brickhouse Road (1	92)	12-Aug-88 SO967873
Linnet	Carduelis cannat present	Land E of Brickhouse Road (1	9 Land E of Brickhouse Road (192)	12-Aug-88 SO967873
Linnet	Carduelis cannat present	Land E of Brickhouse Road (1	9 Land E of Brickhouse Road (192)	15-Aug-88 SO967873
Mistle Thrush	Turdus viscivorus	Land E of Brickhouse Road (1	92)	15-Aug-88 SO967873
Song Thrush	Turdus philomelo present	Land E of Brickhouse Road (1	9 Land E of Brickhouse Road (192)	15-Aug-88 SO967873
Southern Marsh-orch	nid Dactylorhiza praє present	Land E of Brickhouse Road (1	9 Land E of Brickhouse Road (192)	26-Jul-98 SO965874
Spotted Flycatcher	Muscicapa striata present	Land E of Brickhouse Road (1	9 Land E of Brickhouse Road (192)	15-Aug-88 SO967873
Swallow	Hirundo rustica	Land E of Brickhouse Road (1	92)	15-Aug-88 SO967873
Bluebell	Hyacinthoides non-scripta	Land N of High Haden (271)	Haden Hill Wood (West)	11-Jun-97 SO963856
Bluebell	Hyacinthoides non-scripta	Land N of High Haden (271)	Land N of High Haden (271)	15-Apr-87 SO965857
Bluebell	Hyacinthoides non-scripta	Land N of High Haden (271)	Land N of High Haden (271)	15-Apr-87 SO965857
Bullfinch	Pyrrhula pyrrhula present	Land N of High Haden (271)	Land N of High Haden (271)	18-Jul-86 SO96378578
Bullfinch	Pyrrhula pyrrhula present	Land N of High Haden (271)	Land N of High Haden (271)	18-Jul-86 SO965857
Common Frog	Rana temporaria present	Land N of High Haden (271)	Land N of High Haden (271)	18-Jul-86 SO96378578
Common Frog	Rana temporaria	Land N of High Haden (271)	Land N of High Haden (271)	15-Apr-87 SO965857
Dunnock	Prunella modularis	Land N of High Haden (271)		15-Apr-87 SO965857
Smooth Newt	Triturus vulgaris	Land N of High Haden (271)	Land N of High Haden (271)	15-Apr-87 SO965857
Song Thrush	Turdus philomelo present	Land N of High Haden (271)	Haden Hill Wood (East)	11-Jun-97 SO964857
Bluebell	Hyacinthoides non-scripta	Land S of High Haden	Haden Cross Wood (274)	18-Jul-86 SO96258540
Bluebell	Hyacinthoides non-scripta	Land S of High Haden	Land S of High Haden (275)	18-Jun-85 SO96408545
Bluebell	Hyacinthoides non-scripta	Land S of High Haden	Land S of High Haden (275)	18-Jul-86 SO96408545
Bluebell	Hyacinthoides non-scripta	Land S of High Haden	Land S of High Haden	28 JUL 1984 SO964855
Bluebell	Hyacinthoides non-scripta	Land S of High Haden	Land S of High Haden	06-Jul-98 SO965855
Bluebell	Hyacinthoides non-scripta	Land S of High Haden	Land S of High Haden	23-Apr-87 SO965855
Bluebell	Hyacinthoides non-scripta	Land S of High Haden	Land S of High Haden	18-Jul-86 SO965855
Broad-leaved Hellebo	ori Epipactis helleborine	Land S of High Haden	Land S of High Haden (275)	28 JUL 1984 SO964854
Broad-leaved Hellebo	ori Epipactis helleborine	Land S of High Haden	Land S of High Haden (275)	28 JUL 1984 SO964854
Bullfinch	Pyrrhula pyrrhula	Land S of High Haden	Land S of High Haden (275)	1985 SO96408545
Dunnock	Prunella modularis	Land S of High Haden		28 JUL 1984 SO964855
Dunnock	Prunella modularis	Land S of High Haden		23-Apr-87 SO965855

Dunnock Field Vole Goldcrest Goldcrest House Sparrow Redwing Redwing Song Thrush Song Thrush Dunnock	Prunella modularis Microtus agrestis Regulus regulus Regulus regulus Passer domesticus Turdus iliacus Turdus philomelos Turdus philomelo present Prunella modularis	Land S of High Haden Old Hill disused railway	Land S of High Haden (275) Land S of High Haden Land S of High Haden (275) Land S of High Haden	06-Jul-98 SO965855 23-Apr-87 SO965855 1985 SO96408545 1989 SO965855 18-Jun-85 SO96408545 1989 SO965855 18-Jun-85 SO96408545 06-Jul-98 SO965855 22-Mar-88 SO962858
Goldcrest	Regulus regulus	Old Hill disused railway		22-Mar-88 SO962858
Song Thrush	Turdus philomelo singing/matir	ng Old Hill disused railway	Old Hill disused railway	22-Mar-88 SO962858
Starling	Sturnus vulgaris	Old Hill disused railway		22-Mar-88 SO962858
Bluebell	Hyacinthoides non-scripta	River Stour Corridor	Furnace Hill to Hayseech Road	02-Sep-86 SO963848
House Sparrow	Passer domesticus	Rowley Hills		07-Aug-86 SO97128840
Lesser Black-backed		Rowley Hills		07-Aug-86 SO97128840
Song Thrush	Turdus philomelo present	Rowley Hills	Land N of Portway Road (134)	07-Aug-86 SO97128840
Black-headed Gull	Larus ridibundus	SO98NE 1:10,000 Map		09-Dec-86 SO96058776
Dunnock	Prunella modularis	SO98NE 1:10,000 Map		09-Dec-86 SO96058776
Dunnock	Prunella modularis	SO98NE 1:10,000 Map		09-Dec-86 SO96718845
Dunnock	Prunella modularis	SO98NE 1:10,000 Map		09-Jul-86 SO96768798
House Martin	Delichon urbica	SO98NE 1:10,000 Map		17-Jul-86 SO95628767
House Sparrow	Passer domesticus	SO98NE 1:10,000 Map		09-Dec-86 SO96058776
House Sparrow	Passer domesticus	SO98NE 1:10,000 Map		01-Aug-86 SO97658631
House Sparrow	Passer domesticus	SO98NE 1:10,000 Map		01-Aug-86 SO97708630
Kestrel	Falco tinnunculus present	SO98NE 1:10,000 Map	Rowley Hills (118)	09-Jul-86 SO96508848
Starling	Sturnus vulgaris	SO98NE 1:10,000 Map		09-Dec-86 SO96058776
Starling	Sturnus vulgaris	SO98NE 1:10,000 Map		09-Jul-86 SO96508848
Starling	Sturnus vulgaris	SO98NE 1:10,000 Map		01-Aug-86 SO97658631
Starling	Sturnus vulgaris	SO98NE 1:10,000 Map		01-Aug-86 SO97708630
Swallow	Hirundo rustica	SO98NE 1:10,000 Map		07-Jul-86 SO95878804
Redwing	Turdus iliacus	SO98SE 1:10,000 Map	Dudley (46)	14-Oct-85 SO97488465
Bluebell	Hyacinthoides non-scripta	Staffordshire Vice-county	Staffordshire Vice-county	1998 SO9685
Pipistrelle	Pipistrellus pipistroosting	Staffordshire Vice-county	Staffordshire Vice-county	Summer 199 SO958857
Pipistrelle	Pipistrellus pipisti roosting Dactylorhiza prae	Staffordshire Vice-county	Staffordshire Vice-county	22-Jun-01 SO958858

Bluebell Hyacinthoides non-scripta The Tump, Blackheath Tunnel (The Tump, Blackheath Tunnel (235)	
Bullfinch Pyrrhula pyrrhula The Tump, Blackheath Tunnel (The Tump, Blackheath Tunnel (235)	18-Apr-88 SO968860 02-Oct-89 SO968860
House Sparrow Passer domesticus The Tump, Blackheath Tunnel (235)	18-Apr-88 SO968860
House Sparrow Passer domesticus The Tump, Blackheath Tunnel (235)	08-Apr-86 SO968860
House Sparrow Passer domesticus The Tump, Blackheath Tunnel (235)	02-Oct-89 SO968860
Kestrel Falco tinnunculus The Tump, Blackheath Tunnel (The Tump, Blackheath Tunnel (235)	18-Apr-88 SO968860
Song Thrush Turdus philomelos The Tump, Blackheath Tunnel (The Tump, Blackheath Tunnel (235)	18-Apr-88 SO968860
Song Thrush Turdus philomelos The Tump, Blackheath Tunnel (The Tump, Blackheath Tunnel (235)	08-Apr-86 SO968860
Dunnock Prunella modularis Timbertree	26-Aug-88 SO952853
House Martin Delichon urbica Timbertree	26-Aug-88 SO952853
Starling Sturnus vulgaris Timbertree	15-Aug-83 SO952853
Willow Tit Parus montanus Timbertree	26-Aug-88 SO952853
Black-headed Gull Larus ridibundus Waterfall Lane	02-Sep-88 SO964865
Bluebell Hyacinthoides non-scripta Waterfall Lane Waterfall Lane	09-Jul-98 SO964865
Dunnock Prunella modularis Waterfall Lane	09-Jul-98 SO964865
Dunnock Prunella modularis Waterfall Lane	02-Sep-88 SO964865
House Martin Delichon urbica Waterfall Lane	02-Sep-88 SO964865
House Sparrow Passer domesticus Waterfall Lane	31-Jan-86 SO963864
House Sparrow Passer domesticus Waterfall Lane	18-Jul-86 SO96408645
House Sparrow Passer domesticus Waterfall Lane	31-Jan-86 SO964865
House Sparrow Passer domesticus Waterfall Lane	09-Jul-98 SO964865
House Sparrow Passer domesticus Waterfall Lane	02-Sep-88 SO964865
Lesser Black-backed C Larus fuscus Waterfall Lane	09-Jul-98 SO964865
Lesser Black-backed C Larus fuscus Waterfall Lane	02-Sep-88 SO964865
Song Thrush Turdus philomelo present Waterfall Lane Waterfall Lane (231)	18-Jul-86 SO96408645
Song Thrush Turdus philomelos Waterfall Lane Waterfall Lane	08-Oct-85 SO964864
Swallow Hirundo rustica Waterfall Lane	02-Sep-88 SO964865
Bilberry Vaccinium myrtillus Worcestershire Vice-county Worcestershire Vice-county	1998 SO9786
Bluebell Hyacinthoides non-scripta Worcestershire Vice-county Worcestershire Vice-county	2000 SO9885
House Sparrow Passer domesticus	1998 SO983853
Pipistrelle Pipistrellus pipistı female Sandwell Metropolitan Borough	03-Aug-93 SO961859
Song Thrush Turdus philomelo possible breeding Dudley Metropolitan Borough	1998 SO983853
Starling Sturnus vulgaris	1998 SO983853

# APPENDIX 4 – RATCLIFFE CRITERIA

CRITERIA FOR ASSESSING NATURE CONSERVATION VALUE	
Size	In lowland Britain, semi-natural habitats tend to be highly fragmented and the value of a site usually increases with its size.
Diversity	The variety in number of both communities and species depends largely on the diversity of habitat. Diversity is also related to area and the number of both plant and animal species shows a marked tendency to increase with the size of the area.
Naturalness	Truly natural habitats, unmodified by man, are rare in Britain, and nature conservation deals largely with semi-natural habitats. Semi-natural habitats must nevertheless exhibit a level of quality marked by a lack of features which indicate gross or recent human modification. This criterion has to take into account the fact that some habitats, (e.g. grasslands, heathlands) are anthropogenic in origin.
Rarity	One of the most important purposes of nature conservation is to protect rare or local species and communities. The general principle is that the rarer the species or community, the greater the value for nature conservation. Rarity is related to the frequency of occurrence at national or county level.
Fragility	Fragility reflects the degree of sensitivity of habitats, communities and species to environmental change and involves a consideration of intrinsic and extrinsic factors.
Typicalness	It is necessary to represent the typical and commonplace within a field of ecological variation as well as the best examples of particular ecosystems.
Recorded History	The extent to which a site has been used for scientific study and research is a factor of some importance.
Position in an ecological/geographical unit	The relationship of a site to adjacent areas of nature conservation value. It is important to recognise the important and characteristic formations, communities and species of a district.
Potential Value	Certain sites could, through appropriate management or natural change, develop a greater nature conservation interest.
Intrinsic Appeal	The knowledge of the distribution and numbers of popular groups of species, such as birds, is greater than for obscure groups. Similarly, colourful wild flowers and rare orchids arouse more enthusiasm than liverworts. It is pragmatic to give more weight to some groups than to others.
Criteria are based on Ratcliffe, D.A. (1977) A Nature Conservation Review, Cambridge University Press	