ROTHERHAM TOP FARM, CHORLEY

Preliminary Ecological Appraisal Report

October 2023



Report Control Sheet

Project Name:Rotherham Top Farm, ChorleyProject Reference:CW20-1282Report Title:Preliminary Ecological Appraisal ReportReport Reference:CW20-1282 RPT 001Printing Instructions:Print at A4 Portrait, Double Sided.

Rev	Date	Description	Prepared	Reviewed	Approved
/	29/09/2023	Draft report sent to Client for comment.	CO	OC	OC
11	18/10/2023	Amended and final report sent to Client.	CO	OC	OC

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EXECUTIVE SUMMARY

Site Address	Rotherham Top Farm, Preston Road, Whittle-le-Woods, Chorley, PR6 7PG		
Grid Reference	SD 58072 20192		
Approximate Site Area	0.5ha		
Current Site Use	Currently the site forms three buildings including one main residential house with associated hardstanding and soft landscaping.		
Designated Sites within Zone of Influence	The site falls the Impact Risk Zone of the West Pennine Moors Site of Special Scientific Interest. A consultation with Natural England is not required. All designated sites are separated from the development site that no negative impact is to occur.		
Notable Habitat Features	No notable habitats are present on site.		
Notable Species Applicable to the Assessment	 Bats (Potential roosting, foraging and commuting) Breeding birds. Common amphibians and great crested newt. Badger Hedgehog 		
Mitigation Recommendations	 Reasonable Avoidance Measures relating to great crested newt, reptiles, and badger. Consideration for common amphibians, hedgehogs. Lighting considerations for bats. Soft landscaping to benefit a range of species. Nesting bird check before vegetation clearance in nesting bird season. Eradication of cotoneaster. 		
Recommended Further Surveys and Assessment	• Emergence/re-entry Bat Survey on B1 and the stone wall within B2.		
Recommended Ecological Enhancements	 Hedgehog highways Soft landscaping including linear features such as hedgerows. Bird and bat boxes. 		

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1 INTRODUCTION

1.1. SCOPE & PURPOSE

- 1.1.1. Collington Winter Environmental Ltd was commissioned by Primrose Holdings to undertake a Preliminary Ecological Appraisal (PEA) at Rotherham Top Farm, Preston Road, Whittle-le-Woods, Chorley, PR6 7PG. This report has been prepared to inform a planning application at the site.
- 1.1.2. The author of this report is Caitlin O'Connor, Assistant Ecologist at Collington Winter Environmental Ltd. This project is overseen and managed by Olivia Collington BSc (Hons), MIEnvSc, CEnv Director at Collington Winter Environmental Ltd. Olivia is highly experienced managing schemes and has produced many ecological reports to inform planning management plans.

1.2. LOCATION

1.2.1. Please refer to Figure 1.1 for the site location. The site is in Whittle-le-Woods, a village and civil parish of the Borough of Chorley in Lancashire.



Figure 1.1 Site Location

1.3. OBJECTIVES

- 1.3.1. The objectives of the Preliminary Ecological Appraisal are as follows:
 - Identify the major habitats present
 - Ascertain the presence or potential presence of any legally protected or notable species or habitats
 - Identify any mitigation or further survey required and opportunities for strategic wildlife enhancements and long-term management.

2 METHODOLOGY

2.1. DESK STUDY

2.1.1. An initial desk-based assessment of the site was undertaken to collate baseline data. The desk study included:

- Obtaining local records of notable species and locally designated sites within 2km of the site from The Lancashire Ecological Records Centre (LERC), obtained on the 18/09/2023.
- Review of Magic.gov.uk website for details of any designated sites, notable habitats and presence of European Protected Species Licences.
- Review of aerial and OS maps for habitat information, as well as determining locations of potential waterbodies to be considered in the assessment.
- Review of potential habitat links on and off site, to determine the potential zone of influence of the proposed development.
- On site consultation with the landowner which provided valuable information regarding historic land use and known species and habitats present within the site.
- 2.1.2. Please note, a lack of records for a species does not confirm absence. Instead, local surveys may not have been undertaken or records not submitted to LERC.

2.2. VEGETATION AND HABITAT ASSESSMENT

- 2.2.1. An Ecological Appraisal of the site was undertaken by Olivia Collington. The survey was undertaken on the 19^{th of} September 2023. The weather was overcast (8/8 oktas), with no precipitation, wind speed 2 and 16°c.
- 2.2.2. The walkover survey was undertaken broadly in line with standard UK HAB Methodology. The assessment is undertaken with consideration of methodology as per "Preliminary Ecological Appraisal" (CIEEM, 2018).
- 2.2.3. A UK HAB Plan has been produced and is presented in the Appendix of this report. Standard methodology has been used, though adjustments have been made based on judgement to demonstrate habitats in a clearer manner, or where standard guidance does not fit the conditions found on site.

2.3. FAUNA ASSESSMENT

- 2.3.1. A search for signs of protected and notable species of fauna was undertaken during the site walkover. This included both field signs of species, as well as potential for species to be present based on habitat availability.
- 2.3.2. The searches broadly included the following:
 - Assessment of waterbodies on site and within 250m of the site boundary, and terrestrial habitats for suitability to support notable amphibians.
 - Searches for field signs of, and habitat suitability for bats.
 - Suitability of habitats to support reptiles, and searches for incidental field signs.
 - Searches for field signs of badger (*Meles meles*), including setts, mammal paths, snuffle holes, badger hair and latrines to indicate activity.
 - Searches of watercourses for signs of water vole (*Arvicola amphibius*), white-clawed crayfish (*Austropotamobius pallipes*) and otter (*Lutra lutra*), and assessment of habitat availability for the species.
 - Assessment of the suitability of habitats to support notable birds and recording any field sightings of birds during the walkover.
 - Assessment of the sites ability to support notable invertebrates and flora.
 - Searches for non-native invasive species.

2.4. PRELIMINARY BAT ROOST ASSESSMENT

- 2.4.1. A Preliminary Bat Roost Assessment (PRA) of the site was undertaken by Olivia Collington who holds a Class 1 Bat Survey Licence from Natural England (Reference: 2020–46960-CLS–CLS).
- 2.4.2. The survey was undertaken following guidance set out in Collins (2023). This includes undertaking a detailed internal and external inspection of any features to compile information on potential and actual bat entry/ exit points,

roosting locations and evidence of bats.

2.4.3. The buildings were assessed as per categories listed in Table 4.1 Collins (2023).

Table 2.1 Assessment	Criteria f	for Bat	Roosting	Potential
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Table 4.1. Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement.			
Potential	Description		
suitability	Roosting habitats in structures	Potential flight-paths and foraging habitats	
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels).	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines, or generate/shelter insect populations available to foraging bats).	
Negligible*	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.	No obvious habitat features on site likely to be used as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.	
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions ³ 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 and not a classic cool/stable hibernation site, but could be used by individual hibernating bats ⁵).	Habitat that could be used by small numbers of bats as flight-paths such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.	
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions ⁸ and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, such as maternity and hibernation – the categorisation described in this table is made irrespective of species conservation status, which is established after presence is confirmed).	Continuous habitat connected to the wider landscape that could be used by bats for flight-paths such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.	
High	A structure 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 ^b and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation site.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats for flight-paths such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.	
 a Negligible is defined as 'so small or unimportant as to be not worth considering, insignificant'. This category may be used where there are places that a bat could roost or forage (due to one attribute) but it is unlikely that they actually would (due to another attribute). b For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance. c Evidence from the Netherlands shows mass swarming events of common pipistrelle bats in the autumn followed by mass hibernation in a diverse range of building types in urban environments (Korsten <i>et al.</i>, 2016 and Jansen <i>et al.</i>, 2022). Common pipistrelle swarming has been observed in the UK (Bell, 2022 and Tomlinson, 2020) and winter hibernation of numbers of this species has been detected at Seaton Delaval Hall in Northumberland (National Trust, 2018). This phenomenon requires compared in the IVK but exploring to show the value of the summary of the values of the vertex of the ver			
during the autumn and winter in prominent buildings in the landscape, urban or otherwise.			

2.5. BAT ACTIVITY ASSESSMENT

2.5.1. The commuting and foraging assessment methodology is based on information contained within the Bat Conservation Trust guidelines 4th edition (Collins, 2023). The categorisation within this report is based on that set out in Table 2.2, which is used as a basis for determining the requirement for further surveys and/or mitigation.

Table 2.2 Assessment Criteria for Bat Activity Value

Table 8.3. Minimum recommended number of repeats for activity surveys.			
Survey type	Low suitability habitat for bats ^a	Moderate suitability habitat for bats	High suitability habitat for bats
NBW	One survey visit ^b per season (spring – April/May, summer – June/July/August, autumn – September/October) ^e . Further surveys may be required if these visits, or the results of static detector surveys, reveal activity of interest that requires more observation on site.		
Automated/static bat detector surveys ^d The same locations should be used for each survey for comparison.	Data to be collected for a minimum of five consecutive nights per s season (spring – April/May, summer – June/July/ August, autumn – September/October) ^c in appropriate (or the best available) weather conditions for bats.		um of five consecutive nights appropriate (or the best r bats.
a If the habitat has been classified as having low suitability for bats, particularly on small sites with relatively few features, an ecologist should make a professional judgement on how to proceed based on all of the evidence available. It may or may not be appropriate for bat activity surveys to be carried out in low suitability habitats. However, caution should be exercised in fringe areas (e.g. some areas of Scotland) where 'low suitability habitat for bats' may be important to local bat populations due to the relative scarcity of better habitats. In such situations, bats are likely to also be more widely dispersed and may use a larger number of sites, therefore survey effort may actually need to be increased to detect use on the proposed site in guestion.			
b A survey visit should aim to cover all habitats represented in the survey area that could be impacted by the proposed activities. This may consist of a single walkover carried out on a single night for small sites (e.g. small housing developments) with low habitat diversity, but could range up to multiple walkovers carried out over one or several nights (depending on number of ecologists) on a larger site (e.g. road schemes) with greater habitat diversity.			
c April and October surveys are both weather- and location-dependent. Conditions may become more unsuitable in these months, particularly in northern England and Scotland. Surveys in the 'shoulder' seasons may, however, help to identify activity close to transitional or hibernation roosts or help to understand how bats adapt their behaviour in different weather conditions. Professional judgement should be used on the necessity for surveys during these months.			
d Detector locations should be assigned to provide a representative sample of all habitats in the survey area that could be impacted by the proposed activities. This could mean a single detector location at a small site with only one habitat represented but could range up to many detector locations on larger sites. Automated/static surveys are also useful when assessing collision risk, e.g. detectors can be placed at crossing points on proposed roads or railways. However, these surveys should generally be complemented by manual surveys where observations of how bats interact with the site can be made.			
Note: Multiple survey visits should be separated by at least three weeks, preferably longer, to observe temporal changes in activity.			

2.6. SURVEY LIMITATIONS

- 2.6.1. This survey does not constitute a full botanical survey. Key species for each habitat type have been identified to give a broad representation of habitats present within the site.
- 2.6.2. It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no investigation can ensure the complete characterisation of the natural environment. This survey does not constitute a full botanical survey. Plant species may have been under-recorded, unidentifiable or not visible due to a number of factors including the time of year the survey was carried out.
- 2.6.3. The protected species assessment provides a preliminary view of the likelihood of protected species occurring on the site. This is based on the suitability of the habitat, known distribution of the species in the local area (provided by data searches) and any direct evidence within the survey area.
- 2.6.4. The findings of this report represent the professional opinion of qualified ecologists and do not constitute professional legal advice. The client may wish to seek professional legal interpretation of the relevant wildlife legislation cited within this document.

2.7. PROPORTIONALITY

2.7.1. Collington Winter Environmental Ltd provide recommendations in line with the British Standard for Biodiversity (BS42020). Within BS42020, proportionality is encouraged for both ecologists and Local Authority Decision Makers and Consultees. Please refer to the below extract from Section 5.5 of BS42020.

"The work involved in preparing and implementing all ecological surveys, impact assessments and measures for

avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary and material to the application in question. Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate.

NOTE 1 This approach is enshrined in Government planning guidance, for example, paragraph 193 of the National Planning Policy Framework for England [41].

NOTE 2 The desk studies and field surveys undertaken to provide a preliminary ecological appraisal (PEA) might in some cases be all that is necessary."

3 SURVEY RESULTS

3.1. SITE CONTEXT

3.1.1. The site is in a suburban area in Whittle-le-Woods, a village and civil parish in Chorley. The site is immediately surrounded by residential properties on all aspects which are attracted to act as dispersal barriers for a range of terrestrial species including reptiles, badgers, and common amphibians. The wider area comprises more ecologically valuable habitats including woodland, agricultural fields, and grassland which will provide high value for local species.

3.2. DESIGNATED SITES

- 3.2.1. The site lies within the Impact Risk Zone of the West Pennine Moors Site of Special Scientific Interest (SSSI) located approximately 4km east. This SSSI supports an extensive mosaic of upland and upland-fringe habitats. It is of special interest nationally important features such as blanket bogs, wet and dry heathland, blanket bogs, wet and dry heathlands, acid and lime-rich flushes, rush pastures and mire grasslands, acid grasslands, neutral hay meadows and pastures that occur within and are supported by the wider habitat mosaic. The area also supports several breeding birds such as breeding black-headed gulls (*Chroicocephalus ridibundus*), Mediterranean gulls (*Larus melanocephalus*) and grey herons (*Ardea cinerea*).
- 3.2.2. Withnell Fold Local Nature Reserve (LNR) is located approximately 3.8km northeast from the site and is a host toa variety of wildflowers and fauna species.
- 3.2.3. No other statutory sites are located within 5 km of the site boundary.
- 3.2.4. The following Biological Heritage Sites (BHS) were returned in the 2km data search:
 - Lucas Lane Pasture is located approximately 720m northeast from the site. The site comprises a relict area of semi-natural habitat on a steep field-slope bounded by Lucas Lane to the east and a small stream to the north-east. It contains neutral grassland, with seepage zones along the slope creating flushed neutral to acidic habitats.
 - Leeds/Liverpool Canal (Walton Summit Branch) is located approximately 1.1km northeast from the site separated by the M6. The site comprises the short remaining length of the Walton Summit Branch of the Leeds-Liverpool canal. The site also includes the towpath, which is bounded by a hedge and a small area of grassland at the northern end of the site.
 - Kem Mill Ponds is located approximately 1.7km north from the site. The site comprises two ponds, the intervening grassland and a derelict boundary hedge. It supports a breeding population of great crested newt.
 - Denham Wood is located approximately 1.7km northeast from the site separated by the M61. The site consists of semi-natural woodland and an area of carr around a mill lodge. The woodland is situated on the valley side above the River Lostock and on either side of Birchin Lane. The woodland above the River Lostock is listed in the Lancashire Inventory of Ancient Woodland.
 - Tan House Valley is located approximately 1.5km east from the site separated by the M61. The site comprises grassland and a mosaic of semi-natural habitats situated in the valley of Tan House Brook, east of Goose Hall Quarry. The main habitat types present are neutral and acidic grasslands, scrub and woodland, ponds, valley mire and Tan House Brook itself.
 - Ackhurst, Great, Judeland, Damhead and Dog Trap Woods are located approximately 2km south from the site. The site comprises a series of semi-natural woodlands and a lake situated alongside the River Chor and its tributaries as it flows through Astley Park. Most of the woodlands are listed in the Lancashire Inventory of Ancient Woodland.

3.3. PRIORITY HABITATS

- 3.3.1. Consultation with Magic.gov.uk highlighted the presence of the following Priority Habitats within 1km of the site boundary:
 - Deciduous Woodland is in various blocks within 1km from the site with the closest approximately 280m southwest.
 - Purple moor grass and rush pasture is located approximately 720m northeast from the site spanning an area of 0.68 ha.

3.4. HABITATS

3.4.1. Please refer to Drawing 20-1282 – 001 for the UK HAB Map for the site. Photographs of the site are presented in the Appendix.

MODIFIED GRASSLAND

3.4.2. Residential lawns were located throughout the site particularly in the northern portion of the site and surrounding existing buildings. The lawns were managed to a very short sward height with limited floristic diversity.

INTRODUCED SHRUB

3.4.3. Throughout the residential garden were ornamental plants including conifers, henry's honeysuckle (*Lonicera henryi*), dogwood (*Cornus sanguinea*), box leaf honeysuckle (*Lonicera pileate*), butterfly bush (*Buddleja davidii*), cedar (*Cedrus libani*), viburnum (*Viburnum opulus*), Japanese laurel (*Aucuba japonica*), and cherry laurel (*Prunus laurocerasus*).

LINE OF TREES

3.4.4. A line of trees was located along the eastern aspect of the site. Species included weeping willow (*Salix babylonica*), conifers, poplar (*Populus sp.*), and cotoneaster (*Cotoneaster sp.*). The understorey was dense and comprised all species listed within the introduced shrub.

STANDING WATER (ORNAMENTAL POND)

3.4.5. Within the residential garden, one ornamental pond was located along the eastern aspect of the site. Please refer to Section 3.5 for further details regarding its suitability for great crested newts.

HARDSTANDING

3.4.6. As well as soft landscaping, concrete driveways and access roads were located within the site.

BUILDINGS

3.4.7. A total of three buildings were present within the site. Please refer to Section 3.5 for details of the buildings.

3.5. SPECIES

FLORA

- 3.5.1. The data search returned multiple records of notable plants within 2km from the site including marsh-orchid (*Dactylorhiza sp.*), common spotted-orchid (*Dactylorhiza fuchsia*), bluebell (*Hyacinthoides non-scripta*), and wild pansy (*Viola tricolor*). No notable species were found closer than 0.8km to the site.
- 3.5.2. Much of the site comprised residential lawns, managed to a short sward height preventing the growth of any notable species. The introduced shrub located throughout the site also comprised predominantly non-native ornamental species which are unfavourable in most ecosystems. Other habitats include developed land which lack the structure to support notable flora.
- 3.5.3. No notable flora species were identified during the survey. Overall, notable flora is considered absent from site.

INVERTEBRATES

3.5.4. The data search returned a total of 141 records of notable invertebrates within the local area. Species included (not limited to); cinnabar (*Tyria jacobaeae*), alder leaf beetle (*Agelastica alni*), dusky brocade (*Apamea remissa*), ringlet (*Aphantopus hyperantus*), ghost moth (*Hepialus humuli*), wall (*Lasiommata megera*), speckled wood

(Pararge aegeria), comma (Polygonia c-album), white-letter hairstreak (Satyrium w-album), brick (Agrochola circellaris), small phoenix (Ecliptopera silaceata), white ermine (Spilosoma lubricipeda), buff ermine (Spilosoma lutea), and dark-barred twin-spot carpet (Xanthorhoe ferrugata).

- 3.5.5. The habitats on site provide very limited opportunities for notable invertebrates due to a lack of floristic diversity. Limited food plants and flowering species were observed across the extent of the site except for butterfly bush. The ornamental pond, however, may provide some value for foraging and aquatic invertebrates.
- 3.5.6. Overall, notable invertebrates are not likely to be present on site.

AMPHIBIANS

- 3.5.7. The data search returned 28 records of great crested newt (*Triturus cristatus*) within 2km from the site boundary. All records are located over 800m from the site with many relating to Tan House Valley and Kem Mill ponds. Common amphibian species such as smooth newt (Lissotriton vulgaris), palmate newt (Lissotriton helveticus), common toad (Bufo bufo) and common frog (Rana temporaria) were also recorded.
- 3.5.8. The following EPSLs for great crested newt were located within 5km from the site boundary, based of Magic.gov.uk:
 - 2014-198-EPS-MIT-2 is located approximately 2.2km northwest from the site boundary and allowed for the damage and destruction of a resting place and destruction of a breeding site between 29/09/2017-31/05/2028.
 - EPSM2010-1803 is located approximately 2.4km west from the site boundary and allowed for the destruction of a resting place between 19/07/2012-30/04/2015.
 - 2014-3120-EPS-MIT is located approximately 3km southwest from the site boundary and allowed for the damage and destruction of a resting place between 13/10/2014-31/10/2018.
 - 2020-44712-EPS-MIT is located approximately 3.5km southwest from the site boundary and allowed for the damage and destruction of a resting place between 19/02/2020-31/07/2025.
 - EPSM2011-3215 is located approximately 3.7km southwest from the site boundary and allowed for the destruction of a resting place between 01/09/2012-30/06/2016.
 - 2016-25612-EPS-MIT is located approximately 3.8km northwest from the site boundary and allowed for the damage and destruction of a resting place between 21/09/2016-30/04/2017.
 - 2015-10047-EPS-MIT is located approximately 4.8km south from the site boundary and allowed for the damage and destruction of a resting place between 24/06/2015-31/07/2018.
- One ornamental pond (P1) was located onsite but none within 250 m of the site boundary. As great crested newts' 3.5.9. upper dispersal limit is generally considered to be up to 250 m from a waterbody (though occurrence of greater distances does exist), ponds beyond this distance were not assessed. (English Nature, 2001).
- 3.5.10. The pond underwent a HSI assessment which is detailed within Table 3.1.

Table 3.1 HSI Summary		
Factor	Score	
SI1 – Location	1	
SI2 – Pond Area	0.01	
SI3 – Pond Drying	0.9	
SI4 – Water Quality	0.33	
SI5 – Shade	0.3	
SI6 – Fowl	0.67	
SI7 – Fish	1	
SI8 – Ponds	1	
SI9 – Terrestrial Habitat	0.33	
SI10 - Macrophytes	1	
HIS Score	0.43	

Pond Suitability

Poor

- 3.5.11. The pond has been assessed as having 'Poor' suitability for great crested newts. The following qualities have contributed towards this score:
 - 'Optimal' location within the UK.
 - A pond area of approximately 6m².
 - Never dries.
 - 'Poor' water quality Minimal invertebrate diversity.
 - Approximately 90% shaded.
 - Minor impact of waterfowl Waterfowl present, but little indication of impact on pond vegetation. Pond still supports submerged plants and banks are not denuded of vegetation.
 - Fish absent No records of fish stocking and no fish observed.
 - A pond density of 4.45 ponds/km² based on the number of ponds occurring within 1 km of survey pond (14 excluding those separated from the site by main roads. In this case, the main roads include Preston Road A6 and Buckshaw Avenue.
 - 'Poor' terrestrial habitat Poor structure offering limited opportunities for foraging and shelter (<25% of available area).
 - Approximately 80% macrophyte cover This includes emergent, floating plants (excluding duckweed) and submerged plants reaching the surface.
- 3.5.12. The site comprised mainly lawns and developed land which do not provide opportunities for sheltering or foraging amphibians. However, it is anticipated that the treeline and associated introduced shrub will provide some value for amphibians especially those breeding within the ornamental pond. Common amphibians such as common toad (*Bufo bufo*) are expected to be present within the site.
- 3.5.13. Although the pond on site scored 'Poor' for great crested newt, their presence cannot be discounted due to local records of the species and EPSLs in the wider area, though the pond was deemed unsuitable for the species.
- 3.5.14. The presence of great crested newts within the site is unknown though unlikely, though common amphibians may occur on site.

REPTILES

- 3.5.15. The data search returned two records of slow worm (*Anguis fragilis*) and one of common lizard (*Zootoca vivipara*) both 1.7km from the site.
- 3.5.16. The site provides limited value for reptiles, given most of the site comprised short lawns and developed land which lack the structure and habitat quality to support the species group. Although the treeline may provide value for sheltering individuals, the site is isolated from any ecologically valuable habitats which would allow reptiles to commute to/from the site. Major dispersal barriers include Preston Road (A6) along the site's eastern aspect and Lea Road along the southern.
- 3.5.17. Slow worms are typically associated with residential gardens, and therefore the species could be present in the local area in low numbers and are not considered significant.

BIRDS

- 3.5.18. A total of 438 records of birds were returned during the 2 km data search. Records included (not limited to); sparrowhawk (*Accipiter nisus*), pink-footed goose (*Anser brachyrhynchus*), buzzard (*Buteo buteo*), great spotted woodpecker (*Dendrocopos major*), lesser spotted woodpecker (*Dendrocopos minor*), lapwing (*Vanellus vanellus*) yellowhammer (*Emberiza citrinella*), tree sparrow (*Passer montanus*), peregrine (*Falco peregrinus*), oyster catcher (*Haematopus ostralegus*) and mistle thrush (*Turdus viscivorus*). Many of the records relate to Cuerden Valley Park and Ackhurst, Great, Judeland, Damhead and Dog Trap Woods.
- 3.5.19. The site provides a range of potential breeding habitats for a variety of birds in association with introduced shrub and treeline. It is anticipated that low numbers of common passerine species will utilise these habitats during the breeding bird season.

- 3.5.20. Ground nesting birds are not anticipated to be on site due to high levels of anthropogenic disturbance.
- 3.5.21. Barn owl returned in the data search, dated 2019 and 500m from the site flying around Lucas Lane. Semi-mature trees are present across the extent of the site. No suitable cavities were observed for nesting barn owl. No suitable nesting opportunities were identified within the buildings on site.

BATS

- 3.5.22. A total of 24 records of bats were returned within 2km of the site boundary. Species included unidentified pipistrelle (*Pipistrellus* sp.), common pipistrelle (*Pipistrellus* pipistrellus), and Daubenton's bat (*Myotis daubentonii*).
- 3.5.23. The following EPSL were located within 5km from the site boundary:
 - EPSM2013-6445 is located approximately 1.6km southwest from the site boundary and allowed for the destruction of a resting place and breeding site for common pipistrelle between 08/10/2013-01/10/2014.
 - 2016-26992-EPS-MIT-1 is located approximately 2.7km south from the site boundary and allowed for the destruction of a resting place for common pipistrelle between 04/08/2017-12/12/2021.
 - 2015-12304-EPS-MIT is located approximately 2.7km northeast from the site boundary and allowed for the destruction of a resting place for common pipistrelle between 23/09/2015-22/09/2020.
 - EPSM2011-2838 is located approximately 2.9km northeast from the site boundary and allowed for the destruction of a resting place for common pipistrelle between 05/05/2011-01/04/2012.
 - 2019-41330-EPS-MIT is located approximately 3.3km southeast from the site boundary and allowed for the destruction of a resting place for common pipistrelle and brown long-eared bat between 29/07/2019-29/07/2024.
 - 2018-35868-EPS-MIT is located approximately 4.3km northeast from the site boundary and allowed for the destruction of a resting place for common pipistrelle between 25/06/2018-31/07/2019.
 - 2014-4725-EPS-MIT is located approximately 4.6km southeast from the site boundary and allowed for the destruction of a resting place for common pipistrelle between 22/01/2015-01/01/2020.
 - EPSM2013-6381 is located approximately 4.6km southeast from the site boundary and allowed for the destruction of a resting place for common pipistrelle between 27/09/2013-30/04/2014.
 - EPSM2009-1233 is located approximately 4.4km south from the site boundary and allowed for the destruction of a resting place for common pipistrelle between 17/12/2009-01/10/2011.
 - 2020-45806-EPS-MIT is located approximately 4.7km southeast from the site boundary and allowed for the damage and destruction of a resting place for common pipistrelle between 01/04/2020-30/04/2021.
 - 2017-31149-EPS-MIT is located approximately 4.9km northeast from the site boundary and allowed for the destruction of a resting place for common pipistrelle between 18/09/2017-30/11/2019.

3.5.24. The buildings were subject to a PRA and are detailed in Table 3.1

Building Ref	Description	Photograph
Building 1 (B1)	 B1 comprised a two-storey stone brick residential house with a pitched slate roof and conservatory extension. The external brickwork was in overall good condition with no obvious cracks or missing mortar. All windows and doors were in excellent condition with no cracks that would present PRFs for bats. Additionally, all fascia boards and soffits were in good condition. Internally, two separate loft voids were present inside of the property. Gaps within the roof where natural 	

Table 3.1 PRA Summary

4: RECOMMENDATIONS AND MITIGATION

	light was able to enter the loft space were observed, allowing internal access for bats within the loft space.	
	Much of the roof lacked roofing felt which would prevent bats from roosting between the layer of felt and the roof tiles. The brick wall inside of the loft space was also heavily cobwebbed – indicating that no bats have been roosting within the mortar for some time (if ever). Insulation covered the floor of the loft spaces, which means that droppings cannot be discounted due to limited visibility although no obvious piles were observed.	
	The conservatory extension provides limited value for roosting bats due to its glass construction. No crevices are present which would provide value for crevice dwelling bats such as pipistrelles. Furthermore, no voids with suitable temperature regulation and lighting were present which would cater to void dwelling species such as brown long-eared bat. The residential house was assessed as having 'low' bat roosting potential.	
	However, the conservatory was assessed as having ' negligible ' bat roosting potential.	
Building 2 (B2)	B2 comprised a red brick workshop building with a metal roof and wooden panels on the external walls.	
	All external brickwork was in good condition with no cracks or crevices identified within the mortar that may be exploited by roosting bats. Additionally, no wooden panels were lifted which could potential provide PRFs for crevice dwelling bats.	
	Internally, however, the stonework was in moderate condition. Missing mortar was observed across its extent which provides opportunities for roosting bats. Despite this, no field signs of bats such as droppings or feeding remains were identified internally.	

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4: RECOMMENDATIONS AND MITIGATION





- 3.5.25. The habitats on site provide some value for bats in the local area. The treeline along the eastern aspect of the site is anticipated to act as a linear feature for commuting bats whilst the pond will attract invertebrate prey. The buildings on site provide some potential value for roosting bats in relation to B1 and the stone wall within B2.
- 3.5.26. The site has the potential to support roosting bats whilst the habitats were assessed as having moderate value.

BADGER

- 3.5.27. A total of six records of badgers (*Meles meles*) were returned during the data search and their location is to remain confidential.
- 3.5.28. No signs of badger presence were recorded within the site or the surrounding 30 m during the site visit. There site provides suitable conditions for sett building within the grassland and treelines.
- 3.5.29. Although unlikely that badger is present within the site, they cannot be discounted due to their high tolerance to anthropogenic activity. It is possible that badger utilise the site for commuting, though no setts are present within the site.

OTHER TERRESTRIAL MAMMALS

- 3.5.30. A total of 34 records of west European hedgehog (*Erinaceus europaeus*) were located within the 2km search area. Given the habitats present within the site including introduced shrub and treelines, it is anticipated that hedgehog could be present within the site.
- 3.5.31. Two records of brown hare (*Lepus europaeus*) were recorded in 2km from the site. The site is anticipated to have limited value due to the sites lack of expanses of agricultural land which are the preferred habitat of brown hare. The grassland on site is also managed to a very short sward height which is unsuitable for form creation. Furthermore, the site does not adjoin to such habitats, making it unlikely that they will commute through the site.

NON-NATIVE INVASIVE SPECIES

- 3.5.32. Multiple records of non-native invasive flora species were located within the 2 km search area. Species includes Japanese knotweed (*Fallopia japonica*), giant hogweed (*Heracleum mantegazzianum*), Himalayan balsam (*Impatiens glandulifera*), various species of cotoneaster (*Cotoneaster sp.*) and rhododendron (*Rhododendron ponticum*).
- 3.5.33. Cotoneaster (Cotoneaster sp.) was identified within the treeline adjacent to the ornamental pond.

SPECIES DISCOUNTED FROM ASSESSMENT

- 3.5.34. Water vole (*Arvicola amphibius*), otter (*Lutra lutra*), beaver (*Castor fiber*) and white-clawed crayfish (*Austropotamobius pallipes*) have been discounted from assessment as no aquatic habitats are located on site or within proximity. The closest aquatic habitat is located approximately 240m east of the site boundary, relating to a brook within Mossfield Nature Reserve. The brook is sufficiently separated from the site by anthropogenic barriers as such no negative impacts would occur on aquatic species during the proposed development.
- 3.5.35. Hazel Dormouse (*Muscardinus avellanarius*) mainly occur in southern counties, especially in Devon, Somerset, Sussex, and Kent. There are few recorded localities north of the Midlands, though they are present in parts of the Lake District and in scattered Welsh localities (Matthews et al, 2018). The species are not generally known to be present within the Chorley area (Wembridge et al., 2016. The habitats on site are of limited value due to limited areas of extensive woodland and scrub. As such, the species are reasonably discounted from site.
- 3.5.36. Red squirrel (*Sciurus vulgaris*) has been discounted from the assessment. Red squirrel populations are limited to small areas of northern England and are not known to be present in the Chorley area; with no previous records returned in the data search. It is anticipated that high abundances of grey squirrel are present within this region (Shuttleworth/RSST n.d.). This species will displace red squirrel through competition as well as cause increased red squirrel mortality through the spread of squirrel pox (The Mammal Society, 2020).

4 MITIGATION RECOMMENDATIONS

4.1. DESIGNATED SITES

4.1.1. The site is located within the Impact Risk Zone for West Pennine Moors SSSI located 4km east from the site. Due to the nature of the development and the proximity, a consultation with Natural England is **not** required to proceed. The West Pennine Moors SSSI and other designated sites are sufficient distance from the site and/or separated by anthropogenic barriers such as main roads and residential properties that no negative impact is to occur. Furthermore, the sites are not connected by any linear features such as watercourses that have the potential to facilitate pollution.

4.2. HABITATS

LINE OF TREES

- 4.2.1.From the Concept Site Layout (LMP Architects, 2023) (Reference: 23/076/CO02), it appears that some of the line of trees may be removed to facilitate development. It is recommended that replacement tree planting at a 1:3 ratio is required to compensate for loss of any trees. It is recommended that the planting comprises native species and species known to be of value for the attraction of wildlife. This will include fruiting and flowering species.
- 4.2.2. However, it also appears that some trees are to be retained within the southeastern corner of the site which should be protected during construction. Generally, the protection measures of retained trees will be through used of temporary protective demarcation fencing to protect the trees and shrubs. The fencing must extend outside the canopy of the retained trees and must remain in position until all plots have been developed to ensure protection is provided throughout the construction phase.
- 4.2.3. The fencing will be in accordance with BS 5837:2012 Trees in Relation to Design, Demolition and Construction: Recommendations.

4.3. SPECIES

AMPHIBIANS

- 4.3.1. The presence of great crested newt on site is unknown though unlikely and common amphibians are likely to be present.
- 4.3.2. Given the very small scale of proposed development, and low likelihood of great crested newt presence, development can proceed using the following Reasonable Avoidance Measures (RAMs):
 - All site contractors are to be inducted through a Toolbox Talk hosted by a suitably qualified ecologist on the
 presence of great crested newts and their legal protection. All contractors are to sign the Toolbox Talk and
 agree to the proposed RAMs;
 - Any areas of dense vegetation, rubble or rock piles will be checked for amphibians immediately prior to clearance. No contractors or vehicles do not enter areas which have not been checked for great crested newts.
 - Storage of materials is to be on pallets i.e. raised off the ground and on areas of hard standing or tarmac. No materials to be stored on vegetation.
 - All working areas are to be maintained as bare ground or hardstanding throughout the construction phase.
 - All open pits and pipes are to be checked for presence of amphibians conducted in the morning prior to works.
 - If excavations are exposed and/or created, a slope will be positioned within the excavation to allow amphibians and mammals to escape should they fall in.
 - Under no circumstances should site contractors attempt to handle great crested newt. In the unlikely chance, a GCN is located during the RAMs, all works must cease immediately, and Natural England contacted for advice. No great crested newt is to be handled and the refugia is to be placed back to provide suitable cover.
- 4.3.3. It is also recommended that the consideration for common amphibian's populations during the works. This includes checking any areas by hand which will be impacted by the proposed works, any common amphibians found should be moved carefully by hand outside of the working area.

BREEDING BIRDS

- 4.3.4. Nesting birds are anticipated to utilise the treelines and shrub habitats.
- 4.3.5. Any vegetation management should be undertaken outside of the breeding bird season (March to September, inclusive). If this is not possible, a suitably qualified ecologist should undertake a nesting bird check no more than 48 hours prior to removal. If nesting activity is observed, the nest(s) should be left in situ until the young have fledged. A suitable buffer will be maintained and determined by the ecologist.

BATS

- 4.3.6. B1 and the stone wall within B2 were assessed as having '**low**' bat roosting potential. It is recommended that further s summer nocturnal bat surveys are completed to understand the sites usage for roosting bats within the buildings and the sites value (see Section 5).
- 4.3.7. Slow-flying species such as brown long-eared bat, which are known to be in the local area, are sensitive to lighting and may be impacted by the proposed development, should no mitigation for lighting be considered.
- 4.3.8. Any proposed lighting/existing lighting should follow the guidance outlined in the Institute for Lighting Engineers document "Guidance for the Reduction of Obtrusive Lighting" (2005) and BCT's "Bats and Artificial Lighting at Night" (2023).
- 4.3.9. An External Lighting Scheme had not been produced on the writing of this report. As such, the following recommendations are to be considered within the scheme during its condition, to minimise impacts of lighting. The recommendations are as follows:
 - Keep site lighting to minimum levels.
 - Luminaries should lack UV elements and preferably LED lighting with a warm white light should be used over cool white light (ideally <2700Kelvin).
 - Lighting should feature peak wavelengths greater than 550nm.
 - Light placement should be downward facing to prevent excess horizontal or vertical light spill.
 - The use of integrated fittings such as cowls, shields, louvres and hoods, that effectively contain light spill from unintended areas.
 - The use of hard landscaping features to block light and create dark corridors.
 - Avoid illuminating habitats of value.
 - Use of timed security lights should be set on motion-sensors and using short, 1-minute timers, to minimise light use.
 - Column heights of lighting can be considered to minimise light spill.

BADGERS

- 4.3.10. No badger setts were identified during the survey; however, they may be within the local area. The following Precautionary Working Methods will be adhered to during the construction phase to ensure that no badgers are impacted by the proposed development (Badger Trust, 2023):
 - All site contractors are to be inducted through a Toolbox Talk hosted by a suitably qualified ecologist on the
 presence of badgers and their legal protection. All contractors are to sign the Toolbox Talk and agree to the
 proposed PWMs;
 - All site personnel should be fully briefed on badgers, the mitigation measures to be followed, the relevant legislation, the penalties imposed and who to contact should they need to.
 - Ensure excavations or trenches left overnight should have an escape route such as a shallow gradient at one or both ends.
 - Ensure excavations or trenches are inspected each morning and evening to ensure no badgers have become trapped.
 - Open pipework with a diameter of more than 120mm should be properly covered or capped at the end of the working day to prevent badgers from entering and becoming trapped.
 - During the work, the storage of any chemicals should be contained in such a way that they cannot be accessed or knocked over by any roaming badgers.
 - The storage of topsoil or other "soft" building materials within the site should be given careful consideration. Badgers will readily adopt such mounds and dig setts which would then be afforded the same protection as established setts. To avoid the adoption of such mounds, they should be subject to daily inspections before

work commences or alternative measures put in place, such as being fenced off for higher-risk areas.

- Litter, tools and potentially dangerous materials on site should be cleared at the end of the working day. Care should be taken that there are no sharp metal objects or pointed protrusions on the ground which could seriously injure a badger due to their poor eyesight.
- Ensure no dogs are brought to the work site.
- Fires should be lit only in secure compounds away from areas of potential badger activity and should be fully extinguished at the end of the working day.
- Use of noisy plant or machinery should cease at least two hours before sunset and not commence until an hour after sunrise to avoid causing a disturbance to badgers or preventing access or egress to setts.
- Badger paths (if found) must not be blocked to ensure access to foraging areas is maintained.
- 4.3.11. Adherence to these measures should be confirmed to planners at regular intervals by the project ecologist.

TERRESTRIAL MAMMALS

4.3.12. European Hedgehog are anticipated to be present within the site and are a Species of Principal Importance. During habitat management, any areas of dense vegetation should first be carefully hand searched to check for the species. If identified during management, should be relocated carefully by hand to a location away from the working area. If any injured either species are located they should be taken to a local vets.

REPTILES

- 4.3.1.Reptiles may be present onsite in small numbers. The following PWMs are to be followed during vegetation clearance, to minimise potential impacts on the species:
 - A toolbox talk will be given to the site manager and all contractors working on site with respect to the surrounding habitats and potential for protected/notable species. A copy of species factsheets relating to reptiles and breeding birds will be provided for display within the site office.
 - Suitable vegetation is to be strimmed to approximately 15cm in a northern to southern direction where applicable. It is to be checked following strimming to identify individuals. If discovered, they will be removed from the working area and covered. Once the areas are deemed reptile free, they are to be strimmed to ground level and maintained at this length for the remaining works.
 - Any excavations will be backfilled on the same day as excavation or checked for reptiles immediately prior to backfilling. This also considers avoiding temporary water bodies which may be attractive to amphibians. If it is not possible to backfill on the same day, a PWMs, will be provided in all excavations or alternatively, all excavations should be well-covered with plywood.
 - No piles of loose construction materials are to be created during works all material will be kept on hardstanding, stored on pallets, removed immediately from the site or checked prior to being removed.
 - In the event reptiles are discovered, works will halt immediately and the ecologist will be contacted for advice. Contractors are not to handle reptiles unless informed to do so by the ecologist.

NON-NATIVE INVASIVE SPECIES

4.3.13. Cotoneaster was identified on site. This should be eradicated during development.

5 FURTHER SURVEYS AND CONCLUSION

5.1. BAT SURVEY (SUMMER ROOSTING)

- 5.1.1. B1 and the stone wall of B2 were found to provide '**low**' bat roosting potential, and therefore, in accordance with Best Practice guidance (Collins, 2016), one further nocturnal emergence/ re- entry survey should be undertaken between May-September (inclusive) to determine usage by roosting bats.
- 5.1.2. The results of the further surveys will determine if any mitigation is required for roosting bats. If roosting bats are located within any of the buildings, a Natural England Mitigation Licence may be required for development to proceed. The Licence can only be obtained once planning permission has been granted and all wildlife conditions discharged. However, the bat emergence surveys must be undertaken prior to planning permission being applied for as they are a material consideration.

5.2. OTHER MITIGATION RECOMMEDNATIONS

- 5.1.1. A series of mitigation measures have also been outlined to protect species which the site provides value or potential value for:
 - Reasonable Avoidance Measures relating to great crested newt, reptiles, and badger.
 - Consideration for common amphibians, hedgehogs.
 - Lighting considerations for bats.
 - Soft landscaping to benefit a range of species.
 - Nesting bird check before vegetation clearance in nesting bird season.
 - Eradication of cotoneaster.

5.3. CONCLUSION

- 5.2.1. The site was found to comprise three buildings with associated hardstanding and soft landscaping. Much of the site was assessed as residential lawns with scattered ornamental shrubs. The site was found to have value or potential value for a range of species including bats, badgers, amphibians, breeding birds and other terrestrial mammals.
- 5.2.2. Specific enhancement recommendations for the site include the following:
 - Bat and bird boxes could be placed on the new buildings / retained trees. A plan to show the locations of these boxes and the specifications should be produced by a suitably qualified ecologist once the layout is finalised.
 - Planting of linear features such as hedgerows and trees between garden plots where possible, to add commuting features withing the site.
 - The inclusion of 'hedgehog highways' to facilitate movement across the site. This includes holes of 13 x 13cm at the bases of fence panels, leaving a sufficient gap beneath gates and/or leaving brick spaces at the bases of brick walls.

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Description	Photographs
Lawns across the extent of the site.	
Ornamental pond on site.	<image/>
Treeline along the eastern aspect.	





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