

Preliminary Ecological Assessment

Greenfield Farm

Valewood Lane

Barns Green

West Sussex, RH13 0QJ



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Sylvatica Ecology Ltd

Company Registration Number: 07705793

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Limitations and Liabilities

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It should be borne in mind that the behaviour of animals can be unpredictable and may not conform to standard patterns recorded in scientific literature. Therefore, this report cannot predict with absolute certainty that animal species will occur in apparently suitable locations or habitats, or that they will not occur in locations or habitats that appear unsuitable.

In order to minimise the likelihood of adverse effects on protected animal species over time, it is accepted good practice, in accordance with Natural England (NE) (formerly English Nature) guidance for ecological surveys to be repeated should works be deferred for over 12 - 18 months from the date of initial survey.

It is the duty of the landowner, developer and operations managers to act responsibly and to comply with current environmental legislation if protected species are suspected or found prior to, or during works.

The recommendations and information contained within this report are based on the information provided on the development works prior to the surveys being carried out. Should the development proposals change then the findings and recommendations contained within would potentially require revision.

The findings within this report do not constitute legal advice. Should this be required, then a suitably qualified professional practitioner should be contacted.

Authorised by	Signed	Contact
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1.0 SUMMARY

- 1.1 This report presents the findings of a Preliminary Ecological Assessment survey of Greenfield Farm, Valewood Lane, Barns Green, West Sussex, RH13 0DH, NGR: TQ 11497 26437. A planning application is to be made to install a multi pitch static caravan site within the redline boundary area.
- 1.2 A preliminary ecological survey walkover was carried out at the Site on the 24th October 2024. The habitats were assessed in accordance with BS 42020 Biodiversity – Code of Practice for Planning and Development and broadly followed the 'Extended Phase 1' methodology as set out in the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Baseline Ecological Assessment and the Handbook for Phase 1 Habitat Survey. The habitats were classified according to the UK Habitat Classification system (Butcher *et al.* 2023).
- 1.3 There were not any internationally designated statutory sites within 5.0km and there were not any nationally designated statutory sites within 2.0km of the site survey area. There were blocks of both deciduous and ancient semi-natural woodland within 500m of the site survey area, but there was not any ancient woodland directly adjacent to the survey area.
- 1.4 The habitat present onsite were effectively divided into two aspects, with the western part of the site dominated by hardstanding, ruderal vegetation and a stable building. The eastern part of the site comprised of grassland which is likely to have been previously heavily grazed. There was also an area of horse grazing pasture, which was of limited ecological value. The western and northern site boundaries were demarcated by a native hedgerow with deciduous trees. The size of the site survey area was approximately 1.2ha in size.
- 1.5 The stable building was categorised as negligible potential to support roosting bats and the great crested newt risk assessment calculation provided a Red: Offence Likely result. There was potential for reptile to be present within the ruderal habitat and neutral grassland and for dormice to be present within the hedgerow. Nesting birds could also be present in building and vegetation. Recommendation has been incorporated into this report regarding these potential ecological constraints.

2.0 INTRODUCTION

2.1 This report presents the findings of a Preliminary Ecological Assessment survey of Greenfield Farm, Valewood Lane, Barnes Green, West Sussex, RH13 0DH, NGR: TQ 11497 26437. A planning application is to be made to install a multi pitch static caravan site within the redline boundary area.

2.2 **Figure 1: Site Survey Location (Red Line Boundary)**



Site Location

2.3 The site was located approximately 5.0km to the northeast of Billingshurst, along the Sussex/Surrey border. The immediate surrounding landscape comprised of agricultural land, which was utilised for both arable and pasture farming. Horse grazing was also a common activity within the surrounding landscape, with field lined with both hedgerow and treelines. There were small copses of trees situated within the local area and the village of Barnes Green was located approximately 1.0km to the east.

Aim of this Study

2.4 The aim of this habitat survey was to assess the habitats present on and adjacent to the property and to evaluate the potential for protected species to be present. Recommendations on any further survey requirements, actions to preserve the habitats present and enhancements have been made as a result of the findings of this habitat survey. These findings should be used within the design phase of the proposals, to minimise the impacts for

biodiversity, through careful design to avoid negative effects where possible. The survey findings then enable a prediction of the potential impacts of any ecological receptors present to be made in each specific case.

3.0 METHODOLOGY

Ecological Survey

- 3.1 A preliminary ecological survey walkover was carried out at the Site on the 24th October 2024. The habitats were assessed in accordance with BS 42020 Biodiversity – Code of Practice for Planning and Development and broadly followed the ‘Extended Phase 1’ methodology as set out in the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Baseline Ecological Assessment and the Handbook for Phase 1 Habitat Survey. The habitats were classified according to the UK Habitat Classification system (Butcher *et al.* 2023). This method of survey provides information on the habitats in the survey area and assesses the potential for legally protected species to occur on or adjacent to the Site.
- 3.2 Any faunal species identified during the survey were noted. Any evidence for the presence of, or potential for, protected species was also noted. In particular: amphibians, bats, reptiles, mammals, and birds were included.
- 3.3 A search was carried out for evidence of the presence of invasive plants listed on Schedule 9 of the Wildlife and Countryside Act 1981 which are subject to strict legal control. The list of invasive plant species included on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) is extensive and these plants are found in a range of different habitats.
- 3.4 An assessment of the potential of the property to support roosting and foraging bats was made and categorised according to **Table 1** (BCT 2023).

3.5 **Table 1: Bat Roost and Foraging Potential of Buildings and Trees (BCT 2023a)**

Category	Roosting Habitat	Commuting and Foraging Habitat
Known Roost	Evidence of bat present (<i>e.g.</i>) droppings, live or dead bats and/ or desk study results	N/A
High/ PRF-M	Building or tree with one or more potential roost sites that are obviously	Continuous, high-quality habitat that is well connected to the wider landscape

Category	Roosting Habitat	Commuting and Foraging Habitat
	suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitats.	that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.
Moderate/ PRF-M	Building or tree with one or more potential roosting features that could be used by several bats due to their size, shelter, protection, conditions and surrounding habitats, but unlikely to support a roost of high conservation concern.	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
Low/ PRF-I	Building or tree with one of more potential roost features that could be used by individual bats opportunistically. However, there potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/ or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats. (i.e. unlikely to be suitable for maternity or hibernation)	Habitat that could be used by small numbers of commuting bats for example, a fragmented hedgerow or un-vegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Negligible		

Category	Roosting Habitat	Commuting and Foraging Habitat
	Building or tree with no potential to support any bats	Negligible habitat features on site likely to be used by commuting or foraging bats

Designated Sites and Biological Records

- 3.6 A 2.0km radius biological records search was carried out using the National Biodiversity Network. This checked for protected and notable species records within 2.0km of the application site.
- 3.7 Records of internationally designated statutory sites within 5.0km of the Site and nationally designated sites within 2.0km of the Site were searched for using the Multi-Agency Geographic Information for the Countryside website (MAGIC) <http://www.magic.gov.uk>.
- 3.8 MAGIC was also searched for previously granted Natural England licence applications, which may give an indication of the presence of protected species in the local area.

Habitat Mapping and Condition Assessment Methods

- 3.9 Each specific habitat was assessed according to the condition assessment characteristics on the Biodiversity Net Gain Metric 4.0 Technical Annex 1. This provides specific criteria for each habitat classification utilising the United Kingdom Habitat Classification System. The mapping was carried out using QGIS V 3.22.14-Bailowieza for MacOS 14.1. Habitat areas and pond distances from site were calculated using this QGIS software.. A check of historical maps is also made using Google Earth, which gives an indication of the age of the habitats present onsite and surrounding.

Qualification of Author

- 3.10 The survey work and reporting has been led by Richard Law BSc MRes CEnv MCIEEM FLS. Richard has been undertaking ecological survey work within the last 18 years on many different locations throughout the United Kingdom, for a variety of protected species, including bats (Class 2 2015-12576), reptiles, amphibians including great crested newt (*Triturus cristatus*) (Class 1 2016-20290) and terrestrial mammals including dormice (*Muscardinus avellanarius*) (Class 1 2015-13188) and birds including barn owl (*Tyto alba*) licence (CL29/00236). Richard is also qualified in track and sign and trailing *via* an international system of assessment (www.tracker certification.com).

4.0 RESULTS

- 4.1 This section describes the habitats identified during the habitat survey. All the plant species names follow the nomenclature of Stace 1997; a map detailing the locations of the habitats described can be found in Appendix A, pond within 500m of the site in Appendix B, priority habitats in Appendix C, habitat condition assessments in Appendix D and photographs of the property taken at the time of the survey can be found in Appendix F. A summary of the protected species and habitats legislation for England and Wales can be found in Appendix G.

Designated Sites

- 4.2 There were not any internationally designated statutory sites within 5.0km and there were not any nationally designated statutory sites within 2.0km of the site survey area.
- 4.3 There were block of both deciduous and ancient semi-natural woodland within 500m of the site survey area, but there was not any ancient woodland directly adjacent to the survey area.

Historical Biological Records Search

Bats

- 4.4 **Table 3: Bat Records within 2.0km radius**

Latin Name	Common Name	Number of Records
<i>Eptesicus serotinus</i>	Serotine	4
<i>Pipistrellus pipistrellus</i>	Common Pipistrelle	1
<i>Pipistrellus pygmaeus</i>	Soprano Pipistrelle	8
<i>Plecotus auritus</i>	Brown Long-eared Bat	1

- 4.5 There were four species of bat present within the 2.0km historical records search radius. These species comprised of serotine, with four records, common pipistrelle and brown long eared bat, both with a single record. Soprano pipistrelle was represented by eight records of this species.

Reptiles and Amphibians

4.6 Table 4: Amphibian and Reptile Records

Latin Name	Common Name	Number of Records
<i>Natrix helvetica</i>	Grass snake	4
<i>Triturus cristatus</i>	Great Crested Newt	8

- 4.7 Grass snake were present within the search radius, with four records and the great crested newt was present with eight records. This species is a European protected species.

Terrestrial and Riparian Mammals

4.8 Table 5: Terrestrial and Riparian Mammal Records

Latin Name	Common Name	Number of Records
<i>Muscardinus avellanarius</i>	Dormouse	4

- 4.9 There were four records of dormouse within the 2.0km search radius. This species is a European protected species.

Granted Mitigation Licences

4.10 Table 6: Natural England Mitigation Licences

Licence Number	Distance and Direction	Species	Type	Date	NGR
2015-14456-EPS-MIT	1.0km northeast	Brown Long Eared Bat and Common Pipistrelle	Damage and Destruction of a Resting Place	17/09/2015 to 11/09/2020	TQ 1251 2681

- 4.11 There was a single granted Natural England mitigation licence within the 2.0km search radius. This was for the damage and destruction of a resting place for brown long eared bat and common pipistrelle.

Summary of Habitats Present on Site

- 4.12 The habitat present onsite were effectively divided into two aspects, with the western part of the site dominated by hardstanding, ruderal vegetation and a stable building. The eastern part of the site comprised of grassland which is likely to have been previously heavily grazed. There was also an area of horse grazing pasture, which was of limited ecological value. The western

and northern site boundaries was demarcated by a native hedgerow with deciduous trees. The size of the site survey area was approximately 1.2ha in size.

Habitat Types

- 4.13 **Modified Grassland** – This habitat area consisted of a heavily grazed horse paddock to the south of the survey area. Species recorded were limited due to the heavy grazing but included meadow grass *Poa sp.*, creeping buttercup *Ranunculus repens* and ragwort *Senecio jacobaea*. Due to the lack of species richness this grassland was in a poor condition.
- 4.14 **Other Neutral Grassland** – This habitat area comprised of a large field that may have been mown/ grazed in the past from historical aerial photographs and showed some improvement. The grassland had species such as false oatgrass *Arrhenatherum elatius*, Yorkshire fog *Holcus lanata*, sweet vernal grass *Anthoxanthum odoratum*, cocksfoot *Dactylis glomerata*, black knapweed *Centaurea nigra*, meadow vetchling *Lathyrus pratensis*, meadowsweet *Filipendula ulmaria*, common sorrel *Rumex acetosa*, lesser stitchwort *Stellaria graminea* and meadow buttercup *Ranunculus acris*. Five 1m by 1m quadrats recorded an average of 5.1 species per m². Overall, the grassland was considered to be of a moderate condition.
- 4.15 **Developed Land (buildings and hardstanding)** – This habitat consisted of a relatively derelict stable building and hard standing comprising of hard-core rubble lain onto the ground. There were earth mounds and some waste material placed within this area.
- 4.16 **Ruderal Habitat** - An area of this habitat type had become dominant within the western section of the site survey area. Scrub and ruderal species present included species such as bramble *Rubus fruticosus*, nettle *Urtica dioica*, creeping thistle *Cirsium arvense*, spear thistle *Cirsium vulgare*, large bindweed *Calystegia sepium*, field bindweed *Convolvulus arvensis*, hogweed *Heracleum sphondylium*, ragwort, Yorkshire fog, dock *Rumex spp.* and false oatgrass. This habitat was of a moderate condition.
- 4.17 **Native Hedgerow with Deciduous Trees** - The western and northern boundary of the site included a section of native hedgerow that was dominated by blackthorn *Prunus spinosa* with hawthorn *Crataegus monogyna*, hazel *Corylus avellana* and ivy *Hedera helix*. With dog rose *Rosa canina* and bramble *Rubus fruticosus* also present. Mature oak *Quercus robur* were also present within this hedgerow habitat.

5.0 POTENTIAL FOR PROTECTED SPECIES

Birds

- 5.1 The following species were observed within the vegetation within the site boundary and within close proximity to the site. These species were: crow *Corvus corone*, wood pigeon *Columba palumbus*, blue tit *Cyanistes caeruleus*, great tit *Parus major* goldfinch *Carduelis carduelis*, linnet *Carduelis cannabina*, dove *Streptopelia decaocto*, blackcap *Sylvia atricapilla* and robin *Erithacus rubecula*.

Bats

- 5.2 There was a stable building present on the western side of the site survey area. This building was open to the east and was constructed out of single layered wooden cladding, with a flat roof constructed out a ply-boarding overlain with bitumen felt. The internal space was relatively low, at 2.0m, with debris and detritus on the ground. No evidence of bats was observed within this building and there were not any features present within the building that could potentially support roosting bats. Therefore, this building was classified as **negligible** potential to support roosting bats.
- 5.3 The habitat present on site was of value to foraging bats with the hedgerow, ruderal vegetation, mature trees and grassland providing some foraging and commuting opportunities. The bat foraging habitat can be considered as moderate value bat foraging habitat.

Reptiles and Amphibians

- 5.4 There were records of reptile and amphibian within the 2.0km search radius. The ruderal habitats that have developed where there has been less maintenance across much of the site and this had some suitability to support reptiles, and the ruderal habitats also appeared to have possible refugia opportunities where there were brash materials present. The grassland and hedgerow edges also provide some potential to support a population of common reptile species such as slow worm, common lizard or grass snake. It is recommended that a reptile presence/likely absence survey is recommended to determine whether the site does support reptiles and to determine what mitigation, if any, might be required as part of the proposals.
- 5.5 There were seven ponds within the 500m search radius, the closest being 12m away (Pond 7). Using the great crested newt risk calculator (**Table 7**) and making an assumption that Pond 7 could potentially support a breeding population of great crested newt, with the size of the proposed development footprint which falls within the >1 ha lost or damaged, this gives a

National Offence Probability Score of 0.9, which means the result of RED: OFFENCE HIGHLY LIKELY

5.6 **Table 7: Great Crested Newt Impact Risk Calculator (from Natural England)**

Component	Likely Effect	Notional Offence Probability Score
Great crested newt breeding pond(s)	No effect	0
Land within 100m of any breeding pond(s)	>1ha lost or damaged	0.9
Land 100-250m from any breeding pond(s)	No effect	0
Land >250m from any breeding pond(s)	No effect	0
Individual great crested newts	No effect	0
Maximum:		0.9
Rapid risk assessment result:	RED: OFFENCE HIGHLY LIKELY	

Terrestrial and Riparian Mammals

5.7 [REDACTED]

5.8 Records of hedgehog were present within the 2.0km search area and the habitat present within the development site did provide some foraging and sheltering opportunities. The site had a low potential to support hedgehogs.

5.9 Records of dormice were present within the 2.0km search radius. The hedgerows present on site consisted of a well connect connected hedge which were suitable habitat for dormice. The other habitats present within the site also had limited value and poor connectivity to suitable dormouse habitat.

Invasive and Non-Native Species

- 5.10 No invasive species were noted during the survey.

6.0 DISCUSSION AND RECOMMENDATIONS

Designated Sites and Habitats

- 6.1 There were not any statutory designed sites within the search radius of this proposed development site. There were some priority habitats present, notable ancient semi natural woodland and deciduous woodland. These are not likely to be impacted by the proposed development works. However, standard best practice pollution prevention, for example dust suppression measures, should be followed during the construction process as a precaution.

Birds

- 6.2 Breeding birds are protected, making it an offence to intentionally (or recklessly) kill, injure or take any wild bird, and to take, damage or destroy the nest of any wild bird while that nest is in use or being built, or take or destroy an egg of any wild bird. As a result, any vegetation clearance or demolition of the stables should avoid the breeding season (March to August inclusive). Nests are protected throughout the year, not just within the specified nesting season.
- 6.3 If this were not possible, a suitably experienced ecologist would be required to check areas of vegetation or the outbuildings immediately prior to works being carried out (within 24hrs). If birds were found to be breeding at this time in these locations, clearance works would not be permitted to proceed until the young had fledged the nest and at least a 10m works exclusion zone be placed around the nest. If any vegetation is cleared outside of the bird nesting season, then all resultant brash should be removed from site to ensure that it does not provide suitable nesting habitat.

Roosting Bats

- 6.4 The potential presence of bat roosts within a proposed development site has to be considered as all eighteen of the UK's bat species are protected under Section 9 of the Wildlife and Countryside Act (WCA) 1981 (as amended). The WCA states that '*a person is guilty of an offence if intentionally or recklessly they disturb [a bat] while it is occupying a structure or place which it uses for shelter or protection; or he obstructs access to any structure or place which [a bat] uses for shelter or protection*'.
- 6.5 The stable building, were not found to contain any suitable features which could be utilised by roosting bats. As this building was subject to a preliminary roost assessment and found to have

negligible potential to support roosting bats, no additional bat surveys are required in relation to this development.

Bats and Lighting

6.6 Bat species have been recorded within the 2.0km historical records search and the habitats present onsite and in the immediate surroundings can be considered as having low to moderate foraging habitat. Any lighting installed, as a result, of this development will conform to the specifications which are outlined within BCT Guidance Note (2023b). This will reduce any light pollution that could impact nocturnal activity of fauna, namely bat species, some of which are extremely sensitive to light pollution. Light spill into adjacent habitats will be reduced and avoided by the following:

- *All luminaries will lack UV elements; metal halide and fluorescent sources will be avoided,*
- *A warm white light spectrum on external lighting will be adopted (<2700kelvin) to reduce the blue light component,*
- *LED luminaries will be used where a sharp cut off is required to avoid light spill into adjacent habitat,*
- *External luminaries will feature wavelengths higher than 550nm to avoid the component of light most disturbing to bats,*
- *Column heights of external lighting will be limited,*
- *Luminaries will be mounted on the horizontal plane, with no upwards tilt,*
- *Security lighting will be set on motion sensors and on short timers (<1min).*

Terrestrial Mammals

6.7 Hedgehog have seen their number decline significantly over the last 13 years by around 66%. There were records for hedgehog within 2km. The habitats present on site were of some value to hedgehogs and they may access the site [REDACTED] if they are present within the wider area.

6.8 During the construction phase any deep trenches or excavations should be covered overnight to ensure any animals including hedgehogs, do not become trapped. This measure would also be pertinent for all mammals, [REDACTED]

6.9 To enhance the site for hedgehog post-development the planting of native trees, shrubs and hedgerows and the provision of gaps of at least 15cm by 15cm under any new fences or alternatively the use of hedgerows rather than fences will ensure this species continues to have access to the site and can use the site for foraging, commuting and shelter.

Dormice

- 6.10 The potential presence of dormice within the proposed development site must be considered as dormice are protected under the Wildlife and Countryside Act (WCA) 1981 (as amended). The WCA states that *'a person is guilty of an offence if intentionally or recklessly they disturb [a dormouse] while it is occupying a place which it uses for shelter or protection; or he obstructs access to any place which [a dormouse] uses for shelter or protection'*.
- 6.11 Dormice are also protected under the Conservation of Habitats and Species Regulations 2019. Dormice are listed as European protected species under which it is an offence if;
- *a person deliberately captures, injures or kills any wild animal of a European protected species;*
 - *deliberately disturbs wild animals of any such species;*
 - *damages or destroys a breeding site or resting place of such an animal.*
- 6.12 Disturbances of animals include in particular any disturbance which is likely to impair their ability to;
- *survive, breed or reproduce, or to rear or nurture their young;*
- 6.13 To avoid any impacts on the hedgerow habitat, and therefore avoiding any potential impact on dormice, it is recommended to install suitable fencings (Heras fencing, for example), leaving a 15m buffer zone between the hedgerow and the development/ works area. This would prevent any incursion into these areas and would prevent any impact on this habitat. The avoidance of any vegetation removal within this habitat is recommended.

Great Crested Newt

- 6.14 The great crested newt receives full protection under the Wildlife and Countryside Act 1981 (as amended). This prohibits the intentional or reckless killing, injuring or taking (capture, etc); possession; intentional or accidental disturbance whilst occupying a 'place used for shelter or protection' and intentional or reckless destruction of these places; sale, barter, exchange, transporting for sale and advertising to sell or buy.
- 6.15 A majority of the habitats present on site were of value for great crested newts with the ruderal habitat, grassland and hedgerows providing suitable terrestrial habitat for this species. There were records of great crested newts recorded within 2.0km of the proposed development and a pond which is present approximately 12m to the east. It is, therefore, possible, that the proposals will result in the loss of areas of suitable habitat for great crested newts as well as having a risk of harm to individual newts present.

- 6.16 A European Protected Species Mitigation (EPSM) licence or district-level licensing is likely to be required to allow the development to progress if it is felt there is a risk to individual newts that cannot be mitigated through reasonable avoidance methods. Environmental DNA surveys of the ponds would also assist in determining the potential risk of great crested newt being present within the site boundary, particularly the ponds within 100 – 250m of the site boundary. These surveys would be conducted between mid April to the end of June in any given year.

Reptiles

- 6.17 There were areas of habitat present within the site survey area that had the potential to support reptile species. All reptile species are protected under the Wildlife and Countryside Act 1981 (as amended), which make it an offence to deliberately or recklessly kill, injure or trade these animals. The common reptile species covered by this Act are slow worm, grass snake (*Natrix helvetica*), common lizard (*Zootoca vivipara*) and adder. Other, rarer, native reptile species are offered greater levels of protection, but these are generally found in habitats that were not present within the Site or local surroundings.
- 6.18 For reptiles, the presence/ likely absence surveys consist of seven surveys on the Site which involve placing, on the ground in suitable locations, roof felt and corrugated metal sheets. The size of these would be either 50cm by 50cm or 100cm by 50cm. Specific coverage would be required to give a statistical confidence to any result that would give a likely absence and to one that gives an indication of species present and likely population level. Surveys would have to be carried out within suitable weather conditions at a suitable time of year, normally April to June, avoiding July and August. September and October normally have suitable weather conditions for reptile surveys but November to early March is normally outside of optimum conditions.
- 6.19 If reptile are present, then a method of works would be implemented in addition to, potentially, a trapping and translocation exercise carried out with alternative habitat provided as the translocation site. The specifics of any method of works and/ or the length of this trapping and translocation would depend on the species, specific location and numbers present, if found.

7.0 RECOMMENDATIONS FOR BIODIVERSITY ENHANCEMENT AND NETGAIN

- 7.1 Development plans should maximise opportunities for enhancement, in order, to achieve a net increase in biodiversity. The measures outlined below provide the means to achieve this enhancement.
- 7.2 A biodiversity net gain report has been produced which details the habitats on site pre development and post development and measures that will be required to meet biodiversity net gain are detailed within this report (Sylvatica Ecology, 2024)
- 7.3 As part of the scheme, it is recommended to install bird and bat boxes. These would provide an ecological enhancement by providing suitable roosting and nesting locations for these protected species. These bat and bird boxes could be installed on any retained mature trees on site or through the use of in-built boxes in the new properties. The location of the boxes should avoid high levels of sunlight during the summer months and be located away from windows and doors.
- 7.4 Tree and shrub planting of native species within the proposed gardens would provide and contribute to the ecological value of these areas of habitats. Native herbaceous and grassland species could also be planted into newly landscape areas, providing a valuable nectar source for invertebrate species. It is also recommended that new species rich hedgerows are planted along boundaries where none are present and between plot boundaries.

8.0 REFERENCES

BCT (2023a) Bat Survey Guidelines for Professional Ecologists – Good Practice Guidelines 4th Edition.

BCT & ILP, B. C. (2023b). Bats and artificial lighting in the UK: Guidance Note GN08/23. London: Institution of Lighting Professionals.

Butcher, B., Carey, P., Edmonds, R., Norton, L. and Treweek, J. (2023) The UK Habitat Classification User Manual version 2.1 at <https://ukhab.org/>.

JNCC (2016) Handbook for Phase 1 Habitat Survey: A technique for environmental audit. Joint Nature Conservation Committee, Peterborough.

Mitchell-Jones, A.J. & McLeish, A.P. (Eds) (2004). Bat Workers' Manual (3rd Ed.). JNCC, Peterborough.

Natural England (2020). Template for Method Statement to support application for licence under Regulation 55(2)(e) of The Conservation of Habitats and Species Regulations 2017 (as amended) in respect of great crested newts *Triturus cristatus*. Form WML-A14-2 (Version May 2024). Natural England, Peterborough.

Stace C. (1997) New Flora of the British Isles (2nd edition). Cambridge University Press.

Sylvatica Ecology (2024) Biodiversity Net Gain Report: Greenfield Farm. Valewood Lane, West Sussex.

The Conservation of Habitats and Species Regulations 2017.

Wildlife and Countryside Act (1981) The Stationary Office, Norwich.

APPENDIX A: PRELIMINARY ECOLOGICAL WALKOVER SURVEY HABITAT MAP



APPENDIX B: PONDS WITHIN 500M



APPENDIX C: PRIORITY HABITATS WITHIN 500M



APPENDIX D: HABITAT DISTINCTIVENESS AND CONDITION ASSESSMENT

Habitat Type	Total Habitat Area (ha) or length (km)		Distinctiveness	Score	Habitat Condition	Condition Assessment Scoring
Other Neutral Grassland	0.7173ha		Med	4	Moderate	2
	Species Present	False oatgrass <i>Arrhenatherum elatius</i> , Yorkshire fog <i>Holcus lanata</i> , sweet vernal grass <i>Anthoxanthum odoratum</i> , cocksfoot <i>Dactylis glomerata</i> , black knapweed <i>Centaurea nigra</i> , meadow vetchling <i>Lathyrus pratensis</i> , silverweed <i>Potentilla anserina</i> , Canadian fleabane <i>Erigeron canadensis</i> , common sorrel <i>Rumex acetosa</i> , lesser stitchwort <i>Stellaria graminea</i> and meadow buttercup <i>Ranunculus acris</i> .				
Ruderal	0.1225ha		Low	2	Moderate	2
	Species Present	Bramble <i>Rubus fruticosus</i> , nettle <i>Urtica dioica</i> , creeping thistle <i>Cirsium arvense</i> , spear thistle <i>Cirsium vulgare</i> , large bindweed <i>Calystegia sepium</i> , field bindweed <i>Convolvulus arvensis</i> , hogweed <i>Heracleum sphondylium</i> and false oatgrass <i>Arrhenatherum elatius</i> .				
Modified Grassland	0.0870ha		Low	2	Poor	1
	Species Present	Meadow grass <i>Poa sp.</i> , creeping buttercup <i>Ranunculus repens</i> and ragwort <i>Senecio jacobaea</i> ,				

Native Hedgerow with Trees	185.5m		Low	2	Moderate	2
	Species Present	Oak <i>Quercus robur</i> , Hawthorn <i>Crataegus monogyna</i> , blackthorn and grey willow <i>Salix cinerea</i> , pendulous sedge <i>Carex pendula</i> and ivy <i>Hedera helix</i> .				
Developed Land/ Sealed Surface	0.1456ha	N/A				

APPENDIX E: PHOTOS OF THE SITE

<i>Plate 1: Hard Standing Rubble</i>	<i>Plate 2: Hard Standing</i>
	
<i>Plate 3: Ruderal Vegetation</i>	<i>Plate 4: Hedgerow Along Road</i>
	
<i>Plate 5: Neutral Grassland</i>	<i>Plate 6: Pond 7</i>
	
	

<i>Plate 7: Horse Grazing Pasture</i>	<i>Plate 8: Walls of Stable</i>
	
<i>Plate 9: Ruderal Vegetation and Stable</i>	<i>Plate 10: Site Entrance</i>
	

APPENDIX F: PROTECTED SPECIES AND DESIGNATED SITE LEGISLATION SUMMARY (ENGLAND AND WALES)

Species	Legislation (England & Wales)	Offences	Licensing procedures (England & Wales)
Bats European protected species	Conservation of Habitats and Species Regulations 2017	Deliberately ¹ capture, injure or kill a bat; deliberate disturbance ² of bats; or damage or destroy a breeding site or resting place used by a bat. [The protection of bat roosts is considered to apply regardless of whether bats are present.]	A Natural England (NE) licence in respect of development is required in England. European Protected Species: Mitigation Licensing- How to get a licence (NE 2010) Bat Mitigation Guidelines (English Nature 2004) Bat Workers Manual (JNCC 2004) BCT Survey Guidelines (2016)
	Wildlife and Countryside Act 1981 (as amended) S.9	Intentionally or recklessly obstruct access to any structure or place used for shelter or protection or disturb a bat in such a place.	Licence from NE is required for surveys (scientific purposes) that would involve disturbance of bats or entering a known or suspected roost site.
Great Crested Newt European protected species	Conservation of Habitats and Species Regulations 2017	Deliberately ¹ capture, injure or kill a great crested newt; deliberate disturbance ² of a great crested newt; deliberately take or destroy its eggs; or damage or destroy a breeding site or resting place used by a great crested newt.	Licences issued for development by Natural England. European Protected Species: Mitigation Licensing- How to get a licence (NE 2010) Great Crested Newt Mitigation Guidelines (English Nature 2001)
	Wildlife and Countryside Act 1981 (as amended) S.9	Intentionally or recklessly obstruct access to any structure or place used for shelter or protection or disturb a great crested newt in such a place.	Licences issued for science (survey), education and conservation by Natural England.
Dormice European protected species	Conservation of Habitats and Species Regulations 2017	Deliberately ¹ capture, injure or kill a dormouse; deliberate disturbance ² of dormouse; or damage or destroy a breeding site or resting place used by a dormouse.	A Natural England (NE) licence in respect of development is required in England. European Protected Species: Mitigation Licensing- How to get a licence (NE 2010)
	Wildlife and Countryside Act 1981 (as amended) S.9	Intentionally or recklessly obstruct access to any structure or place used for shelter or protection or disturb a bat in such a place.	Licence from NE is required for surveys (scientific purposes) that would involve disturbance of bats or entering a known or suspected roost site.

Species	Legislation (England & Wales)	Offences	Licensing procedures (England & Wales)
Badger	Protection of Badgers Act 1992	Wilfully kill, injure or take a badger; or intentionally or recklessly damage, destroy or obstruct access to a badger sett or disturb a badger in its sett. [It is not illegal to carry out disturbance activities in the vicinity of setts that are not occupied.]	Where required, licences for development activities involving disturbance or sett interference or closure are issued by Natural England (NE). Licences for activities involving watercourse maintenance, drainage works or flood defences are issued under a separate process. Licences are normally not granted from December to June inclusive because cubs may be present within setts. Badgers & Development (NE 2007)
Birds	Wildlife and Countryside Act 1981 (as amended) S.1	Intentionally kill, injure or take any wild bird; intentionally take, damage or destroy the nest of any wild bird while that nest is in use or being built; intentionally take or destroy the nest or eggs of any wild bird. [Special penalties are liable for these offences involving birds on Schedule 1 (e.g. most birds of prey, kingfisher, barn owl, black redstart, and little ringed plover).] Intentionally or recklessly disturb a Schedule 1 species while it is building a nest or is in, on or near a nest containing eggs or young; intentionally or recklessly disturb dependent young of such a species.	No licences are available to disturb any birds in regard to development. Licences are available in certain circumstances to damage or destroy nests, but these only apply to the list of licensable activities in the Act and do not cover development. General licences are available in respect of 'pest species' but only for certain very specific purposes e.g. public health, public safety, air safety.
Adder Common lizard Grass snake Slow worm	Wildlife and Countryside Act 1981 S.9(1) (part); S.9(5)	Intentionally kill or injure any common reptile species.	No licence is required in England. However, an assessment for the potential of a site to support reptiles should be undertaken prior to any development works which have potential to affect these animals.
Rabbits, foxes and other wild mammals	Wild Mammals (Protection) Act 1996	Intentionally inflict unnecessary suffering to any wild mammal.	Natural England provides guidance in relation to rabbits (TIN003, Rabbits- management options for preventing damage, July 2007) and foxes (which are also protected under the Wildlife and Countryside Act 1981 from live baits and decoys, see TAN43 April 2005 and TAN08 April 2005) as well as other wild mammals; see Natural England's website for the list of 'Regulatory Guidance, Best Practice and Information'.

Site Designation	Legislation (England & Wales)	Protection	Guidance
Site of Special Scientific Interest (SSSI)	Wildlife and Countryside Act 1981 (as amended)	It is an offence to carry out or permit to be carried out any potentially damaging operation. SSSIs are given protection through policies in the Local Development Plan.	Owners, occupiers, public bodies and statutory undertakers must give notice and obtain the appropriate consent under S.28 before undertaking operations likely to damage a SSSI. S.28G places a duty on all public bodies to further the conservation and enhancement of SSSIs. Planning Policy Statement 9: Biodiversity and Geological Conservation (ODPM 2005) for England or Technical Advice Note 5 in Wales.
Locally Designated Sites	There is no statutory designation for these	Sites are given protection through policies in the Local Development Plan.	Development proposals that would potentially affect these would need to provide a detailed justification for the work, an assessment of likely impacts, together with proposals for mitigation and restoration of habitats lost or damaged.

Site Designation	Legislation (England & Wales)	Protection	Guidance
Special Area of Conservation (SAC) Special Protection Area (SPA) Wetland of International Importance (Ramsar site)	Conservation of Habitats and Species Regulations 2010 EC Directive on the conservation of natural habitats and of wild fauna and flora (92/42/EEC). EC Directive on the conservation of wild birds (79/409/EEC). Convention on Wetlands of International Importance especially as Waterfowl Habitat 1971 (the Ramsar Convention).	Planning controls are effected through Part 2 of the Conservation of Habitats and Species regulations 2010 (Reg 21) and Part 6 (Regs 61-67). The legislation for the Site of Special Scientific Interest which will underpin each designation also applies. These sites are given protection through policies in the Local Development Plan.	Formal Appropriate Assessment is required before undertaking, or giving consent, permission or other authorisation for a plan or project which is likely to have a significant effect on such a site. Planning Policy Statement 9: Biodiversity and Geological Conservation (ODPM 2005) and the accompanying joint Circular (ODPM Circular 6/2005 & Defra Circular 01/2005) for England or Technical Advice Note 5 in Wales.
Site of Special Scientific Interest (SSSI)	Wildlife and Countryside Act 1981 (as amended)	It is an offence to carry out or permit to be carried out any potentially damaging operation. SSSIs are given protection through policies in the Local Development Plan.	Owners, occupiers, public bodies and statutory undertakers must give notice and obtain the appropriate consent under S.28 before undertaking operations likely to damage a SSSI. S.28G places a duty on all public bodies to further the conservation and enhancement of SSSIs. Planning Policy Statement 9: Biodiversity and Geological Conservation (ODPM 2005) for England or Technical Advice Note 5 in Wales.
Local Nature Reserve (LNR)	National Parks and Access to the Countryside Act 1949 S.21	LNRs are given protection through policies in the Local Development Plan.	LNRs are generally owned and managed by local authorities. Development proposals that would potentially affect a LNR would need to provide a detailed justification for the work, an assessment of likely impacts, together with proposals for mitigation and restoration of habitats lost or damaged. Planning Policy Statement 9: Biodiversity and Geological Conservation (ODPM 2005) for England or Technical Advice Note 5 in Wales.
Locally Designated Sites	There is no statutory designation for these	Sites are given protection through policies in the Local Development Plan.	Development proposals that would potentially affect these would need to provide a detailed justification for the work, an assessment of likely impacts, together with proposals for mitigation and restoration of habitats lost or damaged.