

Sandford Farm, Reading

Preliminary Ecological Appraisal Survey Report



May 2023

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Document Control

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The views and opinions contained within the document are based on a reasonable timeframe between the completion of the survey and the commencement of any works. If there is any delay between the commencement of works that may conflict with timeframes laid out within this document or have the potential to allow the ingress of protected species, a suitably qualified ecologist should be consulted.

It is the duty of care of the landowner/developer to act responsibly and comply with current environmental legislation if protected species are suspected or found prior to work

Executive Summary

Purpose of the report

To provide a Preliminary Ecological Appraisal (PEA) of the proposed development site, involving,

- Evaluation of its conservation status based on a desktop review that summarises information collated on protected species and nature conservation designations in the area.
- Assessment of habitat composition on site, derived from a Phase 1 habitat survey.
- Assessment of the likelihood of protected, or otherwise notable, species occurring on site.

Context of the development

The proposed development:

- Construction of a single dwelling.

Methods

The project requirement was to assess the existing ecological value of the site, identify potential ecological issues associated with the proposed development and make recommendations for general mitigation, compensation, enhancement and further surveys, as appropriate. A desk study and a Phase 1 habitat survey were carried out.

Key issues

The site has MODERATE potential for breeding birds and reptiles. It also has MODERATE potential for bats to use the site for, foraging and commuting. The trees on site have LOW to MODERATE bat roost potential.

Further surveys required

- No further surveys are required, providing the recommended BMES is prepared.

Conclusions

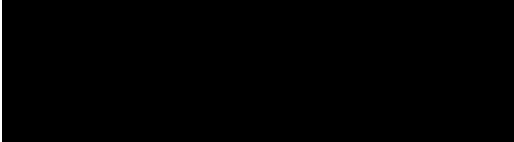
A BMES and BNG assessment should be prepared.

Declaration

I confirm that the information provided in this document is truthful and accurate at the time of completion.

Lead ecologist & Project manager: Daniel Ahern CEnv MCIEEM FLS

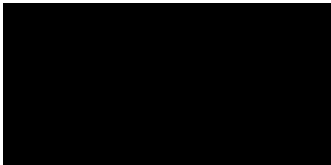
Signature:



Date: 11/05/23

Assistant Ecologist & Principal Author: Peter Allen AMRSB MSc

Signature:



Date: 05/05/2023

1. Introduction

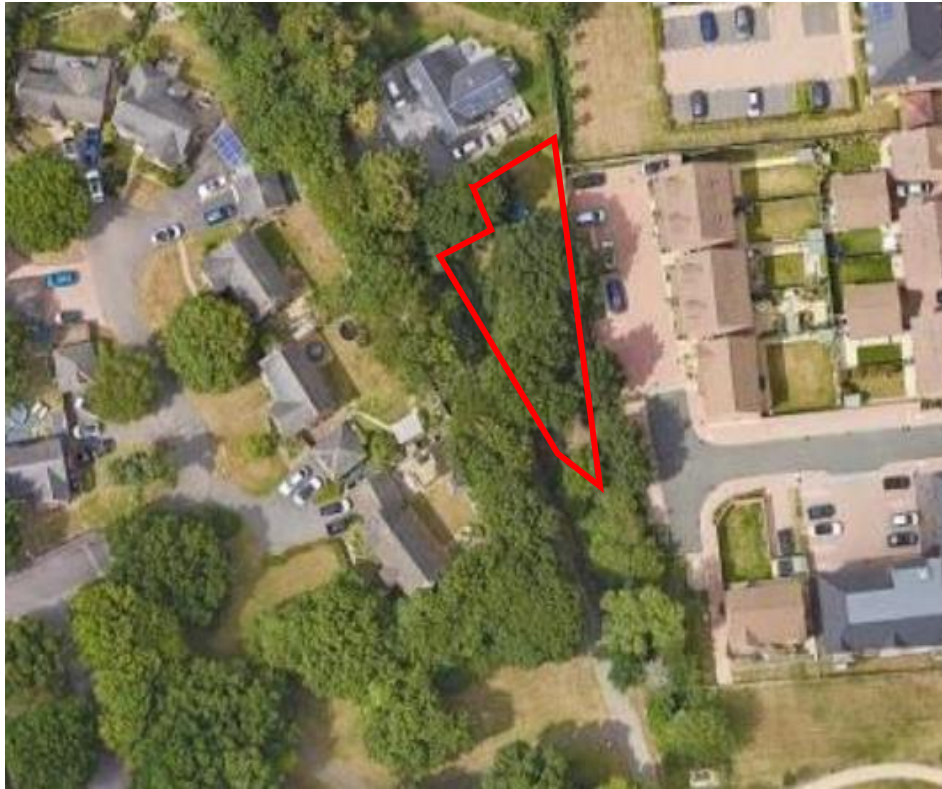
1.1. Background

- 1.1.1. In March 2023, Daniel Ahern Ecology Ltd was commissioned by Colony Architects to undertake an ecological appraisal of a parcel of land in Reading. The purpose of the survey was to provide an assessment of the current ecological conditions and to evaluate the ecological constraints in order to inform development proposals.
- 1.1.2. The purpose of this report is to identify key ecological constraints, in order to inform the project planning such that significant ecological impacts are avoided or minimised. It also aims to highlight any further ecological surveys that may be required to inform any future Ecological Impact Assessment (EclA), so that they can be appropriately designed. Finally, the report aims to provide the information required in order to develop appropriate mitigation or compensation measures.

1.2. Site description

- 1.2.1. The land at Sandford Farm, hereafter referred to as 'the Site', measures approximately 0.12Ha and is off Perimeter Road in Reading. The site is a small parcel of land (approximate OS grid reference: SU 77999 73709), see Fig. 1 below.
- 1.2.2. The Site is composed primarily of grassland with individual oak trees and an area of scrub at the southern end.
- 1.2.3. The proposed developments and alterations to the site are as followed:
- Construction of a single dwelling.

Figure 1. Site location with the red line boundary.



2. Planning & Legislation

2.1. Legislation

The following legislation informed the survey approach and considerations.

- The Wildlife and Countryside Act 1981 (as amended)
- The Conservation of Habitat and Species Regulations 2010 (as amended).
- Environment Act 2021

2.2. Planning policies

- 2.2.1. This report is prepared with reference to the National Planning Policy Framework 2021.

3. Methods

3.1. Desk study

- 3.1.1. The following publicly accessible websites were searched for relevant ecological information:

- <http://planningguidance.planningportal.gov.uk/>
- <http://jncc.defra.gov.uk/page-1376> (summary of nature conservation legislation)

- www.ukbap.org.uk (archived 2012)
- www.google.com for aerial photography
- <https://magic.defra.gov.uk/magicmap.aspx>

3.1.2. Data relating to statutory & non-statutory sites and all protected species records within 2km of the survey area was requested from the Thames Valley Environmental Records Centre (TVERC).

3.1.3. A previous PEA of the site conducted by Derek Finnie Associates Ltd was available for review.

3.2. Field survey

3.2.1. An extended Phase 1 habitat survey of the site was undertaken with reference to the Institute of Environmental Assessment's Guidelines for Baseline Ecological Assessment (IEA, 1997) and the Institute of Ecology and Environmental Management's Guidelines for Preliminary Ecological Appraisal (IEEM, 2012).

3.2.2. The survey was conducted on the 24th March 2023 by Daniel Ahern

3.2.3. The weather conditions were excellent with an average temperature of 10°C.

3.2.4. During the survey, dominant plant species were recorded, and habitats were classified according to their vegetation types, as identified in the Handbook for Phase 1 Habitat Survey – A technique for environmental audit (JNCC, 2010). Target notes (TN) were taken to denote species and habitats of conservation interest and to describe the vegetation in areas that were too small to map. Evidence or habitat suitable for any legally protected species was recorded, where appropriate.

3.2.5. The presence (if any) of invasive species such as Japanese knotweed *Reynoutria japonica* was also investigated during the field survey.

3.2.6. The results are presented in the standard format with habitat descriptions and a phase 1 habitat map (see Figure 5).

3.2.7. The site was inspected for direct evidence and habitat suitability for protected and notable species. Particular attention was given to those species listed under The Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitat and Species Regulations 2010 (as amended). This included searching for signs of badger activity and habitats suitable for amphibians, dormice, bats and reptiles.

3.2.8. According to the Institute for Environmental Assessment (IEA, 1995), phase 1 surveys can be undertaken all year round in order to identify any habitats on site where protected species may potentially be present.

3.2.9. In the event that habitats suitable for protected species are identified, it may be necessary to undertake further seasonal surveys to confirm

presence/absence. In the event that no suitable habitats or features are identified, a phase 1 habitat survey is sufficient to determine the potential impacts associated with a proposed development.

3.3. Limitations

- 3.3.1. The data provided by the online resources were not exhaustive. It is possible that species and habitats not found in the data search occur within the vicinity of the proposed development site.
- 3.3.2. The details within this report will remain valid for a period of 12 months; beyond that date it is advised that a review of ecological conditions is undertaken.

4. Baseline Ecological conditions

4.1. Desk study

- 4.1.1. The Thames Valley Environmental Records Centre (TVERC) data search confirmed that there were three statutory wildlife sites recorded within 2km of the site. As seen in Figure 2, with the details of each in Table 1.
- 4.1.2. The Thames Valley Environmental Records Centre (TVERC) data search confirmed that there were 12 non- statutory wildlife sites recorded within 2km of the site. As seen in Figure 2, with the details of each in Table 2.

Figure 2. A map showing the Statutory and Non-Statutory Wildlife Sites Within 2km of the site.

Sandford Farm Designated Sites Map

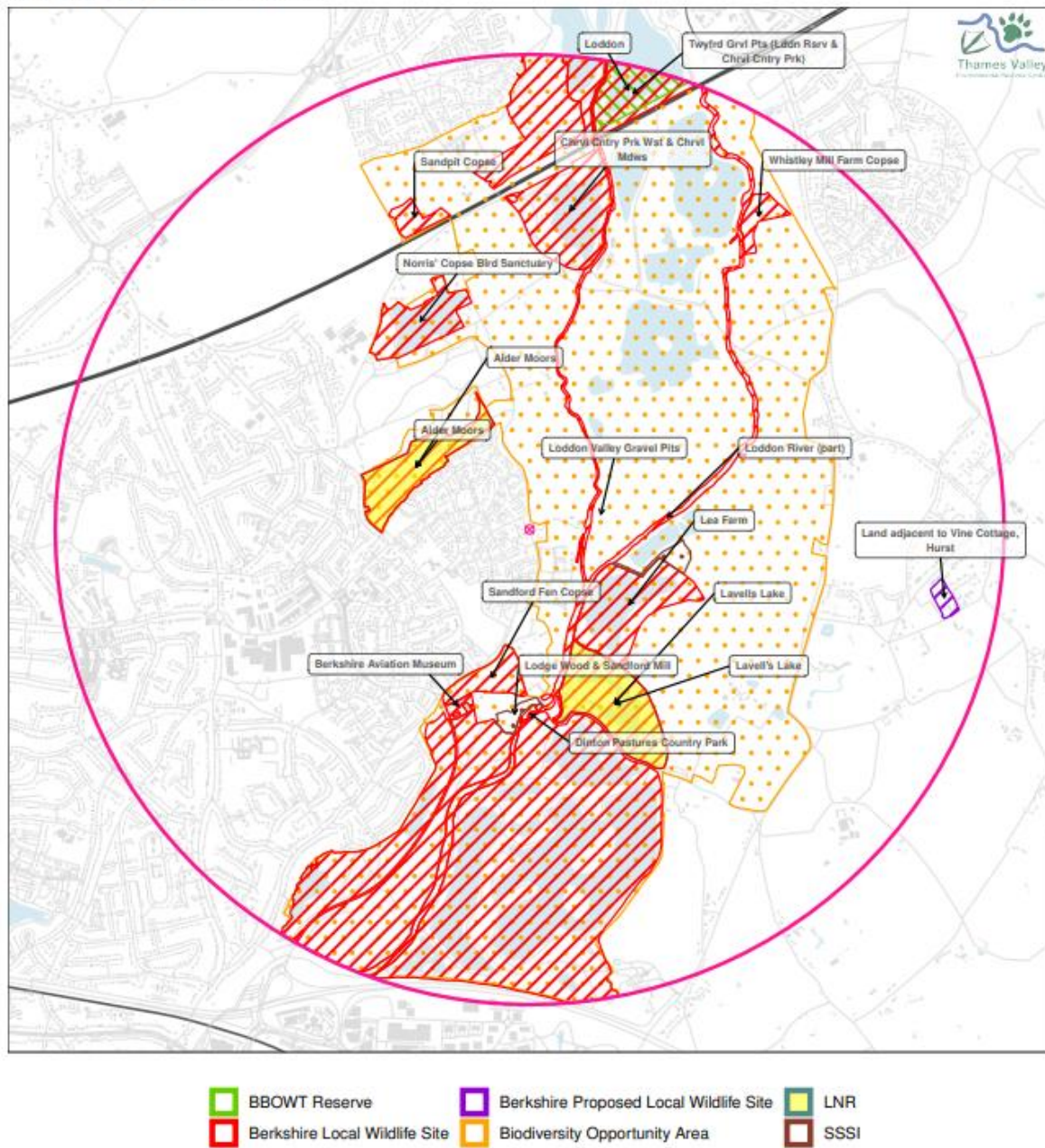


Table 1. Details of the Statutory Wildlife Sites Within 2km of the site.

Site name	Designation	Area ha
Lodge Wood and Sandford Mill	SSSI	2.3
Lavells Lake	LNR	12.45
Alder Moors	LNR	8.5

Table 2. Details of the Non-Statutory Wildlife Sites Within 2km of the site.

Site name	Area ha
Lea Farm	12.35
Dinton Pastures Country Park	24.1
Norris Copse Bird Sanctuary	8.32
Whistley Mill Farm Woodland	2.24
Berkshire Aviation Museum	0.6
Sandpit Copse	1.9
Twyford Gravel Pits	26.18
River Loddon	17.0 (km length)
Sandford Fen Copse	3.72
Land adjacent to Vine Cottage	1.03
Loddon	13.7
Charvil Country Park West & Charvil Meadows	41.65

- 4.1.3. A total of 8 EPSLs had been granted for bats within 2km of the site. They covered common species of bats.

Table 3. Details of the EPSLs Within 2km of the site.

Case reference	Species	Distance (m) and direction from site
2016-25277-EPS-MIT-1	soprano pipistrelle	1829m east
2019-43858-EPS-MIT	soprano pipistrelle	1197m east
EPISM2012-4899	brown long eared, common pipistrelle	1719m east
2017-32001-EPS-MIT	common pipistrelle	1753m east
2014-649-EPS-MIT	common pipistrelle, soprano pipistrelle	530m south
2016-27109-EPS-MIT-1	brown long eared, common pipistrelle, soprano pipistrelle	61m south
2018-36568-EPS-MIT	brown long eared, common pipistrelle	1434m west

- 4.1.4. Protected species records for the following taxa were recorded within 2 km of the site:

Amphibians:

Common toad

Bufo bufo

Great crested newt

Triturus cristatus

Bats:

Barbastelle

Barbastella barbastellus

Brown Long-eared

Plecotus auritus

Common Pipistrelle

Pipistrellus pipistrellus

Daubenton's

Myotis daubentonii

Leisler's

Nyctalus leisleri

Nathusius Pipistrelle

Pipistrellus nathusii

Natterer's

Myotis nattereri

Noctule

Nyctalus noctula

Serotine

Eptesicus serotinus

Soprano Pipistrelle

Pipistrellus pygmaeus

Birds:

Black-tailed godwit
Common Redpoll
Common Scoter
Cuckoo
Curlew
Dunlin
Fieldfare
Goldeneye
Grasshopper Warbler
Greenfinch
Hawfinch
Herring Gull
House Martin
House Sparrow
Kittiwake
Lapwing
Lesser Spotted Woodpecker
Linnet
Marsh Tit
Merlin
Mistle Thrush
Nightingale
Porchard
Ring Ouzel
Ruff
Scaup
Skylark
Smew
Spotted Flycatcher
Starling
Swift
Tree Pipit
Tundra Swan
Turtle Dove
Whimbrel
Wood Warbler
Woodcock
Yellow Wagtail
Yellowhammer

Mammals:

Eurasian Badger
Eurasian Otter
European Water Vole

Limosa limosa
Acanthis flammea
Melanitta nigra
Cuculus canorus
Numenius arquata
Calidris alpina
Turdus pilaris
Bucephala clangula
Locustella naevia
Chloris chloris
Coccothraustes coccothraustes
Larus argentatus
Delichon urbicum
Passer domesticus
Rissa tridactyla
Vanellus vanellus
Dendrocopus minor
Carduelis cannabina
Parus palustris
Falco columbarius
Turdus viscivorus
Luscinia megarhynchos
Aythya farina
Turdus torquatus
Calidris pugnax
Aythya marila
Alauda arvensis
Mergellus albellus
Muscicapa striata
Sturnus vulgaris
Apus apus
Anthus trivialis
Cygnus columbianus
Streptopelia turtu
Numenius phaeopus
Phylloscopus sibilatrix
Scolopax rusticola
Motacilla flava
Emberiza citrinella

Meles meles
Lutra lutra
Arvicola amphibius

Reptiles:

Adder

Common lizard

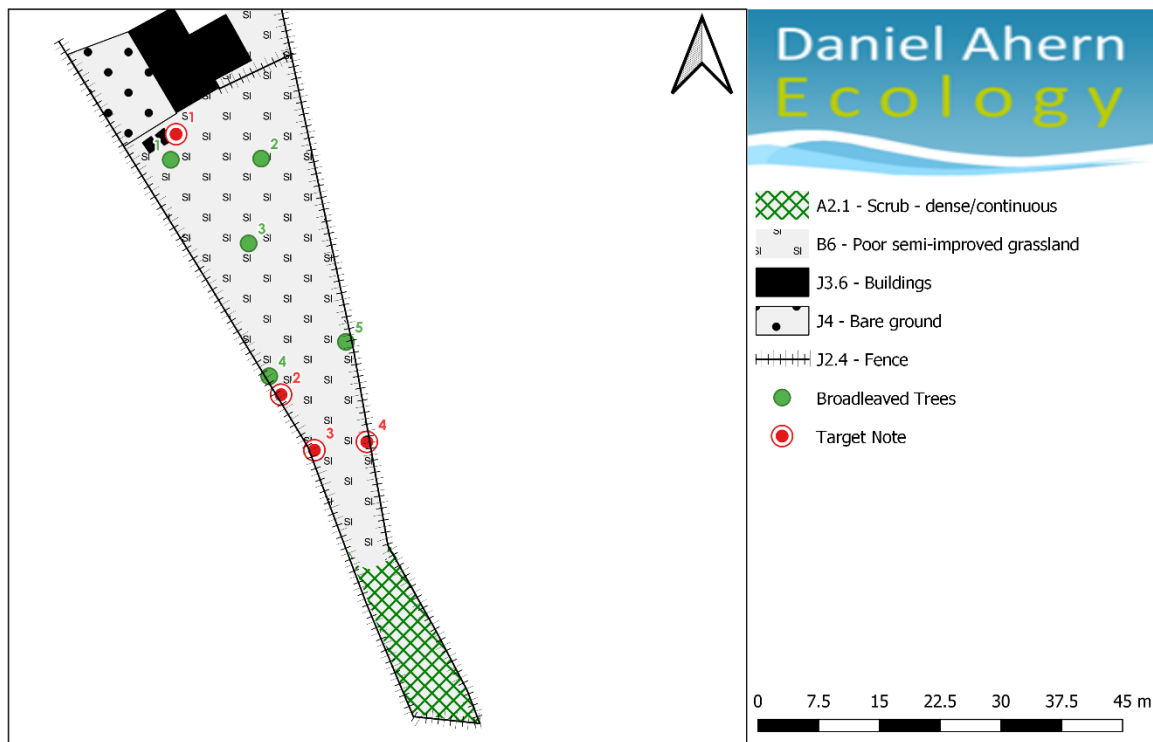
Grass Snake

Slow-worm

*Vipera berus**Zootoca vivipara**Natrix helvetica**Anguis fragilis***4.2. Site survey**

- 4.2.1. A Phase 1 habitat map of the site is set out in Figure 3 below.
- 4.2.2. The majority of the site consisted of B6 – Poor semi-improved grassland, with species consisting of perennial rye grass *Lolium perenne*, meadow buttercup *Ranunculus acris*, daisy *Bellis perennis* and yarrow *Achillea millefolium*. This habitat extended south to an area of dense scrub.
- 4.2.3. The south of the site, the habitat was primarily A2.1 – Dense continuous scrub, which consisted of bramble and ivy. The scrub had Low potential for reptile species, however it has HIGH potential to be utilised by birds during breeding season.
- 4.2.4. To the north of the site target note 1, There had two sheds constructed. These sheds contained NEGLIGIBLE bat roost potential.
- 4.2.5. In the middle of the site, there was five mature oak trees *Quercus robur* (Broadleaved trees numbered 1-5). These trees had LOW to MODERATE bat roost potential. The current development proposal suggests these trees will be retained. If they are to be felled, they will need to be assessed by a suitably qualified ecologist for bat roosts.
- 4.2.6. The site also had three log piles / piles of decaying plant matter (Target Notes 2-4). These have MODERATE potential for reptiles, due to providing suitable habitat for nesting and hibernation.
- 4.2.7. There was no evidence of Japanese knotweed *Reynoutria japonica*. However, there was a notable amount of the Invasive Non-Native Species buddleia *Buddleja davidii* present on site.
- 4.2.8. A full species list from the site survey is given in Appendix 1, and target notes relating to the numbers on the Phase 1 map are given in Appendix 2.

Figure 3. Phase 1 habitat map, including numbered target notes.



4.2.9. The survey recorded the following potential for protected species and groups to be present.

- Amphibians: NO breeding habitat recorded on or within 250m of site boundary. The terrestrial habitat had LOW amphibian potential. There were records of Great Crested Newt found within 2km of the site.
- [REDACTED]
- Bats; MODERATE foraging and commuting potential within the site boundary. LOW to MODERATE roosting potential in the oak trees. The sheds present NEGLIGIBLE bat roost potential.
- Breeding Birds; MODERATE nesting and foraging potential.
- Dormice; NO Records found within 2km. SUB-OPTIMAL habitat connectivity.
- Otter; SUB-OPTIMAL for this species due to the absence of suitable habitat on site, however there were records found within 2km.
- Reptiles; MODERATE potential for this group, a number of potential hibernacula in the areas of scrub and log piles onsite.
- Water vole; SUB-OPTIMAL for this species due to the absence of suitable habitat, however there were records found within 2km.

5. Ecological constraints and opportunities

5.1. Designated nature conservation sites

- 5.1.1. The desk-based assessment recorded three Statutory Wildlife Sites and 12 Non-statutory wildlife sites within 2km of the site.
- 5.1.2. Eight EPSL's had been granted for any species within 2km of the site, which covered common species of bats, including common pipistrelle, soprano pipistrelle and brown long eared bats.

5.2. Habitats

- 5.2.1. The proposed development of the site will result in the loss of the current homogeneous mix of habitats recorded within the site.
- 5.2.2. Site clearance mitigation and habitat enhancement should be set out in a Biodiversity Mitigation and Enhancement Strategy (BMES).
- 5.2.3. A Biodiversity Net Gain (BNG) assessment should be prepared based on the results of this survey and the landscape plan for the proposed development.

5.3. Fauna

- 5.3.1. The site has MODERATE habitat potential for breeding birds and reptiles.
- 5.3.2. The site also has MODERATE foraging and commuting potential for bats.
- 5.3.3. The following surveys are recommended: None, providing a BMES is prepared and adopted.

6. Conclusions

- 6.1.1. A BMES and BNG assessment should be prepared.
- 6.1.2. The recommended BMES will include recommendations for habitat clearance which ensure no significant impact will occur to any of the species groups potentially representing an ecological constraint to the planned development.

7. References

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Rose, F. (1989) *Colour Identification Guide to the Grasses, Sedges, Rushes and Ferns of the British Isles and North Western Europe*; Viking

8. Appendices

Appendix 1

Common name	Latin name
annual meadow grass	<i>Poa annua</i>
ash	<i>Fraxinus excelsior</i>
bramble	<i>Rubus fruticosus</i>
butterfly bush	<i>Buddleia davidii</i>
cock's foot	<i>Dactylis glomerata</i>
common bent	<i>Agrostis capillaris</i>
common daisy	<i>Bellis perennis</i>
creeping buttercup	<i>Ranunculus repens</i>
creeping thistle	<i>Cirsium arvense</i>
downy birch	<i>Betula Pubescens</i>
elder	<i>sambucus nigra</i>
false oat grass	<i>Arrhenatherum elatius</i>
hawthorn	<i>16rataegus monogyna</i>
ivy	<i>hedera helix</i>
nettle	<i>Urtica dioica</i>
oak	<i>Quercus robur</i>
ragwort	<i>Jacobaea vulgaris</i>
ribwort plantain	<i>Plantago lanceolata</i>
rosebay willowherb	<i>Chamerion angustifolium</i>
silver birch	<i>Betula pendula</i>
silverweed	<i>Argentina anserina</i>
sycamore	<i>Acer pseudoplatanus</i>
Yorkshire fog	<i>Holcus lanatus</i>

Appendix 2

Target note	Target note comments
1	Two sheds with NEGLIGIBLE bat roost potential. No further surveys are needed.
2	A log pile, which provides MODERATE habitat potential for reptiles.
3	A log pile, which provides MODERATE habitat potential for reptiles.
4	A log pile, which provides MODERATE habitat potential for reptiles.

Appendix 3

Tree number	Tree species
1	A mature oak <i>Quercus robur</i> , LOW bat roost potential
2	A mature oak <i>Quercus robur</i> , LOW bat roost potential
3	A mature oak <i>Quercus robur</i> , LOW bat roost potential
4	A mature oak <i>Quercus robur</i> , MODERATE bat roost potential
5	A mature oak <i>Quercus robur</i> , LOW bat roost potential

Appendix 4

Photo 1 – View of site standing in front of the scrub looking north.	Photo 2 – A log pile which provides suitable habitat for reptiles.
 A photograph showing a grassy area with scattered logs and branches in the foreground. In the background, there are several bare trees and some green shrubs. A small building is visible in the distance.	 A close-up photograph of a large, messy pile of cut logs and branches. The pile is situated in a grassy area with some green plants growing around it. A wooden fence is visible in the background.
Photo 3- One of the mature oak trees on site.	Photo 4- View of site looking south, showing the scrub and log piles present on site.
 A photograph of a large, mature oak tree with a thick trunk and many bare branches. The tree is standing in a grassy area with some green plants. In the background, there are other trees and a wooden fence.	 A photograph showing a view of the site looking south. There are several bare trees and a large pile of logs and branches in the foreground. The ground is covered with dry leaves and some green plants.