



Elite Ecology

Passionate about Ecology

**Land North of the Vale,
Wokingham**



Preliminary Ecological Appraisal

March 2025



01782 308418

www.eliteecology.co.uk
admin@eliteecology.co.uk



Part of Harmil Environmental Ltd
Company Reg Number: [REDACTED]
Company VAT Number: [REDACTED]

The New Barn, Suites 2/3, Shellow Lane,
Gawsworth, Cheshire, CW12 2FQ



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Prepared For	Mr and Mrs D Drew (proprietors)		
Author	Mr. Peter Royall		
Approved (1 st Checker)	Mr. Marek Fraczek		
Approved (2 nd Checker)	Mr. Richard Millington		
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0. Executive Summary

This report has been prepared at the request of Mr and Mrs D Drew (proprietors). It relates to the proposed re-development works at Land North of the Vale, Forest Road, Wokingham, Berkshire, RG40 5QY (OS Grid Reference: SU 81140 71187). This survey effort involved both a desktop study and field survey being undertaken.

Under the current proposals, the plans are to construct a self-build dwelling. Overall, this will result in both the permanent and temporary loss and/or alteration of some of the habitats located on the proposed re-development site.

Thames Valley Environmental Records Centre (TVERC) was commissioned to carry out an ecological data search of all protected species and sites recorded within a 2km radius of the site. No records lay on the proposed re-development site itself, although a number of records are present in close proximity. Please see **Section 3** for a review of the records revealed.

The preliminary ecological appraisal survey revealed multiple habitats on site. The phase 1 habitat map, habitat codes and target notes for the site are located within **Appendix D**. The following habitats were recorded on site (in habitat code order):

- **G4 200** - Modified grassland
- **h2a** – Native hedgerow
- **u1c** – Artificial unvegetated, unsealed surface
- **u1e 612** – Built linear features

Designated Sites:

No designated sites that were revealed by the ecological data search provided by TVERC fell on the proposed re-development site itself, nor were any located immediately adjacent to the site. Therefore, the proposed re-development will have no impact upon any local designated sites as the works are due to remain within the site boundary.

Habitats:

Priority Habitats: No habitats of conservation concern were located on the site itself. Therefore, the proposed scheme of works will not impact upon any rare or valuable habitats.

The hedgerow to the east is recommended to be retained. If this feature is to be removed, then it should be under the supervision of a suitably qualified ecologist.

Species:

Amphibians: The site could be used by commuting amphibians as it is connected to the surrounding landscape and has six standing water bodies within a 500m radius, with no significant barriers between them and the site. In addition, habitats on site such as the hedgerow have the potential to support amphibians in their terrestrial phases. Therefore, an amphibian method statement is required to ensure no harm to any specimens that may be using the site.

At the time of surveying [REDACTED]
[REDACTED] being recorded in the area thanks to the ecological
data search provided by TVERC [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Bats: To limit the potential impacts of artificial light on commuting/foraging bats on site and within the wider landscape, an Artificial Lighting Plan is required. This lighting plan must be in accordance with the provisions set out by the Institute of Lighting Professionals and Bat Conservation Trust: Guidance Note 08/23: Bats and Artificial Lighting in the UK, and must comply with the following general guidance:

Any artificial lighting installed on site during construction and post-development must face downwards to limit the spill of artificial light onto the wider landscape, in particular the linear scrub to the west of the site. It is also recommended that all external artificial lighting post-development is sensed (such as PIR sensed) and is only triggered by large bodies (so that moths or other small objects do not cause the lights to turn on). It is also recommended that this lighting plan incorporates 'dark zones' around bat foraging/commuting habitats on site. These measures will minimise the negative impacts artificial light could have upon foraging and commuting bats in the area.

Birds: Due to there being suitable bird breeding habitat within the site all building works should be undertaken outside of the bird breeding season (March to August). If vegetation and/or structures are required to be removed during the bird breeding season, then a further inspection by a suitably qualified ecologist is required no more than twenty-four hours before these are to be removed. This is to ensure that no active nest site is illegally destroyed, due to the protection afforded to all active bird nests under the Wildlife and Countryside Act 1981.

If an active nest is found by a site inspection, an exclusion zone around the nest will be necessary, where no vegetation removal can take place, to preserve this feature until the chicks have fledged the nest.

Hedgehogs (*Erinaceus europaeus*): If hedge or dense vegetation is cleared between the 1st of November and the 31st of March, then an inspection by a suitably qualified ecologist is required to ensure no hibernating hedgehogs are present on site. It is recommended that precautionary measures are incorporated if construction is undertaken at other times of the year. This will be to create provisions for hedgehogs to escape from all trenches dug into the ground, by creating slopes or providing ramps at the end of each working day. Additionally, any pipework left on site that is greater than 150mm in diameter will need to be planked off. Should this information be strictly adhered to, then the development works will not negatively impact on the local mammal populations.

Site Enhancements:

For the proposed site enhancements, please see **Section 5.4** of this report.

Biodiversity Net-Gain:

The project is a self-build development it is exempt from the 10% net gain as mandated by DEFRA as it meets all the following conditions to qualify for exemption as set out by government guidance on [exempt developments](#).

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1. Introduction

1.1 Report Rationale

This report has been prepared at the request of Mr and Mrs D Drew (proprietors). It relates to the proposed development works at the Land North of the Vale, Wokingham, Berkshire, RG40 5QY (Central OS Grid Reference: SU 81140 71187). This survey effort involved both a desktop study and field survey being undertaken.

The main purpose of this assessment was to identify the broad habitats (as stated in the UK Habitat Classification Version 2.0) and the flora species present within the survey area, with any further evidence of protected species usage and/or features of potential ecological interest also included. The field survey was carried out on the 25th of February 2025 by **Mr. Matthew Cotterill**: PGDip, Senior Ecologist and **Mr. Matthew Nixon**: BSc (Hons), Assistant Ecologist.

1.2 Site Description and Works

The site is located in a rural setting, approximately 2.6km to the north of the Berkshire town of Wokingham.

The site measures approximately 0.11ha and contains a number of habitats. These include artificial unvegetated unsealed surface, hedgerow, line of trees, and modified grassland. The habitats on site could have the potential to support a number of protected species. The photographs of the site are found within **Appendix E**.

Within the wider landscape further habitats are present. These come in the form of amenity grassland, arable land, hard standing ground, hedgerows, improved grassland, residential dwellings (and their associated gardens/yards), running water, scattered trees, standing water, and woodland. This shows that the habitats in the area surrounding the site have the potential to support protected species.

Under the current proposals, the plans are to construct a self-build dwelling. Overall, this will result in both the permanent and temporary loss and/or alteration of some of the habitats located on the proposed re-development site.

Figure 1: An aerial map showing the boundary of the site at the Land North of the Vale, Wokingham (as shown by the red outline).



Figure 2: An aerial map showing the site at the Land North of the Vale, Wokingham (as shown by the yellow star) in relation to some of the local landscape.

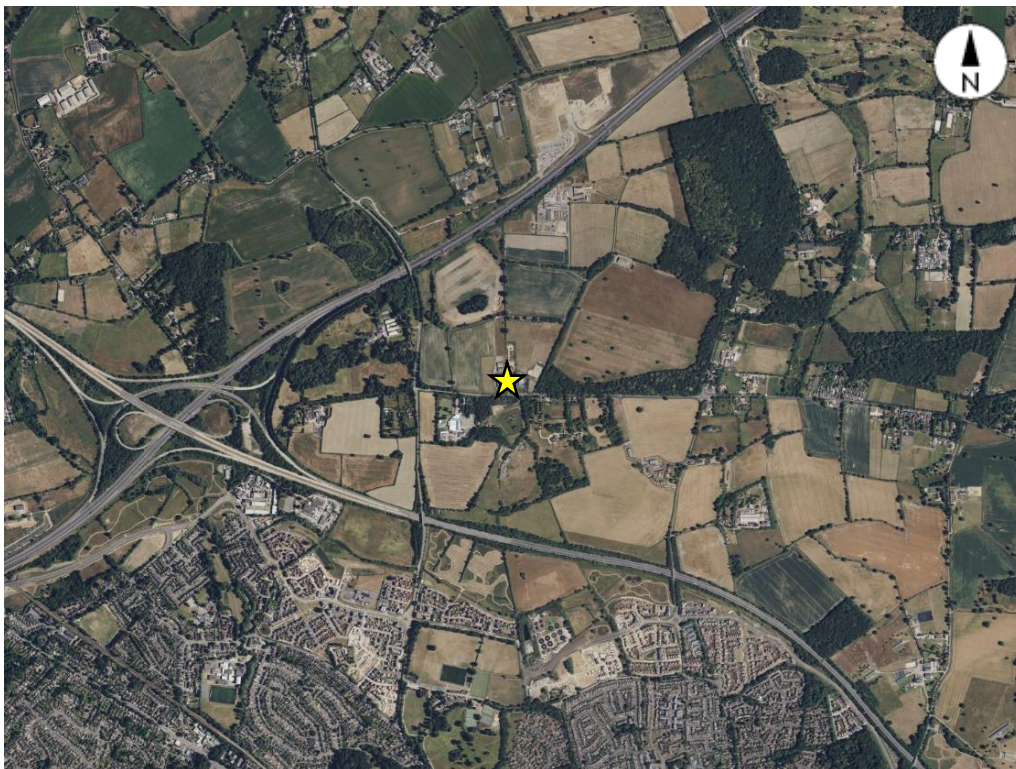
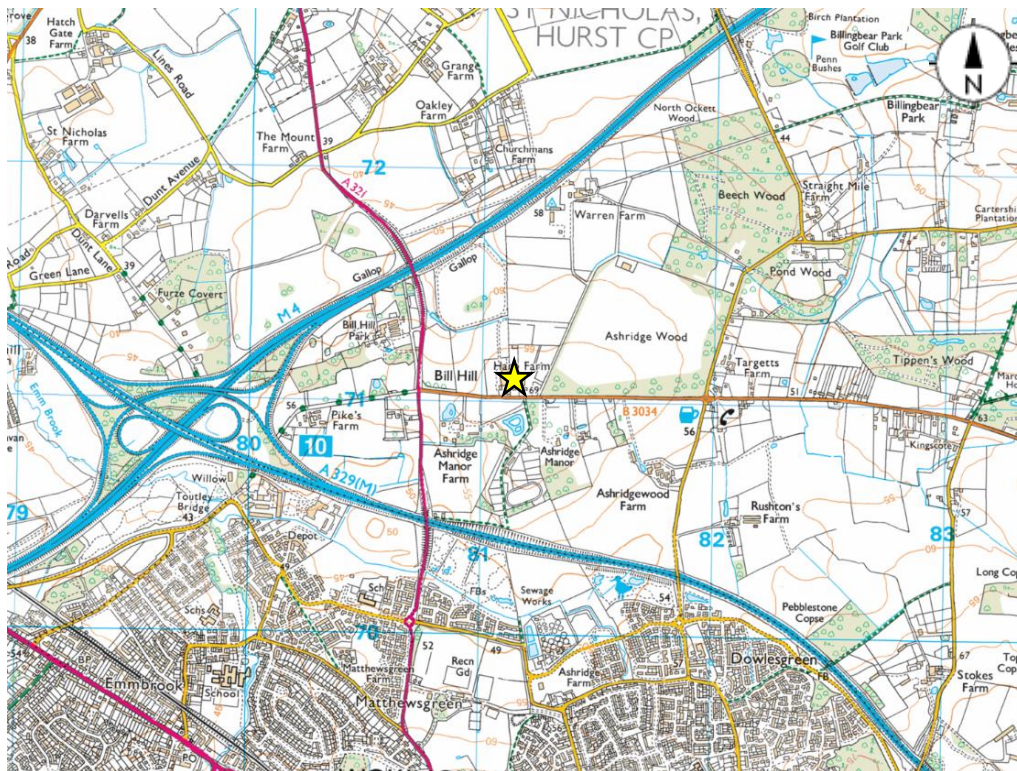


Figure 3: An OS map obtained from Bing showing the location of the Land North of the Vale, Wokingham (as shown by the yellow star).



2. Survey Methodology

2.1 Desktop Survey

A variety of resources were independently consulted to assess the known local records within the nearby area and the importance of the site within the local landscape from an ecological perspective. The resources used were the Local Records Centre, www.naturalengland.org.uk, www.ordnancesurvey.co.uk, Google Maps, Google Earth, and Bing Maps. A search of other relevant nature conservation information was made through the use of the Multi-Agency Geographic Information for the Countryside (MAGIC) database.

The local records centre was contacted to provide data on all protected species and sites within 2km of the proposed development site. Thames Valley Environmental Records Centre (TVERC) was the relevant local record centre for this project.

2.2 Field Survey

A Preliminary Ecological Appraisal (previously referred to as an Extended Phase 1 Habitat Survey) was carried out using the method outlined in the JNCC Handbook for *Phase 1 Habitat Survey: a technique for environmental audit (2010)*. This method aims to map and describe the broad habitat types and notable features present on the surveyed site.

The classification of the habitats themselves was done using the definitions outlined in UK Habitat Classification (UKHab) in *The UK Habitat Classification Version 2.0 (2023)*.

As part of the field survey, the floral species will be identified and noted down. This will consider the dominant, abundant, frequent, occasional, and rare (DAFOR) species within each habitat on the survey site. The impacts of the proposed development scheme will be assessed by this report.

Each habitat will be assessed for the presence and/or the potential presence of protected species. The impacts of the proposed scheme of works on all potential protected species on site will be assessed. From this, either remedial action or recommended phase 2 presence/absence surveys will be devised.

Habitat Surveys can be carried out at any time of the year, with the optimal time period falling between the months of April through until September. This survey was carried out in February 2025, which is outside the optimal time period for flora surveys. However, Elite Ecology feels confident that this report reflects an accurate representation of the site's suitability for protected species to be present.

All sites surveyed by Elite Ecology will be run against the relevant Local Wildlife Site Criteria to assess whether or not they meet the required standards.

3. Desktop Survey Results

3.1 Statutory Sites

The ecological data received from TVERC revealed one statutory protected site (e.g., LNR, SSSI, SPA, SAC, or Ramsar) within the 2km radius of the site. This was a Local Nature Reserve (LNR) and was as follows:

Site Name	Designation	Approx. Distance (m)	Heading
Holt Copse & Joel Park	LNR	1,830	SW

3.2 Non-statutory Sites

The ecological data received from TVERC confirmed the presence of nine non-statutory protected sites within 2km of the site. These were in the form of Local Wildlife Sites (LWS) and Biodiversity Opportunity Areas (BOA). They are as follows:

Site Name	Designation	Approx. Distance (m)	Heading
Cantley Park	LWS	1,510	S
Furze Covert	LWS	1,270	W
Holt Copse	LWS	1,830	SW
North Ockett Wood (and beech wood proposed extension)	LWS	1,110	NE
Pebblestone Copse	LWS	1,740	SE
Pond Wood	LWS	1,070	E
Tippens Wood	LWS	1,430	E
Waltham to Binfield Woods and Parklands	BOA	180	E
Warren Copse	LWS	1,970	NE

3.3 Woodland Sites

The information provided by MAGIC Maps revealed one Ancient and Semi-natural Woodland (ASNW) site within the 2km search radius. This was as follows:

Site Name	Designation	Approx. Distance (m)	Heading
	ASNW	2,000	E
	ASNW	1,970	NE
(epo2:Holt Copse)(Tithe: Holt Coppice)	ASNW	1820	SW
(epo2:Kiln Square; Tithe: Lower Carters Hill Wood)	ASNW	1,860	E
(epo2:Kiln Square; Tithe: Lower Carters Hill Wood)	ASNW	1,920	E
(Tithe: Himbles Coppice)	ASNW	460	S
(tithe:Small Wood)	ASNW	970	NW
Ashridge Wood (Tithe: part of Ashridge Warren Wood)	ASNW	180	E
Beech Wood (Tithe: Old Warren Wood)	ASNW	960	NE
North Ockett Wood	ASNW	1,120	NE
North Ockett Wood	ASNW	1,110	NE
Pebblestone Copse(Tithe: Pebblestone Coppice)	ASNW	1,740	SE
Pebblestone Copse(Tithe: Pebblestone Coppice)	ASNW	1,740	SE
Pen Bushes	ASNW	1,700	NE
Pen Bushes	ASNW	1,600	NE
Pond Wood (Tithe: Pond Wood)	ASNW	1,090	NE
Pond Wood (Tithe: Pond Wood)	ASNW	1,390	NE
Pond Wood (Tithe: Pond Wood)	ASNW	1,010	NE
Pond Wood (Tithe: Pond Wood)	ASNW	1,090	E
Tippen's Wood	ASNW	1,420	E
Tippen's Wood (Tithe: Tippens wood (part of))	ASNW	1,610	E
Tippen's Wood (Tithe: Tippens wood (part of))	ASNW	1,990	E
Tippen's Wood (Tithe: Tippens Wood)	ASNW	1,430	E

3.4 Regionally Important Geological Sites (RIGS)

The information provided by TVERC revealed no RIGS within the 2km search radius.

3.5 Species Records

3.5.1 Amphibians

Within the ecological data search provided by TVERC, four amphibian species have been revealed within 2km of the survey site. These were common frog (*Rana temporaria*), common toad (*Bufo bufo*), great crested newt (*Triturus cristatus*), and smooth newt (*Lissotriton vulgaris*). The closest record to the site was of great crested newt, recorded approximately 219m to the south-east of the site.

Several great crested newt mitigation licences have been submitted for locations within 2km of the survey site, including one 1,300m to the south of the site, and another 1,420m to the south-east of the site. A positive great crested newt survey result was also identified in a pond approximately 600m to the west.

3.5.2 Birds

Within the ecological data set received by TVERC, sixty-nine bird species were revealed. The closest records to the site were of barn owl (*Tyto alba*) and stock dove (*Columba oenas*), recorded approximately 310m to the north of the site. A table with the collated bird species recorded can be found within **Appendix B**.

3.5.3 Crustaceans

Within the ecological data search provided by TVERC, one crustacean species was identified within 2km of the survey site. This was *Crangonyx pseudogracilis / floridanus*. The closest occurrence to the site was recorded approximately 1,360m to the south-west of the site.

3.5.4 Fish

Within the ecological data search provided by TVERC, two fish species were identified within 2km of the survey site. These were bullhead (*Cottus gobio*) and European eel (*Anguilla anguilla*). The closest recorded species was bullhead, which was recorded approximately 1,460m to the south-west of the site.

3.5.5 Flora

Within the ecological data search provided by TVERC, seventeen floral species have been revealed, of which two are invasive. The closest of the higher plants were bluebell (*Hyacinthoides non-scripta*), butcher's-broom (*Ruscus aculeatus*), lesser spearwort (*Ranunculus flammula*), and wood-sorrel (*Oxalis acetosella*) which were located approximately 845m to the north-east of the site centroid.

3.5.6 Invertebrates

Within the ecological data search provided by TVERC, nine records have been identified within a 2km radius of the site. These were, cinnabar moth (*Tyria jacobaeae*), common darter (*Sympetrum striolatum*), *Nebrioporus depressus*, shaded broad-bar (*Scotopteryx chenopodiata*), small blue (*Cupido minimus*), small heath (*Coenonympha pamphilus pamphilus*), stag beetle (*Lucanus cervus*), white admiral (*Limenitis camilla*), and white-letter hairstreak (*Satyrus w-album*). The closest record was of shaded broad-bar, which was recorded approximately 689m to the north-west of the site. A table with the collated invertebrate species recorded can be found within **Appendix B**.

3.5.7 Mammals

Bats

Within the ecological data search provided by TVERC, nine known species of bat were revealed within the 2km search radius.

The UKBAP species recorded in the search were barbastelle (*Barbastella barbastellus*), brown long-eared (*Plecotus auritus*), noctule (*Nyctalus noctula*), and soprano pipistrelle (*Pipistrellus pygmaeus*) bats. The non-BAP species recorded in the search were common pipistrelle (*Pipistrellus pipistrellus*), Daubenton's (*Myotis daubentonii*), Leisler's (*Nyctalus leisleri*), Nathusius's pipistrelle (*Pipistrellus nathusii*), and serotine (*Eptesicus serotinus*) bats. In addition to this, indeterminate records of bat (*Chiroptera* sp.), bat (Vespertilionidae), long-eared bat species (*Plecotus* sp.), myotis bat species (*Myotis* sp.), and pipistrelle bat species (*Pipistrellus* sp.) were also recorded. The closest record to the survey site was of pipistrelle bat species (*Pipistrellus* sp.), recorded approximately 388m to the south-east of the site.

Several bat mitigation licences have been submitted within 2km of the survey site. One for brown long-eared and common pipistrelle bats 750m to the north, one for common pipistrelle 1,430m to the south-west and another for brown-long eared, common pipistrelle and soprano pipistrelle bats 1,420m to the south-east of the site.

Other Mammals

The ecological data search provided by TVERC, revealed four other mammals within the 2km search radius. These come in the form of Eurasian badger (*Meles meles*), European otter (*Lutra lutra*), European water vole (*Arvicola amphibius*), and west European hedgehog (*Erinaceus europaeus*). The closest record to the proposed site is of west European hedgehog, located approximately 402m to the north-west of the site.

3.5.8 Mollusc

Within the ecological data search provided by TVERC, one mollusc species was identified within 2km of the survey site. This was of marsh pond snail (*Stagnicola palustris/fuscus/corvus*), the closest occurrence of which was located approximately 1,360m to the south-west of the site.

3.5.9 Reptiles

Within the ecological data search provided by TVERC, one reptile species has been identified within 2km of the survey site. This was slow-worm (*Anguis fragilis*). The closest occurrence was recorded approximately 1,270m to the south of the site.

4. Field Survey

4.1 Habitats

The preliminary ecological appraisal survey revealed multiple habitats on site. The phase 1 habitat map, habitat codes and target notes for the site are located within **Appendix D**. The following habitats were recorded on site and in the surrounding area (in habitat code order):

On Site:

4.1.1 g4 – Modified Grassland

UKHab Secondary Code(s)	Description
200	Individual Trees

The majority of the site consists of modified grassland, with the eastern half being less established than the western half. Grass species found within this habitat include perennial ryegrass (*Lolium perenne*) which was found abundantly, and common bent (*Agrostis capillaris*) which was found frequently. Several other species were found rarely in this habitat, including creeping buttercup (*Ranunculus repens*), comfrey (*Symphytum officinale*), daffodil (*Narcissus pseudonarcissus*), flea bane (*Pulicaria dysenterica*), ribwort plantain (*Plantago major*), and salad burnet (*Sanguisorba minor*). The grass has a very short sward height and appears regularly managed, except underneath the trees, where it has been allowed to grow longer.

Several small trees in the form of shaped sycamores (*Acer pseudoplatanus*) can be found in a line across the southern boundary of the site. These all have a diameter at breast height (DBH) of <10cm. Another slightly larger sycamore (DBH ~15cm) can be found slightly offset to the east of the line of trees. None of these trees have any ecologically beneficial, and no bird nests were identified within the canopies.

4.1.2 h2a – Native Hedgerow

Along the eastern boundary of the site lies a native hedgerow. The hedgerow is relatively species-poor, with hawthorn (*Crataegus monogyna*) being the dominant woody species present in the section of hedge on site, alongside Turkey oak (*Quercus cerris*) which is found rarely. Species found within the understorey include bramble (*Rubus fruticosus*) and cleavers (*Galium aparine*) which both occurred occasionally. The hedgerow has some potential to support protected species in the form of nesting birds, although no active nests were identified during the survey.

4.1.3 u1c – Artificial Unvegetated, Unsealed Surface

Artificial unvegetated unsealed surface can be found on the site in the form of the gravel track that runs northwards from the road. This habitat has no protected species potential.

4.1.4 u1e 612 – Built Linear Features

UKHab Secondary Code(s)	Description
612	Fence

The western edge of the site is bounded by a wooden panel fence. This would not pose as a significant barrier to terrestrial organisms wanting to access the site, as the site can be readily accessed from the other boundaries. This habitat offers no potential to support protected species.

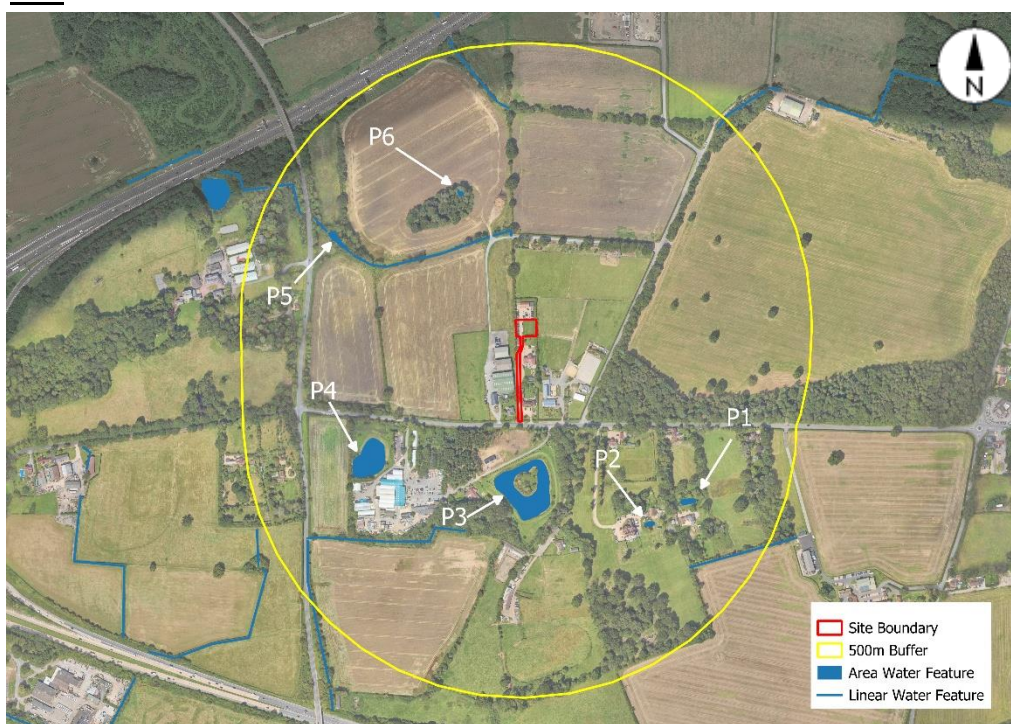
4.2 Species

The preliminary ecological appraisal survey revealed that the habitats that have been outlined for the proposed development area do contain protected species potential. The following assessment has also considered the adjacent habitats and connectivity to the wider landscape for all protected and rare species.

4.2.1 **Amphibians (including great crested newts)**

The only habitat onsite that has potential to support amphibians is the hedgerow to the east, as the grassland that makes up the majority of the site is unsuitable. However, there are six ponds (**P1** through to **P6**) located to the east of the site which could support breeding amphibian species. As such, amphibians may occur on site and further action is required to ensure that no amphibian species are harmed during the construction phase (please see **Section 5.3**).

Figure 4: An aerial map of the site at Land North of the Vale, Wokingham showing the locations of area and linear feature features within a 500m buffer zone around the site.



4.2.2 [REDACTED]

No evidence of [REDACTED] was identified [REDACTED]
[REDACTED] However, [REDACTED]
[REDACTED]
[REDACTED] (please see
Section 5.3).

4.2.3 Bats

No potential roosting features for bats were identified on site. However, number of common species have been recorded in the local landscape and it is likely that the bats will forage and commute across the site. Due to this, further action is required to ensure that the development does not affect foraging and commuting bats (please see **Section 5.3**).

4.2.4 Birds

The hedgerow and trees on site have the potential to support breeding birds. As such, precautionary measures are required when developing to ensure that no breeding birds are harmed by the works (please see **Section 5.3**).

4.2.5 Crustaceans

There are no suitable habitats on site, and due to this, the potential for the site to support crustaceans is **negligible**. Therefore, no further action is required.

4.2.6 Fish

There are no suitable habitats for fish on site. Due to this, the potential for the site to support fish is **negligible**, so no further action will be required.

4.2.7 Flora

The site contains no protected floral species, and the habitats are not considered likely to support any protected floral species. As such, the potential for protected flora species to be affected is **negligible**.

4.2.8 Hedgehogs (*Erinaceus europaeus*)

Hedgehogs were recorded as present within the local landscape in the ecological data search provided by TVERC, and may potentially use the survey site to commute. Therefore, with the presence of the hedgerow on site the surveyed site is **low** potential for supporting hedgehogs and requires further precautionary measures when developing (please see **Section 5.3**).

4.2.9 Invasive Species

No invasive species listed under Schedule 9 of the Wildlife and Countryside Act 1981, were identified on site. As such, no further action is required regarding invasive species.

4.2.10 Invertebrates

The habitats on site have the potential to support a variety of common invertebrate species. However, there is no significant vegetation to support rare or protected species, therefore, no further survey effort is required.

4.2.11 Molluscs

Due to the habitats on site the potential to support rare or protected molluscs is **negligible**, meaning no further survey effort is required.

4.2.12 Reptiles

There is no habitat likely to support reptiles, and the site's connectivity to the surrounding landscape is poor, so it is unlikely that reptiles will be found on site. Therefore, no further action regarding reptiles is required.

4.3 Potential Impacts of the Works

Based upon the results from the desktop survey, field survey and using a degree of academic supposition, the uncompensated development impacts have been summarised as follows:

- Amphibians – **Low**
- Badgers – **Low**
- Bat foraging and commuting – **Low**
- Bat roosting - **Negligible**
- Breeding birds – **Low**
- Crustaceans – **Negligible**
- Fish – **Negligible**
- Flora – **Negligible**
- Hedgehogs – **Low**
- Invasive Species – **Negligible**
- Invertebrates – **Negligible**
- Molluscs – **Negligible**
- Reptiles – **Negligible**

5. Recommendations

5.1 Designated Sites

No designated sites that were revealed by the ecological data search provided by TVERC fell on the proposed re-development site itself, nor were any located immediately adjacent to the site. Therefore, the proposed re-development will have no impact upon any local designated sites as the works are due to remain within the site boundary.

5.2 Habitats

No habitats of conservation concern were located on the site itself. Therefore, the proposed scheme of works will not impact upon any rare or valuable habitats.

The hedgerow to the east is recommended to be retained. If this feature is to be removed, then it should be under the supervision of a suitably qualified ecologist.

5.3 Species

The site was found to contain the potential to support protected and/or rare species. Therefore, the following recommendations are required for the site:

5.3.1 Amphibians

The site could be used by commuting amphibians as it is connected to the surrounding landscape and has six standing waterbodies within a 500m radius, with no significant barriers between them and the site. In addition to this, habitats on site, such as the hedgerow, have the potential to support amphibians in their terrestrial phases. Therefore, an amphibian method statement is required to ensure no harm to any specimens that may be using the site.

5.3.2 [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED] can be undertaken at any time of year and to allow sufficient time to obtain a Natural England [REDACTED] mitigation licence [REDACTED]
[REDACTED] the survey should be scheduled three months prior to the commencement of works.

Additionally, during construction works, [REDACTED]
[REDACTED] The ladder needs to be of a size suitable for [REDACTED]
and can be constructed out of a piece of wood/timber.

5.3.3 Bats

To limit the potential impacts of artificial light on commuting/foraging bats on site and within the wider landscape, an Artificial Lighting Plan is required. This lighting plan must be in accordance with the provisions set out by the Institute of Lighting Professionals and Bat Conservation Trust: Guidance Note 08/23: Bats and Artificial Lighting in the UK, and must comply with the following general guidance:

Any artificial lighting installed on site during construction and post-development must face downwards to limit the spill of artificial light onto the wider landscape, in particular the linear scrub to the west of the site. It is also recommended that all external artificial lighting post-development is sensorised (such as PIR sensorised) and is only triggered by large bodies (so that moths or other small objects do not cause the lights to turn on). It is also recommended that this lighting plan incorporates 'dark zones' around bat foraging/commuting habitats on site. These measures will minimise the negative impacts artificial light could have upon foraging and commuting bats in the area.

5.3.4 Birds

Due to there being suitable bird breeding habitat within the site all building works should be undertaken outside of the bird breeding season (March to August). If vegetation and/or structures are required to be removed during the bird breeding season, then a further inspection by a suitably qualified ecologist is required no more than twenty-four hours before these are to be removed. This is to ensure that no active nest site is illegally destroyed, due to the protection afforded to all active bird nests under the Wildlife and Countryside Act 1981.

If an active nest is found by a site inspection, an exclusion zone around the nest will be necessary, where no vegetation removal can take place, to preserve this feature until the chicks have fledged the nest.

5.3.5 Hedgehogs (*Erinaceus europaeus*)

If hedge or dense vegetation is cleared between the 1st of November and the 31st of March, then an inspection by a suitably qualified ecologist is required to ensure no hibernating hedgehogs are present on site.

It is recommended that precautionary measures are incorporated if construction is undertaken at other times of the year. This will be to create provisions for hedgehogs to escape from all trenches dug into the ground, by creating slopes or providing ramps at the end of each working day.

Additionally, any pipework left on site that is greater than 150mm in diameter will need to be planked off. Should this information be strictly adhered to, then the development works will not negatively impact on the local mammal populations.

5.4 **Site Enhancements**

For the proposed development works, the following site enhancement measures could be incorporated into the site post-development. These measures are optional but are bespoke to the site surveyed for the enhancement of biodiversity. Once the options have been finalised, the locations of these features should be placed on a master plan.

5.4.1 **Bats**

In order to improve the roosting opportunities on site, a variety of Bat Boxes can be implemented around the site. These can be purchased by contacting admin@eliteecology.co.uk.

The site can be enhanced further by introducing a bat friendly planting scheme in the soft landscaping plan. The table below outlines species recommended by the Bat Conservation Trust, all of which could be incorporated into the site post development.

Flowers for borders	Trees, shrubs & climbers
Aubretia	Bramble
Candytuft	Common alder
Cherry pie	Dogrose
Corncockle	Elder
Corn marigold	English oak
Corn poppy	Gorse
Echniacea	Guelder rose
English bluebell	Hawthorn
Evening primrose	Hazel
Field poppies	Honeysuckle (native)
Honesty	Hornbeam
Ice plant 'pink lady'	Ivy
Knapweed	Jasmine
Mallow	Pussy willow
Mexican aster	Rowan
Michaelmas daisy	Silver birch
Night-scented stock	Herbs
Ox-eye daisy	Angelica
Phacelia	Bergamot
Poached egg plant	Borage
Primrose	Coriander
Red campion	English marigolds
Red valerian	Fennel
Scabious	Feverfew
St. John's Wort	Hyssop
Sweet William	Lavenders
Tobacco plant	Lemon balm
Verbena	Marjoram
Wallflowers	Rosemary
Wood forget-me-not	Sweet Cicely
Yarrow	Thyme

5.4.2 **Birds**

The site could be enhanced for birds by installing a variety of bird boxes on site, such as an Apex Bird Box and an Apex Robin Box. Boxes can be ordered by contacting Elite Ecology at: admin@eliteecology.co.uk.

5.4.3 Hedgehogs (*Erinaceus europaeus*)

The site could be enhanced for the local hedgehog population by installing at least one Eco Hedgehog Nest Box around the site. These can be ordered by contacting Elite Ecology at: admin@eliteecology.co.uk. This will create more opportunities for hedgehogs within the local landscape.

5.5 **Biodiversity Net Gain**

The project is a self-build development it is exempt from the 10% net gain as mandated by DEFRA as it meets all the following conditions to qualify for exemption as set out by government guidance on exempt developments.

The conditions to qualify for exemption are that the development must:

- consist of no more than 9 dwellings
- be on a site that has an area no larger than 0.5 hectares
- consist exclusively of dwellings that are self-build or custom housebuilding as defined in [section 1\(A1\) of the Self-build and Custom Housebuilding Act 2015](#).

6. References

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7. Appendices

Appendix A: Site Plans

Appendix B: Desktop Study Table

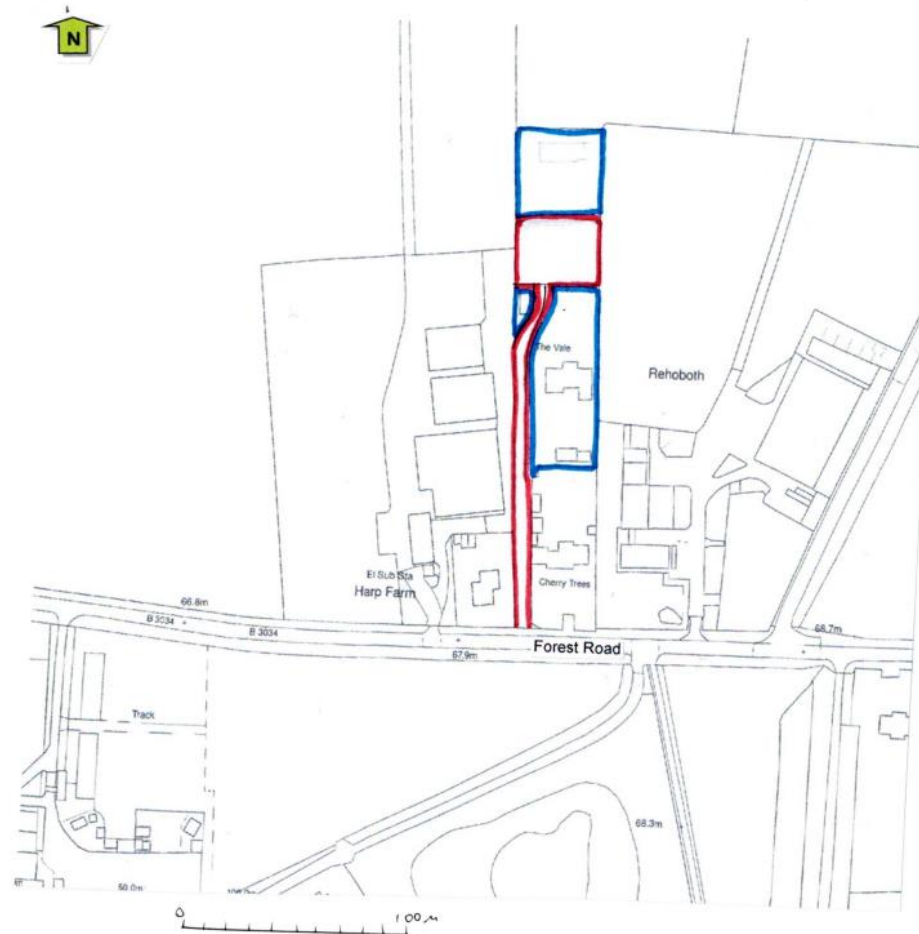
Appendix C: Desktop Study Maps

Appendix D: Phase 1 Habitat Map

Appendix E: Site Photographs

Appendix F: Biodiversity Legislation and Policy

Appendix G: Bat and Artificial Light

Appendix A: Site Plan

Do not scale except for planning & building regulations purposes

Licence number 100046766

Mark Leedale Planning
Chartered Town Planning
Consultants

20 Hurlands Place,
Farnham,
Surrey GU9 9HX
01252 718855
markleedale@hotmail.com

Revision notes:

A
B
C

Client:

Mr & Mrs D Drew

Location:

Land north of The Vale, Forest Road,
Wokingham RG40 5QY

Drawing title:

Location plan

Scale:

1:2,500@A4

Date:

February 2025

Drawing number:

MLP/01

Appendix B: Desktop Study Tables

The results within the following table are a collation of the species identified within the desktop search, undertaken by Derbyshire Biological Records Centre (TVERC).

Amphibians	
Common Name	Latin Name
Common Frog	<i>Rana temporaria</i>
Common Toad	<i>Bufo bufo</i>
Great Crested Newt	<i>Triturus cristatus</i>
Smooth Newt	<i>Lissotriton vulgaris</i>
Birds	
Common Name	Latin Name
Barn Owl	<i>Tyto alba</i>
Barnacle Goose	<i>Branta leucopsis</i>
Black Redstart	<i>Phoenicurus ochruros</i>
Black-headed Gull	<i>Chroicocephalus ridibundus</i>
Brambling	<i>Fringilla montifringilla</i>
Bullfinch	<i>Pyrrhula pyrrhula</i>
Common Gull	<i>Larus canus</i>
Common Sandpiper	<i>Actitis hypoleucos</i>
Common Tern	<i>Sterna hirundo</i>
Cuckoo	<i>Cuculus canorus</i>
Duncock	<i>Prunella modularis</i>
Fieldfare	<i>Turdus pilaris</i>
Golden Plover	<i>Pluvialis apricaria</i>
Goshawk	<i>Accipiter gentilis</i>
Great White Egret	<i>Ardea alba</i>
Green Sandpiper	<i>Tringa ochropus</i>
Greenfinch	<i>Chloris chloris</i>
Grey Wagtail	<i>Motacilla cinerea</i>
Greylag Goose	<i>Anser anser</i>
Hawfinch	<i>Coccothraustes coccothraustes</i>
Herring Gull	<i>Larus argentatus</i>
Hobby	<i>Falco subbuteo</i>
Hoopoe	<i>Upupa epops</i>
House Martin	<i>Delichon urbicum</i>
House Sparrow	<i>Passer domesticus</i>
Kestrel	<i>Falco tinnunculus</i>
Kingfisher	<i>Alcedo atthis</i>
Lapwing	<i>Vanellus vanellus</i>

Lesser Black-backed Gull	<i>Larus fuscus</i>
Lesser Redpoll	<i>Acanthis cabaret</i>
Linnet	<i>Linaria cannabina</i>
Little Egret	<i>Egretta garzetta</i>
Mallard	<i>Anas platyrhynchos</i>
Meadow Pipit	<i>Anthus pratensis</i>
Merlin	<i>Falco columbarius</i>
Mistle Thrush	<i>Turdus viscivorus</i>
Moorhen	<i>Gallinula chloropus</i>
Nightingale	<i>Luscinia megarhynchos</i>
Oystercatcher	<i>Haematopus ostralegus</i>
Peregrine	<i>Falco peregrinus</i>
Red Kite	<i>Milvus milvus</i>
Red-backed Shrike	<i>Lanius collurio</i>
Redstart	<i>Phoenicurus phoenicurus</i>
Redwing	<i>Turdus iliacus</i>
Reed Bunting	<i>Emberiza schoeniclus</i>
Ring Ouzel	<i>Turdus torquatus</i>
Rook	<i>Corvus frugilegus</i>
Sedge Warbler	<i>Acrocephalus schoenobaenus</i>
Skylark	<i>Alauda arvensis</i>
Snipe	<i>Gallinago gallinago</i>
Song Thrush	<i>Turdus philomelos</i>
Sparrowhawk	<i>Accipiter nisus</i>
Spotted Flycatcher	<i>Muscicapa striata</i>
Starling	<i>Sturnus vulgaris</i>
Stock Dove	<i>Columba oenas</i>
Swift	<i>Apus apus</i>
Tawny Owl	<i>Strix aluco</i>
Teal	<i>Anas crecca</i>
Wheatear	<i>Oenanthe oenanthe</i>
Whinchat	<i>Saxicola rubetra</i>
White-fronted Goose	<i>Anser albifrons</i>
Whitethroat	<i>Curruca communis</i>
Willow Warbler	<i>Phylloscopus trochilus</i>
Woodcock	<i>Scolopax rusticola</i>
Woodpigeon	<i>Columba palumbus</i>
Wren	<i>Troglodytes troglodytes</i>
Yellow Wagtail	<i>Motacilla flava</i>
Yellow Wagtail	<i>Motacilla flava flavissima</i>
Yellowhammer	<i>Emberiza citrinella</i>

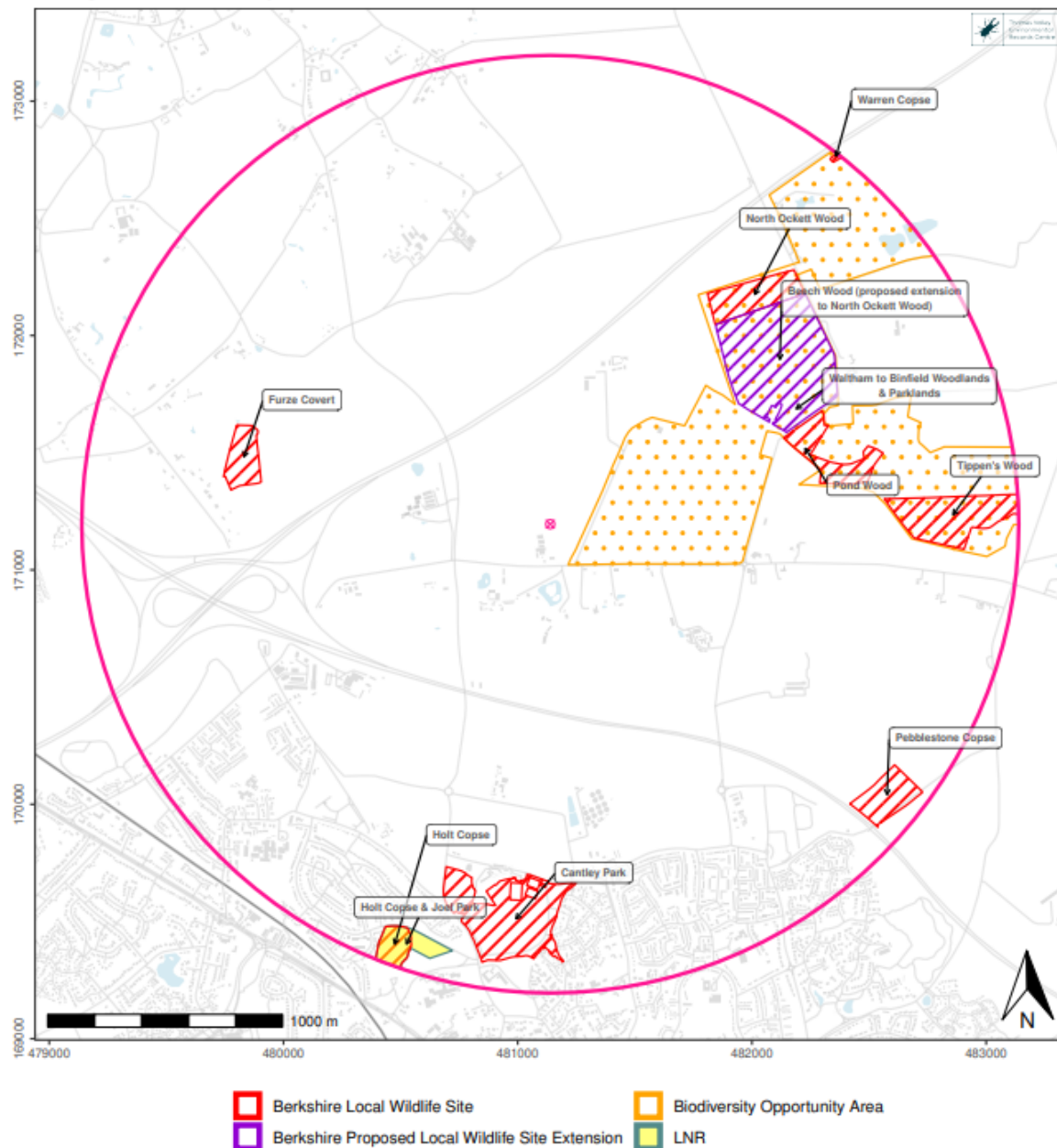
Crustaceans	
Common Name	Latin Name
A Crustacean	<i>Crangonyx pseudogracilis/floridanus</i>
Fish	
Common Name	Latin Name
Bullhead	<i>Cottus gobio</i>
European Eel	<i>Anguilla anguilla</i>
Flora	
Common Name	Latin Name
Bluebell	<i>Hyacinthoides non-scripta</i>
Butcher's-broom	<i>Ruscus aculeatus</i>
Common Cudweed	<i>Filago vulgaris</i>
Corn Marigold	<i>Glebionis segetum</i>
Corn Spurrey	<i>Spergula arvensis</i>
Cornflower	<i>Centaurea cyanus</i>
Devil's-bit Scabious	<i>Succisa pratensis</i>
English Sticky Eyebright	<i>Euphrasia officinalis subsp. anglica</i>
Heath Speedwell	<i>Veronica officinalis</i>
Himalayan Balsam	<i>Impatiens glandulifera</i>
Hoary Plantain	<i>Plantago media</i>
Lesser Spearwort	<i>Ranunculus flammula</i>
Orange Balsam	<i>Impatiens capensis</i>
Ragged-Robin	<i>Silene flos-cuculi</i>
Rhododendron	<i>Rhododendron ponticum</i>
Tormentil	<i>Potentilla erecta</i>
Wood-sorrel	<i>Oxalis acetosella</i>
Invertebrates	
Common Name	Latin Name
A Beetle	<i>Nebrioporus depressus</i>
Cinnabar	<i>Tyria jacobaeae</i>
Common Darter	<i>Sympetrum striolatum</i>
Shaded Broad-bar	<i>Scotopteryx chenopodiata</i>
Small Blue	<i>Cupido minimus</i>
Small Heath	<i>Coenonympha pamphilus pamphilus</i>
Stag Beetle	<i>Lucanus cervus</i>
White Admiral	<i>Limenitis camilla</i>

White-letter Hairstreak	<i>Satyrion w-album</i>
Mammals	
Common Name	Latin Name
Bat	<i>Chiroptera</i>
Bats	<i>Vespertilionidae</i>
Brown Long-eared Bat	<i>Plecotus auritus</i>
Common Pipistrelle	<i>Pipistrellus pipistrellus</i>
Daubenton's Bat	<i>Myotis daubentonii</i>
Eurasian Badger	<i>Meles meles</i>
Eurasian Otter	<i>Lutra lutra</i>
European Water Vole	<i>Arvicola amphibius</i>
Leisler's Bat	<i>Nyctalus leisleri</i>
Long-eared Bat species	<i>Plecotus</i>
Myotis Bat species	<i>Myotis</i>
Nathusius's Pipistrelle	<i>Pipistrellus nathusii</i>
Noctule Bat	<i>Nyctalus noctula</i>
Pipistrelle Bat species	<i>Pipistrellus</i>
Serotine	<i>Eptesicus serotinus</i>
Soprano Pipistrelle	<i>Pipistrellus pygmaeus</i>
West European Hedgehog	<i>Erinaceus europaeus</i>
Western Barbastelle	<i>Barbastella barbastellus</i>
Molluscs	
Common Name	Latin Name
Marsh Pond Snail	<i>Stagnicola palustris/fuscus/corvus</i>
Reptiles	
Common Name	Latin Name
Slow-worm	<i>Anguis fragilis</i>

Appendix C: Desktop Study Maps

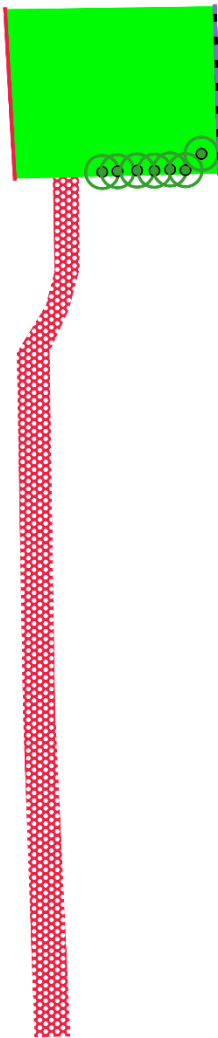
A map providing the locations of the designated sites within 2km of the survey site has been provided by TVERC.

SU 81139 71195 Designated Sites Map



Map produced by Thames Valley Environmental Records Centre in 2024
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Appendix D: Phase 1 Habitat Map





Elite Ecology
Passionate about Ecology

01782 508418
admin@eliteecology.co.uk
www.eliteecology.co.uk

Part of Harrell Environmental Ltd.
Company Reg Number: 11210919
Company VAT Number: 320659228

The New Barn, Sulham, 2/3, Shilford Lane,
Garsworth, Cheshire, CW12 2TQ

Job title
Land North of the Vale, Wokingham

Client
Mr. and Mrs. D Drew (proprietors)

Map title
Phase 1 Habitat Map

Date
13/03/2025

Legend

-  g4 - Modified grassland
-  200 - Individual trees
-  h2a - Native hedgerow
-  u1c - Artificial unvegetated, unsealed surface
-  u1e - Built linear features

Scale:
1,100@A3

0 10 20 m



Appendix E: Site Photographs

Plate 1: Image showing the modified grassland that makes up most of the site.



Plate 2: Image showing the line of trees at the south of the site.



Plate 3: Image showing the hedgerow at the west of the site.



Plate 4: Image showing the fence that runs along the western boundary.



Plate 5: Image showing the artificial unvegetated, unsealed surface leading from the main road.



Plate 6: Image showing the artificial unvegetated, unsealed surface leading from the main road.



Appendix F: Biodiversity Legislation and Policy

General Legislation and Policy:

The framework of legislation and policy which underpins nature conservation in England. This is a material consideration in the planning process in England.

Conservation of Habitats and Species Regulations 2017 (Habitats Regulations 2010 as amended)

The Conservation of Habitats and Species Regulations 2017 consolidate and update the Conservation Regulations 1994 and the conservation of habitats and species regulations 2010 (and all their amendments). The Conservation of Habitats and Species Regulations 2017 are the principal means by which the EEC Council Directive 92/43 (The Habitats Directive) as amended is transposed into English and Welsh law.

The Conservation of Habitats and Species Regulations 2017 place duty upon the relevant authority of government to identify sites which are of importance to the habitats and species listed in Annexes I and II of the Habitats Directive. Those sites which meet the criteria are, in conjunction with the European Commission, designated as Sites of Community Importance, which are subsequently identified as Special Areas of Conservation (SAC) by the European Union member states. The regulations also place a duty upon the government to maintain a register of European protected sites designated as a result of EC Directive 79/409/EEC on the Conservation of Wild Birds (The Birds Directive). These sites are termed Special Protection Areas (SPA) and, in conjunction with SACs, form a network of sites known as Natura 2000. The Habitats Directive introduces for the first time for protected areas, the precautionary principle; that is that projects can only be permitted having ascertained no adverse effect on the integrity of the site. Projects may still be permitted if there are no alternatives, and there are imperative reasons of overriding public interest.

The Conservation of Habitats and Species Regulations 2017 also provide for the protection of individual species of fauna and flora of European conservation concern listed in Schedules 2 and 5 respectively. Schedule 2 includes species such as otter and great crested newt for which the UK population represents a significant proportion of the total European population. It is an offence to deliberately kill, injure, disturb or trade these species. Schedule 5 plant species are protected from unlawful destruction, uprooting or trade under the regulations.

The Wildlife and Countryside Act (WCA) 1981 (As amended)

The WCA, as amended, consolidates and amends pre-existing national wildlife legislation in order to implement the Bern Convention and the Birds Directive. It complements the Conservation (Natural Habitats. & c.) Regulations 1994 (as amended), offering protection to a wider range of species. The Act also provides for the designation and protection of national conservation sites of value for their floral, faunal or geological features, termed Sites of Special Scientific Interest (SSSIs).

Schedules of the act provide lists of protected species, both flora and fauna, and detail the possible offences that apply to these species.

The Countryside and Rights of Way (CROW) Act 2000

The CROW Act, introduced in England and Wales in 2000, amends and strengthens existing wildlife legislation detailed in the WCA. It places a duty on government departments and the National Assembly for Wales to have regard for biodiversity, and provides increased powers for the protection and maintenance of SSSIs.

The Act also contains lists of habitats and species (Section 74) for which conservation measures should be promoted, in accordance with the recommendations of the Convention on Biological Diversity (Rio Earth Summit) 1992.

The Natural Environment and Rural Communities (NERC) Act 2006

Section 40 of the NERC Act places a duty upon all local authorities and public bodies in England and Wales to promote and enhance biodiversity in all of their functions. Sections 41 (England) and 42 (Wales) list habitats and species of principal importance to the conservation of biodiversity. These lists supersede Section 74 of the CRoW Act 2000. These species and habitats are a material consideration in the planning process.

The Hedgerow Regulations 1997

The Hedgerow Regulations make provision for the identification of important hedgerows which may not be removed without permission from the Local Planning Authority.

UK Biodiversity Action Plan

The United Kingdom Biodiversity Action Plan (UKBAP), first published in 1994 and updated in 2007, is a government initiative designed to implement the requirements of the Convention of Biological Diversity to conserve and enhance species and habitats. The UKBAP contains a list of priority habitats and species of conservation concern in the UK, and outlines biodiversity initiatives designed to enhance their conservation status. Lists of Broad and Local habitats are also included. The priority habitats and species correlate with those listed on Section 41 and 42 of the NERC Act.

The UKBAP requires that conservation of biodiversity is addressed at a County level through the production of Local BAPs. These are complementary to the UKBAP, however are targeted towards species of conservation concern characteristic of each area. In addition, a number of local authorities and large organisations have produced their own BAPs. UKBAP and Local BAP targets with regard to species and habitats are a material consideration in the planning process.

Wokingham Borough Council Core Strategy

Sites designated as of importance for nature conservation at an international or national level will be conserved and enhanced and inappropriate development will be resisted. The degree of protection given will be appropriate to the status of the site in terms of its international or national importance.

Development:

- A) Which may harm county designated sites (Local Wildlife Sites in Berkshire), whether directly or indirectly, or
- B) Which may harm habitats or, species of principle importance in England for nature conservation, veteran trees or features of the landscape that are of major importance for wild flora and fauna (including wildlife and river corridors), whether directly or indirectly, or
- C) That compromises the implementation of the national, regional, county and local biodiversity action plans will be only permitted if it has been clearly demonstrated that the need for the proposal outweighs the need to safeguard the nature conservation importance, that no alternative site that would result in less or no harm is available which will meet the need, and:
 - i) Mitigation measures can be put in place to prevent damaging impacts; or
 - ii) Appropriate compensation measures to offset the scale and kind of losses are provided.

Planning Policy (England) and National Planning Policy Framework

In early 2012, the National Planning Policy Framework (NPPF) replaced much previous planning policy guidance, including Planning Policy Statement 9: Biological and Geological Conservation. The government circular 06/05: Biodiversity and Geological Conservation - Statutory Obligations and Their Impact within the Planning System, which accompanied PPS9, still remains valid. A presumption towards sustainable development is at the heart of the NPPF. This presumption does not apply however where developments require appropriate assessment under the Birds or Habitats Directives. The latest National Planning Policy Framework was updated in February 2019, with the section in relation to conserving the natural environment being located within section 15.

Section 15, on conserving and enhancing the natural environment, sets out how the planning system should contribute to and enhance the natural and local environment by minimising impacts on biodiversity and, where possible, provide net gains in biodiversity. Opportunities to incorporate biodiversity gains into a development should be encouraged.

If a proposed development would result in significant harm to the natural environment which cannot be avoided (through the use of an alternative site with less harmful impacts), mitigated or compensated for (as a last resort) then planning permission should be refused.

Species Specific Legislation

This section contains a summary of legislation with relation to the species present or potentially present in the survey area. The reader should refer to the original legislation for definitive interpretation.

Nesting and Nest Building Birds

Nesting and nest building birds are protected under the Wildlife and Countryside Act WCA 1981 (as amended). Some species (listed in Schedule 1 of the WCA) are protected by special penalties.

Subject to the provisions of the act, if any person intentionally:

- kills, injures or takes any wild bird;
- takes, damages or destroys the nest of any wild bird while that nest is in use or being built; or
- takes or destroys an egg of any wild bird, he shall be guilty of an offence.

'Reckless' offences with regard to the disturbance of nesting wild birds included in Schedule 1 of the Wildlife and Countryside Act were added by the Countryside and Rights of Way Act 2000.

The Natural Environment and Rural Communities (NERC) Act 2006 places a duty on Government Departments to have regard for the conservation of biodiversity and maintains lists of species and habitats which are of principal importance for the purposes of conserving biodiversity in England and Wales. These lists include a number of bird species.

The reader is referred to the original legislation for the definitive interpretation.

Badger

The main legislation protecting badgers in England and Wales is the Protection of Badgers Act 1992 (the 1992 Act). Under the 1992 Act it is an offence to:

- wilfully kill, injure, take or attempt to kill, injure or take a badger;
- possess a dead badger or any part of a badger;
- cruelly ill-treat a badger;
- use badger tongs in the course of killing, taking or attempting to kill a badger;
- dig for a badger;
- sell or offer for sale or control any live badger;
- mark, tag or ring a badger; and
- interfere with a badger sett by:
 - damaging a sett or any part thereof;
 - destroying a sett;
 - obstructing access to a sett;
 - causing a dog to enter a sett; and
 - disturbing a badger while occupying a sett.

The 1992 Act defines a badger sett as: "any structure or place which displays signs indicating current use by a badger".

Bats

All species of bat are fully protected under a variety of domestic, European and international legislation and conventions. These include:

- Bern Convention (Appendix II)
- Bonn Convention (Appendix II)
- Conservation Regulations (Northern Ireland) 1995
- Conservation of Habitats and Species Regulations 2017
- Countryside Rights of Way Act 2000
- Eurobats Agreement
- Habitats Directive (Annexes IV and II)
- Habitats Regulations 1994 (as amended) Scotland
- NERC Act 2006
- Wildlife and Countryside Act 1981 (as amended)
- Wild Mammals Protection Act

In addition to this, some species have additional protection by being listed on the UK Biodiversity Action Plan (UKBAP).

The legislation afforded to bats makes it illegal to possess or control any live or dead specimens, to damage, destroy or obstruct access to any structure or place used for shelter, protection or breeding, and to intentionally disturb a bat while it is occupying a structure or place which it uses for that purpose.

All nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended), which protects birds, nests, eggs and nestlings from harm. In addition to this, some rarer species, such as barn owls are afforded extra protection.

National Planning Policy Framework, Section 15:

The published framework in 2018 replaces the previous Planning Policy Statement 9 and National Planning Policy (dated 2012).

Section 15: Conserving and enhancing the natural environment reaffirms the government's commitment to maintaining green belt protections and preventing urban sprawl, retains the protection of designated sites and preserves wildlife. It also aims to improve the quality of the natural environment and halt declines in species and habitats, protects and enhances biodiversity and promotes wildlife corridors.

Biodiversity 2020:

This sets out to halt overall biodiversity loss and support healthy well-functioning ecosystems by establishing coherent ecological networks, with more and better places for nature, to the benefit of wildlife and people. The government's policy is aimed at individuals, communities, local authorities, charities, business and government, which all have a role to play in delivering Biodiversity 2020.

Freshwater White-clawed Crayfish

The white-clawed crayfish is partially protected under Wildlife and Countryside Act 1981 (as amended). It is listed on schedule 5 and therefore afforded protection under Section 9 (1 and 5). Therefore, it is an offence to take white-clawed crayfish and to sell, or attempt to sell, any part of the species, alive or dead, or intend to buy or sell.

Great Crested Newt

The great crested newt (*Triturus cristatus*) is fully protected under a variety of legislation and conventions. These include:

- Bern Convention (Appendix II)
- Conservation (Natural Habitats, &c.) Regulations 1994 (as amended)
- Conservation of Habitats and Species Regulations 2017
- EU Habitats Directive (Annex II and IV)
- Nature Conservation (Scotland) Act 2004
- NERC Act 2006 (Section 41 England; Section 42 Wales)
- Wildlife and Countryside Act 1981 (as amended)

In addition to this, the great crested newt has been listed as a priority species on the UK Biodiversity Action Plan (UKBAP).

This legislation covers all aspects of newt life stages (eggs, efts and adult newts) and makes it illegal to damage, destroy or obstruct access to any structure or place used for shelter, protection or breeding, and to intentionally disturb a great crested newt while it is occupying a structure or place which it uses for that purpose.

Licenses can be obtained from Natural England (DEFRA) under the Conservation (Natural Habitats etc.) Regulations 1994, to permit activities for the purposes of:

- Regulation 44(2)(e): Preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment, or
 - Regulation 44(2)(f): Preventing the spread of disease
 - Regulation 44(2)(g): Preventing serious damage to any form of property or fisheries
- Or
- If there is no satisfactory alternative.

The above regulations allow people to carry out activities which would otherwise be illegal.

Hazel Dormouse

Hazel Dormouse and their habitats are protected by:

- Wildlife and Countryside Act 1981 (as amended)
- Countryside Rights of Way (CROW) 2000
- The Natural Environment and Rural Communities Act 2006
- Conservation of Habitat and Species Regulations 2017

These make it an offence to:

- Capture, injure or kill a Hazel Dormouse
- Disturb a Hazel Dormouse
- Damage or destroy breeding or nesting sites in use by Hazel Dormice
- Disturb a Dormouse whilst it is occupying a structure or place that they use for shelter or protection
- Obstruct access to any structure or place that the Dormouse uses for shelter and protection.
- To possess or control any live or dead specimens.

Otter

Otters are fully protected by the European Habitats Directive (92/43/EEC) by being incorporated in annex II of the legislation. In addition to this, otters are listed on schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This makes it an offence to:

- To intentionally kill, injure or take an otter.
- To possess or control any live or dead specimens.
- To intentionally or recklessly damage, destroy or obstruct access to any structure, feature or place of shelter in use by otters.
- To intentionally or recklessly disturb an otter whilst it is in occupation of a feature or structure.
- To sell, possess or transport for the purpose of sale or publicly declare the desire to buy or sell otters.

Reptiles

All six native reptiles within Great Britain are legally protected, with the extent of protection varying dependent upon their rarity and conservation importance.

Those that receive full protection under the Wildlife and Countryside Act 1981 (as amended) are the rare sand lizard and smooth snake. These species also receive protection under the Conservation (Natural Habitats &c.) Regulations 1994 (also referred to as the Habitats Directive). This means that they are protected from deliberate disturbance, killing, injury or capture and the habitat in which they live is also fully protected against damage or destruction. Any activity involving disturbance or damage to habitats utilised by sand lizards or smooth snakes would require a licence issued by the Department of the Environment, Food and Rural Affairs (DEFRA) following consultation with the statutory nature conservation organisation (Natural England).

The remaining four reptile species are 'partially protected' under the Wildlife and Countryside Act 1981 (as amended), with these species being slow-worm, common lizard, grass snake and adder. This means that these species are protected against intentional killing, injuring and against sale, but their habitat is not protected. In planning terms this means that the presence of these species is a material consideration and there is a requirement to ensure that any reptile interest is safeguarded. If a proposed development is likely to have an impact on these reptiles, then the statutory nature conservation organisation must be notified, particularly if capture and translocation is being proposed. In some parts of the UK, sites that support common reptile species such as common lizards and slow-worms can qualify as County Wildlife Sites. Sites of this designation may receive protection in planning policy.

Water Voles

Water Voles are fully protected under the Wildlife and Countryside Act 1981 (as amended). This makes it an offence to:

- To intentionally kill, injure or take a water vole.
- To possess or control any live or dead specimens.
- To intentionally or recklessly damage, destroy or obstruct access to any structure, feature or place of shelter in use by water voles.
- To intentionally or recklessly disturb a water vole whilst it is in occupation of a feature or structure.
- To sell, possess or transport for the purpose of sale or publicly declare the desire to buy or sell water voles.

Non-native Floral Species

It is an offence under schedule 9 of the Wildlife and Countryside Act 1981 (as amended) to plant or otherwise cause non-native flora to grow in the wild. This includes the transportation of earth that has previously had non-native species growing and includes the spread of the species.

All stands of non-native floral species need to be disposed of safely at a licenced landfill site according to the Environmental Protection Act (Duty of Care) Regulations 1991.

Appendix G: Bats and Artificial Light

Artificial lighting is known to affect bat's roosting and foraging behaviour, with lighting resulting in a range of impacts that includes roost desertion (BCT, 2009), delayed emergence of roosting bats (Downs et al., 2003), increased activity of some bat species and decreased activity by others (Stone et al., 2012).

An experimental approach using LED units, demonstrated that relatively fast-flying bat species, including the common pipistrelle, showed no significant impacts as a result of new artificial lighting, even when lighting was set at relatively high levels close to 50 lux.

In contrast, slow flying bats such as the myotis bats (*Myotis* spp.) showed sharp reductions in presence, even at low light levels of 3.6 lux (Stone et al., 2012).

Current recommendations for all bat species specify that no bat roost should be directly illuminated.

Due to the impacts of lighting, mitigation and sensitive lighting design schemes are required for projects where bats are present. These should include bat friendly lighting plans that should aim to avoid lighting wherever possible. If this is not possible, then the minimisation of any lighting impacts is required by adopting the following measures:

➤ To introduce lighting curfews or use of PIR sensors.

Lighting curfews can be an effective way of avoiding impacts on bats. These curfews may involve either turning off lighting or dimming light units at specific times of the night, dimming units at key times of the year, providing the luminaire allows for this option via a control unit. Lighting to be triggered by PIR sensors can be expected to be illuminated only when required and for a low proportion of time.

➤ To consider no lighting solutions where possible.

Options such as white lining, good signage and LED cat's eyes should be considered as preferable. Reflective fittings may help make use of headlights to provide any necessary illumination in some areas.

➤ To use only high pressure sodium or warm white LED lamps where possible.

High pressure sodium and warm white LED lamps emit lower proportions of insect attracting UV light than mercury, metal halide lamps and white LED lighting. Generally, lamps should have a lower proportion of white or blue wavelengths, with a colour temperature <4200 kelvin recommended (BCT, 2014).

➤ To minimise the spread of light.

The light spread should be kept at or near horizontal to ensure that only the task area is lit. Flat cut-off lanterns or accessories should be used to shield or direct light to where it is required. Baffles, hoods, louvres and shields should be used where necessary to reduce light spill.

➤ To consider the height of the lighting column.

While downward facing bollard lighting is often preferable, it should be noted that a lower mounting height does not automatically reduce impacts to bats as bollard lighting can often be designed to provide up-lighting. Where bollard lighting is considered to be the most appropriate system, bollard spacing or unit density should be kept to a minimum and units should be fitted with the appropriate hoods/deflectors to reduce any up-lighting.

➤ To avoid reflective surfaces below lights.

The polarisation of light by shiny surfaces attracts insects increasing bat activity (BCT, 2012). Consequently, surface materials around lighting require consideration.

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No reliance should be made on any such comments in relation to the structural integrity of the features located on the surveyed site. All information within the report is based solely on evidence that has been found on site during the service provided. No individual opinion or inference will be made other than that of the suitably qualified ecologist appointed to the project.