

LAND BETWEEN HOLLOW LANE AND THE FLINT MILL, CHEADLE ROAD, CHEDDLETON ECOLOGICAL SCOPING STUDY.

1. INTRODUCTION

1.1. The application site is situated to the west of Cheadle Road, Cheddleton between Hollow Lane and the Flint Mill. To the north is the Caldon Canal and then further north the River Churnet. To the east is Cheadle Road; to the south Hollow Lane and the houses along it; and to the west a small wood. The site appears to be pasture and is surrounded by trees and contains trees and bushes. Although the site is near the River Churnet and the Caldon Canal it is outside the flood plain of the river (source: Environment Agency Flood Maps). A public footpath crosses the site running roughly from the north-east to the south-west.

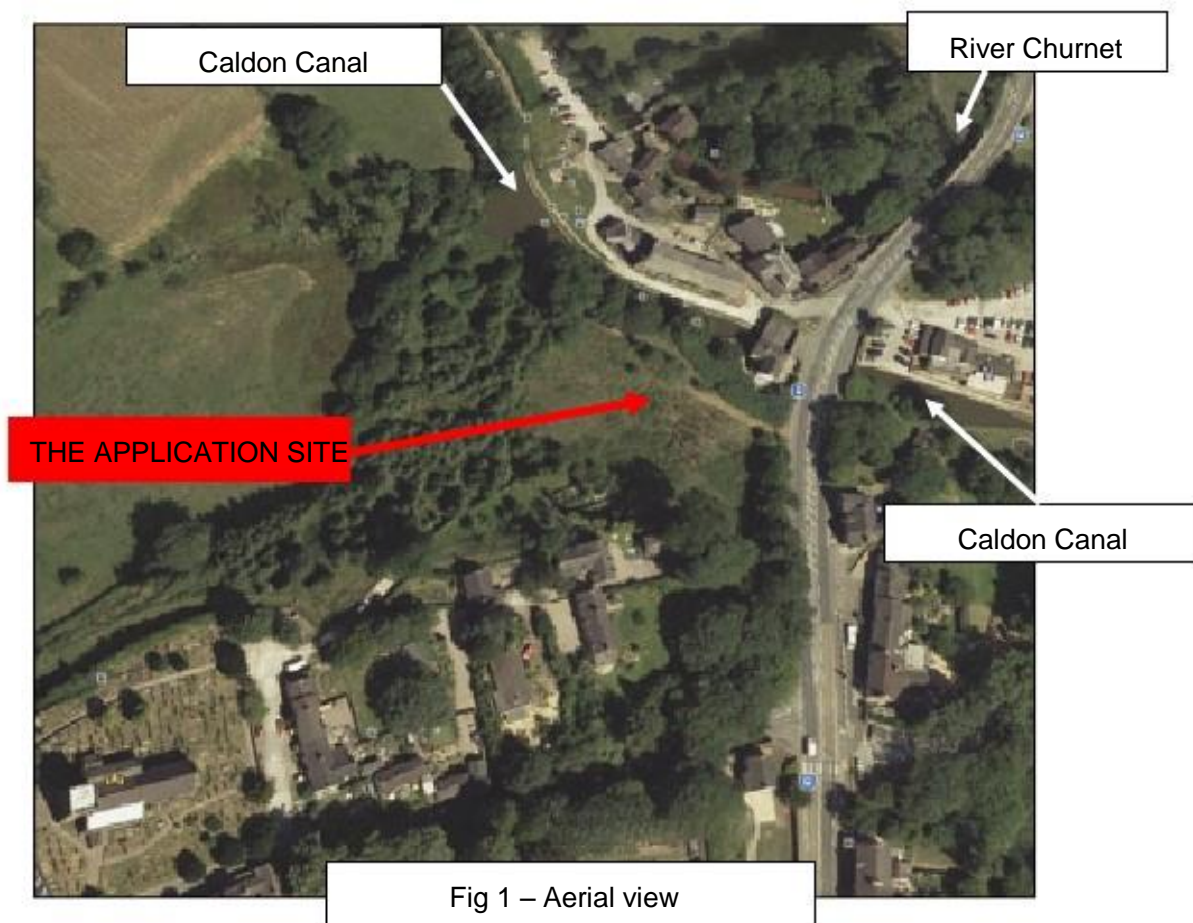
1.2. The application site is on a hillside sloping roughly downhill from west to east. Only part of the site is proposed for development.

1.3. The photographs below show the site viewed from Cheadle Road to the north-east.

Photographs 1 & 2 – views from Cheadle Road to the north



1.4. The aerial photograph below shows the site. On this can be seen the trees and other habitats on the site.



- 1.5. This report consists of a desk-top study backed up by a walkover survey of the site on 27th May 2015 and biodiversity information obtained from the Staffordshire Ecological Record. A second site visit was carried out on 15th January 2016. The report examines the various habitats on the site and whether the field is used by other protected species. This report has been checked by qualified ecologist, Mark Weston, who has visited the site.

2. DESK-TOP STUDY

- 2.1. The starting point for the assessment was the Magic Map application on the Internet. This revealed that the site is not an SSSI or a nature reserve or a Priority Habitat. Over 2 kilometres to the east is the Combes Valley Site of Special Scientific Interest (SSSI) which includes an RSPB reserve. The site is within the zone of influence for the Combes Valley SSSI. There is also a Local Nature Reserve (LNR) – Ladderedge LNR – about 2 kilometres to the west of the site. Information on local sites of ecological value was obtained from the Staffordshire Ecological Record (see later). There is floodplain grazing marsh to the north and purple moor grass and rush pasture to the north-west along the River Churnet; both are priority habitats. The small woodland to the west of the site is not identified as a woodland priority habitat. The trees on the site are protected because they are within a Conservation Area.

- 2.2. The Staffordshire Biodiversity Action Plan (BAP) identifies the site as being within an area designated in the Plan as “Species-rich” Farmland. The primary habitat objectives within the area are the maintenance, restoration and expansion of Species-rich Grassland, particularly Lowland Meadows and also Upland and Lowland Heathland. The other objective in the area is to increase connectivity of semi-natural habitats to create larger habitat complexes using priority habitats where possible. Rivers, streams and canals are also identified as priority habitats in the BAP and these include floodplain grazing marsh and purple moor grass and rush pasture. Included amongst the priority species in the Rivers, Streams and Canals habitat are grass snakes, barn owls and toads. In the Species Rich Farmland habitat priority species include barn owls, farmland seed-eating birds and bats.

3. STAFFORDSHIRE ECOLOGICAL RECORD INFORMATION

- 3.1. Ecological information for the area within a two kilometre radius of the site was obtained from the Staffordshire Ecological Record. This information consisted of a list of protected species found within the two kilometre radius and two maps

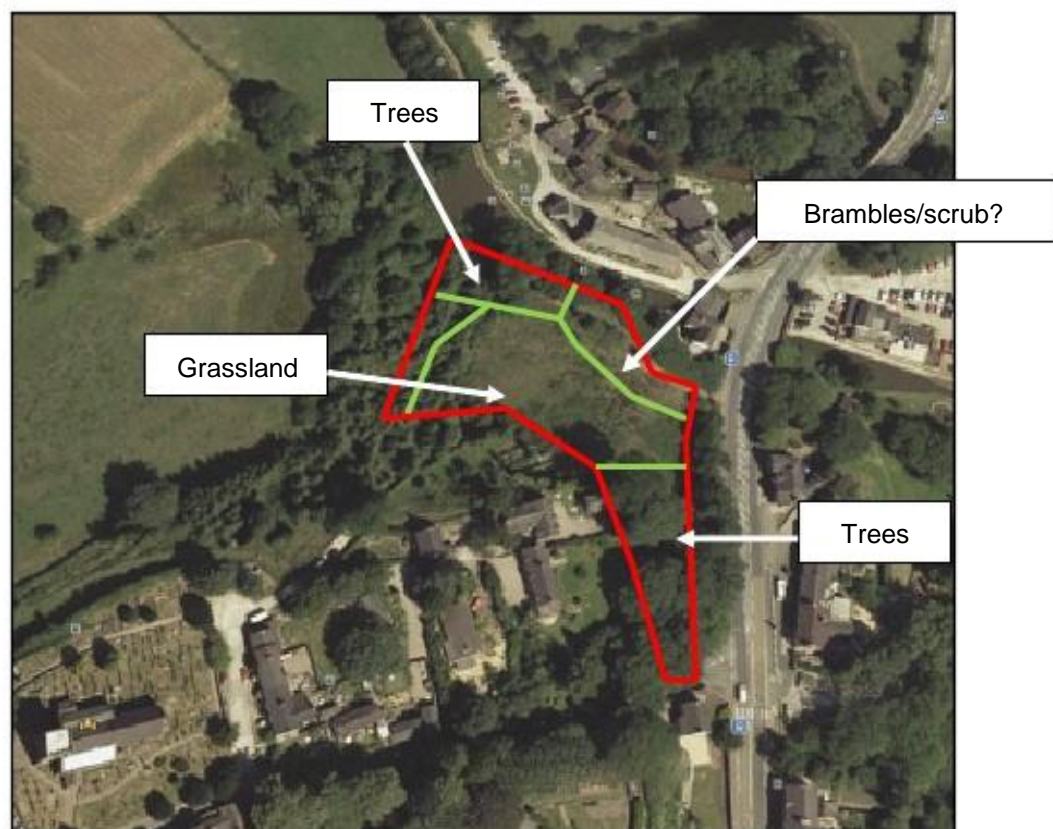
showing the nature conservation sites and the protected species recorded within the two kilometre radius. The information is summarised in the following paragraphs and the maps can be found in Appendices 1 and 2 to this report. The key for the protected species map is contained in Appendix 3.

- 3.2. The site is not identified as a nature conservation site on the map in Appendix 1 nor are there any protected species records on the site. The Record information reveals that there are no statutory nature sites or sites of geological importance in the area; that there are eighteen non-statutory sites in the area. The nearest non-statutory site is the Caldon Canal and Marsh area about 300 metres to the north-west.
- 3.3. The protected species records within the two kilometre radius include several species of bat, grass snakes, adders, various birds, polecat, otter, and great crested newt. There is no record of any protected species on the site. The nearest protected species records (Pipistrelle and Daubenton's bats and adder) are at the Flint Mill and canal to the north.

4.1. AERIAL PHOTOGRAPH OF THE SITE

4.2. The aerial photograph below shows the site and possible plant communities on the site.

Fig 2 – plant communities initially identified in the desk-top study



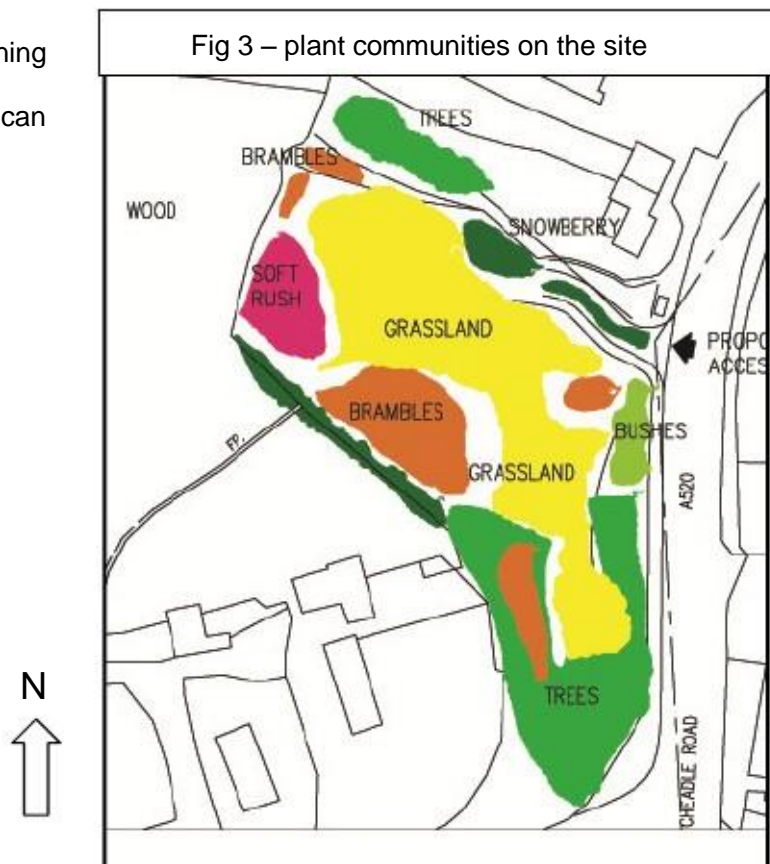
5. WALK-OVER SURVEY, 27 MAY 2015

5.1. The red line on the above aerial photograph roughly marks the area surveyed in the walk-over.

5.2. The first thing noticed was that the grassland on the site had been recently grazed and that there were cattle prints across the site. Essentially the site is pasture grassland surrounded by trees and bushes on most of the boundaries with different vegetation including brambles on some of the site edges. A search was made for badger sign but none was found. Several different vegetation types could be identified on the site. These were:

- ☐ The grassland area in the centre of the main part of the site.
- ☐ Brambles (*Rubus fruticosus*). These occur in several parts of the site.
- ☐ Soft Rush bed *Juncus effuses*).
- ☐ A Snowberry (*Symphoricarpos rivularis*) hedge on the north-eastern border of the site.
- ☐ A row of mature deciduous trees and bushes along the road frontage.
- ☐ Mature deciduous trees in the south and along the south-western sides of the site.
- ☐ Hawthorn hedge on south-west boundary.

5.3 The plan (not to scale) adjoining shows the various plant communities on the site. As can be seen the main plant community is grassland.



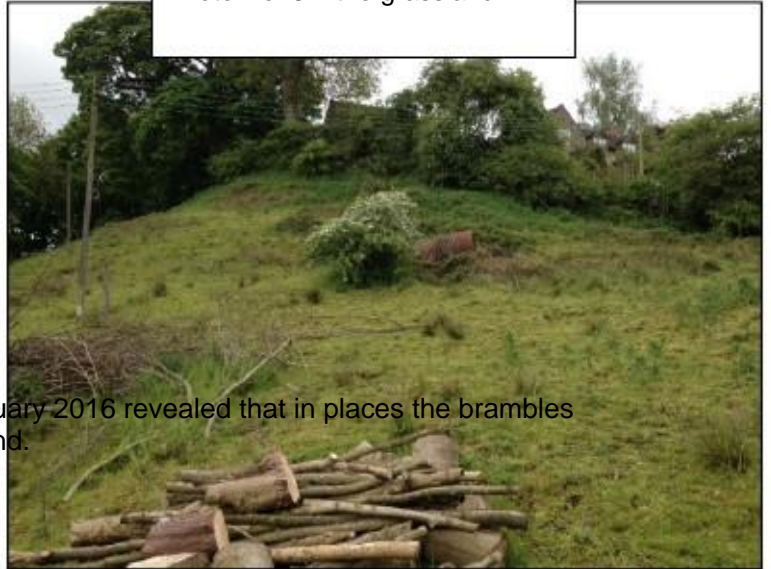
Grassland

- 5.3. The grass species were difficult to identify because the sward was closely grazed. A number of flowering plants grew in the sward (see Appendix 4 for the details). The main species growing in the grass

were Marsh Thistle (*Cirsium palustre*), Bramble (*Rubus fruticosus*), Dock (*Rumex* spp.) Soft Rush (*Juncus effusus*), and Field and Creeping Buttercups (*Ranunculus acris* and *R. repens*). The brambles appeared in places to be encroaching from the sides of the site into the grassland. A patch of brambles can be seen behind the isolated hawthorn bush in the adjoining photograph.

A second visit to the site on 15th January 2016 revealed that in places the brambles had extended further into the grassland.

Photo No. 3 – the grassland



- 5.4. Other species of flowering plant occurred less frequently. 15 species of flowering plants were found amongst the grass. A finger of grass ran from the main area of grass southwards between the trees on the west side of this part of the site and the trees along the road frontage. Photograph No. 3 adjacent shows the grassland looking south west.
- 5.5. Un-improved grasslands are those meadows and pastures which have not been ploughed or re-seeded or have not been so affected by heavy grazing, drainage, or the application of herbicides, inorganic fertilisers, slurry or high doses or manure that they have lost many of the original species which one could expect to find in an unimproved sward. Such grasslands are rare and rich in species diversity.
- 5.6. Improved grasslands are the opposite; these have been ploughed and re-seeded or heavily affected by heavy grazing, drainage, or the application of herbicides, inorganic fertilisers, slurry or high doses or manure and as a result have lost many of their species. They have a very limited range of grasses and few herbaceous flowering plants.
- 5.7. Semi-improved grassland is a transition category made up of grasslands which have been modified by artificial fertilisers, slurry, intensive grazing, herbicides or drainage,

and consequently have a range of species which is less diverse and natural than unimproved grasslands. Such grasslands may still of some conservation value.

5.8. It is considered that the grassland on this site is semi- improved grassland because of the relatively small number of species and the species found. The likely cause of the modification from un-improved grassland is the heavy grazing evident on the site.

5.9. There is stack of logs on the site (see photograph No. 3 above) and given the sloping nature of the site and the proximity to the Caldon Canal where both adders and grass snakes have been recorded it is considered that the site may have some potential for reptiles.

Soft Rush area

5.10. In the south-western corner of the site abutting the woodland to the west there is a large tongue-shaped area of Soft Rush (*Juncus effusus*) protruding into the grassland; roughly 26 metres long and at its widest 11 metres wide. The Soft Rush can be seen on the right-hand side of the adjoining photograph.



Photo No. 4 – grassland, informal hedge and the wood to the west

Brambles

5.11. The main area of brambles is along the south-western boundary of the site stretching as much as 12 metres into the grassland. Other patches of bramble occur in the north-west, and immediately west of the trees in the northern part of the road frontage. Foxgloves and Forget-me-nots (*Myosotis sylvatica*) occur amongst

the brambles and in the grassland in the south-west.

Snowberry hedge

5.12. This runs along the north-eastern edge of the site. The rest of the northern border of the site consists of trees and bushes and a small area of grassland.

The road frontage trees and bushes.

- 5.13. As can be seen in Photograph No. 4 adjoining there are hawthorn bushes beneath the mature deciduous trees at the southern end of the road frontage. Further north the vegetation changes from mature trees to younger ash trees.



Mature Trees in the south and south-west of the site.

- 5.14. The species here are Ash, Common Alder, Hawthorn, 1 No. Norway spruce, Sycamore and 1 No. Wych Elm. Sycamore is the predominant tree followed by Ash. See the submitted Tree Schedule for details. The trees are all mature apart from one hawthorn in the grassland and some holly bushes beneath the trees in the south of the site.



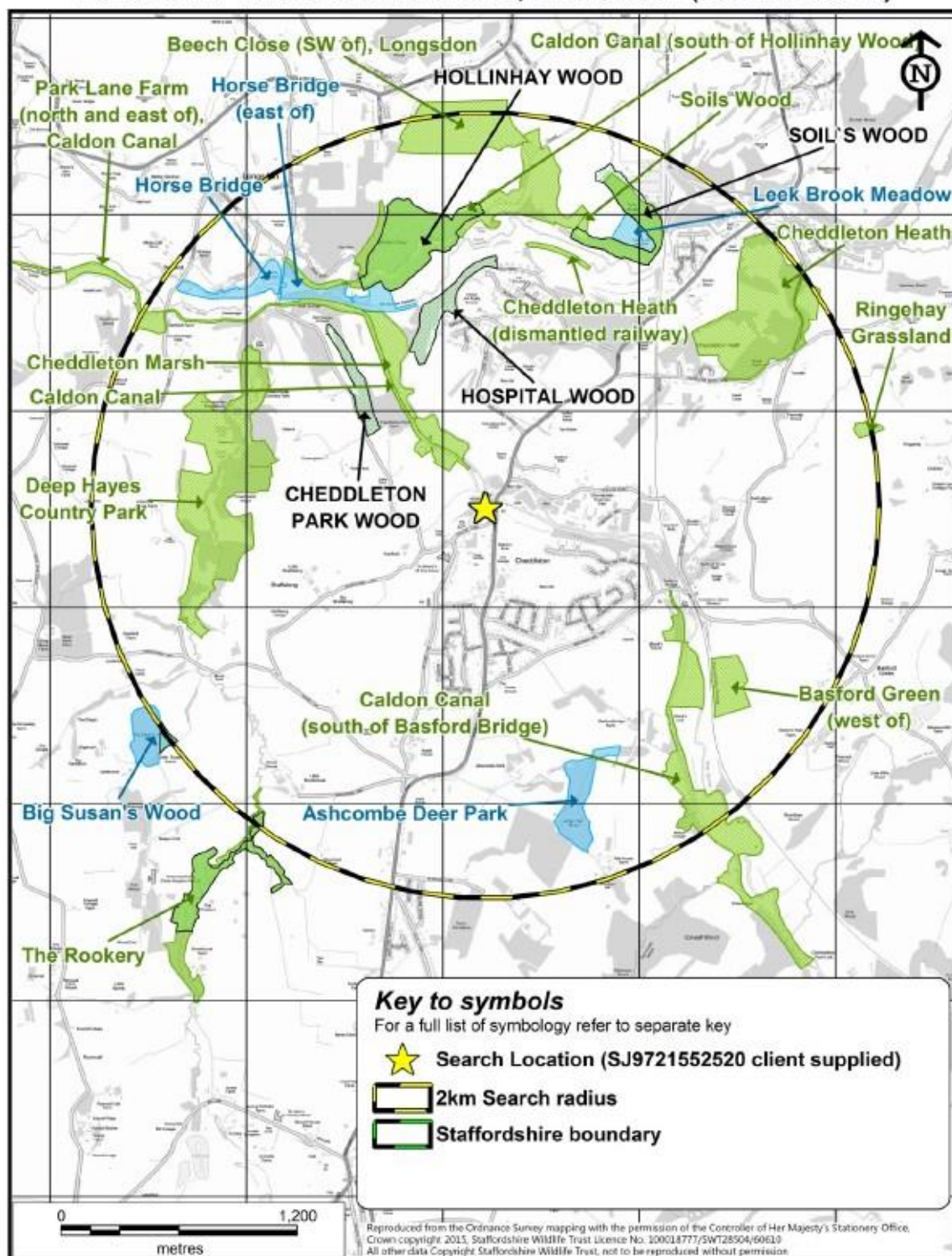
Hawthorn hedge on south-west boundary

- 5.15. Informal hedge between the site and the houses and wood to the south-west. Please see the adjoining photograph.

6. CONCLUSION.

- 6.1. The land is semi-improved grassland with mature deciduous trees on the boundaries of the site. Patches of Brambles are encroaching in to the site and there is a large patch of Soft Rush in the south-west of the site. The land may have potential for reptiles (although there are no records of reptiles on this site) and care needs to be taken to prevent run-off possibly polluting the canal which an important ecological asset and also with respect to lighting affecting bats using the Canal and at the Flint Mill.

Nature Conservation Sites within 2km of Land to the west of Cheddleton Road, Cheddleton (SJ9721552520)



APPENDIX 2.

Staffordshire Ecological Record

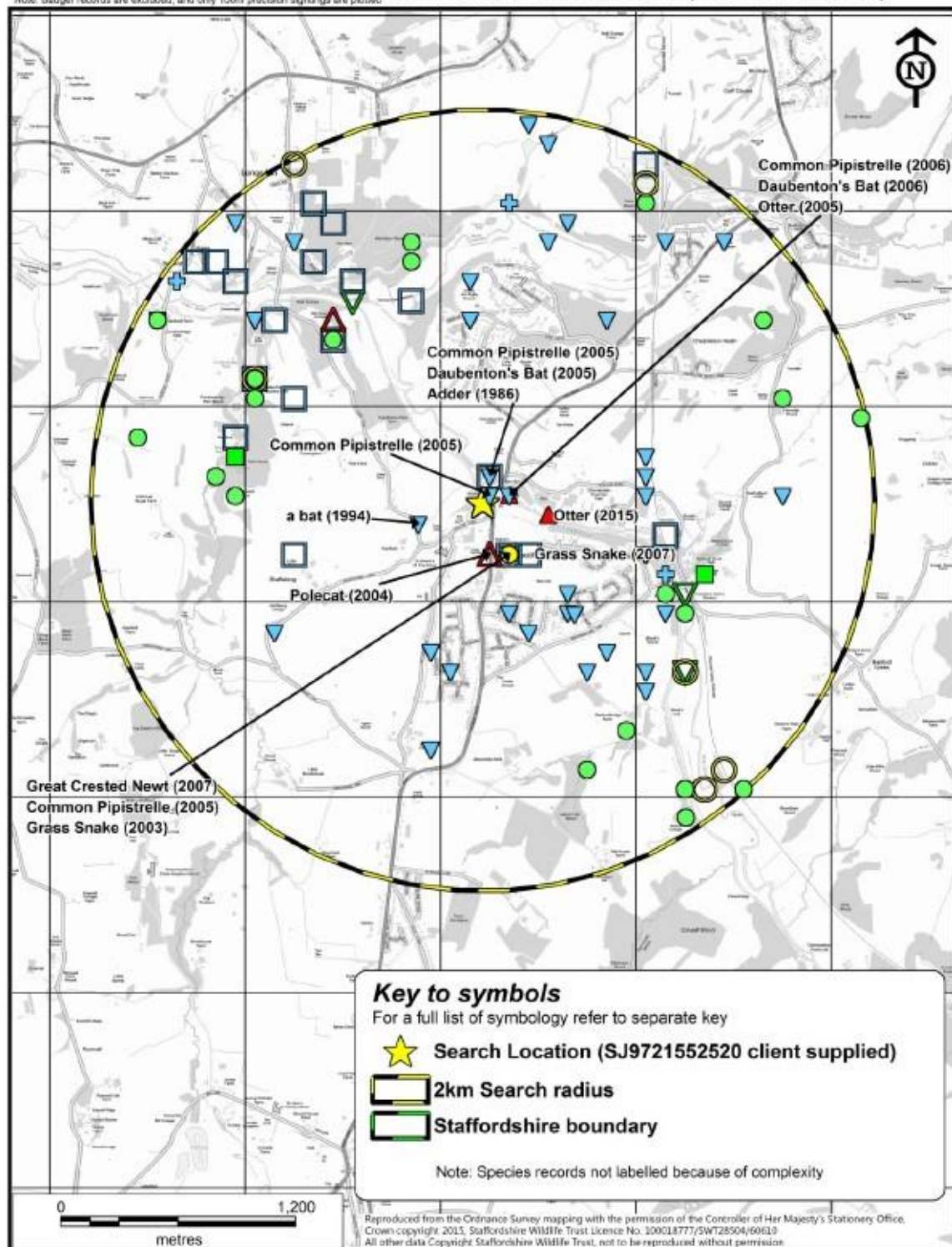
The Wolseley Centre, Wolseley Bridge, Stafford. ST17 0WT
Email: info@staffs-ecology.org.uk

Tel: 01889 880100 Fax: 01880 880101

SER/15/622

Protected Species within 2km of Land to the west of Cheadle Road, Cheddleton (SJ9721552520)

Note: Badger records are excluded, and only 100m precision sightings are plotted



APPENDIX 3.

Staffordshire Ecological Record The Wolsey Centre, Wolsey Bridge, Stafford, ST17 0WT Tel: 01889 880100 Fax: 01889 880101 Email: info@staff-ecology.org.uk	<h1>A legend to the map showing Nature Conservation Sites and Species</h1>		
<p>Introduction</p> <p>These colours are used on the site alert mapping within the SWT GIS, but SER cannot guarantee the same colours are used in any other mapping system, particularly those based on ArcView.</p>			
<p>Statutory Designations from Natural England's web-site</p>			
	National Nature Reserves		NNR (boundary not available owing to OS restrictions)
	Sites of Special Scientific Interest		SSSI (boundary not available owing to OS restrictions)
	Local Nature Reserves		LNR (boundary not available owing to OS restrictions)
<p>Non-statutory Designations from the Staffordshire Grading System (1995 onwards)</p>			
	Site of Biological Importance (ex Grade 1 SBI) equivalent to "Local Wildlife Site"		
	Biodiversity Alert Site (ex Grade 2 SBI)		
	Proposed/potential Site of Biological Importance		
<p>Geological Sites</p>			
	Regionally Important Geological/geomorphological Site (= Local Geological Site)		
<p>Staffordshire Wildlife Trust Sites</p>			
	SWT Nature Reserves		
<p>Other Nature Reserves</p>			
	Royal Society for the Protection of Birds		
<p>Species Information</p>			
	Mammals excluding those listed below		Amphibians and reptiles excluding those below
	Otter (<i>Lutra lutra</i>)		Great Crested Newt (<i>Triturus cristatus</i>)
	Badger (<i>Meles meles</i>) - not normally supplied		Native Crayfish (<i>Austropotamobius pallipes</i>)
	Water Vole (<i>Arvicola terrestris</i>)		Flowering plants except those below
	All bat species		Bluebell (<i>Hyacinthoides non-scripta</i>)
	All bird species		Butterflies and Moths
	Any other protected species (precise to 100m)		BAP Species Records (precise to 100m)
	All Protected Species Records (precise to 1km)		BAP Species Records (precise to 1km)
<p>Notes:</p>			
<p>The Local Nature Reserve and other nature reserve boundaries can overlay the current grading when both layers are actively visible</p>			
<p>Where there are multiple species records for the same grid reference the dot for one species may obscure the dots for other species - all species records will be displayed in the accompanying spreadsheet</p>			
<p>Not all the above categories may be present on the accompanying map</p>			
<p>Version 2.0 July 2011</p>			
<p>M:\Workspcs\SER\EnquiryLegend.wor</p>			

APPENDIX 4 – LIST OF PLANT SPECIES ON THE SITE

	English names	Botanical names	Location
1.	GRASSES/RUSHES		
	Soft Rush	<i>Juncus effusus</i>	Within the grassland
2.	FLOWERING PLANTS		
	Bramble	<i>Rubus fruticosus</i>	Northern margin of the site
	Buttercup – creeping	<i>Ranunculus repens</i>	Grassland
	Buttercup - Field	<i>Ranunculus acris</i>	Grassland
	Clover	<i>Trifolium</i> spp.	Grassland
	Lesser Celandine	<i>Ranunculus ficaria</i>	Grassland
	Dandelions	<i>Taraxacum</i> spp.	Grassland
	Dock - Broad-leaved	<i>Rumex obtusifolius</i>	Grassland
	Forget-me-nots - Wood	<i>Myosotis sylvatica</i>	In the Brambles beneath and near the trees in the south-west.
	Fox gloves	<i>Digitalis purpurea</i>	In the Brambles and grass beneath and near the trees in the south-west.
	Hairy bittercress	<i>Cardamine hirsuta</i>	Grassland
	Mouse Ear - Common	<i>Cerastium fontanum</i>	Grassland
	Mouse Ear - Field	<i>Cerastium arvense</i>	Grassland
	Nettle	<i>Urtica dioica</i>	Grassland
	Sorrel	<i>Rumex acetosa</i>	Grassland
	Plantain - Ribwort	<i>Plantago lanceolata</i>	Grassland
	Thistle – Creeping	<i>Cirsium arvense</i>	Grassland
	Thistle – Marsh	<i>Cirsium palustre</i>	Grassland
3.	HEDGES		
	Hawthorn	<i>Crataegus monogyna</i>	Hollow Lane frontage & hedge backing onto the houses off Hollow Lane.
	Snowberry	<i>Symphoricarpos rivularis</i>	Northern margin

4.	TREES		
	Ash	Fraxinus excelsior.	
	Elder	Sambucus nigra	The edge of the woodland to west of site
	Hawthorn	Crataegus spp	
	Norway Spruce	Picea abies	
	Sycamore	Acer pseudoplatanus	Single specimen
	Wych Elm	Ulmus glabra	Dominant tree
			Single specimen