

9A Circuit Lane, Reading



Client: Mr Simon Knight
April 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 works.

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 main proposals are as follows:

- Conversion of existing detached residential property into two dwellings.
- Demolition of existing single storey extension.
- Construction of two new dwellings.
- Removal of outbuildings and sheds.
- Removal of swimming pool.

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 proposed works will require the disturbance or removal of some on site vegetation. A Construction Environmental Management Plan should be prepared to set out how and when this should take place.

Further surveys required

Should the location of the proposed works intrude within the Root Protection Area of any of the trees on site it is recommended that an arboricultural impact assessment is completed.

Conclusions

All of the buildings on site, the house and three outbuildings, were assessed as having NEGLIGIBLE bat roost potential.

Following a re-assessment of woodland along parts of the site boundary areas in March 2023 no further survey work relating to bats is believed necessary.

Due to the loss of habitat from the construction of a new dwellings elsewhere on the site, a BNG assessment should be completed.

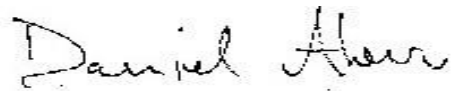
A BMES will set out relevant responsibilities for the site ecologist, landowner and contractor in regard to site clearance and habitat enhancement. It will look specifically at the species and groups which may present an ecological constraint to the proposed development.

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

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A handwritten signature in black ink that reads "Daniel Ahern". The script is cursive and fluid.

Date: 02/04/23

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Signature:

A handwritten signature in blue ink that appears to read "Peter Allen". The script is cursive and somewhat stylized.

Date: 02/04/23

1. Introduction

1.1. Background

- 1.1.1. Proposed alteration of the existing building and land to create four residential dwellings. At the time of writing the PEA, the exact location and specification of the new buildings and gardens are to be confirmed.
- 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. 9a Circuit Lane, hereafter referred to as 'The Site', is a detached house in Reading (SU 6912 7224). The house is accessed by a bare ground/gravel driveway leading to a detached residential building, a number of out buildings (cabin, sheds and garage), parking spaces and gardens.

The north elevation of the existing house has a bare ground/gravel path immediately adjacent to the property and bare earth bank (approx. 8ft in height) along the site perimeter that indicate previous vegetation clearance.

The east elevation of the site and rear of existing property is largely laid to concrete with broadleaf trees and shrubs along the perimeter. It includes a wooden cabin/outbuilding, an elevated garden area of concrete and brick construction (accessed via steps) that contains beds for ornamental shrubs. Beyond the perimeter is Circuit Lane Allotments containing allotments and large areas of unmanaged grassland.

The south elevation of the site is bordered by ornamental shrubs and a mixture of broadleaf and coniferous trees. It contains concrete pathing and patio, a swimming pool (in disrepair) filled with rubble and wood, and a small lawn. A further small, fenced area of garden lies to the south west corner of the main garden.

- 1.2.2. The proposed developments and alterations to the site are as follows:
- Alteration of existing detached residential property into two dwellings.
 - Demolition of an existing single storey extension.
 - Clearance of part of the land, existing swimming pool and several sheds/outbuildings.
 - Construction of two new dwellings.
 - Landscaping.

Figure 1. Site location.



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 2017.

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.
- 3.1.2. The Thames Valley Environmental Records Centre (TVERC) was contacted and all ecological records pertaining to statutory and non-statutory sites within 2km of the survey area were requested. In addition, all protected species records within 2km (including bats species were requested).
- 3.1.3. No previous reports relating to the site were 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 16th August 2022 by Elizabeth Dean and Paula Llewellyn. A second site visit was made on 27th March 2023 by Daniel Ahern.
- 3.2.3. The weather conditions during the 2022 survey were good , warm with light rain. The weather conditions during the 2023 site visit were fair, cool with steady rain.
- 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 3, Appendix 2).

- 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. One statutory designated site was identified within 2km of the proposed development site. See Table 1 below.

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

Site name	Statutory type
Lousehill Copse (part of Reading West Woodlands)	LNR

- 4.1.2. The requested ecological data request from the Thames Valley Environmental Records Centre (TVERC) recorded 10 local wildlife sites within 2km of the site. See Figure 2 below, with details of each in Table 2.

Figure 2. Map showing the Statutory and Non-statutory Wildlife Sites Within 2km of the site.

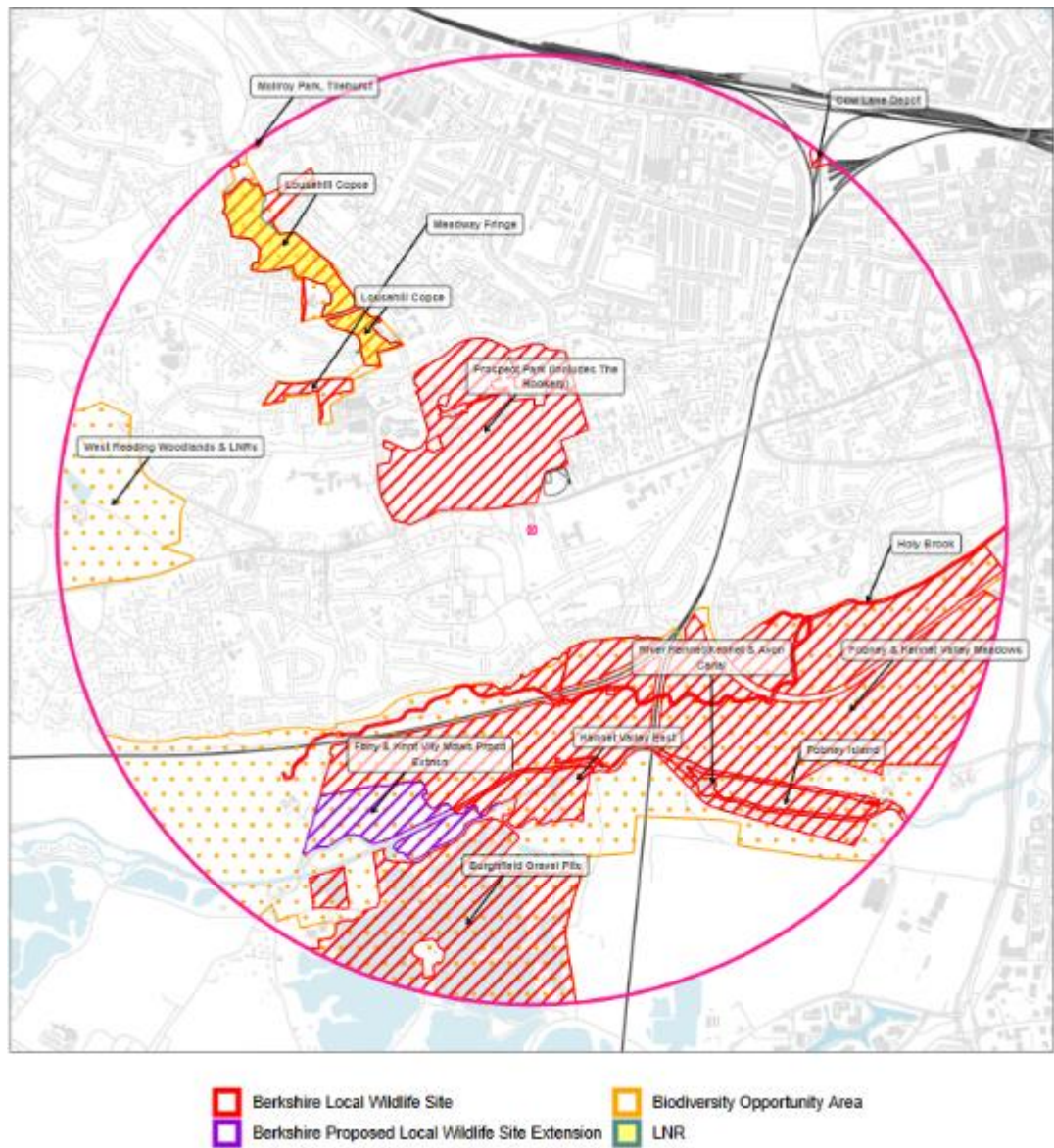


Table 2. Details of the Non-statutory Wildlife Sites Within 2km of the site.

Map number	Site name	Area (hectares)
1.	Cow Lane Depot	1.54
2.	Mcllroy	14.9
3.	Meadway Fringe	2.13
4.	Prospect Park (includes the Rookery)	24.1
5.	Fobney & Kennet Valley Meadows Complex	154
6.	Holy Brook	4.5km length
7.	River Kennet / Kennet & Avon Canal	9.48
8.	Burghfield Gravel Pits	177.7
9.	Fobney Island	11.17
10.	Lousehill Copse	14.91

- 4.1.3. A total of eight EPSL relating to bats were recorded within 2km of the site, the details of which are presented in Table 3 below.

Table 3: Bat EPSL Records within 2km of the site

EPSL Reference	Species named	Distance & direction from the Site
EPSM2010-2590	soprano pipistrelle, <i>Pipistrellus pygmaeus</i>	585m east
2020-49490-EPS-MIT	soprano pipistrelle	952m south west
2017-32379-EPS-MIT	common pipistrelle	1,829m east
2015-14868-EPS-MIT	brown long-eared, <i>Plecotus auritus</i> common pipistrelle, <i>Pipistrellus pipistrellus</i>	1,906m south east
EPSM2013-6388	brown long-eared common pipistrelle	1,906m south east
EPSM2011-3384	common pipistrelle	1,942m north west
EPSM2011-3499	soprano pipistrelle brown long-eared common pipistrelle	1,974m north west
EPSM2010-2341	brown long-eared common pipistrelle	1,974m north west

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

Amphibians:

Palmate newt
Smooth newt

Lissotriton helveticus
Lissotriton vulgaris

Bats:

Brown Long-eared Bat
Common Pipistrelle
Daubenton's Bat
Lesser Noctule
Noctule
Serotine
Soprano Pipistrelle

Plecotus auritus
Pipistrellus pipistrellus
Myotis daubentonii
Nyctalus leisleri
Nyctalus noctula
Eptesicus serotinus
Pipistrellus pygmaeus

Birds:

Black-tailed godwit	<i>Limosa limosa</i>
Cuckoo	<i>Cuculus canorus</i>
Fieldfare	<i>Turdus pilaris</i>
Grasshopper warbler	<i>Locustella naevia</i>
Grey wagtail	<i>Motacilla cinerea</i>
Herring gull	<i>Larus argentatus</i>
House sparrow	<i>Passer domesticus</i>
Lapwing	<i>Vanellus vanellus</i>
Lesser redpoll	<i>Acanthis cabaret</i>
Lesser spotted woodpecker	<i>Dryobates minor</i>
Linnet	<i>Linaria cannabina</i>
Marsh tit	<i>Poecile palustris</i>
Merlin	<i>Falco columbarius</i>
Mistle thrush	<i>Turdus viscivorus</i>
Nightingale	<i>Luscinia megarhynchos</i>
Pied flycatcher	<i>Ficedula hypoleuca</i>
Pochard	<i>Aythya ferina</i>
Redwing	<i>Turdus iliacus</i>
Ringed plover	<i>Charadrius hiaticula</i>
Ruff	<i>Calidris pugnax</i>
Scaup	<i>Aythya marila</i>
Skylark	<i>Alauda arvensis</i>
Song thrush	<i>Turdus philomelos</i>
Spotted flycatcher	<i>Muscicapa striata</i>
Turtle dove	<i>Streptopelia turtur</i>
Whimbrel	<i>Numenius phaeopus</i>
Woodcock	<i>Scolopax rusticola</i>
Yellow wagtail	<i>Motacilla flava</i>
Yellowhammer	<i>Emberiza citrinella</i>

Mammals:

Eurasian badger	<i>Meles meles</i>
Eurasian otter	<i>Lutra lutra</i>
European water vole	<i>Arvicola amphibius</i>
Harvest mouse	<i>Micromys minutus</i>
West European hedgehog	<i>Erinaceus europaeus</i>

Reptiles:

Grass Snake	<i>Natrix helvetica</i>
Slow-worm	<i>Anguis fragilis</i>

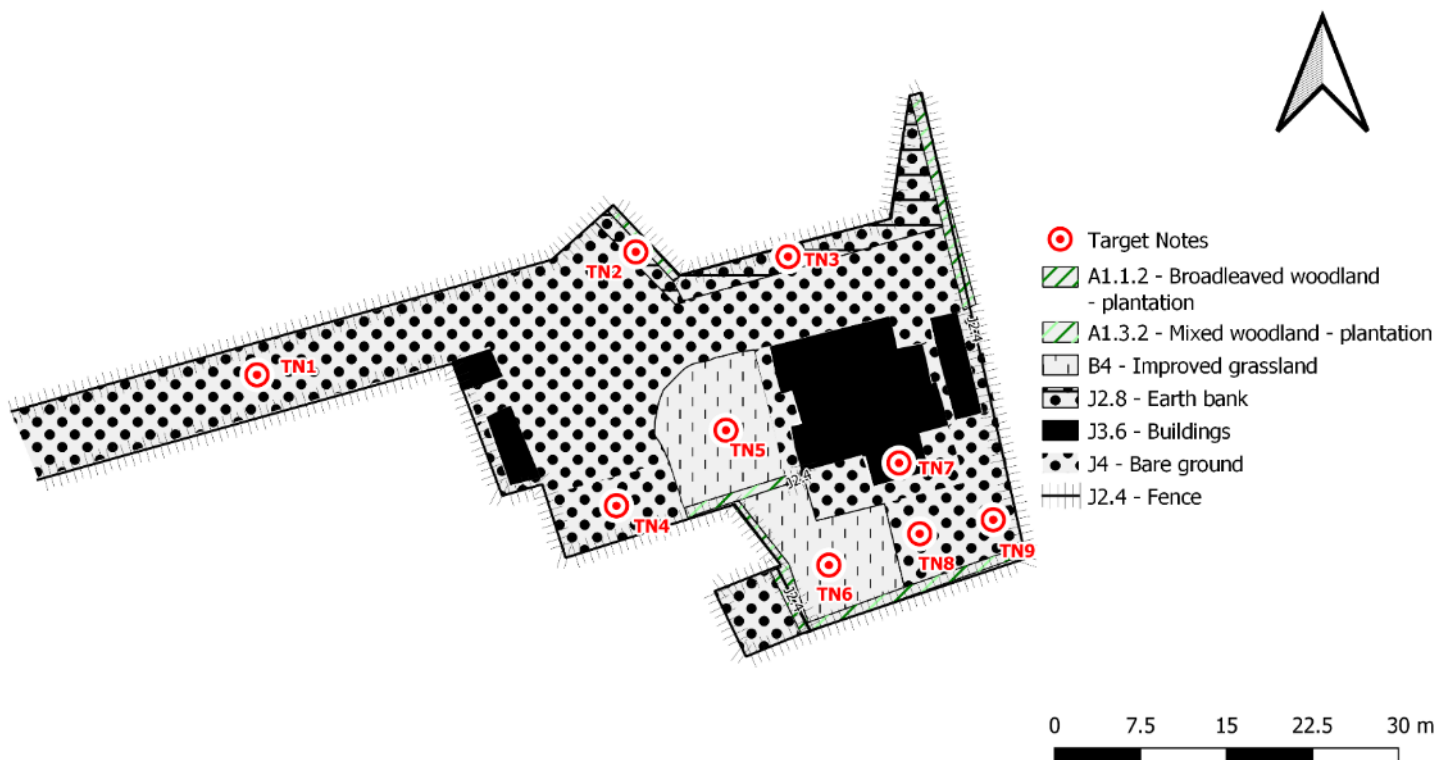
- 4.1.5. MAGIC confirmed there were no ponds or great crested breeding sites recorded within 500m of the site.

4.2. Site survey

- 4.2.1. A Phase 1 habitat of the site is set out in Figure 3 below.

- 4.2.2. The majority of the site was comprised of B4 – Improved grassland, in the form of two lawns, J4 – Bare ground, in the form of gravel and concrete driveway and paths, A1.1.2 – Broadleaved plantation woodland, in the form of planted fruit and ornamental trees, and J2.8 – Earth banks.
- 4.2.3. The boundaries of the site are comprised of J2.4 – Fence and cultivated vegetation including A1.3.2 – Mixed plantation woodland and J1.4 – Introduced shrub.
- 4.2.4. Building 1 – the house, has a single large void, approximately 11m long by 10m wide. The roof was lined in breathable membrane. There was no evidence of bats within the void. The exterior of the house is roofed with tight-fitting machine-made tiles. The building has a single storey extension (to be demolished) with an apex roof and an enclosed loft void that cannot be accessed.
- 4.2.5. There were no visible PRF's (potential roost features) found during the survey. Building 1 - the house, was assessed as having **NEGIGIBLE** bat potential.
- 4.2.6. Building 2, 3 & 4 – two sheds and a garage were assessed for bat roost potential during the March 2023 site visit.
- 4.2.7. Buildings 2 and 3 were of a single skin timber construction with dual pitch, tar paper clad roofs. No PRF were recorded in either structure. No evidence of bats was recorded externally or internally at either structure.
- 4.2.8. Building 4 – a garage had a dual pitch, corrugated cement roof and single skin concrete walls. No PRF were recorded in this structure. No evidence of bats was recorded externally or internally at this structure.
- 4.2.9. Buildings 2, 3 & 4 were assessed as having **NEGIGIBLE** bat roost potential.
- 4.2.10. The A.1.3.2 – Mixed plantation woodland and J1.4 – Introduced shrub were assessed from the ground as having **LOW** bat roost potential.
- 4.2.11. During the March 2023 site visit any trees within the A 1.3.2 Mixed plantation woodland were re-assessed for bat roost potential. All were confirmed as being too immature or simple a structure to have bat roost potential. See Photos 9 and 10.
- 4.2.12. There was no evidence of Japanese knotweed *Reynoutria japonica* on site.
- 4.2.13. 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.



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

- Amphibians: SUB-OPTIMAL; NO records of Great Crested Newt within 2km. NO breeding habitat recorded on or within 500m of site boundary. LOW potential for this group during their terrestrial phase.
- Badgers: NO EVIDENCE of badgers recorded on site or within 30m, records indicate they are within 2km.
- Bats; MODERATE foraging and commuting potential within the site boundary. NEGLIGIBLE bat roost potential within the building. NEGLIGIBLE bat roost potential in the buildings and trees on site.
- Dormice: NEGLIGIBLE HABITAT potential, records found within 2km, however there is LOW habitat connectivity.
- Otter; SUB-OPTIMAL for this species due to the absence of suitable habitat on site.
- Reptiles: LOW potential for this group – entering the site from adjacent land.
- Water vole; SUB-OPTIMAL for this species due to the absence of suitable habitat.

5. Ecological constraints and opportunities

5.1. Designated nature conservation sites

- 5.1.1. The desk-based assessment recorded one Statutory Wildlife Sites and 10 Non-Statutory Wildlife Sites within 2km of the site.
- 5.1.2. Eight EPSL for bats were recorded within 2km of the site which covered three common bat species: brown long-eared, common pipistrelle and soprano pipistrelle.

5.2. Habitats

- 5.2.1. The proposed development of the site will result in the disturbance and loss of part of the current heterogeneous mix of habitats recorded across the site.
- 5.2.2. A number of trees within and bordering the site will be lost or thinned as a result of a proposed development, none of these trees were assessed as having any bat roost potential.
- 5.2.3. Prepare a Biodiversity Mitigation and Enhancement Strategy (BMES) should be prepared to inform any site clearance and a lighting strategy.
- 5.2.4. A Biodiversity Net Gain (BNG) assessment for the proposed development should be completed.

5.3. Fauna

- 5.3.1. The A.1.3.2 – Mixed plantation woodland and J1.4 – Introduced shrub were assessed from the ground as having **LOW** bat roost potential. These areas were re-assessed in March 2023 and the bat roost assessment was revised to **NEGLIGIBLE** bat roost potential.
- 5.3.2. Building 1 – the house, has **NEGLIGIBLE** bat potential.
- 5.3.3. Buildings 2, 3 & 4 were assessed as having **NEGLIGIBLE** bat roost potential.
- 5.3.4. As with #5.2.3.

5.4. Habitat enhancement measures

- 5.4.1. The following should be installed on existing and proposed new buildings:
 - One Harlech bat box - https://www.birdfood.co.uk/harlech-woodstone-bat-box-black?gclid=EAlaIqobChMIwlbT2pqD_gIVyZ7tCh1AoAVbEAAYAiAAEgLxGfD_BwE. Installed at a height of at least 3m above the ground on a west facing tree or building elevation.

- One Woodstone bird box - https://www.birdfood.co.uk/national-trust-woodstone-32mm-nest-box-green?utm_source=google_shopping&gclid=EAlalQobChMI-ef86JqD_gIVjdPtCh21_QonEAQYASABEgLZcPD_BwE. Installed at a height of at least 3m above the ground on a west facing tree or building elevation.
 - One insect block - https://www.birdfood.co.uk/woodstone-insect-block-grey?utm_source=google_shopping&gclid=EAlalQobChMIrZm8-ZqD_gIVEmHmCh2g5g_FEAQYAIAABEgJu4fD_BwE. Installed at a height of 1.5m above the ground on a south facing tree or building elevation.
- 5.3.1. Site specific locations for the above habitat enhancements will be set out in the BMES along with a lighting plan.

6. Conclusions

- 6.1.1. All of the buildings on site, the house and three outbuildings, were assessed as having NEGLIGIBLE bat roost potential.
- 6.1.2. Following a re-assessment of woodland along parts of the site boundary areas in March 2023 no further survey work relating to bats is believed necessary.
- 6.1.3. Due to the loss of habitat from the construction of a new dwellings elsewhere on the site, a BNG assessment should be completed.
- 6.1.4. A BMES will set out relevant responsibilities for the site ecologist, landowner and contractor in regard to site clearance and habitat enhancement. It will look specifically at the species and groups which may present an ecological constraint to the proposed 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
Apple	<i>Malus domestica</i>
Ash	<i>Fraxinus excelsior</i>
Bindweeds	<i>Convolvulus</i>
Blue Bird	<i>Hibiscus syriacus</i>
Borage	<i>Borago officinalis</i>
Box	<i>Buxus sempervirens</i>
Brambles	<i>Rubus fruticosus</i>
Bridal-wreath	<i>Spiraea prunifolia</i>
Broad-leaved dock	<i>Rumex obtusifolius</i>
Butterfly-bush	<i>Buddleja davidii</i>
Clematis	<i>Clematis</i>
Common ivy	<i>Hedera helix</i>
Common mallow	<i>Malva neglecta</i>
Creeping Thistle	<i>Cirsium arvense</i>
Desert-willow	<i>Chilopsis linearis</i>
Elder	<i>Sambucus nigra</i>
Flowering quince	<i>Chaenomeles</i>
Hazel	<i>Corylus</i>
Maple (ornamental)	<i>Acer (sp)</i>
Oak (English)	<i>Quercus robur</i>
Plum	<i>Prunus domestica</i>
Purple toadflax	<i>Linaria purpurea</i>
Red deadnettle	<i>Lamium purpureum</i>
Red Robin	<i>Photinia</i>
Ribwort Plantain	<i>Plantago lanceolata</i>
Roses (various ornamental)	<i>Rosa</i>
Wisteria	<i>Wisteria</i>
Yew	<i>Taxus baccata</i>

Appendix 2

Target note	Comments
1	Driveway with low value vegetation along its side lengths including Buddleja
2	Plum trees and bare earth mounds
3	Mounds of bare earth indicating recent vegetation clearance
4	Concrete foundation (approx. 7x7m)
5	West garden with lawn, fruit trees and mixed ornamental shrubs
6	South garden with lawn, fruit trees and mixed ornamental shrubs
7	Extension (to be demolished) with enclosed loft void
8	Swimming pool (in disrepair), filled with wood and rubble
9	Elevated patio with flower and shrub beds

Appendix 3

Photo 1 – Driveway



Photo 2 – Plum trees and bare earth mounds



Photo 3 – Earth mounds indicating vegetation clearance



Photo 4 – concrete foundation in west/front garden



Photo 5 – South/side garden



Photo 6 – West/front garden



Photo 7 – Single storey extension



Photo 8 – Former swimming pool



Photo 9 – Woodland along the southwestern boundary



Photo 10 – Woodland along the northeastern boundary

