LAND OFF HIGHER WOODCROFT, LEEK, STAFFORDSHIRE

PRELIMINARY ECOLOGICAL APPRAISAL

Prepared for
Alec Archer

October 2016

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Project	**Land Off Higher Woodcroft, Leek, Staffordshire**
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Reference number	**RB/161006**
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CONTENTS

1. INTRODUCTION

1.1 This report has been prepared by Apex Ecology Ltd for Mr Alec Archer. It presents the results of a Preliminary Ecological Appraisal carried out on land off Higher Woodcroft Lane, Leek, Staffordshire during July 2016.

1.2 A planning application is due to the submitted to Staffordshire Moorlands District Council for a development of residential properties. The proposals are shown on the drawing *Feasibility Study for Housing at Higher Woodcroft, Leek – Site Plan as Proposed* prepared by DBD Achitectural Consultancy (drawing 1506-400, PL02 D and dated March 2015). This drawing has been used on which to assess impacts of the proposals on ecology, although please note it is still in draft form.

1.3 The land is irregularly-shaped and approximately 135m by 65m in extent; it is hereafter referred to as 'the site'. It is located within the south western area of the town of Leek, forming part of a greenfield setting. Allotments lie to the immediate north of the site, with a large recreation area consisting of open grassland with mature trees and areas of scrub occurring to the immediate west of the site. This greenfield area is surrounded by residential properties, with several large industrial buildings present to the immediate east of the site. Beyond the town of Leek open farmland is present, this is dominated by pasture and meadow, most of the fields are bordered by hedgerows and small woodlands are present nearby too. Westwood Golf Club is located 0.5km to the south west of the site, with the River Churnet present approximately 0.5km to the south of the site and providing a good wildlife corridor in the local area. The approximate OS grid reference for the site is SJ 976 559.

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 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, impacts are considered 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 Records Centre, 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 surveys were carried out on the 27th July 2016 by Rose Billings who has over 10 years of experience working in the ecology sector.

Preliminary Ecological Appraisal

2.4 The approach to the Preliminary Ecological Appraisal 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, 2010), 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 surveyor walked slowly through the habitats, or around the edges of the habitats classifying, describing and mapping their extent. Instead of numbered target notes, descriptions of site features are included within the survey findings and habitats have been numbered according to their type e.g. grassland G1, G2, G3 etc or denoted by use of a name where relevant.

2.6 A list of plant species were produced for each of the habitats and, where these could be divided into ecologically distinct or discrete compartments (such as individual woodlands) lists were compiled separately for each numbered habitat compartment. Where habitat compartments were similar in quality, a single plant list was compiled. The distribution and abundance of plant species in each habitat or habitat compartment were recorded and classified using the DAFOR scale[1].

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 species[2]. The locations of significant stands of invasive plant species were mapped indicatively. Notes were made on any other apparent ecological issues

[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

observed incidentally as part of the survey. A record of any faunal species encountered incidentally was also taken.

2.8 Preliminary Ecological Appraisals provide 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 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

2.9 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.

2.10 Several areas within the site were completely dominated by tall stands of bramble and scrub and thus a full inspection of these areas was not possible.

3. SURVEY FINDINGS & INTERPRETATION

Review of Existing Ecological Records

3.1 Staffordshire Ecological Records Centre provided information on statutorily protected and locally designated sites, as well as protected and notable species, such as Priority Biodiversity Action Plan species that have been recorded previously in the local area.

3.2 There are two statutorily designated sites (Local Nature Reserves LNR) in the search area. The sites are listed in the table below.

Site Name	**Site Type**	**Location and Distance from site (approximate)**
Ladderedge Country Park	LNR	850m southwest
Brough Park Fields	LNR	1km northwest

3.3 The Brough Park Fields LNR is designated for its important species-rich neutral grassland, an important habitat in Staffordshire. The proposals should not have any impact on the LNRs as these are all located at some distance away from the development site.

3.4 No species records were identified by the record search from the site itself, although a number of records from the areas around the site were identified.

3.5 Bats have been recorded on 61 occasions, with seven species known to be present: common pipistrelle *Pipistrellus,* Soprano pipistrelle *Pipistrellus pygmaeus*, brown long-eared *Plecotus auritus,* daubenton's *Myotis daubentonni,* whiskered *Myotis mystacinus,* natterers *Myostis natterei and* noctule *Nyctalus noctula,* (some of the records have not been identified to species). The closest record of bats is from Barnfields Industrial Estate situated approximately 300m to the south of the site, the record is of a single roosting whiskered bat. Bats have been recorded in all directions around the site but with a particular cluster of records to the west of the site.

3.6 Great crested newts *Triturus cristatus* have been recorded from a few locations within a 2km radius of the site. The nearest record dates from 2004 and is from the area of Ladderedge Country Park 794m to the south-west.

3.7 Badgers *Meles meles* are known to occur in the local area and have been recorded on a number of occasions. Due to restrictions with use of the data, in particular making them public, reference to individual records is not made in this report. The search results have revealed that badgers are known to inhabit the local area, with badgers recorded from sites nearby, including dead individuals due to road traffic collisions on local roads.

3.8 Birds highlighted in the record search that are known to occur in the area are redwing *Turdus iliacus*, fieldfare *Turdus pilaris* and song thrush *Turdus*

philomelos. These birds are 'red' listed species of conservation concern whose populations have declined significantly in recent years (Eaton *et. al,* 2015).

3.9 Reptiles have been recorded in the local area with the closest record from Beggars lane allotments, 300m to the north-west of the site. The record is of an individual grass snake observed in 2011. Several grass snake records have also been made from Ladderedge Country park 800m to the south-west.

Survey Findings

Preliminary Ecological Appraisal

3.10 Descriptions of the habitats and buildings present are given below and Table 1 provides a list of the plant species recorded. The site is shown on Figure 1 and features of the site are depicted in the Plates.

3.11 The site consists of an irregularly-shaped plot of land that is approximately 135m by 65m in extent. The site is sloping steeply from west to east with a long L shaped earth bank in the centre; this partly divides the site into distinct habitats. The area to the east and immediate west of the earth bank is composed of hard standing which has lifted and broken up in several places allowing a variety of ephemeral plants to occur. Tall ruderal species surround these plants marking a transition into scrub vegetation towards the perimeter of the site, above the earth bank and on the more extreme slopes of the site. The site is surrounded by a wall on the north, eastern and on part of the western aspects. This is at ground level on the eastern perimeter and a chainlink fence is present on top of this wall. The western perimeter is partially marked by a wall which joins the northern perimeter. The remainder of the western edge has no defined site boundary where it adjoins the recreation ground. The southern perimeter is marked by a footpath; the area closest to the road has a concrete block wall and a gappy wood panel fence.

3.12 The areas of scrub are dominated by silver birch and grey willow with a wide variety of other natural regenerating trees and shrubs, including, hawthorn, English oak, ash and sycamore. The ground flora beneath the scrub and trees is dominated by thick bramble and raspberry. The more open areas in the centre of the site are dominated by broom. This area has exposed rock interspersed with patches of grass with grass species including Yorkshire fog, and red fescue with occasional white clover. The scrub patch in the south west corner of the site appears to be more developed, the trees forming a dense canopy with many of the trees covered by ivy and some honeysuckle. The denser canopy restricts the ground flora to the outer edges of the area, plant species such as broad-buckler fern, red campion and herb-Robert are present here.

3.13 The earth bank is formed from a variety of waste materials including bricks, rubble, and ash, along with red sand. A few rabbit burrows are present within the softer substrate. Scrub species including silver birch and sycamore dominate the bank with several English oak present. The bank is more open than other areas on the site, producing a varied ground flora including, creeping bent, Yorkshire fog, sweet vernal grass, and occasionally common cat's-ear.

3.14 The broken up areas of hard standing have been colonised by a number of pioneer species. Patches of common bird's-foot-trefoil, white clover, mugwort, stonecrop, sweet vernal grass, broad-leaved willowherb and an extensive area of goldenrod occurs. These species give way to a variety of tall herb plants including rosebay willowherb, common nettle, hogweed and broad-leaved dock.

Assessment of Site and Potential for Protected Species

3.15 The habitats on site including the scrub, short ephemeral and tall herb are low in ecological value in terms of botanical interest and support an array of common and widespread species that are tolerant of nutrient-poor conditions.

3.16 The trees on site have low potential to be used by bats. Although most are covered in ivy, the trunks of the trees are relatively narrow and large branches are absent. No signs of features such as rot or woodpecker holes were visible in the trees that bats could use for roosting. The site will be used by bats for foraging and commuting particularly when viewed in relation to surrounding and bordering habitats and proximity to the town of Leek where roosts are known to be present

3.17 Great crested newts are known to occur in the local area, with a record known from a location some distance away (*794m*). A search of the MAGIC website has revealed no ponds are located within 250m of the site. The location of the site and the lack of suitable wildlife corridors means the site is relatively isolated for this species. In light of this, it is considered unlikely that great crested newts make use of the site.

3.18 There was no evidence of badger activity such as feeding signs, tracks, footprints and no conclusive signs of setts made during the site visit. However the density of the scrub and strands of tall ruderal vegetation within the site provide moderate quality foraging and sett building opportunities for badgers. Several areas of the site were inaccessible at the time of survey and these areas have the potential to support badgers.

3.19 The habitats present such as tall scrub and other areas of dense vegetation will be used by a number of species of bird as they provide nesting sites and food resources (such as berries and insects). Bird activity was noted whilst on site. Incidental recordings include song thrush *Turdus philomelos*, blue tit *Parus caeruleus*, blackbird *Turdus merula*, wren *Troglodytes troglodytes*, robin *Erithacus rubecula*, and starling *Sturnus vulgaris*. Some of the species recorded are listed under the UK and Staffordshire Biodiversity Action Plans and are birds of conservation concern whose populations have declined significantly in recent years (Eaton, *et al*. 2015).

3.20 The site is considered to have a low potential for reptiles, grass snakes in particular prefer to be in close proximity to riparian habitats with their main food source being frogs. The site lacks suitable resting and foraging areas for grass snake. The proximity of the allotments to the site means that reptiles could potentially use the site however the difference in height between the site and the surrounding allotments creates a barrier to dispersal across the site.

4. RECOMMENDATIONS

4.1 The proposals are shown on the drawing *Feasibility Study for Housing at Higher Woodcroft, Leek – Site Plan as Proposed* prepared by DBD Achitectural Consultancy *(*dated March 2015, drawing number drawing 1506-400, PL 02 D). This drawing has been used on which to assess impacts of the proposals on ecology, although please note it is still in draft form.

Habitats

4.2 The grassland, tall-herb and scrub habitats are of low ecological value in terms of the plant species they support and, in relation to their botanical interest, no further consideration or protection of them as part of the proposals would be necessary.

Bats

4.3 The remaining trees on site have low bat roosting potential. In accordance with best practice, these trees do not require further assessment for bats.

Badger

4.5 Due to the presence of tall scrub and herb species and the general overgrown nature of the site, it is recommended that the whole site is surveyed for signs of use by badger particularly the presence of setts. Such survey is best taking place during winter when vegetation cover would be at its least vigorous growth or has died back.

4.6 Should any active setts be located i.e. the sett is considered to be in 'current use' and therefore covered by the legislation protecting badgers[3], a statutory licence would need to be applied should the sett need to be closed or badgers using it be disturbed by the proposed development. Sufficient time would need to be allowed for a statutory licence to be obtained and for any mitigation/compensation works to take place should these be necessary, in accordance with Natural England guidelines (for instance, Natural England normally only issue licences to interfere with (e.g. close) badger setts between July and November inclusive).

Birds

4.7 The clearance of any trees, scrub and other vegetation that could be used by birds for nesting (such as bramble) 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 the works need to be carried out during the bird nesting season then surveys and a watching brief would need to be carried out during works to check for the presence of nesting birds. The findings of the surveys and watching brief would be used to ascertain the best method to proceed to avoid impacting upon nesting

[3] A badger sett is protected by law if it "displays signs indicating current use by a badger" (Protection of Badgers Act 1992).

birds. The bird nesting season is generally deemed to run from March to July/August inclusive, although some species can nest outside this period.

4.8 To off-set loss of nesting sites, it is recommended that bird boxes be included as part of the development. It would be best to install a range of box styles to cater for a number of species and targeted at species known to be present in the area or using the site. Advice from the ecologist sought on this should boxes be installed once proposals have been finalised.

4.9 There are few suitable locations on site for boxes given the paucity of mature trees and the development clearing large areas of the site, hence boxes may be best installed within new builds, or the gardens of the proposed newly built properties, and along the edges of the site. Boxes must not be located facing due south and their access points would need to be free from obstruction. It is best not to fix boxes above windows or doorways. Given that boxes and their fixings require regular maintenance, it is advised that boxes should be installed in areas where there is no risk to people should a box become loose and fall.

5. REFERENCES

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

Eaton MA, Aebischer NJ, Brown AF, Hearn RD, Lock L, Musgrove AJ, Noble DG, Stroud DA and Gregory RD (2015) *Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and Isle of Man*. British Birds 108, 708–746.

JNCC. (2010). *Handbook for Phase 1 Habitat Survey - a technique for environmental audit.* Revised edition. JNCC, Peterborough.

Table 1. List of Plant Species Recorded During Survey

Common name*	Scientific name*	Ephemeral	Tall Ruderal	Scrub
Annual meadow-grass	*Poa annua*	F	O	
Ash	*Fraxinus excelsior*			A
Biting stonecrop	*Sedum acre*	LD		
Black knapweed	*Centaurea nigra*		R	
Bramble	*Rubus fruticosus*			LD
Broad buckler fern	*Dryopteris dilatata*			R
Broad-leaved dock	*Rumex obtusifolius*		F	
Broad-leaved willowherb	*Epilobium montanum*	F		
Broom	*Cytiscus scoparius*			LD
Buddleia	*Buddleia davidii*			R
Cock's-foot grass	*Dactylis glomerata*	O	F	
Colt's-foot	*Tussilago farfara*	O		
Common bird's-foot-trefoil	*Lotus corniculatus*	LA		
Common Cats-ear	*Hypochoeris radicata*	O		R
Common nettle	*Urtica dioica*		F	
Common ragwort	*Senecio jacobaea*	F	O	
Creeping bent	*Agrostis stolonifera*	F		
Dandelion	*Taraxacum* sp.	O		
Dog rose	*Rosa canina agg.*			R
Elder	*Sambucus nigra*			R
English Oak	*Quercus robur*			O
English Stonecrop	*Sedum anglicum*	LD		
False oat-grass	*Arrhenatherum elatius*		A	O
Goat willow	*Salix caprea*			D
Goldenrod	*Solidago sp.*	LD		
Hawthorn	*Crataegus monogyna*			F
Herb-robert	*Geranium robertianum*	F		
Hogweed	*Heracleum sphondylium*		F	
Holly	*Ilex aquifolium*			0
Ivy	*Hedera helix*			LA
Mugwort	*Artemisia vulgaris*	O		
Nipplewort	*Lapsana communis*		R	
Perennial ryegrass	*Loilum perenne*		R	
Perennial sow-thistle	*Sonchus arvensis*	R		
Prickly sow-thistle	*Sonchus asper*	R		
Raspberry	*Rubus idaeus*		F	F
Red Fescue	*Festuca rubra agg.*		F	
Rosebay willowherb	*Chamerion angustifolium*		LD	
Rough meadow-grass	*Poa trivialis*	O		A
Sheep's sorrel	*Rumex acetosella*			R
Silver birch	*Betula pendula*			D
Soft rush	*Juncus effusus*			R
Sweet vernal	*Anthoxanthum odoratum*	R		
Sycamore	*Acer pseudoplatanus*			O
White clover	*Trifolium repens*		O	
Wild cherry	*Prunus avium*			R
Wood avens	*Geum urbanum*			R
Yorkshire fog	*Holcus lanatus*	F		O

* Nomenclature follows Stace, C. (2010) *New Flora of the British Isles.* Cambridge

** DAFOR:

D - Dominant
A - Abundant
F- Frequent
V - Very

O - Occasional
R - Rare
L - Locally

PLATES

Plate I. View of Short ephemeral on tarmac base on eastern perimeter

Plate II. View of tall herb and scrub in centre of site on top of earth bank.

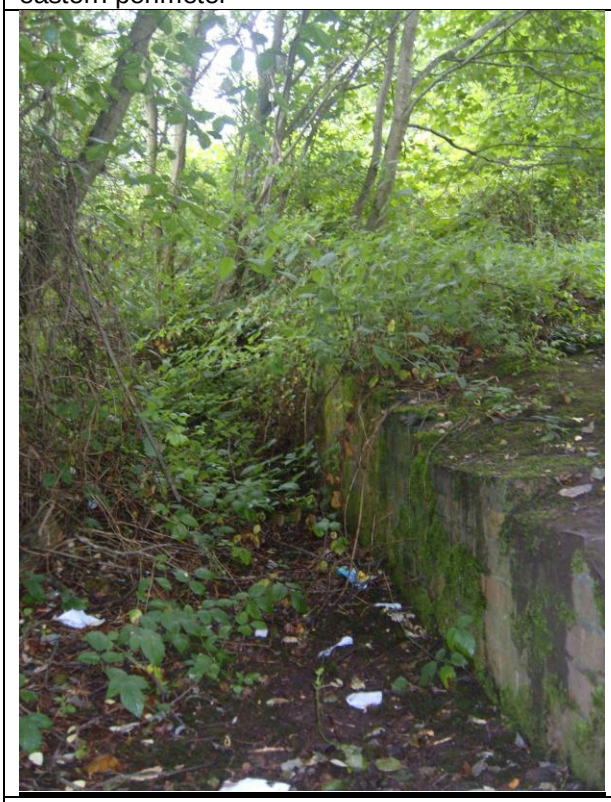

Plate III View of brick wall on north western perimeter of site.

Plate IV View of dense bramble scrub in centre of site

Land off Higher Woodcroft, Leek, Staffordshire:
Preliminary Ecological Appraisal Survey

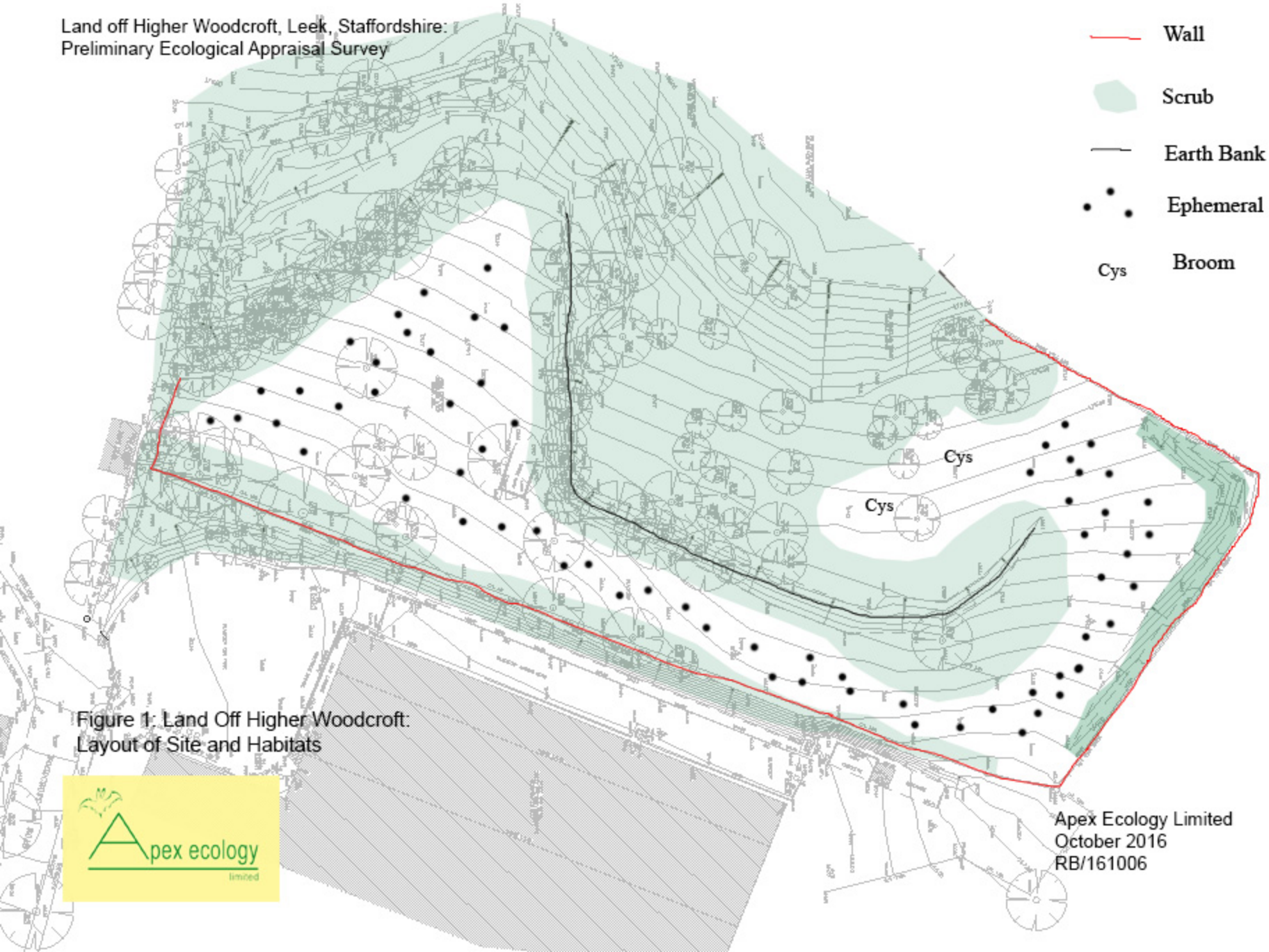

Figure 1: Land Off Higher Woodcroft:
Layout of Site and Habitats

Apex ecology limited

Apex Ecology Limited
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APPENDIX 1 - LEGISLATION RELATING TO PROTECTED SPECIES DISCUSSED IN THE REPORT

The information below is intended only as guidance to the legislation relating to these species and relates solely to England and does not purport to provide legal advice. It is recommended that the legislative documents be referred to for the full legal wording and the services of a relevant specialist sought where legal advice is required.

Badger

Badgers and their setts are protected under the Protection of Badgers Act 1992, which makes it illegal for any person to kill, injure or take a badger. It is also an offence to destroy, damage or obstruct a badger sett, or to disturb animals whilst within a sett. Any operation likely to affect badgers by direct disturbance to the animals or damage, destruction or obstruction of their setts is required under the Act to be licensed by the appropriate authority. In the case of proposals for developments requiring planning permission, Natural England is the statutory licensing authority.

The Protection of Badgers Act 1992 defines a sett as 'any structure or place, which displays signs indicating current use by a badger.' This is applied to the tunnels and chambers of the sett, and the areas immediately outside the entrances, or to other structures used by badgers for shelter and refuge, such as crevices amongst rocks and boulders; spaces under garden sheds, raised buildings or other structures; and above-ground 'nests' or 'couches' – often tucked under a hedge or bush, but sometimes amongst hay bales in farm buildings. (See *Guidance on 'Current Use' in the Definition of a Badger Sett,* Natural England, June 2009).

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)).