

Preliminary Ecological Assessment

Proposed Static Caravan Site

Zone 4

Newells Lane

West Ashling

Chichester

West Sussex, PO18 8DD

NGR: SU 79994 06762



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Sylvatica Ecology Ltd

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	LIMITATIONS AND LIABILITIES	3
1	SUMMARY	4
2	INTRODUCTION	5
	<i>Aim of this Report</i>	5
	<i>Proposed Works</i>	6
3	METHODOLOGY	6
	<i>Ecological Survey</i>	6
	<i>Designated Sites and Biological Records</i>	7
	<i>Bat Roost Potential</i>	7
	<i>Condition Assessment Methods</i>	9
	<i>Qualification of Author</i>	10
4	RESULTS	10
	<i>Designated Sites</i>	10
	<i>Species Records from the National Biodiversity Network</i>	11
	<i>Bats</i>	11
	<i>Summary of Historical Habitats</i>	13
	<i>Summary of Habitats Present on Site</i>	13
	<i>Habitats Present on Site within the Survey Boundary</i>	14
	<i>Habitat Condition Assessment</i>	15
5	POTENTIAL FOR PROTECTED SPECIES	15
	<i>Breeding Birds</i>	15
	<i>Bats</i>	15
	<i>Terrestrial and Riparian Mammals</i>	16
	<i>Reptile and Amphibian</i>	16
	<i>Invasive Species</i>	17
6	DISCUSSION AND RECOMMENDATIONS	17
	<i>Designated Sites and Habitats</i>	17
	<i>Breeding Birds</i>	18
	<i>Bats</i>	18

<i>Dormice</i>	19
<i>Terrestrial Mammals</i>	19
<i>Reptiles and Amphibians</i>	20
<i>Invasive Species</i>	21
7 ECOLOGICAL IMPACT ASSESSMENT	21
8 ECOLOGICAL COMPENSATION AND ENHANCEMENT	22
9 REFERENCES	24
APPENDIX A: HISTORICAL SATELLITE IMAGES	25
APPENDIX B: PRELIMINARY ECOLOGICAL WALKOVER SURVEY HABITAT MAP	26
APPENDIX C: LOCATION OF WATERBODIES WITHIN 250M AND 500M	27
APPENDIX D: PHOTOS OF THE SITE	28
APPENDIX E: PROTECTED SPECIES AND DESIGNATED SITE LEGISLATION SUMMARY (ENGLAND AND WALES)	29

Tables and Figures

Figure 1: Site Survey Location

Figure 2: Plan of Proposed Works ([Manor Wood Ltd](#))

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

Table 2: Statutory Designated Sites

Table 3: Bat Species Records

Table 4: Terrestrial and Riparian Mammal Records

Table 5: Reptile and Amphibian Records

Table 6: Granted Bat Mitigation Licence Applications within 2km

Table 7: Habitat Distinctiveness and Condition Assessment

Table 8: Great Crested Newt Impact Risk Calculator (from Natural England)

Table 9: List of Recommended Plant Species for Native Tree and Shrub Planting

Table 10: List of Recommended Plant Species for Native Herbaceous Species Planting

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 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.

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1 SUMMARY

- 1.1 This report presents the findings of a Preliminary Ecological Assessment (PEA) and Biodiversity Condition Assessment of the habitats at Proposed Static Caravan Site, Zone 4, Newells Lane, West Ashling, Chichester, West Sussex, PO18 8DD. A previous ecological survey and report had been carried out at this location, including an Environmental DNA check of the pond to the south (Ecology Co-op 2020).
- 1.2 It is proposed that a single pitch for a static home is installed at this location. Also included would be native species scrub and hedgerow planting and some landscaping.
- 1.3 Over the past 20 years the site had been in use as arable agricultural land and had undergone regular disturbance. There appeared to be some fallow years, but since 2013 the land appeared to be in use as grazing pasture, which is likely to have kept the grass sward extremely low and limited.
- 1.4 The habitat comprised of a hard standing track (leading from the site entrance), a single stable building situated to the south of the land parcel a small area of ruderal habitat and an area of unmanaged grassland. There was a native species hedgerow along the eastern fringe of the survey area and two small areas of scrub vegetation. The total survey area was 0.2756ha in size.
- 1.5 The habitats present on site (also the historical habitats) were all relatively common and had been subject to regular disturbance historically, though grazing. The habitats were not considered to be of local, regional or national importance and are commonly encountered and offer negligible ecological value. The hedgerow to the east did offer ecological value, but this habitat is not to be affected by the proposed works.
- 1.6 Recommendation has been made to install lighting that would not impact the potential foraging and commuting habitat of bat species locally and recommendation has been made regarding the protection of the hedgerow along the western edge of the survey area through the installation of Heras fencing and a 5m buffer zone between this fencing and the hedgerow.
- 1.7 To account for any potential presence of great crested newt or reptile, while extremely unlikely, a precautionary method of works for reptiles and amphibians is recommended To ensure that mammals do not become trapped in any excavations, mammal ladders should be left in excavations overnight, if these can't be suitably covered. Suitable gaps should be left in any installed boundary fencing that would permit small mammals (hedgehog) to be able to commute and foraging within the local area.
- 1.8 For ecological enhancement, recommendation has been made regarding planting native hedgerow species and native herbaceous species within the landscaping plan. Installation of two bird boxes and two bat boxes within adjacent trees has been recommended.

2 INTRODUCTION

2.1 This report presents the findings of a Preliminary Ecological Assessment (PEA) and Biodiversity Condition Assessment of the habitats at Proposed Static Caravan Site, Zone 4, Newells Lane, West Ashling, Chichester, West Sussex, PO18 8DD. A previous ecological survey and report had been carried out at this location, including an Environmental DNA check of the pond to the south (Ecology Co-op 2020).

2.2 **Figure 1: Site Survey Location**



Aim of this Report

2.3 The aim of this habitat survey was to assess the habitats present on and adjacent to the survey area 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.

2.4 These findings should be used within the planning phase of the proposals to minimise the impacts for biodiversity through careful planning 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.

- 2.5 An assessment of the condition of the habitats to be cleared will be made and a calculation of the area (in hectares) of habitat classification which can then be incorporated into a baseline Biodiversity Net Gain calculation, if required.

Proposed Works

- 2.6 It is proposed that a single pitch for a static home is installed at this location. Also included would be native species scrub and hedgerow planting and some landscaping.

- 2.7 ***Figure 2: Plan of Proposed Works (Manor Wood Ltd)***



3 METHODOLOGY

Ecological Survey

- 3.1 A preliminary ecological survey walkover was carried out at the Site on the 18th October 2023. The habitats were assessed in accordance to 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. 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. The habitats were classified according to the UK Habitat Classification system (Butcher *et al.* 2020).

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, species considered included were amphibians, bats, reptiles, mammals and breeding birds.

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.

Designated Sites and Biological Records

3.4 Records of internationally designated statutory sites within the 2km of the Site and nationally designated statutory sites within 2km were searched for using the Multi-Agency Geographic Information for the Countryside website (MAGIC) <http://www.magic.gov.uk>.

3.5 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. A search of species records within 2km was also made from the National Biodiversity Network.

3.6 A check of historical imagery/ maps was carried out, which would give an indication of the type of habitat present over the last 20 years prior to the development being undertaken. Beyond 20 years, the imagery becomes less viable for any effective analysis.

Bat Roost Potential

3.7 An assessment of the potential of the property to support roosting and foraging bats was made and categorised according to Table 1 below (BCT 2023). Only features that had potential for bats have been highlighted. If there is no category given or reference made to the feature, then assume this is of *negligible* potential.

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

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	Building or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by

	<p>bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitats.</p>	<p>commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge.</p> <p>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.</p> <p>Site is close to and connected to known roosts.</p>
Moderate	<p>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.</p>	<p>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.</p> <p>Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.</p>
Low	<p>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).</p>	<p>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.</p> <p>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.</p>
Negligible	<p>Building or tree with no potential to support bats.</p>	<p>Negligible habitat features on site likely to be used by commuting or foraging bats.</p>

Condition Assessment Methods

- 3.9 Each specific habitat was assessed according to the condition assessment criteria 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.

Ecological Impact Assessment Methodology

- 3.10 The approach to this assessment accords with guidance presented within the CIEEM Guidelines for Ecological Impact Assessment in the UK and Ireland (CIEEM 2018). The zone of influence of the development is defined as:

- *The project red line, for effects on habitats and species,*
- *Adjacent habitat, considered by species, for mobile species with territories or foraging ranges that may overlap the site.*

- 3.11 The types of features considered in the assessment of effects, to meet legislative and policy requirements, are:

- *Designated sites (European, national and local),*
- *Protected species,*
- *Habitats and species of principal importance,*
- *Hedgerows and woodland, where not of principal importance, and*
- *Habitats, where not of principal importance, that may function as wildlife corridors.*

- 3.12 Impact assessment is required for each feature determined as important and not for other features. CIEEM 2018 advises that each impact assessment should consider, if possible, the different stages of a development (construction, operation and decommissioning) and that it should be characterised by the following:

- *Positive or negative - whether the impact leads to an adverse, beneficial or neutral effect,*
- *Extent – the spatial area over which the impact occurs,*
- *Magnitude – change in, for example, the amount of habitat or the size of population,*

- *Duration – both in relation to the life cycle of the ecological feature and of the life of the project,*
- *Frequency and timing – for example the number of disturbance incidents to birds and their timing in relation to the breeding cycle, and*
- *Reversibility – if and at what timescale recovery is possible.*

3.13 An EclA assesses the activities associated with a proposed scheme that are likely to generate changes, within identified zone of influences, on identified ecological features and receptors. The proposals are subsequently reviewed, and iteration undertaken to include enhancements and mitigation to reduce negative impacts.

Qualification of Author

3.14 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 a number of differing locations throughout the United Kingdom for a variety of protected species, including bats (Class 2 2015-12576-CLS-CLS), reptiles, amphibians including great crested newt (*Triturus cristatus*) (Class 1 2016-20290-CLS-CLS) and terrestrial mammals including dormice (Class 1 2015-13188-CLS-CLS) and birds including barn owl licence (CL29/00236). Richard is also qualified in track and sign and trailing *via* an international system of assessment (www.trackercertification.com).

4 RESULTS

4.1 This section describes the habitats identified during the habitat survey. All the plant species names follow the nomenclature of Stace 1997. Historical satellite imagery of the site can be found in Appendix A. A map detailing the locations of the habitats described can be found in Appendix B, a map detailing the locations of waterbodies within 250m and 500m in Appendix C, photos of the habitats and ecological features in Appendix D and a detail on protected species legislation is in Appendix E.

Designated Sites

4.2 **Table 2: Statutory Designated Sites**

Site Name	Location	Nature Conservation Interest
Chichester and Langstone Harbour, SSSI SPA and Ramsar	SU 740 019 1.6km southeast	The SPA/ Ramsar designated was for the importance of this location for over wintering birds, with the SSSI designation related more to the specific habitat present, which included more than 300ha of seagrass beds (<i>Zostera sp.</i>) and saltmarsh.

- 4.3 There were two sites with statutory designation within 2km. This was Chichester and Langstone Harbour being a Special Protection Area (SPA), Site of Special Scientific Interest (SSSI) and a Ramsar site.

Species Records from the National Biodiversity Network

Bats

4.4 **Table 3: Bat Species Records**

Latin Name	Common Name	Records
<i>Barbastella barbastellus</i>	Western Barbastelle	1
<i>Eptesicus serotinus</i>	Serotine	14
<i>Nyctalus leisleri</i>	Leisler's Bat	1
<i>Nyctalus noctula</i>	Noctule	10
<i>Pipistrellus nathusii</i>	Nathusius' pipistrelle	6
<i>Pipistrellus pipistrellus</i>	Common Pipistrelle	14
<i>Pipistrellus pygmaeus</i>	Soprano Pipistrelle	15
<i>Plecotus auritus</i>	Brown Long Eared Bat	7

- 4.5 There were eight species of bat within the 2km historical records search area. Two were nationally rare species, with western barbastelle having a single record and Nathusius' pipistrelle with six records. All three of the larger bat species were represented, with records of serotine, noctule and a single record of Leisler's bat. Brown long eared bat was also present, with records of common pipistrelle and soprano pipistrelle within the 2km radius.

4.6 **Table 4: Terrestrial and Riparian Mammal Records**

Latin Name	Common Name	Number of Records
<i>Arvicola amphibius</i>	Water Vole	29

<i>Erinaceus europaeus</i>	Hedgehog	68
<i>Muscardinus avellanarius</i>	Dormouse	5
<i>Meles meles</i>	Badger	4

- 4.7 Water vole records were present within the 2km search radius, with records for dormouse and badger present. There was also a relatively high number of records for hedgehog.

Amphibians and Reptiles

- 4.8 **Table 5: Reptile and Amphibian Records**

Latin Name	Common Name	Number of Records
<i>Anguis fragilis</i>	Slow Worm	12
<i>Natrix helvetica</i>	Grass-snake	5
<i>Zootoca vivipara</i>	Common Lizard	1
<i>Lissotriton helveticus</i>	Palmate Newt	3
<i>Triturus cristatus</i>	Great Crested Newt	1
<i>Bufo bufo</i>	Common Toad	3
<i>Rana temporaria</i>	Common Frog	41
<i>Lissotriton vulgaris</i>	Smooth Newt	16

- 4.9 All of the common amphibian species were present within the 2km search radius, with a single record of great crested newt also present. Three species of reptile were present, with records of common lizard, slow worm and grass-snake.

Granted Mitigation Licences

4.10 **Table 6: Granted Bat Mitigation Licence Applications within 2km**

Licence Number	Distance and Direction	Species	Type	Date	NGR
EPSM2013-6026	0.5km southeast	Common Pipistrelle, Soprano Pipistrelle, Brown Long Eared Bat	Destruction of a Resting Place	30/08/2013 to 01/07/2014	SU 8060 0670
2018-37352-EPS-MIT	1.8km east	Common Pipistrelle	Damage and Destruction of a Resting Place	01/10/2018 to 31/07/2020	SU 8180 0752
EPSM2013-6852	1.3km north	Common Pipistrelle, Serotine, Brown Long Eared Bat	Destruction of a Resting Place	10/12/2013 to 30/04/2014	SU 7988 0822
2017-31936-EPS-MIT	1.7km southeast	Common Pipistrelle	Destruction of a Resting Place	31/10/2017 to 30/11/2018	SU 7870 0602

4.11 There were four granted Natural England mitigation licences within the 2km search radius. All were for common bat species and for the destruction/ damage of resting places. A single licence included the destruction of a resting place for serotine.

Summary of Historical Habitats

4.12 Over the past 20 years the site had been in use as arable agricultural land and had undergone regular disturbance. There appeared to be some fallow years, but since 2013 the land appeared to be in use as grazing pasture, which is likely to have kept the grass sward extremely low and limited.

Summary of Habitats Present on Site

4.13 The habitat comprised of a hard standing track (leading from the site entrance), a single stable building situated to the south of the land parcel a small area of ruderal habitat and an area of unmanaged grassland. There was a native species hedgerow along the eastern fringe of the survey area and two small areas of scrub vegetation. The total survey area was 0.2756ha in size.

Habitats Present on Site within the Survey Boundary

- 4.14 **Urban Development Land Sealed Surface** – Leading from the road, a driveway provided both vehicle access and parking into the land parcel.
- 4.15 **Buildings** – There was a single building present within the survey area. This was an old stable unit that was no longer in use to house livestock/ horses. Most of the doors were open and the walls comprised of a single layer of wooden panelling, with a pitched roof lined with bitumen felt.
- 4.16 **Ruderal/ Ephemeral Vegetation (17)** - There was a small area of this habitat type present. This is potentially indicative of a greater input of nutrient/ wetter ground. Common sorrel (*Rumex acetosa*), creeping buttercup (*Ranunculus repens*), nettle (*Urtica dioica*) and rosebay willow herb (*Chamaenerion angustifolium*).
- 4.17 **Other Neutral Grassland (26b)** - The largest area of habitat present was grassland that appeared to have been previously grazed and was not now subject to this management. It had become thick and tussocky. The sward was dominated by stands of false oat grass (*Arrhenatherum elatius*) with an occasional growth of Yorkshire fog (*Holcus lanatus*). Occasional common sorrel (*Rumex acetosa*), creeping buttercup (*Ranunculus repens*) and ribwort plantain (*Plantago lanceolata*) were present within the sward.
- 4.18 **Mixed Scrub (H3H)** – There were two small areas habitat type situated on the western edge of the site. This habitat was entirely isolated and not connected to any other similar habitat. The dominant species within this habitat type were hawthorn (*Crataegus monogyna*), blackthorn (*Prunus spinosa*) and bramble (*Rubus fruticosus agg.*).
- 4.19 **Native Hedgerow (H2)** - The eastern aspect of the survey area was demarcated by a hedgerow. The species present were hawthorn (*Crataegus monogyna*), hazel (*Corylus avellana*), elder (*Sambucus nigra*) and field maple (*Acer campestre*). The height of the hedge was around 6m, with a width of approximately 4m.

Habitat Condition Assessment

4.20 **Table 7: Habitat Distinctiveness and Condition Assessment**

Habitat Type	UK Habs Code	Total Habitat Area (ha) or length (km)	Distinctiveness	Condition Assessment Scoring	Habitat Condition	Score
Other Neutral Grassland	26b	0.1644ha	Medium	4	Moderate	2
Ruderal Vegetation	17	0.0256ha	Medium	4	Moderate	2
Mixed Scrub	H3H	0.0076ha	Medium	4	Moderate	2
Native Hedgerow	H2	0.0392ha	Medium	6	Good	3
Buildings	U1B5	0.0158ha	Very Low	N/A	N/A	0
Urban Development Land, Sealed Surface	U1B	0.0230ha	Very Low	N/A	N/A	0

5 POTENTIAL FOR PROTECTED SPECIES

Breeding Birds

- 5.1 The survey was conducted at a time which is considered to be outside of the breeding season. The following species were observed within the vegetation within the site boundary and within close proximity to the site. These species were; great tit (*Parus major*), crow (*Corvus corone*), wood pigeon (*Columba palumbus*), black bird (*Turdus merula*), blue tit (*Cyanistes caeruleus*) and robin (*Erithacus rubecula*).

Bats

- 5.2 The stable block had previously been categorised as having a low potential to support roosting bats (Ecology Co-op 2020). The structural integrity of this building had further degraded, and it was extremely open and draughty. Furthermore, no evidence of bats was observed within

this building. This building can now be classified as having a *negligible* potential to support roosting bats.

- 5.3 The surrounding habitats comprised mainly of intensive arable agriculture with some fields with boundary hedgerows. There were also agricultural ditches present, which could provide some limited foraging potential for bats.

Terrestrial and Riparian Mammals

- 5.4 There were records of dormice within the 2km search area and dormice habitat was present in the form of the hedgerow along the eastern boundary. This hedgerow had connectivity to larger blocks of woodland and hedgerow habitat within the landscape. This dormouse potential habitat is not to be impacted by the proposed development works, but measures would be required to protect this adjacent habitat.
- 5.5 Records of badger (*Meles meles*) are always confidential. While potential badger foraging habitat was present within the survey area, no badger setts were found within the proposed development footprint or within a 30m zone around this.
- 5.6 Records of hedgehog were present within the 2km search area and there was hedgehog habitat present within the woodland and scrub.
- 5.7 There were records of water vole but there was not any suitable riparian mammal habitat within the survey area or within a 30m zone around the survey area.

Reptile and Amphibian

- 5.8 There were seven water bodies within the 500m search radius. The closest water body was situated within approximately 75m (Pond 1) of the application site, but a previous pond assessment (Ecology Co-op 2020) had ruled this pond out, and additionally, ruled out Ponds 2 & 3 regarding potential for great crested newts. This 2020 survey had conducted an environmental DNA survey on Pond 4 finding no presence of great crested newt.
- 5.9 Using the great crested newt risk calculator (**Table 8**) and making an assumption that Pond 4 could potentially support a breeding population of great crested newt, with the size of the proposed development footprint which falls within the 0.1 – 0.5ha lost/ damaged category), the rapid risk assessment result is Green: Offence Highly Unlikely.

5.10 **Table 8: 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)	No effect	0
Land 100-250m from any breeding pond(s)	0.1 - 0.5ha lost or damaged	0.1
Land >250m from any breeding pond(s)	No effect	0
Individual great crested newts	No effect	0
Maximum:		0.1
Rapid risk assessment result:	GREEN: OFFENCE HIGHLY UNLIKELY	

5.11 The grassland had become long and tussocky following a period of being left unmanaged. However, this site has been extremely isolated within the surrounding landscape and there was not any connectivity to other habitats where reptiles are likely to be present. Therefore, migration onto this location is not likely to have taken place. This grassland is only likely to have been recently left unmanaged and historical images suggest intensive grazing activity here, within the last 3 - 4 years.

Invasive Species

5.12 No evidence of invasive species was observed within the site boundary.

6 DISCUSSION AND RECOMMENDATIONS

Designated Sites and Habitats

6.1 The habitats present on site (also the historical habitats) were all relatively common and had been subject to regular disturbance historically, though grazing. The habitats were not considered to be of local, regional or national importance and are commonly encountered and offer negligible ecological value. The hedgerow to the east did offer ecological value, but this habitat is not to be affected by the proposed works.

6.2 The designated sites categorised for their support for wintering birds and for the present of marine plant species. Between these sites and the development site was a mixture of residential development of agricultural land. Furthermore, there were not any habitats present within the site boundary that could potentially support the species that these sites have been designed for. It is recommended that the adjacent habitats be protected by Heras fencing, that would surround the development site during any ongoing works at this location. Although, this was already installed at the time of the survey.

Breeding Birds

6.3 Throughout the survey area, there was potential for breeding birds to be present within the vegetation and within the stable building. 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 should avoid the breeding season (March to August inclusive). Nests are protected throughout the year, not just within the specified nesting season.

6.4 If this were not possible, a suitably experienced ecologist would be required to check areas of vegetation, 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 brush should be removed from site to ensure that it does not provide suitable nesting habitat.

Bats

6.5 To account for the foraging activity of bat species within the local area any lighting installed at the property will conform to the specifications which are outlined within BCT Guidance Note (2018). This will reduce any light pollution would have on 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.)*

Dormice

6.6 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*'.

6.7 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.*

6.8 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;*

6.9 To avoid any impacts on the adjacent hedgerow, and therefore avoiding any potential impact on dormice, it is recommended to install suitable fencing (Heras fencing, for example) along the edge of the hedgerow to the east. 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. A 5m buffer zone between the fencing and the hedgerow would be sufficient to protect this habitat.

Terrestrial Mammals

6.10 Hedgehog have seen their number decline significantly over the last 13 years by around 66%. There were records for hedgehog within 2km. The rubble may provide suitable refuge for hedgehogs and the habitat had some potential to support foraging hedgehogs if they are present in the local area.

6.11 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, including badger.

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

Reptiles and Amphibians

6.13 However, to account for any potential presence of great crested newt or reptile, while extremely unlikely, a precautionary method of works for reptiles and amphibians is recommended.

- The schedule of works is yet to be finalised, but any vegetation and soil removal should be undertaken outside of the terrestrial phase of the life cycle of great crested newt. This period is normally considered to be between March and April, with this species within aquatic habitats for their breeding season,*
- Vegetation removal would be carried out by hand and these clearance works would be supervised by a licenced ecological consultant. This licenced ecologist would only be required onsite during this vegetation removal but would brief all site workers on amphibian and reptile identification and what to do if one is found and where to relocate it to, with the worker given advice on how to proceed with care and where to relocate any amphibian if required. If great crested newt and reptile are found, the works would cease and consultation sought with the licenced ecological consultant,*
- Hibernaculum habitat would be created prior to the start of the construction phase, with this being situated outside of the works impact zone. This would consist of a mixture of soil over stone and untreated wood, normally cut vegetation. Any amphibians or reptiles found would be moved to this hibernacula,*
- Any excavations should be covered at night to prevent any amphibians falling in and becoming trapped. This would also be applicable to mammals,*
- Ground works would be carried out for a short a period as possible and all works would be conducted during daylight hours only, so to above the time when great crested newt are most active,*
- The storage of any debris, soil or cut vegetation on site would be avoided to prevent this becoming hibernacula for reptile and great crested newt.*

Invasive Species

- 6.15 No invasive species were apparent at the time of the walkover survey. However, these may be obscured by thick vegetation in places. If any vegetation clearance takes place, a precautionary check prior to this is recommended to ensure that no invasive plant species are present and likely to be spread, off site, due to vegetation removal.

7 ECOLOGICAL IMPACT ASSESSMENT

- 7.1 The habitats on site did not comprise of the type that would likely support a high degree of biodiversity value. There were not any statutory or non-statutory designated sites within the site boundary or immediately adjacent. The scale of the proposed development works at this location are all relatively minor and are not considered to be of sufficient in scope to impact any of the designated sites within the 2km search radius.
- 7.x A precautionary works method statement for any vegetation clearance and ground works has been recommended, in the highly unlikely event that any reptile or amphibians are found during the works.
- 7.2 Recommendation has been given relating to specifications on any external lighting to ensure that foraging activity of bats is not impacted by the proposed development.
- 7.3 Recommendation has been incorporated regarding ensuring that animals do not become trapped in an excavation and recommendation to install a Hera fence around the perimeter of the proposed development site, which would prevent any encroachment into adjacent habitats during any construction phase.
- 7.4 Recommendation has been incorporated into this report to provide enhancements for roosting bats and to provide nesting replacement and additional opportunities for birds. Enhancements have also been recommended to be incorporated into the design of the scheme which would provide native tree, shrub and herbaceous species.
- 7.5 It is predicted that any development at this location, following the recommendations outlined within this report, would not have any negative residual impacts in isolation or cumulatively across the local area.

8 ECOLOGICAL COMPENSATION AND ENHANCEMENT

8.1 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.

8.2 Tree and shrub planting of native species would provide an ecological enhancement by replacing some of the ornamental planting current present within the property. Herbaceous species could also be planted into newly landscape areas, providing a valuable nectar source for invertebrate species.

8.3 **Table 9: List of Recommended Plant Species for Native Tree and Shrub Planting**

Species Name	Common Name
<i>Carpinus betula</i>	Hornbeam
<i>Corylus avellana</i>	Hazel
<i>Crataegus monogyna</i>	Hawthorn
<i>Prunus avium</i>	Bird cherry
<i>Quercus robur</i>	Oak
<i>Sambucus nigra</i>	Elder
<i>Sorbus aucuparia</i>	Rowan

8.4 **Table 10: List of Recommended Plant Species for Native Herbaceous Species Planting**

Species Name	Common Name
<i>Bluebell</i>	Hyacinthoides non-scripta
<i>Digitalis purpurea</i>	Foxglove
<i>Field forget-me-not</i>	Myosotis arvensis
<i>Lavandula angustifolia</i>	English lavender
<i>Leucanthemum vulgare</i>	Oxeye daisy
<i>Origanum vulgare</i>	Wild marjoram
<i>Potentilla erecta</i>	Tormentil
<i>Primula veris</i>	Cowslip
<i>Silene dioica</i>	Red campion

<i>Silene latifolia</i>	White campion
<i>Silene noctiflora</i>	Night-flowering catchfly
<i>Succisa pratensis</i>	Devil's-bit scabious

- 8.5 As part of the scheme, it is recommended to install two bird and two bat boxes on adjacent trees. These would provide an ecological enhancement by providing suitable roosting and nesting locations for these protected species.

9 REFERENCES

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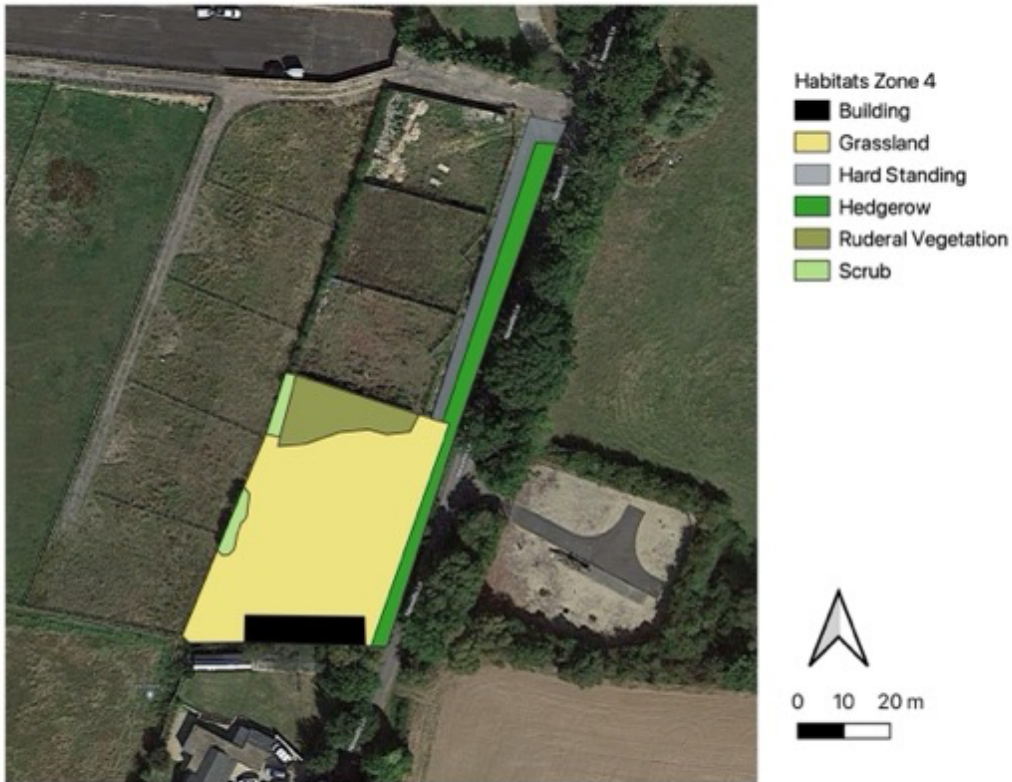
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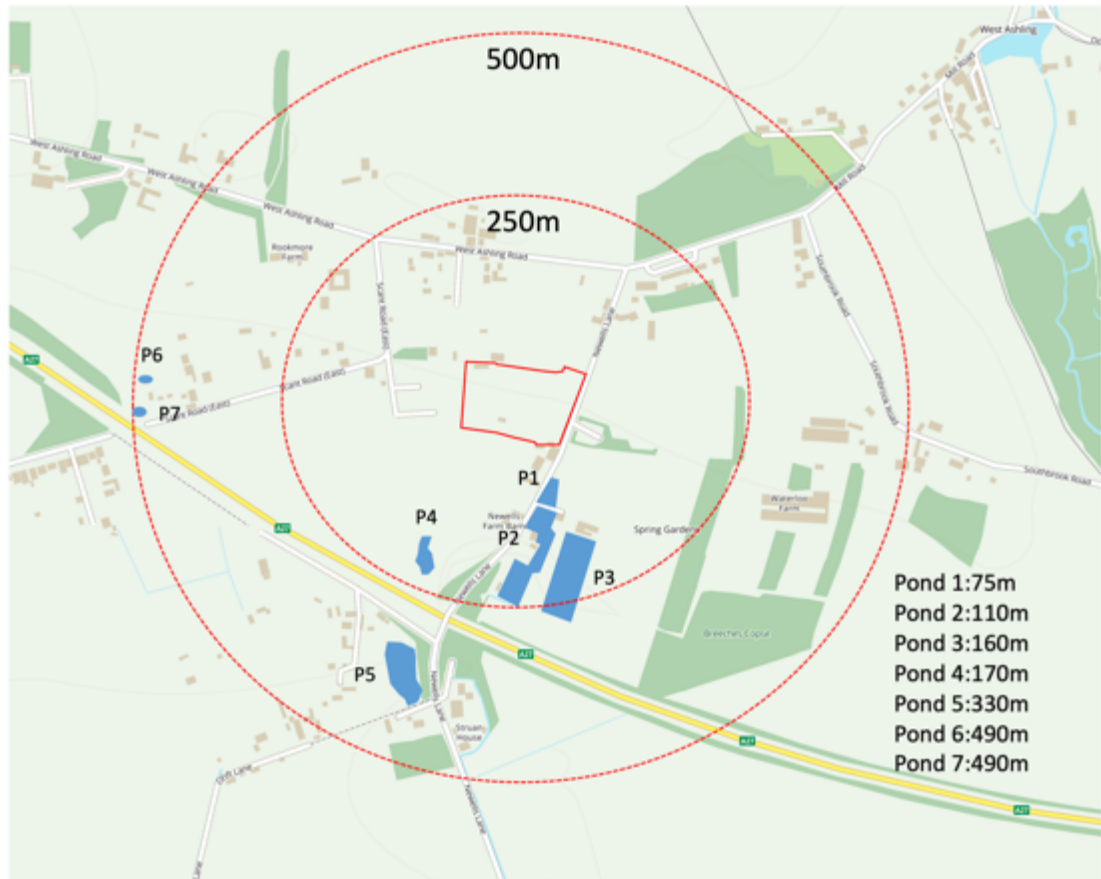
APPENDIX A: HISTORICAL SATELLITE IMAGES



APPENDIX B: PRELIMINARY ECOLOGICAL WALKOVER SURVEY HABITAT MAP



APPENDIX C: LOCATION OF WATERBODIES WITHIN 250M AND 500M



APPENDIX D: PHOTOS OF THE SITE

<p><i>Plate 1: Access Track and Hedgerow</i></p>	<p><i>Plate 2: Ruderal Habitat</i></p>
	
<p><i>Plate 3: Grassland and Scrub</i></p>	<p><i>Plate 4: Stables</i></p>
	

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

Species	Legislation (England & Wales)	Offences	Licensing procedures (England & Wales)
<p>Bats European protected species</p>	<p>Conservation of Habitats and Species Regulations 2019</p>	<p>Deliberately¹ capture, injure or kill a bat; deliberate disturbance² 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.]</p>	<p>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)</p>
	<p>Wildlife and Countryside Act 1981 (as amended) S.9</p>	<p>Intentionally or recklessly obstruct access to any structure or place used for shelter or protection or disturb a bat in such a place.</p>	<p>Licence from NE is required for surveys (scientific purposes) that would involve disturbance of bats or entering a known or suspected roost site.</p>
<p>Great Crested Newt European protected species</p>	<p>Conservation of Habitats and Species Regulations 2019</p>	<p>Deliberately¹ capture, injure or kill a great crested newt; deliberate disturbance² 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.</p>	<p>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)</p>
	<p>Wildlife and Countryside Act 1981 (as amended) S.9</p>	<p>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.</p>	<p>Licences issued for science (survey), education and conservation by Natural England.</p>
<p>Badger</p>	<p>Protection of Badgers Act 1992</p>	<p>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.]</p>	<p>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)</p>

Species	Legislation (England & Wales)	Offences	Licensing procedures (England & Wales)
Birds	Wildlife and Countryside Act 1981 (as amended) S.1	<p>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.</p> <p>[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).]</p> <p>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.</p>	<p>No licences are available to disturb any birds in regard to development.</p> <p>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.</p> <p>General licences are available in respect of ‘pest species’ but only for certain very specific purposes e.g. public health, public safety, air safety.</p>
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.	<p>No licence is required in England.</p> <p>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.</p>
Rabbits, foxes and other wild mammals	Wild Mammals (Protection) Act 1996	Intentionally inflict unnecessary suffering to any wild mammal.	<p>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’.</p>