



# ROAVR | GROUP

**Project:** 23\_PEA\_04\_38  
**Site:** Mill House, Laxfield, IP13 8DN  
**Client:** Jodie Wilson C/O David Nicholson



<b>Project Number:</b>	23_PEA_04_38
<b>Report Type:</b>	Preliminary Ecological Appraisal Report (PEAR)
<b>Site Address:</b>	Mill House, Laxfield, Woodbridge, IP13 8DN

Role:	Name:	Position:	Date:
Surveyor	Connor Harmsworth	Field Surveyor	22/5/2023
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Revision History		
Date:	Version number:	Summary of changes:
22/5/2023	1.0	First Draft
22/5/2023	1.0	First Issue

Matthew Harmsworth is Lead Consultant and Director at ROAVR Group. Matthew has over 15-years continuous arboricultural experience and five years continuous ecological experience. Matthew has an HND in Countryside Recreation and a Foundation Degree in Arboricultural and is the best selling author of two books in the field. Matthew has a Diploma in Rural Studies and has gained a wide range of ecological and arboricultural skills and knowledge through a combination of academic and practical experience. Matthew has 3-years experience undertaking Phase 2 Protected Species Surveys in particular with bats and badgers. Matthew is currently continuing study through Ecology Training UK and is studying Renewable Energies through the OU.

NOTE: Householder planning applications and brownfield sites are exempt from BNG assessments and biodiversity net gain measures will be discussed outside of the DEFRA Metric at section 7 and 8 of this report.

## Summary:

- i. We were appointed by Jodie Wilson C/O David Nicholson to undertake an appraisal of Mill House, Laxfield, Woodbridge, IP13 8DN in order to assess the potential ecological constraints to a planning proposal.
- ii. It is proposed to redevelop the site with the reduction of the Mill House to its original design as an ancillary dwelling.
- iii. Before visiting the site, a thorough desk study was undertaken, in order to determine historical records of designated sites, habitats and protected species within a 2km search area. Data was sourced from Natural England via the Department for Environment, Food and Rural Affairs Multi-Agency Geographic Information for the Countryside (DEFRA MAGIC) and also Suffolk Biodiversity Information Service (SBIS) as the LERC.
- iv. A site survey was carried out by Connor Harmsworth on 19/05/2023 under the guidance provided within CIEEM's 'Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017) and JNCC's 'Handbook for Phase 1 Habitat Survey' (JNCC, 2010).
- v. Development proposals must have regard for protected species identified as potentially occurring on, or near to, the site (e.g., amphibians, birds, terrestrial mammals, and reptiles). Mitigation measures to protect these species have been produced within this report to ensure that the proposed works comply with relevant UK legislation.
- vi. Due to the presence of potential roosting features within Building B1 and five standing water bodies within 200m of the site, further Phase 2 protected species are required to include eDNA assessment for Great Crested Newts and nocturnal activity surveys for Bats.

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## Acknowledgements:

Data referred to within this report was sourced from Natural England Department for Environment, Food and Rural Affairs Multi-Agency Geographic Information for the Countryside (DEFRA MAGIC) database and through direct consultation with LERC at SBIS.

## Client Documents:

This report has been completed on assumption that the plans provided by the client at the time of issue of this report remain the same. A list of the documents provided by the client can be found in the table below.

*Table: Documents provided by the client as of 04/05/2023*

Plans provided by client as of 04/05/2023
2206_Mill_House_Pre-App_Design_Report_230215.pdf

## 1 Introduction

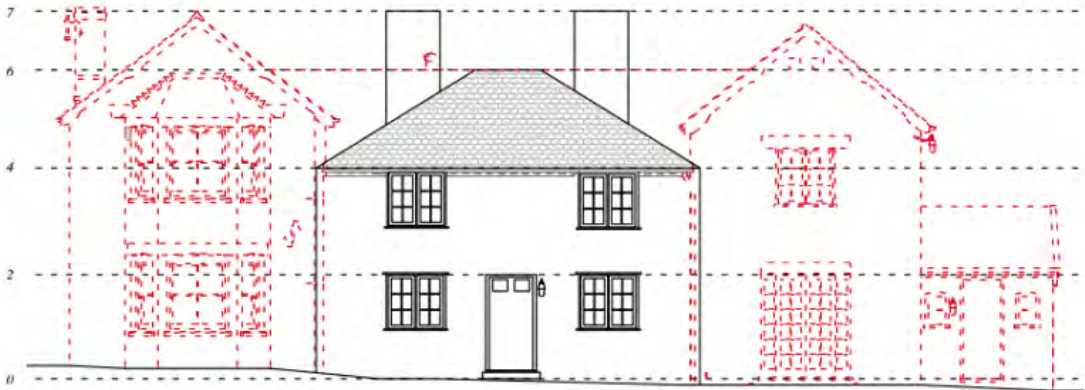
- 1.1 ROAVR Group were commissioned to undertake a Preliminary Ecological Appraisal Report (PEAR) at Mill House, Laxfield, Woodbridge, IP13 8DN.
- 1.2 The survey was comprised of a desktop study, which was undertaken in May 2023 and a site survey, which was carried out by Connor Harmsworth on the 19th May 2023.
- 1.3 The methodology and results are outlined within the report. Where applicable, recommendations for suitable mitigation and ecological enhancements are provided.
- 1.4 The report is to be submitted to support a planning application to redevelop the site.
- 1.5 The information and recommendations within this report have been prepared and provided in accordance with CIEEM's Code of Professional Conduct (CIEEM, 2022).

## SITE DESCRIPTION

- 1.6 The survey site covers an area of approximately 3.9 hectares and is centred on 'TM29437274'.
- 1.7 The site is situated in a Laxfield in the Suffolk County Council control area. The site is located on the North side of Laxfield and is accessed via a private drive.
- 1.8 The site is currently an empty residential dwelling house with wing extensions to either side, the base of the original windmill, and multiple barns and storage is scattered around the redline boundary. The site also has landscape features such as ponds, meadows and historic oak trees, and gently slopes up to the north.

## DEVELOPMENT PROPOSALS

- 1.9 The site is to be redeveloped with the reduction of wing extensions to the current Mill House and renovation of the property into a residential dwelling house.



Mill House Massing Restored as per Original Design Intent

4.7 Elevations as Proposed



Extract from the pre-application design proposals.

## SCOPE OF WORKS

1.10 The aims of this assessment were to:

- identify the likely ecological constraints associated with the proposed development;
- identify suitable mitigation measures (if required);
- determine whether further surveys are necessary;
- identify opportunities for ecological enhancement;

## 2 Methodology

### DESKTOP STUDY

- 2.1 Site-specific information in relation to land designations, protected species and protected habitats within a 2km search area was sourced from DEFRA MAGIC and SBIS as the Local Ecological Records Centre.
- 2.2 In order to ensure that ecological data searches were up to date, species data was screened and all data records pre-2012 was omitted from the results.
- 2.3 Results of the desktop study should be considered to be indicative only.

### PHASE 1 HABITAT SURVEY

- 2.4 A Preliminary Ecological Appraisal, comprised of a site walkover and mapping was undertaken by Connor Harmsworth on 19/05/2023. The PEA was undertaken in line with CIEEM's 'Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017).
- 2.5 The survey was conducted from the ground. Habitats and features of importance were mapped using a GPS enabled handset.
- 2.6 A Site Habitat Map was produced in accordance with the JNCC Phase 1 Survey methodology (JNCC, 2010) (Appendix 4).

### PRELIMINARY BAT ROOST ASSESSMENT (PRA)

- 2.7 A Preliminary Bat Roost Assessment, comprised of a preliminary ground level roost assessment was undertaken by Connor Harmsworth during the site survey on 19/05/2023. The PRA was undertaken in line with the Bat Conservation Trust's 'Bat Surveys for Professional Ecologists: Best Practice Guidelines' (Collins, 2016). Connor is an experienced bat worker having undertaken over 100 hrs of bat survey work, 50% of which has been under the guidance of a licensed bat worker.



2.8 The survey included an active search for bats, evidence of bats (such as droppings, feeding remains, urine splatters, oil staining, bat fur and/or scratch marks) and potential roosting features (PRFs). PRFs of trees are listed in Table 2.8.1. PRFs of built structures are listed in Table 2.8.2. The lists are not exhaustive but show examples of the most commonly used roosting features of built structures and trees.

*Table 2.8.1: Potential roosting features (PRFs) in built structures listed in Bat Conservation Trust's 'Bat Surveys for Professional Ecologists: Best Practice Guidelines' (Collins, 2016).*

Potential roosting features (PRFs) in built structures	
External	Internal
<ul style="list-style-type: none"> <li>- Access/egress through windowsills, window panes and walls;</li> <li>- Behind peeling paintwork or lifted rendering;</li> <li>- Behind hanging tiles;</li> <li>- Weatherboarding;</li> <li>- Eaves;</li> <li>- Soffit boxes;</li> <li>- Fascias;</li> <li>- Lead flashing;</li> <li>- Gaps under felt (even including those of flats roofs);</li> <li>- Under tiles/slates;</li> <li>- Existing bat boxes;</li> <li>- Gaps in brickwork or stonework which provide access/egress to cavity or rubble-filled walls</li> </ul>	<ul style="list-style-type: none"> <li>- Behind wooden panelling;</li> <li>- In lintels above doors and windows;</li> <li>- Behind window shutters and curtains;</li> <li>- Behind pictures, posters, furniture, peeling paintwork, peeling wallpaper, lifted plaster and boarded windows;</li> <li>- Inside cupboards and in chimneys accessible from fireplaces;</li> <li>- Within attic roof voids;</li> <li>- The top of gable end or dividing walls;</li> <li>- The top of chimney breasts;</li> <li>- Ridge and hip beams and other roof beams;</li> <li>- Mortise and tenon joints;</li> <li>- All beams;</li> <li>- The junction of roof timbers, especially where ridge and hip beams meet;</li> <li>- Behind purlins;</li> <li>- Between tiles and the roof lining;</li> <li>- Under flat felt roofs</li> </ul>

2.9 A Site PRF Map was produced to show the location of built structures, trees and potential roosting features (PRFs). Habitats and features of importance were mapped using a GPS enabled handset.

## SUITABILITY ASSESSMENT

2.10 The likelihood of occurrence of protected ecological features and species was ranked in accordance with the criteria listed in Tables 2.10.1 and 2.10.2. Likelihood of occurrence was assessed using data collected during the desk study and after evaluation of the habitats on-site (during the site survey) as to their likelihood to provide suitability for protected species (i.e. presence of breeding, nesting, roosting, foraging, commuting and/or refuge habitat for example).

*Table 2.10.1: Criteria used to assess the likelihood of occurrence for protected ecological features and species on-site (excl. bats).*

Likelihood of occurrence	Criteria
Present	Confirmed as present during the site survey or by confirmed historical records.
High	Species are known to be present within close proximity to the site (records present). Habitats on-site are of high quality for the species and/or likely to support a large population. The site is well connected to good quality habitat within the local area.
Moderate	Species are known to be present within the local area (records present). Habitats on-site are of moderate quality for the species and/or likely to support a moderate population. The site and connected habitats provide all of the ecological requirements of the species. Suitability of habitats on-site may be limited due to disconnectivity to the wider landscape, poor to moderate habitat available within the wider locality, and/or due to the presence of only a small area of suitable habitat.
Low	Few or no records of the species within the local area. Habitats on-site are of poor quality for the species and/or likely to support just a few individuals. The suitability of habitats may be limited due to disturbance, isolation and/or poor quality habitat available within the wider locality. However, species presence cannot be discounted due to the national distribution of the species or the nature of on-site and surrounding habitats (if all required ecological requirements for the species are present).
Negligible	While presence cannot be absolutely discounted, the site includes very limited or poor quality habitat for a particular species. Connected habitats do not fulfil the ecological requirements of the species. There are no local records and/or the site is outside the known national range of the species.

Table 2.10.2: Criteria used to assess the likelihood of occurrence (site's suitability) for bats, from Bat Conservation Trust's 'Bat Surveys for Professional Ecologists: Best Practice Guidelines' (Collins, 2016).

Suitability	Criteria	
	Roosting bats	Foraging / Commuting bats
Negligible	Negligible habitat features on-site likely to be used by roosting bats.	Negligible habitat features on-site likely to be used by commuting or foraging bats.
Low	<p>A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these 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>A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.</p>	<p>Habitat that could be used by small numbers of commuting bats 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 bats for foraging.</p>
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, appropriate conditions and/or suitable surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only - with respect to roost type only).	<p>Continuous habitat connected to the wider landscape that could be used by bats for commuting.</p> <p>Habitat that is connected to the wider landscape that could be used for bats for foraging.</p>
High	A structure or tree with one or more potential roost sites that are obviously 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.	<p>Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats.</p> <p>High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats.</p> <p>Site is close to and connected to known roosts.</p>

## ECOLOGICAL CONSTRAINTS AND MITIGATION

- 2.11 An evaluation of the potential ecological constraints to the proposed development and appropriate mitigation strategies was made following CIEEM's 'Guidelines for Ecological Impact Assessment in the UK and Ireland (CIEEM, 2018).

## LIMITATIONS

- 2.12 Only one site visit was undertaken, therefore, a full evaluation of species present throughout the year could not be made. Furthermore, the site survey was undertaken in May. Therefore, there were seasonal constraints to species identification. However, the data collected during the site survey was sufficient to make an appropriate assessment of the site.
- 2.13 The site maps shown in Appendix 4 were produced from an Ordnance Survey Tile purchased from our mapping supplier. A site walkover with a GPS enabled handset was used to inform the location and extent of existing habitats shown on the appended mapping and is as accurate as possible but some error must be allowed for without a full topographical survey.
- 2.14 The site surveyor does not currently hold a Bat Licence. However, invasive licenced survey techniques were not considered to be necessary during the site survey. Thus, the site survey could be undertaken without the use of licenced survey methods.

## 3 Policy and Legislative Context

- 3.1 This section includes the legislative context of those protected species or other notable species that are recorded on-site, or have the potential to be present on-site. Details on specific legislation for other protected or notable species that have not been identified as being present, or having the potential to be present, are not included below.

## NATIONAL PLANNING POLICY

- 3.2 The introduction of the National Planning Policy Framework (NPPF) in March 2012 sets out the Government's planning policies for England and how these are expected to be applied in the presumption in favour of sustainable development. It sets out the Government's requirements for the planning system, only to the extent that it is relevant, proportionate and necessary to do so and is a material consideration for local planning authorities in determining applications.
- 3.3 Planning Practise Guidance is relevant covering the Natural Environment alongside the NPPF. Therefore features of ecological value should be considered in the context of conserving and enhancing the natural environment.

- 3.4 The Government's objectives for planning are to promote sustainable development, to conserve, enhance and restore the diversity of England's wildlife and geology and to contribute to rural renewal and urban renaissance.

#### LOCAL PLANNING POLICY

- 3.5 This report has been commissioned in order to comply with policy:

SP09 - Enhancement and Management of the Environment  
LP15 - Environmental Protection and Conservation  
LP16 - Biodiversity & Geodiversity  
LP17 - Landscape  
LP18 - Area of Outstanding Natural Beauty  
LP19 - The Historic Environment  
LP23 - Sustainable Construction and Design

#### NATIONAL AND INTERNATIONAL LEGISLATION

- 3.6 Bern Convention on the Conservation of European Wildlife and Natural Habitats (1982)
- 3.7 Convention on the Conservation of Migratory Species of Wild Animals (1983)
- 3.8 Countryside and Rights of Way Act (2000)
- 3.9 National Parks and Access to the Countryside Act (1949)
- 3.10 Natural Environment and Rural Communities Act (2006)
- 3.11 Protection of Badgers Act (1992)
- 3.12 The Conservation of Habitats and Species Regulations (2017)
- 3.13 The Convention of International Trade in Endangered Species of Wild Fauna and Flora (1975)
- 3.14 The Hedgerows Regulations (1997)
- 3.15 UK Biodiversity Action Plan (1994)
- 3.16 Wildlife and Countryside Act (1981)
- 3.17 Wild Mammals (Protection) Act (1996)

## 4 Desktop Study

### SITE DESIGNATIONS

4.1 There is three designated sites within the 2km search area, an SSSI Impact zone and two CWs.

*Table 4.1.1: 1 recorded within a 2km radius of the survey site.*

Site Name	Grid Reference	Area (ha)	Approx. Closest Distance from Site (km)
SSSI Impact Risk Zones	TM30287366	NA	0km
Laxfield Meadow County Wildlife Site	-	-	300m
Laxfield Cemetery County Wildlife Site	-	-	280m

\*Data from DEFRA MAGIC and SBIS.

### LOCAL HABITAT

4.2 There were more than 10 priority habitats that were formerly mapped within the 2km search area.

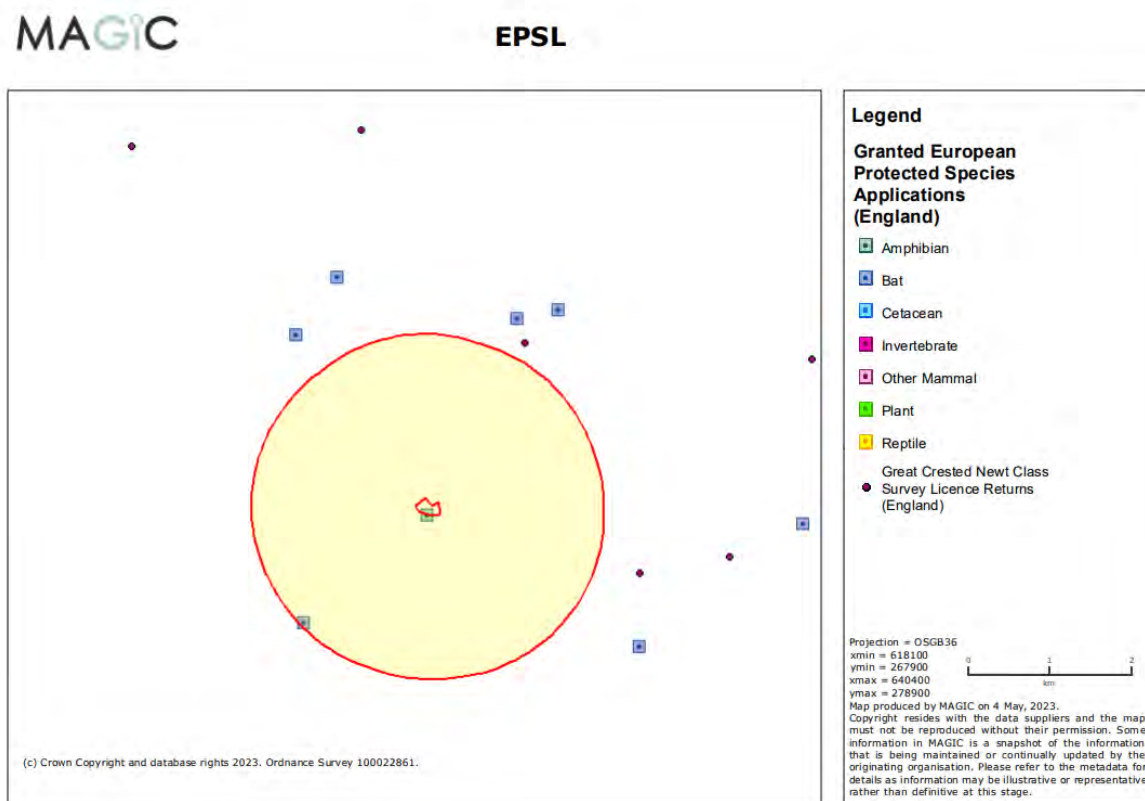
*Table 4.2.1: Priority habitats formerly mapped within a 2km radius of the survey site.*

Habitat	Approx. Closest Distance from Site (km)
Coastal and Floodplain Grazing Marsh (England)	1.9
Lowland Meadows (England)	0.2
Deciduous Woodland	0.3

\*Data from DEFRA MAGIC

## HISTORICAL SPECIES RECORDS

- 4.4 Protected species records relating to the site and 2km search area were obtained from the LERC as part of the desktop study. The data search contains confidential information that is not suitable for public release. Therefore, the data has not been included in the report.
- 4.5 A full list of identified species recorded within the 2km search area can be requested from SBIS.
- 4.6 The absence of identified records does not discount the presence of a species. An absence of identified records is primarily a result of a lack of survey or the non-submission of records. Furthermore, historical records of species do not confirm their current presence within an area.



Screenshot showing licensed EPSL granted within 2km of the site area.

- 4.7 A data search of the NBN Atlas for England has highlighted a number of protected species within the 2km search area; including:

*Badger; Great Crested Newts; Eurasian Otter; Common and Soprano Pipistrelle; Brown Long-eared Bat; Noctule Bat. This desktop information has been used to inform the field study.*

#### 4.8 Record procured from SBIS include records of:

Great Crested Newts; Sparrow Hawk; Little Owl; Kestrel; Tawny Owl; Barn Owl; Water Vole; Otter; Common and Soprano Pipistrelle Bat and Brown Long Eared Bat.

## 5 Site Survey

5.1 The site survey was undertaken by Connor Harmsworth on the 19th May 2023. The weather conditions were considered to be appropriate to survey (Table 5.1.1).

*Table 5.1.1: Weather conditions at the time of survey.*

Date of site survey:19/05/2023	
Temperature	13c
Wind	6mph
Precipitation	0%

\*Data from BBC Weather.




## PHASE 1 HABITAT SURVEY



5.2 The habitats presented consist of the following JNCC Phase 1 Habitat categories:



- Buildings
- Ponds
- Scattered Trees and Shrubs
- Amenity Grassland
- Formal hedges

5.3 A description of habitat present along with target notes is shown in Table 5.3.1. The location of habitats is shown in the Site Habitat Map, Appendix 4.

*Table 5.3.1: Description of habitats present on-site (please also see the Site Habitat Map, Appendix 4).*

Habitats and Target Notes	Description	Supporting Photo
Buildings B1	Mill House is a detached property constructed before the 1900s. Currently the house is unoccupied and surrounded by overgrown plants, trees and hedges. The house hasn't been lived in for around 2 years. B1 is painted brick with a complex pitched roof covered in slate tiles. There is a connecting extension to the south of the main building B1 which has a tiled roof. There is some wisteria growing up the western elevation of the property.	



<p>Buildings B2</p>	<p>B2 is a converted barn with all new slate roof and facias. South west of the building still has an old roof from the previous barn. B2 is unaffected by the current proposals.</p>	
<p>Buildings B3</p>	<p>B3 is an old mill building, of timber construction and densely covered in ivy, birds are nesting within the building.</p>	



<p>Habitat 1</p>	<p>Amenity grass area comprising various rye grasses with a sward height of 300mm and is not being regularly mown. This area sits adjacent to B1.</p>	
<p>Habitat 2</p>	<p>Introduced trees and shrubs, the area surrounding B1 is composed of formally planted garden ornamental shrubs and trees that have not been managed for a number of years and are now encroaching on the built footprint.</p>	


TN1

Signs of rabbits on site.



TN2	Fenced in garden star of bethlehem ( <i>Ornithogalum umbellatum</i> ) to prevent predation by rabbits.	
TN3	WB1 - a formal pond that has fallen into disrepair	



TN4	WB1 - showing periphery vegetation, mostly comprised of Goat Willow and Hawthorn.	
TN5	There are a number of significant trees scattered around the periphery of the plot consisting of oak, sycamore, ash, hawthorn and goat willow.	

<p>TN6</p>	<p>Located off site and within 200m are a further three standing water bodies bringing the total count to 5 standing WBs within the assessment area.</p>	 An aerial photograph showing a rural landscape with green fields, trees, and a road. Five cyan circles are overlaid on the image, highlighting specific standing water bodies. The circles are located in the upper left, upper middle, middle right, and lower right areas of the photograph.
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## PRELIMINARY BAT ROOST ASSESSMENT (PRA)



5.4 There were three built structures on-site, including the main house (B1), the barn (B2) and the delapidated mill building B3.

Table 5.4.1: Preliminary Bat Roost Assessment of built structures on-site.

PRF No.	Description of PRF	Evidence of Roosting Bats	Supporting Photo
	<p><b>Building B1</b> (Is the main house which is subject to the planning application, it is of brick construction with a gabled roof consisting of hanging tiles. The roof space access was constrained by partial failure of the ceilings. Loft void was generally well lined but full access was constrained over ceiling concerns)</p>		
PRF1	Cracking on the western elevation	No	



PRF2	Gaps underneath lead flashing	Unknown due to access constraints.	
PRF3	Gaps under tiles with significant light penetration on the southern gable end.	Unknown due to access constraints.	
<p><b>Building B2</b> (Is a converted barn with all new slate roof and fascias, southwest elevation still has original roof)</p>			
PRF1	Gaps under fascia	Unknown due to access constraints.	

<p><b>Building B3</b> (Is part of the old mill complex, it is of wooden construction and covered in dense thick ivy.)</p>			
<p>PRFs</p>	<p>The entire building has suitability for roosting bats.</p>	<p>None seen.</p>	

5.5 There were a number of trees on and adjacent to the site but none had suitable roosting features that have the potential to be affected by the proposals.

## 6 Evaluation and Assessment

- 6.1 Results from the desktop study and site survey were evaluated to assess the likelihood of occurrence for protected ecological features and species potential (as per Table 2.10.1). An evaluation of the potential impacts due to the proposed development and recommendations for appropriate mitigation measures are provided in Table 6.1.1.

Table 6.1.1: Likelihood of occurrence of protected ecological features and species on-site, potential impacts due to the proposed development and recommendations for appropriate mitigation measures.

Protected feature / species	Likelihood of occurrence / suitability	Comments / Justification	Impact due to Proposed Development	Required Mitigation Measures
Protected sites	Low	The site is situated within 300m of two County Wildlife Sites but not well connected to them. Both sites are known for their species rich unimproved grasslands.	None	None required.
Protected habitats	Low	There were no protected habitats on, or adjacent to, the site. Habitats on-site were not considered to be unique or of high quality within the wider locality.	None	None required.
Protected plant species	Low	There are records of a number of protected plant species within 2km of the site. None of these species were noted during the site walkover and were considered absent. Some garden ornamentals have been protected from grazing by the use of chicken wire.	The site does not appear to support protected plant species, thus, the proposed development is unlikely to impact upon protected plant species.	None required.
Amphibians (incl. Great Crested Newts)	Moderate	There are records of Great Crested Newts within 2km of the site. WB1 is located on site and WB2-5 are within 200m of the proposed works.	If present, the project has the potential to damage or destroy GCNs.	An eDNA analysis survey of WB1 to 5 should be undertaken between mid-April and mid-June. The survey must be undertaken by a Level 1 GCN Licensed Worker.

Protected feature / species	Likelihood of occurrence / suitability	Comments / Justification	Impact due to Proposed Development	Required Mitigation Measures
				<p>The survey report must seek to identify GCN presence / absence and suitable mitigation measures (if required).</p> <p>The grassland should continue to be maintained and kept short through mowing and management up until the point of any construction works commencing on-site to prevent the habitat from becoming more favourable to amphibians.</p> <p>The results of the eDNA survey will determine whether further population assessments are required.</p>
Bats (Chiroptera)	<b>Roosting bats</b>			
	Moderate	<p>There were numerous records of bats within 2km of the site.</p> <p>Building B1 was considered to have moderate potential for roosting bats due to the presence of PRFs suitable for crevice dwelling bats.</p> <p>Building B2 was considered to have low potential and is unaffected by the works.</p>	<p>The proposed development requires the removal of parts of building B1, which will result in the loss of several PRFs.</p> <p>Therefore, the proposed works have the potential to disturb, injure and/or kill roosting bats (if present). Bat presence / absence must be determined to identify potential impacts.</p> <p>As the proposed demolition works will result in the loss of</p>	<p>Two bat activity surveys of B1 are to be carried out between May and September (only one survey can be undertaken in September). The survey must consist of one dusk emergence survey and one dawn re-entry survey. Further surveys may be required if bat presence / absence cannot be determined during the initial site visit. The surveys must be undertaken by suitably qualified ecologists.</p>

Protected feature / species	Likelihood of occurrence / suitability	Comments / Justification	Impact due to Proposed Development	Required Mitigation Measures
		Building B3 was considered to have moderate potential but is unaffected by the proposed works.	several PRFs, new habitat creation is advised.	The survey report must identify bat presence/absence and outline relevant mitigation measures (if required).  A new bat roost must be created on-site to offset the loss of PRFs.
<b>Foraging/Commuting bats</b>				
	High	Amenity grassland, hedgerows and pond habitats on-site were considered to be suitable for foraging/commuting bats.  Furthermore, the site has good connectivity to high quality habitats within the wider locality, including areas of scrub, trees and standing water.	Mitigation measures must be put in place to ensure that disturbance does not increase during and/or post-development.  The proposed development will not result in any substantial habitat loss that will impact upon local populations long-term.	Construction works should be limited to daylight hours (excl. dawn and dusk) in order to prevent disturbance to nighttime foraging activity.  Post-construction, the use of artificial lighting should be limited where possible. Motion sensors on outside lighting will prevent prolonged disturbance. It is recommended that outside lighting be set on short-timers (1 minute) and that the sensitivity is set to large moving objects only.
Birds	High	Breeding birds were identified on-site. Birds nests were noted within hedgerows, trees and inside building B3.	The proposed development may require the removal of several trees, which have potential to support breeding birds.	The trees should be protected from site with HERAS fencing before any works commence on-site. The fencing must be signed appropriately and outlined within the tool box talk/

Protected feature / species	Likelihood of occurrence / suitability	Comments / Justification	Impact due to Proposed Development	Required Mitigation Measures
				Tree works (if required) should take place outside the breeding season (typically March-October).
Invertebrates	Low	There were no known records of protected invertebrate species within the 2km search radius. No protected invertebrate species were identified during the site survey. Habitats on-site are not considered to be unique or of high quality to support protected invertebrate species. However, habitats on site are likely to support a range of common and widespread species associated with grassland and scrub.	The site does not appear to support protected invertebrate species, thus, the proposed development is unlikely to impact upon protected invertebrate species.  The proposed development will not result in any substantial habitat loss that will impact upon local populations long-term.	None required.
Reptiles	Low.	There are records of Grass Snakes within 2km of the site. WB1 was situated within 100m of the proposal and was considered to be well connected, WB2-5 are within 200m. Habitats on-site were considered to be suitable to support a small population of common and widespread reptile species (such as Slow Worm).	The proposed development requires the removal of a small area of ground-level vegetation on-site. Vegetation removals have the potential to disturb, injure and/or kill reptiles (if present). Thus, a precautionary approach is required.	The grassland should continue to be maintained and kept short through mowing and management up until the point of any construction works commencing on-site to prevent the habitat from becoming more favourable to reptiles.  Herptile fencing must be placed around the construction zone and any access/egress in order to temporarily exclude



Protected feature / species	Likelihood of occurrence / suitability	Comments / Justification	Impact due to Proposed Development	Required Mitigation Measures
				reptiles from site. The fencing must be signed appropriately and outlined within the tool box talk.
Other terrestrial mammals (excl. bats).	<b>Badgers (<i>Meles meles</i>)</b>			
	Low.	There are known records of Badgers within 2km of the site. No Badger setts were identified during the site visit and no evidence of Badgers was found. However, amenity grassland habitat is considered to be somewhat suitable for sett building and foraging/commuting.	<p>If a Badger sett was present at the time of construction, the construction works could disturb, injure and/or kill Badgers. As Badgers are highly mobile and often seek new opportunities for sett building further checks will be required immediately prior to any construction works taking place on-site.</p> <p>The proposed development will not result in any substantial habitat loss to impact upon local populations long-term.</p>	<p>A site walkover to check for Badger setts should be undertaken by a suitably qualified ecologist immediately prior to any construction activity on-site. If a Badger sett is present, further mitigation measures must be discussed.</p> <p>Construction works should be limited to daylight hours in order to prevent disturbance to nighttime foraging activity.</p> <p>Any trenches or other excavations left open overnight should be well covered to deter Badgers from entering.</p>
	<b>Dormice (<i>Gliridae</i>)</b>			
	Negligible.	There are no known records of Dormice within 2km of the site.	None.	None required.

Protected feature / species	Likelihood of occurrence / suitability	Comments / Justification	Impact due to Proposed Development	Required Mitigation Measures
<b>Hedgehogs (<i>Erinaceus europaeus</i>)</b>				
	High.	There are records of Hedgehogs within 2km of the site. Amenity grassland, debris, and habitats on-site were considered to be suitable for the species. The site was well connected to suitable suburban habitats and there were ample access/egress points to adjacent gardens making it easily commutable.	<p>Mitigation measures must be put in place to ensure that disturbance does not increase during and/or post-development.</p> <p>The proposed development will not result in any substantial habitat loss that will impact upon local populations long-term.</p>	<p>Construction works should be limited to daylight hours (excl. dawn and dusk) in order to prevent disturbance to nighttime foraging activity.</p> <p>During hibernation season (October to March), piles of leaf litter and logs should be retained to ensure hibernating hedgehogs are not harmed. If removal is unavoidable, the piles must be carefully checked before burning.</p> <p>Any trenches or other excavations left open overnight should either be well covered or provided with an escape ramp (comprised of a sloped side or wooden plank reaching up to ground level or slightly above), to allow any Hedgehogs that fall into escape.</p>
<b>Otters (<i>Lutra lutra</i>)</b>				
	Negligible.	There are records of Otters within 2km of the site. However there were no suitable aquatic habitats for	None.	None required.

Protected feature / species	Likelihood of occurrence / suitability	Comments / Justification	Impact due to Proposed Development	Required Mitigation Measures
		the species on, or adjacent to, the site.		
<b>Pine Martens (<i>Martes martes</i>)</b>				
	Negligible			
<b>Polecats (<i>Mustela putorius</i>)</b>				
	Negligible			
<b>Water Voles (<i>Arvicola amphibius</i>)</b>				
	Low	There are records of Water Voles within 2km of the site. There were no suitable aquatic habitats for the species on, or adjacent to, the site.	None.	None required.
<b>Common and widespread mammals</b>				
	High.	There was evidence of Rabbits on-site.	<p>The proposed development will not result in a substantial loss that will impact upon local populations long-term.</p> <p>Mitigation measures must be put in place to minimise disturbance during the construction phase.</p>	<p>Any necessary excavation of animal burrows should be done carefully to avoid unnecessary suffering (such as crushing or asphyxiation).</p> <p>Construction works should be limited to daylight hours in order to prevent disturbance to nighttime foraging activity.</p> <p>Any trenches or other excavations left open</p>

Protected feature / species	Likelihood of occurrence / suitability	Comments / Justification	Impact due to Proposed Development	Required Mitigation Measures
				<p>overnight should either be well covered or provided with an escape ramp (comprised of a sloped side or wooden plank reaching up to ground level or slightly above), to allow any wildlife that falls to escape.</p> <p>Any newly built boundary features should incorporate 'wildlife gaps' (comprising a 13x13cm gap at the base of the feature), to allow wildlife to pass through.</p>
Invasive plant species	Low.	No invasive species listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) were found during the survey. As there were seasonal constraints to plant identification, it is possible that invasive plant species are present and have yet to be identified.	Invasive plant species have the potential to impact protected species and habitats	If invasive plant species are found, it is recommended to consider appropriate methods of removal.

## 7 Biodiversity Net Gain

- 7.1 The development should be used as an opportunity for biodiversity net gain, by creating new opportunities for wildlife.

### BATS

- 7.2 It is recommended to install two bat boxes on-site. Bat boxes should be positioned in areas of low human disturbance, in spaces that are unshaded for most of the day.
- 7.3 A crevice bat box should be positioned 3-5 metres above ground level, orientated southwards. The box should be positioned in an area of low human disturbance, in a space that is unshaded for most of the day. There should be a clear path between the entrance and suitable habitat.

### BIRDS

- 7.4 It is recommended to place two new bird boxes on-site.
- 7.5 A traditional nest box should be placed 3 metres above ground level in an area of low disturbance. The box should be sheltered away from prevalent weather conditions, commonly associated within the UK, such as strong sunlight, prevailing winds and rain.
- 7.6 An open-box/balcony nest box is preferred by larger bird species. As these nest boxes are more susceptible to predation, it is recommended that open-nest boxes be placed in areas of low/tolerable human disturbance, which will deter predators.

### HERPTILES

- 7.7 Suitable refuge habitat for amphibians and reptiles is to be created on-site. Refuge habitat can be created in the form of split logs, deadwood, rocks and/or bricks covered with loosely fitting topsoil, turf and/or moss. The refuge should be placed on a gentle slope to prevent flooding. The refuge should have suitable connectivity to standing water bodies within 500m of the site (Figure 7.7.1)

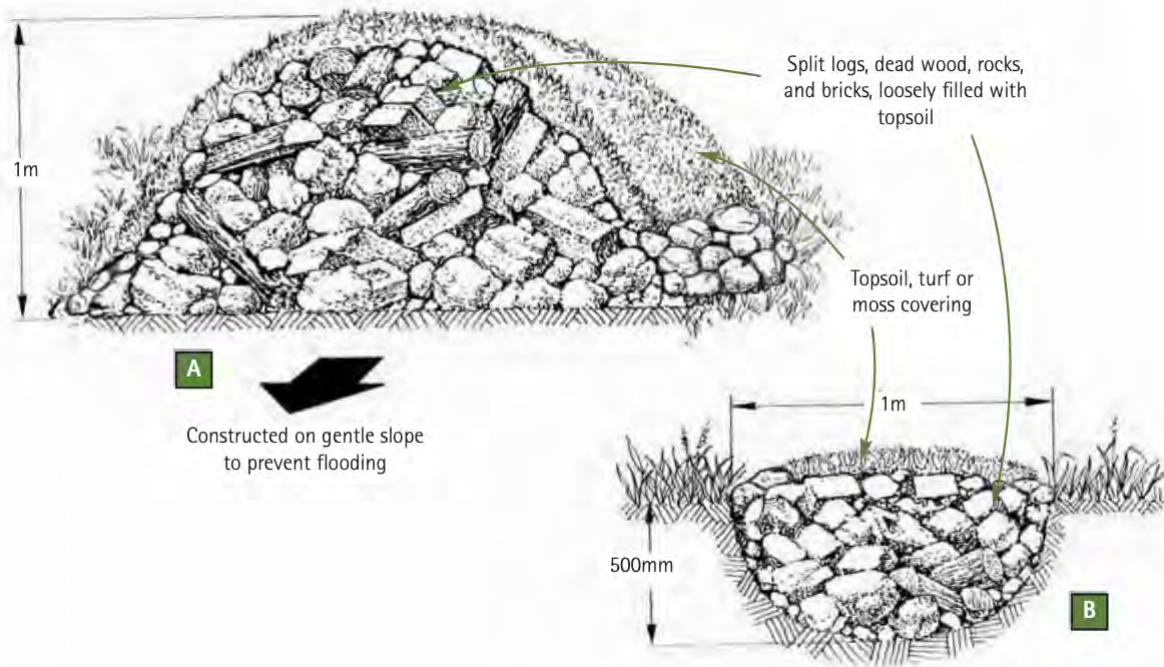


Figure 7.7.1: Example of a Great Crested Newt Refuge taken from the Great Crested Newt Conservation Handbook (Langton, Beckett and Foster, 2011).

7.8 Improving the quality of the surrounding ponds would create new opportunities for amphibians.

## INVERTEBRATES

- 7.9 Two bee bricks are to be incorporated into the proposed dwellings. Alternatively, it is recommended to install invertebrate boxes on-site. The boxes should be suitable for solitary bees.
- 7.10 Nectar-rich wildflowers should be planted within close proximity to the bee bricks/invertebrates boxes to create new opportunities for pollinators.
- 7.11 Fruit trees make ideal habitat for many invertebrate species. Thus, it is recommended to plant new garden ornamental fruit trees on-site. For example, Crab Apple (*Malus sylvestris*), Wild Cherry (*Prunus avium*) and Common Pear (*Pyrus communis*).

## TERRESTRIAL MAMMALS

- 7.12 It is recommended to plant native species-rich hedgerows on-site, which will enhance connectivity and provide refuge for small mammals. Suitable species would include Common Beech (*Fagus sylvatica*), Common Hawthorn (*Crataegus monogyna*), Rowan (*Sorbus aucuparia*) and Crab Apple (*Malus sylvestris*) for example.

## TREES

- 7.13 New tree planting would be a welcomed addition to development. New tree planting should be considered carefully, with consideration to species, location and future management. New trees should be robust and of high quality. Where possible, native species should be used. However, considerations should be given to climate change and potential pathogens.

## 8 Conclusions

- 8.1 The site at Mill House is to be redeveloped with the removal of the wing extensions and renovation works.
- 8.2 Section 1.10 highlighted the aims of this preliminary assessment were to highlight the requirement for any further survey effort.

## ECOLOGICAL CONSTRAINTS

- 8.3 Development proposals must have regard for protected species identified as potentially occurring on, or near to, the site (e.g., amphibians, birds, terrestrial mammals, and reptiles). Mitigation measures to protect these species have been produced within this report to ensure that the proposed works comply with relevant UK legislation.
- 8.4 Buildings B1 was considered to have moderate potential for roosting bats due to the presence of several PRFs which may be suitable for individual crevice dwelling bat species to utilise opportunistically (including gaps in external and internal brickwork, slipped roof tiles, lifted lead flashing, gaps between internal felt lining and roof).). The proposed works will result in the loss of PRFs, thus, further bat surveys will be required to determine bat presence/absence and inform on suitable mitigation measures.
- 8.5 Water Bodies and habitat adjacent to the water bodies form a mosaic of suitable habitat for Great Crested Newts which are known to be present locally. The project has the potential to lead to disruption and habitat removal is present. Therefore presence/absence surveys will be required.
- 8.6 Further mitigation measures have been outlined within the report to ensure that protected species are not impacted by the development. Ecological Clerk of Works (ECoW) supervision will be required throughout the construction phase to ensure that the recommended mitigation measures are implemented appropriately.

## MITIGATION STRATEGIES

- 8.7 Two bat presence/absence survey of B1 is to be carried out between May and August. The survey should consist of either one dusk emergence survey or one dawn re-entry survey. The survey must be undertaken by a suitably qualified ecologist. The survey report must outline bat presence/absence and suitable mitigation measures (if required). Further surveys may be required if bat presence/absence cannot be determined during the initial site visit.
- 8.8 Water Bodies WB1-WB5 should be eDNA tested before mid-June. If the results are positive then further population assessments will be required and a mitigation strategy will need to be developed. If the project timeline negates the possibility of survey effort the Suffolk Council may now accept district level licensing.

**District level licensing is now available in West Suffolk and additional information can be found on [GOV.UK - Great crested newts: district level licensing schemes](#).**

District level licensing (DLL) is a type of strategic mitigation licence for great crested newts (GCN) granted in certain areas at a local authority or wider scale. A DLL scheme for GCN may be in place at the location of the development site. If a DLL scheme is in place, developers can make a financial contribution to strategic, off-site habitat compensation instead of applying for a separate licence or carrying out individual detailed surveys.

- 8.9 A tool box talk should be given to all relevant personal by a suitable qualified ecologist before any works commence on-site to outline ecological constraints and the required mitigation measures.
- 8.10 The existing amenity grassland should be retained at a short sward prior to any demolition/construction works commencing on-site in order to ensure that the habitat does not become more favourable to amphibians and/or reptiles.
- 8.11 Herptile fencing must be placed around the construction zone and access/egress in order to temporarily exclude amphibians and reptilians from the site.
- 8.12 Tree works (if required) should take place outside the breeding season (typically March-October) or once a suitability qualified ecologist has inspected the trees for breeding birds and confirmed that there are no active nests.



- 8.13 Construction works should be limited to daylight hours (excl. dawn and dusk) in order to prevent disturbance to nighttime foraging activity.
- 8.14 Vegetation removal must be undertaken using hand tools. Cut vegetative materials should be checked and removed from site immediately.
- 8.15 Any trenches or other excavations left open overnight should be well covered to deter Badgers from entering. If this is not possible, any trenches or other excavations left open overnight should either be provided with an escape ramp (comprised of a sloped side or wooden plank reaching up to ground level or slightly above), to allow any wildlife that falls in to escape.
- 8.16 Any necessary excavation of animal burrows should be done carefully to avoid unnecessary suffering (such as crushing or asphyxiation).
- 8.17 During hibernation season (October to March), piles of leaf litter and logs should be retained to ensure hibernating hedgehogs are not harmed. If removal is unavoidable, the piles must be carefully checked before burning.
- 8.18 Post-construction, the use of artificial lighting should be limited where possible. Motion sensors on outside lighting will prevent prolonged disturbance. It is recommended that outside lighting be set on short-timers (1 minute) and that the sensitivity is set to large moving objects only.
- 8.19 Any newly built boundary features should incorporate 'wildlife gaps' (comprising a 13x13cm gap at the base of the feature), to allow wildlife to pass through.
- 8.20 A new bat roost should be created on-site to offset the loss of PRFs. It is recommended that the roost be suitable for crevice dwelling species which are most likely to utilise the existing structures. Where possible, bat roosts should be incorporated into the proposed built footprint to ensure that permanent features are created.

## BIODIVERSITY NET GAIN

- 8.21 The project is to be used as an opportunity for biodiversity net gain by creating new opportunities for wildlife. New habitat creation is to be implemented on-site and should be included within the final project design.

## SUMMARY

8.22 Subject to the completion of the required bat and newt surveys and the implementation of the recommended mitigation measures, the proposed development is unlikely to have a significant ecological impact with regard to the work to renovate B1. Should wider site works be required then this PEA should be revisited as the advice and survey effort is proportionate to the current scheme only.

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Matt Harmsworth  
Lead Consultant

**MW Harmsworth**



Prepared by: Matt Harmsworth Tech.Arbor.A, Dip RS, FDS Sc Arb, Assoc. ICFor  
Checked by: Rita Smoloderva Ecologist

Appendix 1: Site Location and Assessment Boundary

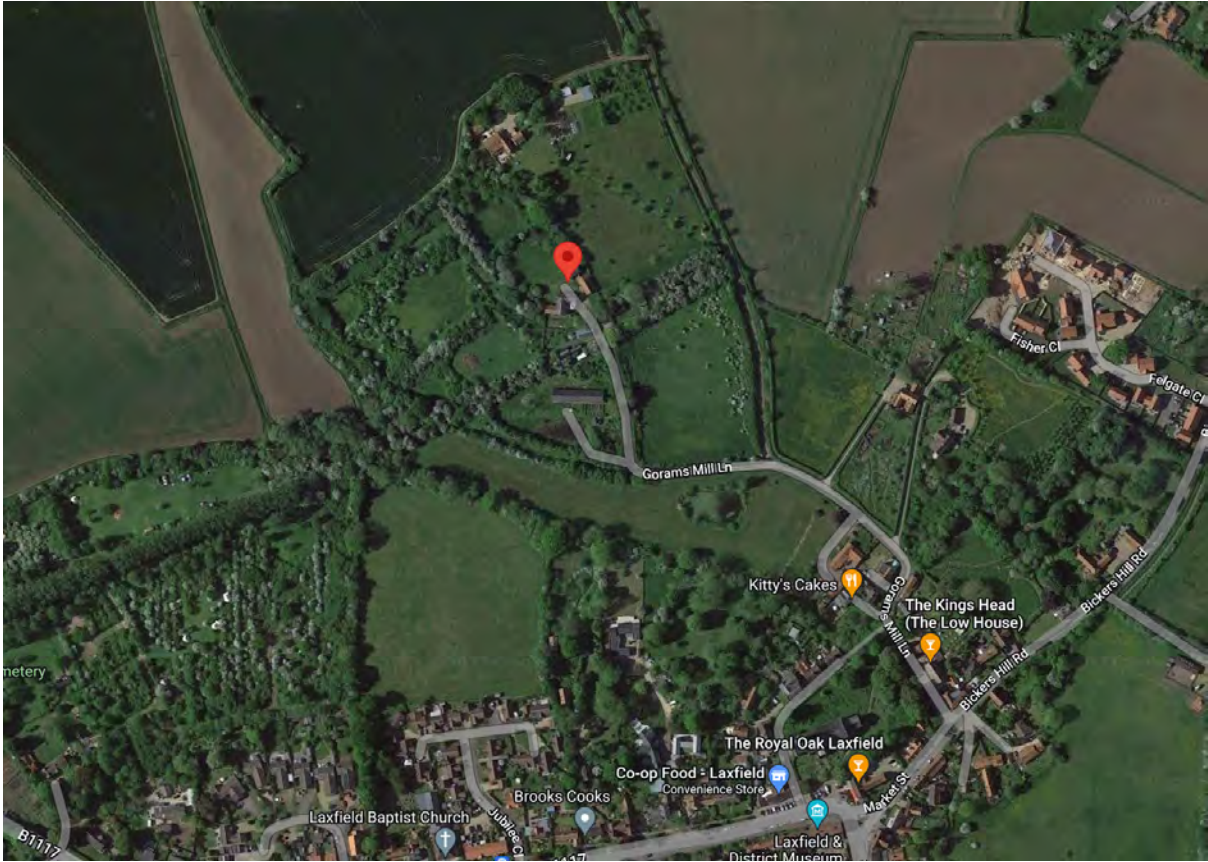


Figure A1.1: Extract from Google Maps showing the site location.



Figure A1.2: Extract from DEFRA MAGIC showing the assessment boundary.

## Appendix 2: Desktop Study

\*Data from DEFRA.

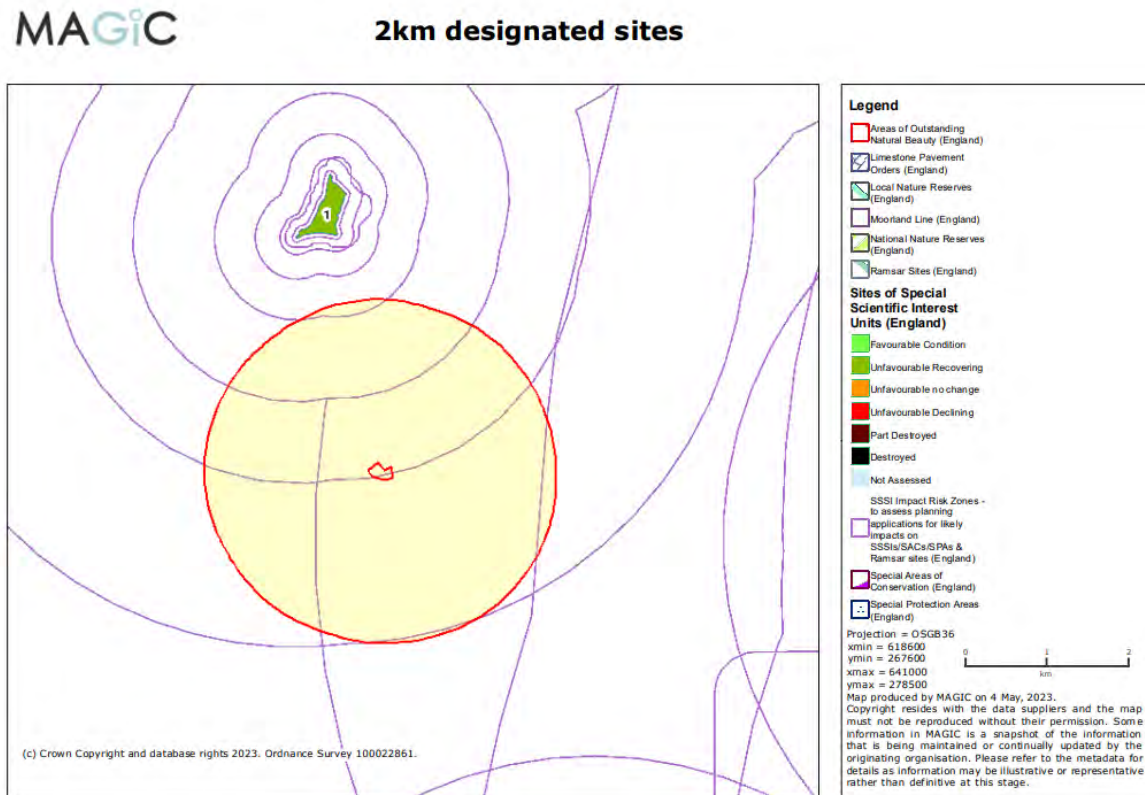


Figure A2.1: Location of designated sites situated within a 2km search radius of the site.

\*Data from DEFRA.

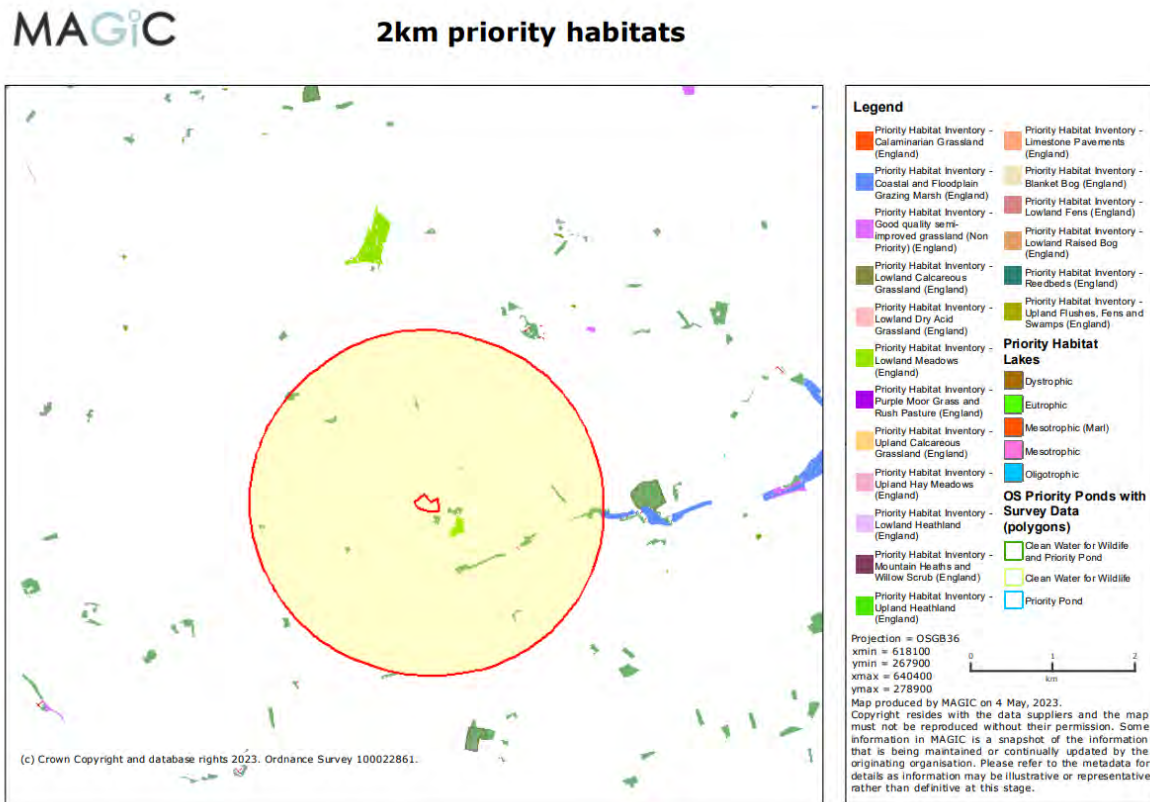


Figure A2.2: Priority habitats formerly mapped within a 2km search radius of the site..

\*Data from Bing Maps



Figure A2.3: Standing water bodies formerly mapped within a 500m search radius of the site.

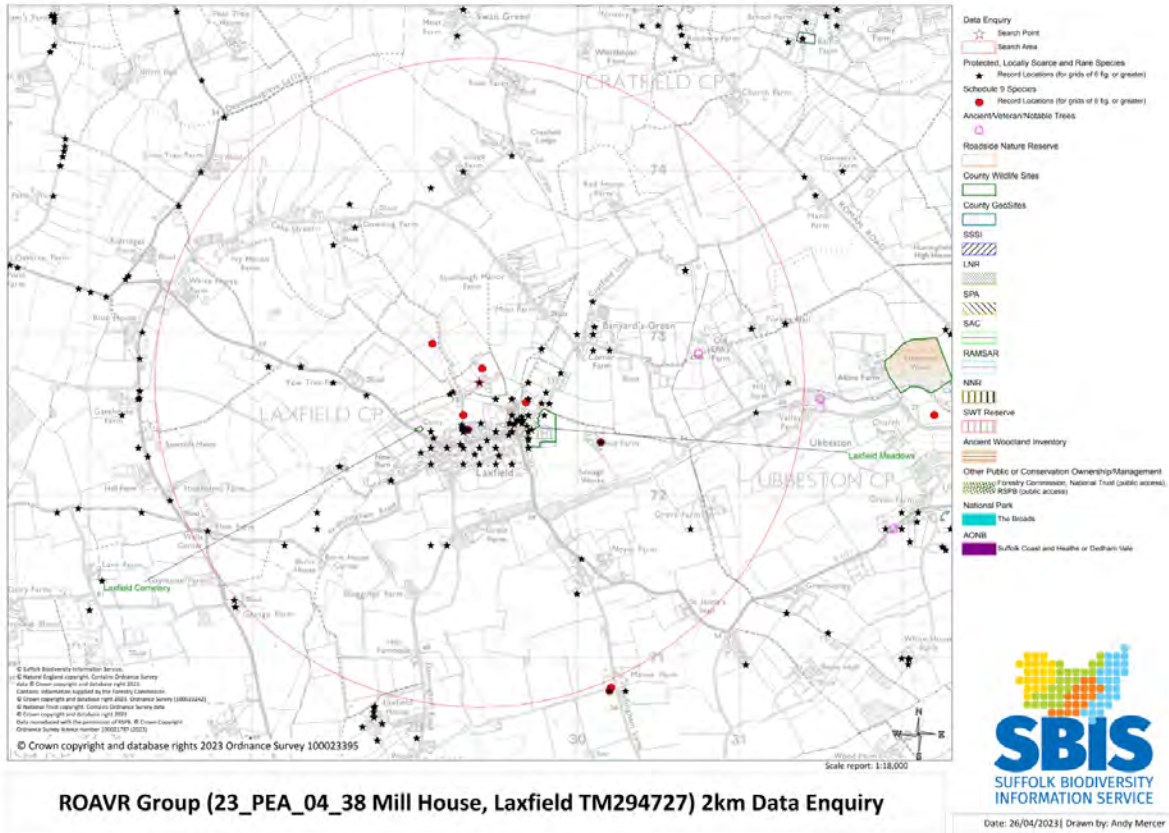
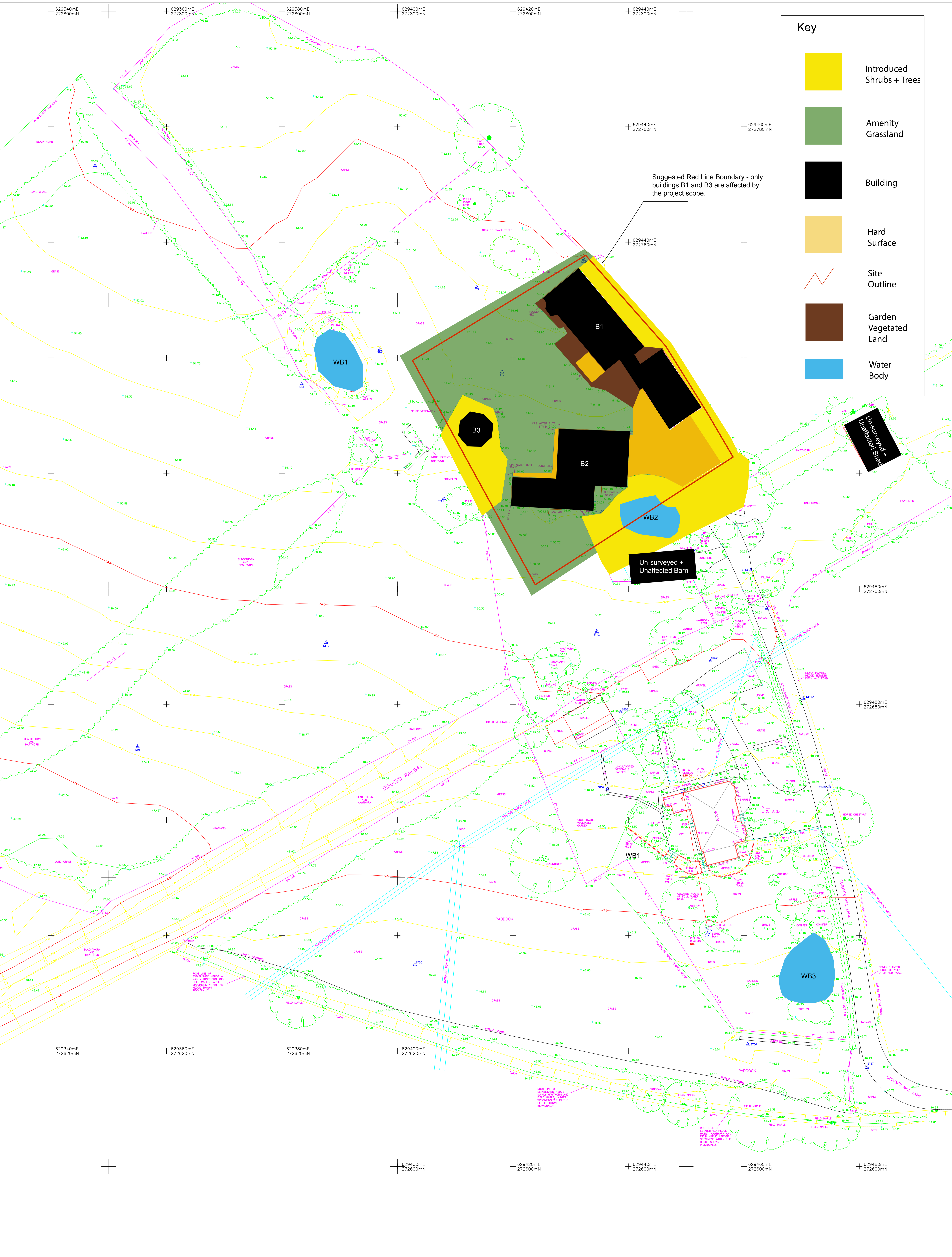


Figure A2.4: Results of LERC search (redacted).



## Appendix 3: Site Maps

A3.1 The Site Habitat Map was produced in accordance with the JNCC's Phase 1 Survey methodology (JNCC, 2010).



**Key**

- Introduced Shrubs + Trees
- Amenity Grassland
- Building
- Hard Surface
- Site Outline
- Garden Vegetated Land
- Water Body

Suggested Red Line Boundary - only buildings B1 and B3 are affected by the project scope.

Un-surveyed + Unaffected Area

Un-surveyed + Unaffected Barn

<p>ROAVR Group, Marr House Beechwood Business Park, Inverness, IV2 3BW www.roavr-group.co.uk support@roavr-group.co.uk 01463 667302</p>	<p>Drawing Title: <b>Habitat Plan</b></p> <p>Client: <b>Jodie Wilson C/O David Nicholson</b></p> <p>Site/Project: <b>Mill House, Laxfield, Woodbridge, IP13 8DN</b></p>	<p>Scale/Sheet: <b>1:200 @ A0</b></p> <p>Drawing No: <b>23_PEA_04_38</b></p> <p>Rev: <b>1</b></p> <p>Drawn By: <b>PH</b></p> <p>Checked By: <b>MH</b></p>	<p>Date: <b>25/05/2023</b></p> <p>General Notes: Do not scale off drawing. No liability of any kind is accepted for any omissions or inaccuracies in respect of this plan. The original of this drawing was produced in colour; a monochrome copy should not be used upon. All rights reserved.</p>
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