

SYCAMORE FARM, CAVERSWALL PRELIMINARY ECOLOGICAL APPRAISAL

**Prepared for
Joanne Bettaney**

June 2015

**Apex Ecology Limited
Synchro House
512 Etruria Road
Newcastle-under-Lyme
Staffordshire
ST5 0SY**

**01782 346494
enquiries@apexecology.com**

Client	Joanne Bettaney
Project	Sycamore Farm, Caverswall
Report title	Preliminary Ecological Appraisal
Issue date	18th June 2015
Reference number	MR/150610
Report author	Max Robinson, BSc, CMIEEM
Report reviewer	Helen Ball, MSc, CEnv, CMIEEM

Disclosure and Limitation:

Apex Ecology Limited has prepared this document for the sole use of the commissioning client stated above in accordance with the agreed scope of work and our Terms and Conditions. The information and opinion contained within this document has been prepared and provided as true. This document in full or in part may not be reproduced or relied upon by any party other than the aforementioned without the prior and express written permission of Apex Ecology Limited. Any reference to the report or information contained within it must be fully credited to Apex Ecology Limited.

This report has been prepared by an ecologist and does not purport to provide legal advice. No warranty, expressed or implied, is made as to the professional advice in this document or any other service provided by us.

Information and data contained in this document that are based on field investigations reflects the site at the time the field investigations were made. Over time, habitats and species distributions may change and further data should be sought subsequent to the publication of this document depending upon the length of time that has elapsed since publication and any changes to the site that may have occurred.

CONTENTS

1. INTRODUCTION

2. SURVEY METHODOLOGY

- 2.1 Search of Existing Ecological Records
- 2.3 Survey Methodology
- 2.10 Constraints

3. FINDINGS & INTERPRETATION

- 3.1 Review of Existing Ecological Survey
- 3.11 Survey Findings
- 3.23 Assessment of Site and Use by Protected Species

4. RECOMMENDATIONS

- 4.1 Habitats
- 4.4 Bats
- 4.5 Birds

5. REFERENCES

PLATES

- I Looking south along western edge of site towards stables and sheds
- II Looking north along western boundary towards proposed location of manège
- III Barbed wire fence with hedgerow immediately beyond on western boundary
- IV Looking along southern boundary with rubble and soil piles adjacent to sheds to left
- V Looking west along northern boundary with cypress hedge immediately beyond post and rail fence
- VI Looking east along northern boundary with edge of stripped topsoil just in picture on right
- VII Area of stripped topsoil just where manège is proposed
- VIII Looking north east across site and area of stripped topsoil just where manège is proposed

FIGURE

- I Locations of habitats on site

APPENDICES

- I Legislation Relating to Protected Species Discussed in the Report

1. INTRODUCTION

- 1.1 This report has been prepared by Apex Ecology Ltd for Joanne Bettaney the owner of Sycamore Farm. It presents the results of a preliminary ecological appraisal (PEA) of a field at Sycamore Farm, Caverswall in Staffordshire during May 2015.
- 1.2 The proposals are to construct a manège on a land parcel at Sycamore Farm. The land parcel is approximately 0.55Ha in size and is located around 180m to the north of the farmhouse at Sycamore Farm. An ecological survey is required in support of the planning application to Staffordshire Moorlands Borough Council.
- 1.3 The land surveyed is relatively small being approximately 165m by 140m in extent. It is located in the village of Caverswall near to Endon, approximately 15km southeast of Stoke on Trent. Sycamore Farm is set in an open rural landscape on the edge of the village and comprises of open farmland of pastoral nature and is used for stabling and grazing horses. The field surveyed is bounded by barbed wire and post and rail fences on all sides, with hedgerows at the north and west sides. The approximate OS grid reference for the site is SJ951431.
- 1.4 The report describes the methods used for the survey and any constraints encountered, along with the results of the survey, including a description of the site and habitats present, their potential to be used by protected species and any evidence of protected species found. The findings are then assessed in light of the proposals and recommendations for further survey or action are given where appropriate.
- 1.5 The legislation relating to the protected species discussed in this report is given in Appendix I.

2. METHODOLOGY

Search of Existing Ecological Records

- 2.1 The local record centre, Staffordshire Ecological Record, was contacted for existing records of protected and notable species, as well as statutorily protected and local designated sites for nature conservation within 2km of the site.
- 2.2 The results of a record search can help to set a site into the context of its surroundings, as well as provide valuable information on the known presence of protected species in the local area.

Survey Methodology

- 2.3 The survey was undertaken on the 28th May 2015 by Max Robinson and Helen Ball who has over 25 collective years of experience working in the ecology sector.
- 2.4 The survey was based on *Guidelines for Preliminary Ecological Appraisal* (CIEEM Technical Guidance Series, April 2013) and follows the methods set out in *The Handbook for Phase 1 Habitat Survey* (Nature Conservancy Council (JNCC, 2004), although where relevant, mosaics of habitats were mapped in finer detail and modified habitat classifications have been used where these better describe the habitats present.
- 2.5 The surveyors walked slowly through the site describing and mapping its extent and habitat types. Instead of numbered target notes, descriptions of site features are included within the survey findings.
- 2.6 Plant species were recorded for the site and due to the low diversity of species are included in the report text rather than tabulated. The distribution and abundance of plant species in each habitat or habitat compartment were recorded and classified using the DAFOR scale¹.
- 2.7 Where relevant, a note was made about important and pertinent features, such as the suitability of a feature for a protected or notable species (e.g. Biodiversity Action Plan Priority species) or presence of a notable tree or invasive plant species². The locations of significant stands of invasive plant species were mapped indicatively. Notes were made on any other apparent ecological issues observed incidentally as part of the survey. A record of any faunal species encountered incidentally was also taken.
- 2.8 The ecological value of the habitats was assessed at the county, local (parish) and site levels and the statutes of each species of plant recorded were checked against Hawksford (2011), with any rare or uncommon species highlighted. A

¹ DAFOR relates to the occurrence of each species on site i.e. D = dominant; A = abundant; F = frequent; O = occasional; and R = rare

² A number of non-native invasive plant species are listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). Due to difficulties in identifying some of these plants to species, especially during the winter months, the survey cannot be taken as a comprehensive assessment for the presence of these species.

valuation of potential impacts on ecosystem services was not undertaken as such means of assessment is in its infancy and a meaningful and pragmatic approach to assessment has not yet been developed.

- 2.9 Preliminary Ecological Appraisal provides a means to evaluate ecological features and scope for notable species or habitats. By doing so, the baseline ecological conditions and valuable, or potentially valuable, parts of a site can be identified at an early stage, enabling potential constraints to the proposals to be highlighted and recommendations for design options to be made that avoid effects on important ecological features or ecologically sensitive areas (CIEEM, 2012). Preliminary Ecological Appraisals also identify whether further, targeted surveys, such as for protected species are necessary.

Constraints

- 2.10 Preliminary Ecological Appraisals are not intended to provide comprehensive assessment of use of a site by protected or notable species and follow-up surveys targeted at specific species and groups of species may be necessary to fully assess a site and evaluate impacts.

3. SURVEY FINDINGS & INTERPRETATION

Review of Existing Ecological Records

- 3.1 Staffordshire Ecological Record provided information on statutorily protected and locally designated sites, as well as protected and notable species, such as Biodiversity Action Plan species that have been previously recorded in the local area.
- 3.2 There are nine sites in the local area recognised for their important wildlife value; one (Weston) is a statutorily protected local nature reserve (LNR); the remaining eight are local wildlife sites or Biodiversity Alert Sites (BAS). The Weston Coyney Woods LNR is 30 hectares of deciduous and semi-natural woodland with associated grasslands; it is located at 2km from the site.
- 3.3 The nearest protected site is Caverswall Castle at approximately 500m distance and to the southwest. The site comprises of a pool where along its edges it is adjacent to and overgrown by woodland plantation and willow scrub.
- 3.4 The protected sites are listed in the table below:

Site	Designation	Protection
Weston Coyney Woods	Local Nature Reserve	Statutory
Weston Sprink	Local Wildlife Site	Non-statutory
Parkhall Country Park	Local Wildlife Site	Non-statutory
Caverswall Castle (west of)	Retained BAS	Non-statutory
Blythe Bridge Woods	Retained BAS	Non-statutory
Creswell's Piece	Local Wildlife Site	Non-statutory
Creswellford Crossing	Retained BAS	Non-statutory
Stansmore Grassland	Local Wildlife Site	Non-statutory
Stansmore Wood and Grassland	Local Wildlife Site	Non-statutory

- 3.5 Given the small size of the site coupled with the nature of the development proposals and the distance of each site from the proposals it is considered that none of the designated sites would be affected by the proposals.
- 3.6 Bats have been recorded on 22 occasions, with at least three species known to be present: common pipistrelle *Pipistrellus pipistrellus*, brown long-eared

Plecotus auritus, and whiskered/Brandt's *Myotis mystacinus/brandtii*. Of the 22 records three are of common pipistrelle and one each are brown long-eared and whiskered/Brandt's. The remainder are bats unidentified to either genus or to species levels. The records are evenly spread throughout the search radius and distance from the site. The closest record is from the cemetery around 450m southeast in Caverswall with brown long-eared being recorded there in 1991. Two maternity roosts were recorded although no numbers for these roosts are available with the species also unknown. All records date between 1986 and 2008. The reduced number of records is very likely due to bats being under-recorded given the type and quality of habitats present in the local area.

- 3.7 Water voles *Arvicola amphibius* have been recorded twice with the records from the Blythe Bridge and Dilhorne areas and in connection with ditches and brooks in those areas. These records date between 2000 and 2002; water voles have suffered a severe and protracted decline across much of the UK in recent years and may no longer be present in the local area or may be much less abundant. The site contains no suitable habitat for use by water voles.
- 3.8 Birds have been extensively recorded in the local area although high levels of the records emanate from Parkhall Country Park which is located approximately 4.5km to the northwest. Many of the records from Parkhall are of overwintering birds such as Brambling *Fringilla montifringilla*, golden plover *Pluvialis apricaria* and the thrushes redwing *Turdus iliacus* and fieldfare *T. pilaris*. Birds of prey frequenting the local area include barn owl *Tyto alba* and peregrine *Falco peregrinus*. Many of the above named birds are 'red' or 'amber' listed species of conservation concern whose populations have declined significantly in recent years (Eaton *et. al*, 2012). Many of the species are birds that would be expected to occur in the area.
- 3.9 Badgers are known to occur in the local area and have been recorded on a twelve of occasions. Due to restrictions with use of the data, in particular making them public, reference to individual records cannot be made in this report. The search results have revealed that badgers are known to inhabit the local area, although many of the records are of dead individuals due to road traffic collisions on local roads.
- 3.10 There is a single record of a lone great crested newt from the local area, this is from 1984 and over 1.5km north of the site and thus the record is dated and there is great distance between the site and the record.

Survey Findings

- 3.11 Descriptions of the habitats present are given below and within the descriptions some of the plant species recorded on site are included. A separate full plant species list is included in the appendix. Features of the site and surroundings are depicted in Plates I-VII.

Habitats

- 3.12 The site is irregular in shape (though roughly square) and approximately 165m long and 140m across central axes. Currently the site is mainly grassland grazed

by horses that is bordered by post and rail and post and barbed wire fencing and with hedgerows on two sides and open grassland to the others. There are a small number of trees present adjacent to the edge of the site (trees located off site). The site is characterised by mainly semi-improved grassland, a hedgerow (along with post and rail fencing) on the northern boundary, post and rail fencing on the eastern boundary (with open grassland), post and rail fencing on the southern boundary and post and barbed wire fencing on the western boundary, with a hedgerow and trees immediately adjacent.

- 3.13 The grassland on site is patchy with some areas of semi-improved grassland interspersed with areas that have been disturbed and improved with nutrient enrichment probably by grazing animals. The location where the manège is to be constructed (at the southwest corner of the field, see Fig 1) comprises of some patches of semi-improved grassland along with highly disturbed ground due to farming and stabling practices where farming machinery has been used to store manure and rubble piles, etc. An area of topsoil had been removed and topsoil stored nearby.
- 3.14 On the field margin to the west adjacent to the barbed wire fence there is a ribbon of tall herb that in part is vigorously growing and dense in patches, particularly at the northwest corner of the site. At the southwest corner of the field near to the sheds and stables there is a highly disturbed area of ground where high levels of traffic from agricultural machinery has impacted on the vegetation; this area is also used for storage of manure and rubble/soil. The ground here is patchy in growth with some bare ground present between the plants colonising the area. However the plant species are similar to those in the less disturbed (grazed) areas of the grassland.
- 3.15 The western boundary is of a barbed wire fence with a hedgerow immediately beyond. The hedgerow here is tall and unmanaged with various ornamental plants and young trees present. Species here include Japanese rose, dogwood, sycamore and cherry. The ground flora here includes nettle, broad leaved dock and red campion.
- 3.16 The northern edge of the site is bounded by a post and rail fence with a 'gappy' hedgerow immediately beyond and lawns and orchard trees. The hedgerow is mainly comprised of mature northern cypress. The hedge does not appear to have been subject to any management and is tall and densely growing. The lawns beyond the boundary are well tended as the orchard appears to be. The ground flora comprises of grasses and tall herb such as dock but is sparsely growing below the cypress hedge.
- 3.17 The east and south boundaries are of post and rail fence that appear to be relatively new. To the east is open grassland of similar species composition to that in the site field. The fence here has divided what was previously a larger single field. To the south immediately beyond the post and rail fence is a well-used track that is mainly bare earth and gravel/rubble.

Great crested newt

- 3.18 There are water-bodies approximately 500m to the southwest of the site around Caverswall Castle. The distances involved and the barriers to dispersal between the site and the water-bodies would likely preclude any great crested newt reaching the site even if they were present in the water-bodies there.

Bats and Birds

- 3.19 There are several trees off site but relatively close to the site boundary. No features suitable for use by bats were recorded in the trees and most appear to have been planted for ornamental or screening purposes and due to size are unlikely to provide features suitable for bat use.
- 3.20 No evidence of use for nesting birds was found and it is unlikely that any ground nesting birds would use the grassland as the sward is low due to grazing and the field is disturbed by horses and dog walkers. It is also bordered by hedgerows on two sides. There is some potential for nesting birds in trees and in hedgerows just off site.

Badger

- 3.21 No signs of badger use were found on site and it is unlikely that the site is used by badger for anything more than commuting or occasional foraging should there be a sett be present nearby.

Water Vole

- 3.22 The site and surroundings do not have any suitable habitat for water vole nearby and thus this species will not be impacted by the proposals.

Assessment of Site and Potential for Protected Species

- 3.23 Overall, the field consists of semi-improved and poor semi-improved grassland. The grassland is patchy in growth with areas of higher ecological value interspersed with area of lesser value where it is poor semi-improved grassland. The proposed location of the manège is in an area of tall herb and poor semi-improved and poor semi-improved grassland. Although the plant species richness is not notably high, the grassland is considered to be largely semi-improved neutral grassland given the abundance of certain characteristic meadow herbs.
- 3.24 The semi-improved grassland is an ecologically valuable habitat. Semi-improved grassland has undergone a substantial decline in the 20th century. It is estimated that by 1984 in lowland England and Wales, semi-natural grassland had declined by 97% over the previous 50 years. Losses continued during the 1980s and 1990s, and have been recorded at 2 -10% per annum in some parts of England, and continue to this day (information taken from the UK BAP for Lowland Meadows). It is estimated that there was a 27% reduction in heather moorland in England and Wales between 1947 and 1980. Semi-improved grasslands are also

at risk from neglect and a reduction in management result in a loss of meadow herb species over time.

- 3.25 The grassland has been briefly assessed against the criteria given in *Guidelines for the Selection of Sites of County Biological Importance in Staffordshire* (Staffordshire Wildlife Trust, 2011). If taking into account the grassland plant species present and their abundances, the site score against the Checklist of Grassland Species does not fit the criteria for designation as either a Biodiversity Alert Site or Site of Biological Importance. The grassland therefore holds ecological value at the local level only.
- 3.26 The off-site hedgerows and trees in the surroundings hold ecological value at the site and local level. The hedgerows at the north and west boundaries have a relatively low level presence of native species, but they form part of a wider network of habitat that connects to adjacent hedgerows and habitats. The cypress hedgerow to the north will provide limited ecological value, this being as shelter and foraging for birds and some invertebrates, as well as nesting opportunities for birds. The hedgerows would not qualify as important against the Hedgerow Regulations.
- 3.27 Although bats are likely to use the site for foraging and commuting it is unlikely the site provides a significant foraging resource for bats inhabiting the local area. As the site is grassland and tall herb only and any hedgerows and trees are off-site then impacts on bats will be negligible. From the proposal drawings no hedgerows or trees will be lost or impacted.
- 3.28 Bird activity was noted whilst on site. Incidental recordings included blackbird *Turdus merula*, dunnoek *Prunella modularis*, house sparrow *Passer domestica* wren *Troglodytes troglodytes* and woodpigeon *Columba palumbus*. Suitable habitat for these birds to nest in is located off-site such as the hedgerows, trees nearby.
- 3.29 There is a single record of great crested newt from the local area although it does not appear to be associated with a pond and is 1.5km distant. As the nearest water-bodies are 500m away and have barriers to dispersal between the site and water-bodies then it is unlikely that if great crested newt were present in the ponds that they would venture the 500m to the site by circumventing any barriers to dispersal.
- 3.30 No signs of badgers were observed incidentally during the survey and it is unlikely that the proposals will impact on badgers. For these reasons no further consideration of badgers in relation to the proposals is deemed necessary.

4. RECOMMENDATIONS

Habitats

- 4.1 Areas of the on-site grassland provide ecological value as the grassland here is a mix of semi-improved and poor semi-improved grassland. However, due to the practice of grazing horses and possibly other animal husbandry prior to this the soils have been subject to some nutrient enrichment and thus the botanical species assemblage in parts has changed and the field is a mix of interspersed semi-improved and poor semi-improved grassland. The area where the manège is proposed takes in tall herb and both semi-improved and poor semi-improved grassland. It will result in the loss of a relatively small area of semi-improved grassland.
- 4.2 To off-set loss of semi-improved grassland, it is recommended the remainder of the field is managed in a sensitive way, lightly grazed (sufficient to prevent the growth of coarse grasses and vigorous plants) and/or mown for hay and not subject to the input of chemical fertilizers or herbicides, heavy input of manure or lime, or reseeded. Continuation of the management that has enabled the semi-improved sward to develop and be maintained would be most beneficial.
- 4.3 It is assumed that no trees or hedgerow will be lost to the proposals. However, should this not be the case or need to change as construction is undertaken then it is recommended that the layout of the proposals takes account of the bordering hedgerows and trees so that retention of both can be maximised as a part of the proposals. Should any hedgerow in full or part need to be removed, it is recommended that at least the same length of hedgerow be replaced to that to be lost. To ensure that hedgerow planting has maximum ecological benefit and is characteristic of the local area, the species used would need to be native and locally suitable species (and preferably of local provenance). This is particularly important given the recent prevalence of serious tree diseases such as ash dieback. Suitable species would include hawthorn, blackthorn, dog rose and hazel. Species such as ornamental dogwood and guelder rose are not recommended. If trees are to be lost then again these should be replaced with native and locally suitable species (and preferably of local provenance).

Bats

- 4.4 No evidence of use of the site by bats was recorded and no features such as holes in nearby trees that bats may use for roosting were observed. However, the site may be used by bats for foraging and commuting and as such it is recommended that should any lighting be used on site for the proposed that lighting levels on site and light spill outside the manège be kept to a minimum so as to reduce any impacts there may be on bat foraging and commuting areas.

Birds

- 4.5 If works are kept to the proposed location as shown on the location plan provided to us then disturbance to nesting birds is a possibility. The proposed manège will run parallel with and close to the western boundary where trees and hedgerow are present just off site. It is possible that nesting birds may use these features

Table 1. List of Plant Species Recorded During Survey

Common name*	Scientific name*	Grassland	Hedgerow/ Trees	Tall herb
Annual meadow grass	<i>Poa annua</i>	R		
Ash	<i>Fraxinus excelsior</i>		R	
Black knapweed	<i>Centaurea nigra</i>	LO		
Broad-leaved dock	<i>Rumex obtusifolius</i>	O-LA		LA
Broad leaved plantain	<i>Plantago major</i>	O-LA		
Broad-leaved willowherb	<i>Epilobium montanum</i>	R		
Cat's ear	<i>Hypochaeris radicata</i>	LO		
Cherry	<i>Prunus</i> sp.		R	
Cleavers	<i>Galium aparine</i>			LD
Cock'sfoot	<i>Dactylis glomerata</i>	O		
Common mouse ear	<i>Cerastium fontanum</i>	O-LF		
Common nettle	<i>Urtica dioica</i>			LD
Common ragwort	<i>Senecio jacobaea</i>	R		
Common sorrel	<i>Rumex acetosa</i>	O		
Creeping buttercup	<i>Ranunculus repens</i>	LF		
Creeping thistle	<i>Cirsium arvense</i>	LO		
Daisy	<i>Bellis perennis</i>	R		
Dandelion	<i>Taraxacum</i> sp.	R		
Damson	<i>Prunus domestica</i>		O	
Dogwood	<i>Cornus</i> sp.		R	
Germander speedwell	<i>Veronica chamaedrys</i>	R		
Hawthorn	<i>Crataegus monogyna</i>		O	
Hogweed	<i>Heracleum sphondylium</i>			LO
Holly	<i>Ilex aquifolium</i>		R	
Japanese rose	<i>Rosa rugosa</i>		LD	
Leyland cypress	<i>xCupressocyparis leylandii</i>		LD	
Meadow buttercup	<i>Ranunculus acris</i>	F		
Meadow foxtail	<i>Alopecurus pratensis</i>	O		
Perennial rye-grass	<i>Lolium perenne</i>	O		
Pignut	<i>Conopodium majus</i>	LO		
Pineapple weed	<i>Matricaria discoidea</i>	R		
Red campion	<i>Silene dioica</i>			LO
Red clover	<i>Trifolium pratense</i>	F		
Red fescue	<i>Festuca rubra</i>	LO		
Redshank	<i>Persicaria maculosa</i>	R		
Ribwort plantain	<i>Plantago lanceolata</i>	A		
Rough meadowgrass	<i>Poa trivialis</i>	O-LF		
Soft brome	<i>Bromus hordeaceus</i>	R		
Spear thistle	<i>Cirsium vulgare</i>	R		
Sweet vernal grass	<i>Anthoxanthum odoratum</i>	O		
Sycamore	<i>Acer pseudoplatanus</i>		R	
Wall speedwell	<i>Veronica arvensis</i>	R		
White clover	<i>Trifolium alba</i>	F		
Yarrow	<i>Achillea millefolium</i>	R		
Yorkshire fog	<i>Holcus lanatus</i>	O-LF		

* Nomenclature follows Stace, C. (2010) *New Flora of the British Isles*. Cambridge University Press, 3rd Edition

** DAFOR:

D - Dominant	O - Occasional
A - Abundant	R - Rare
F - Frequent	L - Locally
V - Very	

PLATES



Plate I. Looking south along western edge of site towards stables and sheds



Plate II. Looking north along western boundary towards proposed location of manège



Plate III. Barbed wire fence with hedgerow immediately beyond on western boundary



Plate IV. Looking along southern boundary with rubble and soil piles adjacent to sheds to left



Plate V. Looking west along northern boundary with cypress hedge immediately beyond post and rail fence



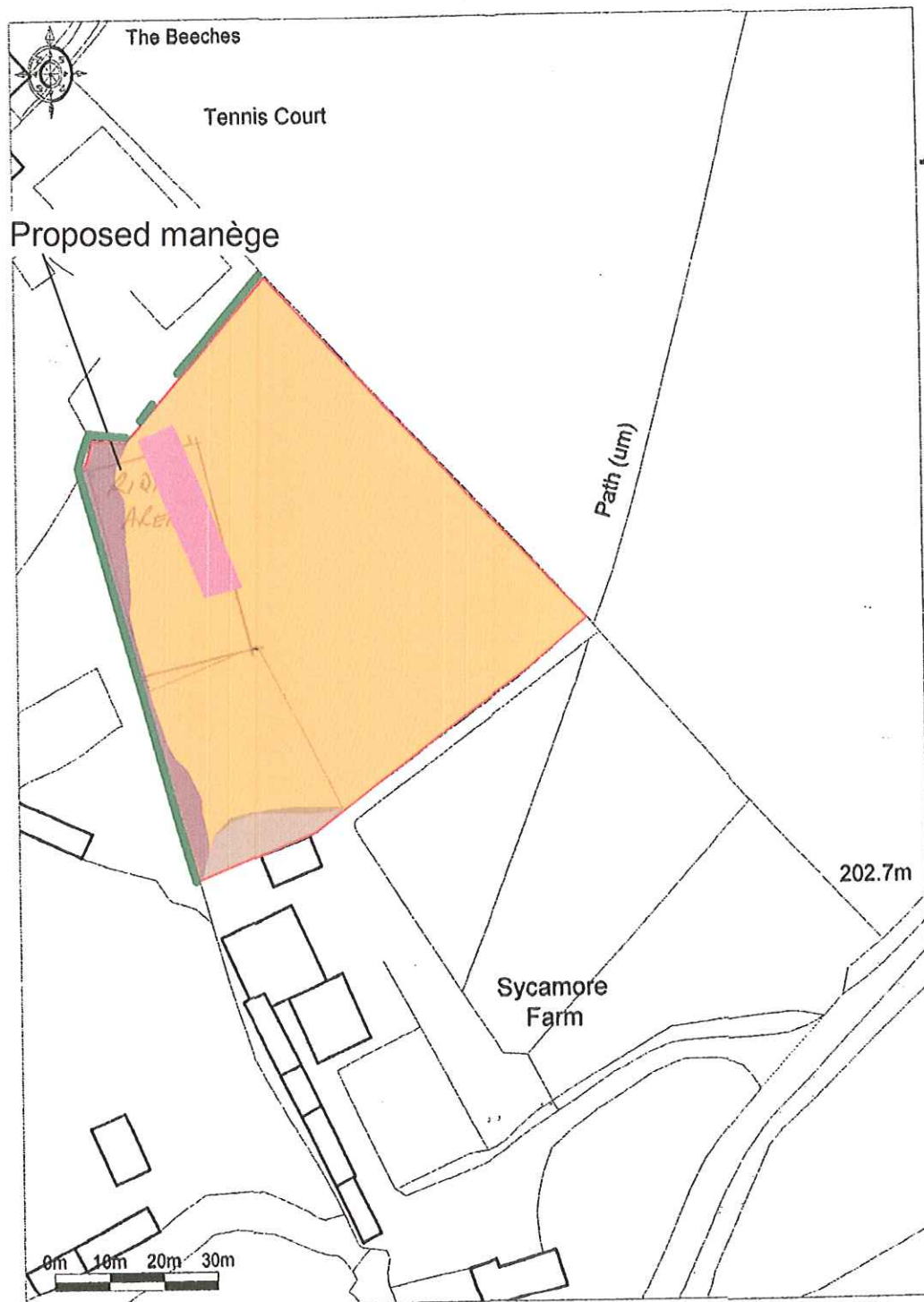
Plate VI. Looking east along northern boundary with edge of stripped topsoil just in picture on right



Plate VII. Area of stripped topsoil just where manège is proposed









Plate VIII. Looking north east across site and area of stripped topsoil just where manège is proposed

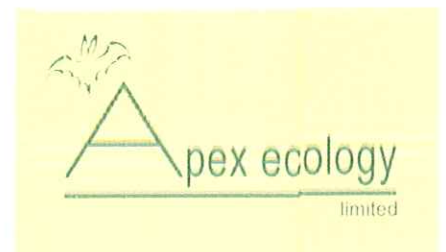


Ordnance Survey. © Crown Copyright 2015. All rights reserved.
 License number 100022432. Plotted Scale - 1:11250



Figure 1. Locations of habitats on site: Sycamore Farm

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
|  Semi-improved/
poor semi-improved
grassland matrix |  Surveyed area |
|  Tall herb |  Off-site hedges
and trees |
|  Disturbed ground and
rubble/soil piles |  Stripped topsoil area
Approx location |



5. REFERENCES

CIEEM. (2013). *Guidelines for Preliminary Ecological Appraisal*. CIEEM. April 2013.

Hawksford, J.E., Hopkins, I.J., Cadman, D., Hill, R.N., Lawley, S.D., Leak, A., Radford, E., Reynolds, J.R., Steward, D. and Waller, R. (2011). *The Flora of Staffordshire*. Staffordshire Wildlife Trust.

JNCC. (1990). *Handbook for Phase 1 Habitat Survey - a technique for environmental audit*. JNCC, Peterborough.

and therefore clearance of any habitat (such as hedgerow, shrubs, trees or dense vegetation) that could be used by birds for nesting would need to take account of the presence of nesting birds. The presence of nesting birds can be avoided as a constraint to the proposals by timing such works to avoid the bird nesting season. Should hedgerows need to be removed then please see below (Para. 4.5).

- 4.5 Should the works need to be carried out during the bird nesting season then a watching brief may need to be carried out during works to check for the presence of nesting birds. The findings of the watching brief would be used to ascertain the best method to proceed to avoid impacting upon nesting birds. The bird nesting season is generally deemed to run from March to July/August inclusive, although some species can commence nesting earlier or later in the season. If the works can be undertaken sensitively with no disturbance to the adjacent trees and hedgerow then a watching brief may not be necessary. This would mean staying within the footprint to the manège to undertake the works and not venture outside of the footprint be this on the ground or an excavator arm swinging around.

APPENDIX I - LEGISLATION RELATING TO PROTECTED SPECIES DISCUSSED IN THE REPORT

Bats

There are seventeen different species of bat in the UK; some are very rare whilst others are widespread. However, because the populations of most species have declined in past decades, all British bats have been protected by law.

Bats are protected in England under European Legislation via the Conservation (Natural Habitats and Wild Flora and Fauna (92/43/EEC)) or 'The Habitats Directive'. The Directive is transposed into UK law via the Conservation of Habitats and Species Regulations 2010 (Statutory Instrument 2010/0490 known as the Habitats Regulations), which came into force on the 1st April 2010. The Conservation of Habitats and Species Regulations 2010 (the "Habitats Regulations") consolidate and update the Conservation (Natural Habitats, &c.) Regulations 1994 (Statutory Instrument 1994/2716) and amendments. Due to their inclusion on Schedule 2 of the Habitats Regulations, bats are considered 'European Protected Species'.

In summary, this legislation makes it an offence to:

- deliberately capture, injure or kill a bat;
- deliberately disturb a bat;
- damage or destroy a breeding site or resting place of any bat;
- possess a bat (alive or dead) or any part of a bat.

Disturbance of bats includes in particular any disturbance which is likely:

(a) to impair their ability:

- (i) to survive, to breed or reproduce, or to rear or nurture their young; or
- (ii) to hibernate or migrate; or

(b) to affect the local distribution or abundance of the species to which they belong.

Bats are also protected under the Wildlife and Countryside Act 1981 (as amended), which has also been amended by the Countryside and Rights of Way (CROW) Act, 2000.

In summary, this legislation makes it an offence to:

- intentionally or recklessly disturb a bat while it is occupying a structure or place which it uses for shelter or protection;
- intentionally or recklessly obstruct access to any structure or place which any bat uses for shelter or protection.

In addition, under UK's Biodiversity Action Plans seven British bat species are listed as 'Priority Species'. These include barbastelle *Barbastella barbastellus*, Bechstein's *Myotis bechsteinii*, noctule *Nyctalus noctula*, soprano pipistrelle *Pipistrellus pygmaeus*, brown long-eared *Plecotus auritus*, greater horseshoe *Rhinolophus ferrumequinum* and lesser horseshoe *Rhinolophus hipposideros*.

Birds

All wild birds, their nests and eggs are protected by law under the Wildlife and Countryside Act 1981 (as amended). It is, therefore, an offence (subject to certain exceptions) to:

- kill, injure or take any wild bird;
- take, damage or destroy the nest of any wild bird whilst it is in use or being built;
- take or destroy the egg of any wild bird.

In addition to the above, in accordance to amendments of the Wildlife and Countryside Act by the Countryside and Rights of Way Act 2000, it is an offence to:

- intentionally or recklessly disturb any species listed on Schedule 1 of the Wildlife and Countryside Act whilst building a nest, or whilst it is on, in or near a nest containing eggs or young; and
- disturb the dependant young of a Schedule 1 bird.

For example, barn owl is protected under Schedule 1 of the Wildlife and Countryside Act, protecting them from intentional or reckless disturbance during the breeding season (which is normally considered the time from when the female makes the first nest 'scrape' and lays the first egg until the time when the last dependent young stops returning to the nest (English Nature, 2002/3)).

