

Preliminary Ecological Appraisal

Survey site:

Lower Rivermead Farm, Willow Lane, Wargrave, RG10 8LH

Client:

Nicola Butler

Survey date:

30th April 2025

Project:

This report is prepared to inform a planning application with Wokingham Borough Council. The proposal is described as:

The construction of an outdoor equestrian arena (20m x 40m).

PEA survey methodology and legislation can be found in the Arbtech Supplement: [PEA Methodology and Legislation - 2024.](#)

The survey, results, and recommendations contained within this report are valid for 18 months. An updated site visit may be required if the report is to be used any longer than 18 months after completion.

Site Location and Context					
<p>The survey site is centred on National Grid Reference SU 78235 80037 and has an area of approximately 1.70ha. The site comprises one field (modified grassland) currently used for grazing horses with access provided to the field via a worn asphalt and gravel track. The wider site comprises agricultural buildings, fields used for grazing livestock, with pockets of scattered trees/woodland and hedgerows. There is a man-made drainage system ~0.25km to the north of the site. The site comprises 'Loamy and clayey soils of coastal flats with naturally high groundwater' as classified by Landis Soilscales. The site is situated within Wargrave Marsh, with aerial imagery showing the local landscape to have an agricultural character. Positioned between the River Thames (~0.2km west) and Hennerton Backwater (~0.2 km east), the site and adjacent properties are located on an island with access provided by a bridge ~0.7km to the south. The presence of nearby waterbodies likely enhances the area for a variety of species, including bats amphibians and reptiles. The town of Wargrave, Berkshire is located ~1.0km to the south of site, with the town of Lower Shiplake, Berkshire ~0.4km west of site, across the River Thames. The surrounding area is predominantly agricultural, with pockets of woodland, hedgerows and residential properties in all directions. Hennerton Golf Club is located ~0.4km east of the site, on the far side of Hennerton Backwater.</p>					
Survey Details					
<p>The site survey was undertaken by Beth Ellison-Perrett BSc (Hons) MSc, MRSB, Senior Ecologist, an ecologist with four years of experience, and holder of Natural England survey licences for bats [2023-11066-CL17-BAT] and great crested newt [2024-11998-CL08-GCN].</p>					
Date of survey	Temperature (°C)	Humidity (%)	Cloud Cover (%)	Wind (km/h)	Rain
30/04/2025	23	39	0-10	8	None
Survey limitations					
<p>It should be noted that whilst every effort has been made to describe the baseline conditions within the survey area, and evaluate these features, this report does not provide a complete characterisation of the site. This assessment provides a preliminary view of the likelihood of protected species being present. This is based on suitability of the habitats on the site and in the wider landscape, the ecology and biology of species as currently understood, and the known distribution of species as recovered during the searches of historical biological records. A biological records data search has not been undertaken. However, given the location of the site, the nature of the habitats present and the assessed suitability of the site for protected or notable species, it is not anticipated that the purchase of biological records data will add any significant weight or alter the conclusions and recommendations outlined in this report. There were no specific limitations to the survey.</p>					

Ecological Survey Factor	Detailed using desk study and site survey (<i>carried out under good weather conditions</i>). Any specific limitations noted within relevant section. This table may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.
Conclusion, Impact or Recommendations	
Habitats and plants (see habitat map in appendix 1, location plan in appendix 2, proposal plan in appendix 3 and photos in appendix 4). Botanical species are described with reference to the DAFOR scale (D = Dominant; A = Abundant, F = Frequent, O = Occasional, R = Rare).	
<i>Summary of Survey Findings</i>	<p>The site does not contain any habitats listed as a habitat of principal importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act (2006). Other habitats within the site are common and widespread and have low ecological value. Notable habitats are present within 2km (see below).</p> <p>On-site habitat descriptions</p> <p><u>u1b – Developed land: sealed surface</u></p> <p>Access to site is provided by a worn asphalt track leading on from Willow Lane.</p> <p><u>u1c – Artificial unvegetated: unsealed surface</u></p> <p>A small section of gravel separates the access road from the track leading to main site.</p> <p><u>u1e – Built linear features</u></p> <p>The modified grassland on-site is bound with wire fencing with metal gates. Some of the gates propped-up rather than freestanding. The modified grassland parcel is partitioned with an electric fence, keeping the horses present at the time of the survey in the south-western section of the field.</p> <p><u>g4 103 – Modified grassland, horse grazed.</u></p>

	<p>The majority of site is comprised of modified grassland used for horse grazing with a track providing access from the farmyard. The parcel is bound with a metal wire fence and is partitioned with an electric fence, keeping the two horses present in the south-west of the parcel.</p> <p>There was a regular sward height of ~5cm, which increases slightly to the east of parcel, reflecting the current use for horse grazing. The track has a regular, short sward height of ~3cm.</p> <p>A small section of bramble scrub is present along the south-west perimeter of the site which shows evidence of clearance and small patches of the parcel are covered with common nettle; however, these account for <20% of the parcel area.</p> <p>There is evidence of physical damage present from high levels of access surrounding the gates, however, these account for <5% of the parcel area. There are no other areas of bare ground or bracken present in the parcel.</p> <p>An individual specimen of Spanish bluebell (<i>Hyacinthoides hispanica</i>) was located in the centre of the parcel. No other invasive non-native species were identified.</p> <p>Species present within the parcel include:</p> <ul style="list-style-type: none"> • Abundant: Soft-brome (<i>Bromus hordeaceus</i>), Meadow-grass (<i>Poa pratensis</i>), Rye-grass (<i>Lolium perenne</i>), Yorkshire-fog (<i>Holcus lanatus</i>) and Sweet vernal-grass (<i>Anthoxanthum odoratum</i>). • Frequent: Common chickweed (<i>Stellaria media</i>), Yarrow (<i>Achillea millefolium</i>), Daisy (<i>Bellis perennis</i>), Creeping buttercup (<i>Ranunculus repens</i>), White clover (<i>Trifolium repens</i>), and Dandelion (<i>Taraxacum</i>). • Occasional: Common nettle (<i>Urtica dioica</i>), Greater plantain (<i>Plantago major</i>) and Bramble (<i>Rubus fruticosus</i>). • Rare: Hogweed (<i>Heracleum sphondylium</i>), Cow parsley (<i>Anthriscus sylvestris</i>), Spanish bluebell (<i>Hyacinthoides hispanica</i>) and Common Ragwort (<i>Jacobaea vulgaris</i>). <p>This habitat was subject to a condition assessment using the Grassland Low habitat condition sheet. The results are detailed below:</p> <ul style="list-style-type: none"> A. There are less than 6-8 vascular plant species per m². B. Sward height is not varied (at least 20% <7cm and at least 20% is >7cm).
--	---

	<p>C. Presence of scrub accounts for <20% of total area.</p> <p>D. Physical damage is evident in <5%.</p> <p>E. Cover of bare ground is <10%.</p> <p>F. Cover of bracken is <20%.</p> <p>G. One specimen of Spanish bluebell (<i>Hyacinthoides hispanica</i>) is present. There is otherwise an absence of invasive non-native species.</p> <p>It is considered that the modified grassland is classified as poor condition.</p> <p>Local notable habitats</p> <p>There are a number of priority habitats within 2km of the site. The closest priority habitats are detailed below:</p> <table><tr><th>Broad Habitat Group</th><th>Habitat Type</th><th>Distance from site</th></tr><tr><td rowspan="2">Grassland</td><td>Coastal and floodplain grazing marsh</td><td>~0.95km north</td></tr><tr><td>Lowland calcareous grassland</td><td>~1.5km north</td></tr><tr><td rowspan="5">Woodland</td><td>Ancient woodland</td><td>~0.8km west</td></tr><tr><td rowspan="3">Deciduous woodland</td><td>~0.15km north</td></tr><tr><td>~0.15km south-west</td></tr><tr><td>~0.3km north-west</td></tr><tr><td>Traditional orchards</td><td>~1.0km south-east</td></tr><tr><td rowspan="2">Wetlands</td><td>Lowland fens</td><td>~0.3km north</td></tr><tr><td>Chalk rivers – Camps Pool</td><td>~1.2km south</td></tr><tr><td>Other</td><td>No main habitat but additional habitats present</td><td>~0.6km north-west</td></tr></table>	Broad Habitat Group	Habitat Type	Distance from site	Grassland	Coastal and floodplain grazing marsh	~0.95km north	Lowland calcareous grassland	~1.5km north	Woodland	Ancient woodland	~0.8km west	Deciduous woodland	~0.15km north	~0.15km south-west	~0.3km north-west	Traditional orchards	~1.0km south-east	Wetlands	Lowland fens	~0.3km north	Chalk rivers – Camps Pool	~1.2km south	Other	No main habitat but additional habitats present	~0.6km north-west
Broad Habitat Group	Habitat Type	Distance from site																								
Grassland	Coastal and floodplain grazing marsh	~0.95km north																								
	Lowland calcareous grassland	~1.5km north																								
Woodland	Ancient woodland	~0.8km west																								
	Deciduous woodland	~0.15km north																								
		~0.15km south-west																								
		~0.3km north-west																								
	Traditional orchards	~1.0km south-east																								
Wetlands	Lowland fens	~0.3km north																								
	Chalk rivers – Camps Pool	~1.2km south																								
Other	No main habitat but additional habitats present	~0.6km north-west																								
Foreseen Impacts	<p>On-site habitats</p> <p>The proposed development will result in the loss of modified grassland habitat. This is likely to have a minimal impact on biodiversity due to the low ecological value of these habitats.</p>																									

	Notable habitats No direct impacts to any notable habitats will occur as a result of the proposed development. However, due to the proximity of the site to DW (0.15km north and 0.15km south-west), indirect effects (e.g. pollution, dust, litter, surface run off, etc.) could occur during construction.							
Recommendations	On-site habitats None required. Notable habitats None required. Biodiversity net gain The Environment Act (2021) requires all developments (excluding exemptions) to deliver a 10% net gain in biodiversity. This is mandatory for larger developments and comes into force for smaller developments on 2nd April 2024. Therefore, the planning application must be accompanied by a landscaping/habitat creation and enhancement strategy, biodiversity net gain calculations and a habitat management and monitoring plan to ensure the proposed development delivers a 10% net gain.							
Locality and Designated Sites								
Summary of Survey Findings	On-site designations The site is not subject to any designation. Statutory designated sites (within 2km) There is one statutory site within 2km of the site, as detailed below: <table><tr><th>Designation</th><th>Name</th><th>Distance from site</th><th>Description</th></tr></table>				Designation	Name	Distance from site	Description
Designation	Name	Distance from site	Description					

	SSSI	Harpsden Wood	~1.6km west	The wood is a SSSI ancient semi natural, broadleaved high forest, dominated by beech, pedunculate oak and ash with the occasional sessile oak.
	National Landscape	Chilterns	~1.75km west	Containing three SACs, 64 SSSI's, and three National Nature Reserves, 494 local wildlife or geology sites and the Chilterns Important Plant Area (IPA), the site has been designated to conserve and enhance the natural beauty of the Chilterns area.
	<p>The site lies within the impact risk zone for Harpsden Wood SSSI.</p> <p>Non-statutory designated sites</p> <p>The presence of non-statutory designated sites within 2km of the site cannot be established without data from Thames Valley Environmental Records Centre.</p>			
<i>Foreseen Impacts</i>	<p>On-site designations</p> <p>No impacts foreseen.</p> <p>Statutory and non-statutory designated sites</p> <p>No impacts to designated sites are anticipated due to the small scale and distance of the proposed development from such sites (where known) as well as the surrounding physical barriers.</p> <p>The site lies within the impact risk zone for Harpsden Wood SSSI. The proposed development type is not listed as a possible high risk for this designation.</p>			
<i>Recommendations</i>	<p>On-site designations</p> <p>None required.</p>			

	Statutory and non-statutory designated sites None required.
Invasive / Non-native species	
<i>Summary of Survey Findings</i>	No problematic invasive and non-native species recorded on site.
<i>Foreseen Impacts</i>	N/A
<i>Recommendations</i>	No further surveys but remain vigilant.
Invertebrates	
<i>Summary of Survey Findings</i>	The habitats present on-site, including grassland likely provide common invertebrates with opportunities to forage and shelter. The site contains no further notable habitats which may provide niches for specialised or protected invertebrates.
<i>Foreseen Impacts</i>	Modified grassland will be removed during construction. The loss of such habitats is likely to be inconsequential to local invertebrate populations owing to their low value and the presence of more extensive habitat locally.
<i>Recommendations</i>	No further surveys.
Bats	
<i>Summary of Survey Findings</i>	<p>EPSL data</p> <p>A search of the magic.gov.uk database for granted EPSLs within a 2km radius of the site has been completed. Displaced bats from licensed sites <2km away from the survey site will find alternative habitat either within the mitigation measures implemented as part of the licence or will relocate to other known roosts sites in close proximity to the licensed site. There are 14 EPSL licences within 2km of the site, of which three are within 500m, located 400m south for the destruction of a resting place for soprano pipistrelle (EPSM2012-4004); 465m west for the destruction of a resting place for soprano pipistrelle (2015-7768-EPS-MIT) and 475m south-west for the destruction of a resting place for common pipistrelle and soprano pipistrelle (2015-7819-EPS-MIT).</p> <p>Foraging and commuting habitat</p>

	<p>Habitats recorded on site are assessed to provide limited foraging opportunities for bats in the form of modified grassland. These habitats are likely to provide micro-climatic conditions that support invertebrates that will in turn provide foraging opportunities for local bat populations. Adjacent to the site, is a small orchard which could be utilised by foraging bats. The wider site comprises agricultural buildings, fields used for grazing livestock, with pockets of scattered trees/woodland and hedgerows. There is a man-made drainage system ~0.25km to the north of the site. Positioned between the River Thames (~0.2km west) and Hennerton Backwater (~0.2 km east), the presence of nearby waterbodies likely enhances the area for bats.</p> <p>Roosting habitat</p> <p>There are no suitable roosting habitats onsite.</p>
<i>Foreseen Impacts</i>	<p>Roosting habitat</p> <p>There are no suitable roosting habitats onsite.</p> <p>Foraging and commuting habitat</p> <p>The proposed development will result in the loss of small areas of modified grassland but given their low value and the presence of more extensive areas of foraging and commuting habitat in the locality, this is likely to be inconsequential for bats.</p> <p>Artificial lighting</p> <p>The proposed development may lead to an increase in the amount of current lighting of surrounding habitats or the retained building without mitigation. This may disturb commuting bats.</p>
<i>Recommendations</i>	<p>Roosting habitat</p> <p>N/A</p> <p>Foraging and commuting habitat</p> <p>No further surveys are required.</p>

	<p>Artificial lighting</p> <p>A low impact lighting strategy will be adopted for the site during post-development which outlines the areas of the site that will be retained as dark corridors. Parameters can be found on the Bat Conservation Trust website: https://www.bats.org.uk/our-work/buildings-planning-and-development/lighting-2</p>
Birds	
<i>Summary of Survey Findings</i>	<p>Vegetation</p> <p>No suitable habitat present on site for nesting birds, as the grassland is grazed continuously by horses.</p> <p>Barn owls</p> <p>The site does not appear to provide any suitable nesting sites for barn owls.</p> <p>Overwintering birds</p> <p>Due to the small size of the site and the extent and type of the habitats recorded, the site not considered suitable to support a significant assemblage of protected and/or notable birds.</p>
<i>Foreseen Impacts</i>	<p>Vegetation</p> <p>No impacts are anticipated on nesting birds as a result of the proposed development.</p> <p>Barn owls</p> <p>None foreseen.</p> <p>Overwintering birds</p> <p>None foreseen.</p>
<i>Recommendations</i>	Vegetation

	<p>Precautions should be taken with machinery and noise levels when working close to any retained nests so as not to disturb any nearby nesting birds during construction works. At least a 3-5m buffer should be created between any machinery and active nests until the young have fledged.</p> <p>Barn owls</p> <p>None required.</p> <p>Overwintering birds</p> <p>None required.</p>
Reptiles	
<p><i>Summary of Survey Findings</i></p>	<p>EPSL data</p> <p>A review of the MAGIC database returned no granted EPSL records for protected reptiles within 2km of the site.</p> <p>Habitat suitability</p> <p>The dominant habitat onsite (modified grassland) is considered unsuitable for reptiles due to the species content (common and widespread species with minimal diversity) and associated grazing regime, where at the time of the survey the grassland was recorded as being a relatively short sward. Given the grazing regime employed on the modified grassland, as well as the species composition, it is considered unlikely that this faunal group would be present within this habitat. However, the bramble scrub could provide sheltering opportunities for reptiles. In any case, the bramble scrub is to be retained as part of the development proposals.</p> <p>Wider landscape</p> <p>The adjacent grassland is under the same grazing regime as the site and therefore, unlikely that reptiles would be present within this habitat. However, there is deciduous woodland (located ~0.3km north-west), the River Thames (located ~0.2km west) and Hennerton Backwater (located ~0.2 km east), all of which are of elevated ecological value within the wider</p>

	landscape and may represent important resources for local reptile populations. These habitats provide optimal foraging, commuting, and refuge opportunities for reptiles and are well connected to further suitable habitat in the wider landscape. The presence of reptiles utilising these adjacent habitats cannot be discounted.
<i>Foreseen Impacts</i>	<p>Modified grassland will be removed during construction. The loss of such habitats is likely to be inconsequential to local reptile populations owing to their low value and the presence of more extensive habitat locally. However, site clearance could result in the death or injury of reptiles, if present.</p> <p>The site does not form a connective pathway or stepping stone between areas of suitable reptile habitat in the wider landscape and the development is unlikely to lead to reptile habitat fragmentation.</p>
<i>Recommendations</i>	None required.
Amphibians	
<i>Summary of Survey Findings</i>	<p>EPSL and survey data</p> <p>A review of the MAGIC database returned no granted EPSL records or evidence indicating the presence of great crested newts resulting from historic pond surveys within 500m of the site. However, there are two EPSLs located 1575m north-west of the site for the damage and destruction of a resting place for GCN, as well as two GCN Class Survey Licence Returns in 2016 located 1km west and 1700m north-west. Great crested newts exist in metapopulations and are known to utilise ponds and their connecting terrestrial habitat during their life cycle; great crested newts are typically found within terrestrial habitats up to 500m from breeding ponds (Langton <i>et al.</i> 2001). As such, the great crested newt metapopulation known to be present over 1km west are not suitably connected to the site.</p> <p>Aquatic habitat suitability (including ponds within 500m)</p> <p>Great crested newts (GCN) exist in metapopulations and are known to utilise ponds and their connecting terrestrial habitat during their life cycle; great crested newts are typically found within terrestrial habitats up to 500m from breeding ponds (Langton <i>et al.</i> 2001).</p>

There are no ponds on the site, but a review of aerial imagery (MAGIC and OS Maps) indicates the presence of seven ponds within 500m. The ponds are located 150m north (P1), 190m north (P2), 205m north (P3), 270m east (P4), 420m south-east (P5), 465m north (P6) and 485m south (P7). P1 is no longer a pond and there was no evidence of a pond being located there for some time. P2 and P3 are located within the deciduous woodland within the wider site boundary and therefore were subject to assessment. Both ponds are natural, P2 is connected to a small drain and P3 is not connected to any springs and therefore, likely dry out over summer. P2 covers an approximate area of 530m² and P3 covers an approximate area of 755m². Both have very shallow banks and limited submergent vegetation. As a result of the HSI, P2 has been assessed to provide **Good** suitability and P3 has been assessed to provide **Below Average** suitability to support great crested newts. The scores for each HSI parameter can be viewed in the table below:

HSI Index	P2		P3	
	HSI Index Parameter	HSI Score	HSI Index Parameter	HSI Score
1 – Location	Zone A	1.0	Zone A	1.0
2 – Pond Area	500-700m	1	500-700m	1
3 – Pond Drying	Never dries	0.09	Dries annually	0.1
4 – Water Quality	Poor	0.33	Poor	0.33
5 – Shade	0-60%	1.0	96-100%	0.2
6 – Waterfowl	Absent	1.0	Absent	1.0
7 – Fish	Absent	1.0	Absent	1.0
8 – waterbody count in wider landscape within 500m	7	0.85	7	0.85
9 – Terrestrial Habitat	Moderate	0.67	Moderate	0.67
10 – Macrophytes	1-5%	0.35	<1%	0.3
TOTAL	-	0.754	-	0.507

	<table><tr><td>CATEGORY</td><td>-</td><td>Good</td><td>-</td><td>Below Average</td></tr></table> <p>P4, P5 and P6 are situated on the far side of Hennerton Backwater which has high sides and relatively fast flowing water and is likely to represent a significant barrier to dispersal. Additionally, P7 is located on the far side of the river Thames which is also a significant barrier to dispersal.</p> <p>Terrestrial habitat suitability</p> <p>The site provides limited suitable terrestrial habitat for amphibians given the lack of optimal habitat (i.e. scrub, rank grassland). The areas of modified grass offer sub-optimal habitat for terrestrial amphibians. The bramble scrub may offer refuge for these species, however, the bramble scrub is to be retained as part of the development proposals.</p>	CATEGORY	-	Good	-	Below Average																			
CATEGORY	-	Good	-	Below Average																					
Foreseen Impacts	<p>The proposed development will result in the loss of modified grassland habitat. If great crested newts are present within the pond 190m to the north (P2), when completing the rapid risk assessment published by Natural England (Natural England 2015), the proposed development produces a Green risk score, which states: Offence Highly Unlikely (see Figure 1 below).</p> <table><tr><td>Component</td><td>Likely effect (select one for each component; select the most harmful option if more than one is likely; lists are in order of harm, top to bottom)</td><td>Notional offence probability score</td></tr><tr><td>Great crested newt breeding pond(s)</td><td>No effect</td><td>0</td></tr><tr><td>Land within 100m of any breeding pond(s)</td><td>No effect</td><td>0</td></tr><tr><td>Land 100-250m from any breeding pond(s)</td><td>0.01 - 0.1 ha lost or damaged</td><td>0.01</td></tr><tr><td>Land >250m from any breeding pond(s)</td><td>0.01 - 0.1 ha lost or damaged</td><td>0.001</td></tr><tr><td>Individual great crested newts</td><td>No effect</td><td>0</td></tr><tr><td colspan="2">Maximum:</td><td>0.01</td></tr><tr><td>Rapid risk assessment result:</td><td colspan="2">GREEN: OFFENCE HIGHLY UNLIKELY</td></tr></table> <p>Figure 1: Screenshot of Natural England GCN rapid Risk Assessment completed in accordance with the proposed development plans.</p>	Component	Likely effect (select one for each component; select the most harmful option if more than one is likely; lists are in order of harm, top to bottom)	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)	0.01 - 0.1 ha lost or damaged	0.01	Land >250m from any breeding pond(s)	0.01 - 0.1 ha lost or damaged	0.001	Individual great crested newts	No effect	0	Maximum:		0.01	Rapid risk assessment result:	GREEN: OFFENCE HIGHLY UNLIKELY	
Component	Likely effect (select one for each component; select the most harmful option if more than one is likely; lists are in order of harm, top to bottom)	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)	0.01 - 0.1 ha lost or damaged	0.01																							
Land >250m from any breeding pond(s)	0.01 - 0.1 ha lost or damaged	0.001																							
Individual great crested newts	No effect	0																							
Maximum:		0.01																							
Rapid risk assessment result:	GREEN: OFFENCE HIGHLY UNLIKELY																								

<i>Recommendations</i>	<p>Owing to the nature of the proposed development and the low potential for impacts to great crested newts, further surveys are considered to be disproportionate. A precautionary working method will be implemented for common amphibians during construction, including the following measures:</p> <ul style="list-style-type: none"> • A staged approach will be adopted for vegetation clearance, whereby the vegetation will be strimmed to 15cm and left overnight to allow any amphibians to disperse. The vegetation can then be cleared to ground level and must be maintained at this level for the duration of construction to deter amphibians from the working area. • Any rubble piles will be dismantled by hand and debris and brash will be stored on pallets or removed from the site to prevent amphibians from utilising these areas. • Best practice pollution prevention measures will be implemented to minimise impacts to nearby aquatic habitats that amphibians could use. • Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations. • If any common amphibians are found in the working area these should be allowed to disperse of their own accord or, if at immediate risk, should be moved by hand to a sheltered, vegetated area away from disturbance. • In the unlikely event that a great crested newt is identified, works must cease and advice must be sought from a suitably qualified ecologist.
Badger	
<i>Summary of Survey Findings</i>	<p>No badger setts were noted on site or within a 30m radius of the site. No evidence of badgers was found on site or within 30m of the survey boundary. The site contains suitable habitat of grassland for badgers to forage and commute. The site is connected to suitable habitat for badgers including woodland and tree lines within the immediate area and woodland in the further landscape. Although no evidence indicating the presence of badgers was recorded during the site survey, the site does have connectivity to the wider landscape for badgers. As such, the future presence of badgers foraging and commuting for transient periods cannot be discounted.</p>

<i>Foreseen Impacts</i>	No works will be undertaken within 30m of a badger sett. Modified grassland will be removed during construction. The loss of such habitats is likely to be inconsequential to local badger populations owing to their low value and the presence of more extensive habitat locally. However, construction activities could result in the death or injury of badgers, if present.
<i>Recommendations</i>	<p>Owing to the nature of the proposed development and the low potential for impacts to bat roosts, further badger surveys are considered to be disproportionate. A precautionary working method will be implemented during construction, including the following measures:</p> <ul style="list-style-type: none"> Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape. The use of night-time lighting will be avoided, or sensitive lighting design will be implemented to avoid light spill on to retained habitats which badgers could use. Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations. <p>In the unlikely event that a badger sett is identified, works must cease and advice must be sought from a suitably qualified ecologist.</p>
Riparian animals	
<i>Summary of Survey Findings</i>	<p>A review of the MAGIC database returned no granted EPSL records for otters or water voles within 2km of the site.</p> <p>The River Thames is located ~0.2km west and Hennerton Backwater is located ~0.2 km east of the site. However, there are no water courses on the site. There are also no riparian habitats present on site or within an influencing distance.</p>
<i>Foreseen Impacts</i>	No impacts are anticipated on riparian animals as a result of the proposed development.
<i>Recommendations</i>	None required.
Hazel dormouse	
<i>Summary of Survey Findings</i>	<p>EPSL data</p> <p>A review of the MAGIC database returned no granted EPSL records for hazel dormice within 2km of the site.</p> <p>Habitat suitability</p>

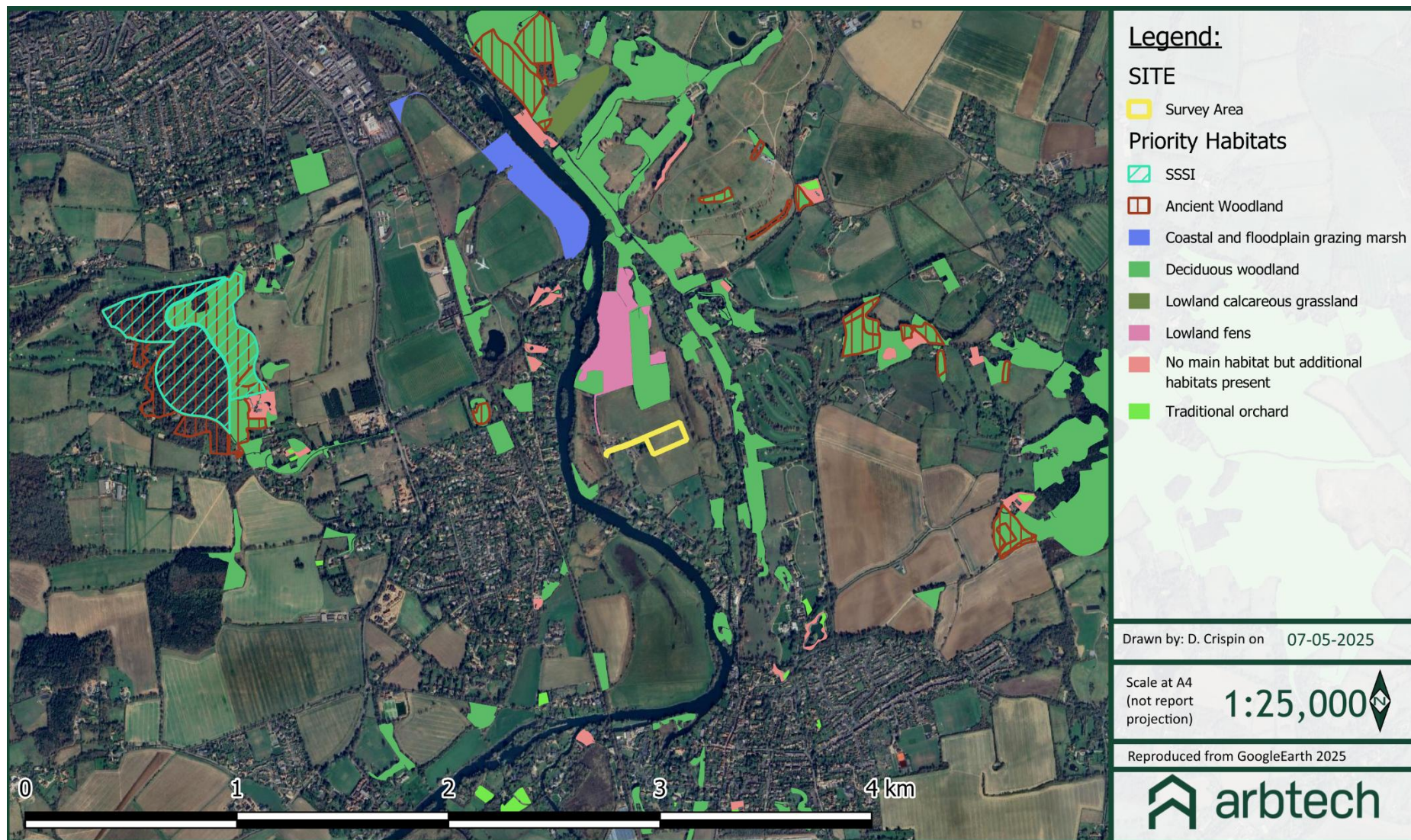
	Dormice typically utilise a three-dimensional habitat structure as to commute between feeding and breeding sites whilst avoiding predation. As such habitats on site are considered unsuitable for hazel dormice and therefore the likelihood of this species being present on site is considered acceptably low. Furthermore, for isolated habitats in the UK, research indicates that dormice require 20ha of woodland habitat to support a viable population (Bright <i>et al.</i> 1994). 20ha of woodland is not present on or directly adjacent to the site.
<i>Foreseen Impacts</i>	No impacts are anticipated on hazel dormice as a result of the proposed development.
<i>Recommendations</i>	None foreseen.
Other e.g. hedgehog	
<i>Summary of Survey Findings</i>	Habitats recorded on site are assessed to provide foraging, commuting, and refuge opportunities for hedgehogs in the form of and grassland. However, no evidence indicating the presence of hedgehogs was recorded on site. Although no evidence indicating the presence of hedgehogs was recorded during the site survey, the site does have connectivity for the wider landscape for hedgehogs. As such, the future presence of hedgehogs foraging and commuting for transient periods cannot be discounted.
<i>Foreseen Impacts</i>	Modified grassland will be removed during construction. The loss of such habitats is likely to be inconsequential to local hedgehog populations owing to their low value and the presence of more extensive habitat locally. However, construction activities could result in the death or injury of hedgehogs, if present.
<i>Recommendations</i>	<p>Similar to the badgers, a precautionary working method will be implemented during construction, including the following measures:</p> <ul style="list-style-type: none"> Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape. The use of night-time lighting will be avoided, or sensitive lighting design will be implemented to avoid light spill on to retained habitats which hedgehogs could use. Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations. <p>If any hedgehogs are found in the working area these should be allowed to disperse of their own accord or, if at immediate risk, should be moved by hand to a sheltered, vegetated area away from disturbance.</p>

	<p>Suggested biodiversity enhancements</p> <p>The following habitat creation and enhancement opportunities could be incorporated into the proposed development which would be beneficial for hedgehogs:</p> <ul style="list-style-type: none">• Planting fruit bearing trees and species-rich grassland to increase foraging opportunities.• Creation of brash piles or installation of hedgehog houses in shady areas.• Installation of gaps under boundary fencing to enable hedgehogs to move freely through the site.
--	--

Appendix 1: Survey/Habitat map

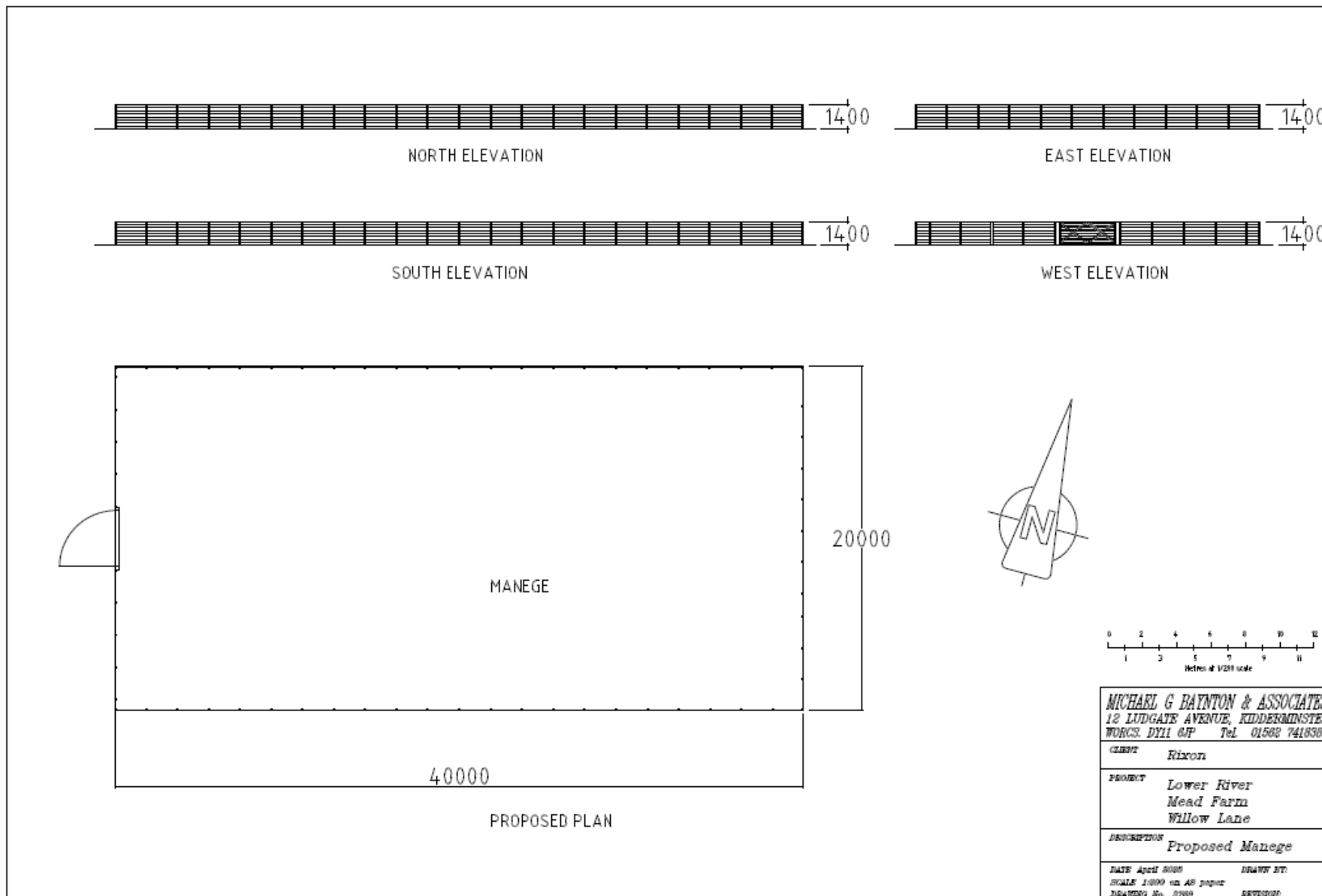


Appendix 2: Location map



Appendix 3: Proposed plan





Appendix 4: Habitat Photos



Developed Land; Sealed Surface	
Photograph	Description
	Figure 1: Worn asphalt track to the west of site.
Artificial Unvegetated; Unsealed Surface	
Photograph	Description
	Figure 2: Gravel track leading to the main site.
Modified Grassland – Horse Grazed	
Photograph	Description




Figure 3: Modified grassland



Figure 4: Modified grassland, looking north.



Figure 5: Modified grassland, looking west.

			<p>Figure 6: Area of bramble to the north-west of modified grassland parcel.</p>
--	--	--	--

Limitations and Copyright

Legal

Arbtech Consulting Limited has prepared this report for the sole use of the above-named client or their agents in accordance with our General Terms and Conditions, under which our services are performed. It is expressly stated that no other warranty, expressed or implied, is made as to the professional advice included in this report or any other services provided by us. This report may not be relied upon by any other party without the prior and express written agreement of Arbtech Consulting Limited. The conclusions and recommendations contained in this report are based upon information provided by third parties. Information obtained from third parties has not been independently verified by Arbtech Consulting Limited.

© This report is the copyright of Arbtech Consulting Limited. Any unauthorised reproduction or usage by any person other than the addressee is strictly prohibited.