







Land off Tattenhall Road

Tattenhall

Preliminary Ecological Assessment

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The conclusions and recommendations contained in this document are based upon information gathered by TEP and provided by third parties. Information provided by third parties and referred to herein has not been independently verified by TEP, unless otherwise expressly stated in the document.

Nothing in this report constitutes legal opinion. If legal opinion is required, the advice of a qualified legal professional should be secured.

Executive Summary

Site Details	The site is located in Tattenhall, Cheshire. The approximate central grid reference of the site is SJ 48887 59319.
Proposals	The site application boundary measures 6.32ha. The proposals are for the construction of approximately 110 new residential dwellings with associated infrastructure and soft landscaping on the settlement edge of Tattenhall, Cheshire.
Designated wildlife sites	The site lies within SSSI Impact Risk Zone (IRZ) for Peckforton Woods SSSI. The proposals do not meet the risk parameters identified for these IRZ and consultation with Natural England will not be required.
Important Ecological Features present within or adjacent to the site	The site predominantly consists of modified grassland with hedgerow boundaries and mature trees. The Keys Brook is situated adjacent to the southern boundary. There is one ephemeral pond on site and a further six ponds lie within 250m of the site.

Recommendations	The following recommendations are made to ensure that delivery of the project remains compliant with relevant legislation and policy: • Further survey of ponds within 500m to establish presence/absence of great crested newt. • Further survey of trees and buildings identified with potential for roosting bats which are to be impacted by proposals. • A badger survey of the site and surround 30m is recommended to establish presence/absence of badger within influencing distance to the site. • Further survey of the Keys Brook to establish presence/absence of water vole and otter. • A Precautionary Working Method Statement (PWMS) should be produced for the protection of notable species on site such as brown hare, hedgehog, polecat and reptiles. • Standard pollution prevention and dust control measures should be set out in a contractors Construction Environmental Management Plan (CEMP) and implemented during site clearance and construction works. • Any trees adjacent to the site boundary should be protected from incidental damage and disturbance during construction in accordance with current standards (BS5837:2012). • A Sensitive Lighting Strategy should also be incorporated within proposals to avoid impacts of lighting on nocturnal species, primarily bats. • Vegetation clearance should be completed outside of the nesting period (typically taken to be March to August inclusive). • A River Condition Assessment is recommended of the Keys Brook. • A Biodiversity Net Gain assessment will be required to ensure the development provides a net gain to comply with the NPPF. • Biodiversity enhancement through landscape proposals in the form of new habitat provision comprising native or wildlife friendly species and the installation bat/bird/invertebrate boxes.
Conclusions	Constraints are dependent on the outcomes of the recommended surveys and providing the other recommendations set out above are followed.

This Executive Summary is not a substitute for the full report. Refer to the full text of this report for further detail.

Contents

Page

1.0 INTRODUCTION 1

Site Location 1

Proposals 2

Planning Context 2

Scope 3

2.0 METHODS 4

Desk Study 4

Limitations 6

Habitats and Flora 6

Habitat Survey 6

Limitations 6

Fauna 6

Amphibians 7

Limitations 7

Bats – Ground Level 7

Limitations 8

Ecological Assessment Process 9

Assumptions 10

3.0 RESULTS 11

Planning Context 11

Wildlife Sites 11

National Sites Network 11

Other Statutory Wildlife Sites 11

Local Wildlife Sites 12

Habitats and Flora 12

Pre-existing Data 12

Trees 13

Grasslands and Ruderal/Ephemeral 13
Wetlands 14
Hedgerows 14
Notable or Invasive Flora 14
Habitat Connectivity 14
Fauna 15
Amphibians 15
Badger 15
Bats 15
Birds 16
Water Vole/Otter 17
Brown Hare 17
Hedgehog 17
Other Relevant Species 17
Invertebrates 17
Polecat 18
Reptiles 18
4.0 ASSESSMENT OF POTENTIAL IMPACTS 19
Wildlife Sites 19
National Sites Network 19
Local Wildlife Sites 19
Habitats and Flora 19
Notable Habitats 19
Notable or Invasive Flora 20
Fauna 20
Amphibians 20
Badger 20
Bats 21

Birds 21
Otter/ Water Vole 21
Brown Hare 22
Hedgehog 22
Other 22
Invertebrates 22
Polecat 22
Reptiles 23
5.0 MITIGATION AND ENHANCEMENT 24
Relevant Planning Policies and Guidance 24
Protected Sites 24
Statutory Wildlife Sites 24
Local Wildlife Sites 25
Habitats and Flora 25
Hedgerows and Trees 25
Other Habitats 25
Fauna 26
Amphibians 26
Badger 26
Bats 27
Birds 28
Otter/ Water Vole 29
Brown Hare 30
Hedgehog 30
Other Species 30
Invertebrates 30
Reptiles 30

Figures

Figure 1: Site location 2

Tables

Table 1: HSI Suitability Scores 7

Table 2: Categorisation of Potential Roost Features (PRFs) of Trees for Bat Species 8

Table 3: Summary of key habitat features with the site 12

Table 4: Natural England mitigation licences within 2km of the site 16

Annexes

Annex A: Target notes

Drawings

Drawing 1: UK Habitat Survey (Ref G10797.03.008B)

1.0 Introduction

1.1 The Environment Partnership (TEP) was commissioned by Gladman Developments in October 2024 to undertake a Preliminary Ecological Assessment (PEA) to support an outline planning application for the proposed development of approximately 110 new dwellings on the settlement edge of Tattenhall, Cheshire (hereafter referred to as 'the site').

1.2 An Ecological Desk Study has been produced to support this Preliminary Ecological Assessment, reported under separate cover (TEP Ref: 10797.03.001). This report should read in conjunction with the Desk Study.

1.3 This PEA report includes details of the methods employed and any limitations of the surveys undertaken. Results are provided with supporting maps, together with an evaluation of the ecological features within the Site, an assessment of the potential impacts associated with the development proposals and requirements for mitigation. The assessment has been undertaken with due consideration for current best practice guidelines (CIEEM 2017a[1], 2018[2]).

Site Location

1.4 The site is located in Tattenhall, Cheshire. The location of the site is depicted by the red line shown in Figure 1. The approximate central grid reference of the site is SJ 48887 59319.

1.5 The site comprises an area of modified grassland which is in use as a grazing paddock for horses. The site is bounded by hedgerows and trees with Keys Brook directly to the south of the site.

1.6 The wider area is predominantly rural comprising arable and grazing fields to the north, east and west with the village of Tattenhall approximately 700m to the south. The city of Chester is situated approximately 11km northwest.

[1] CIEEM (2017a) Guidelines for Ecological Report Writing, 2nd Edition. Chartered Institute of Ecology & Environmental Management

[2] CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.2. Chartered Institute of Ecology and Environmental Management, Winchester

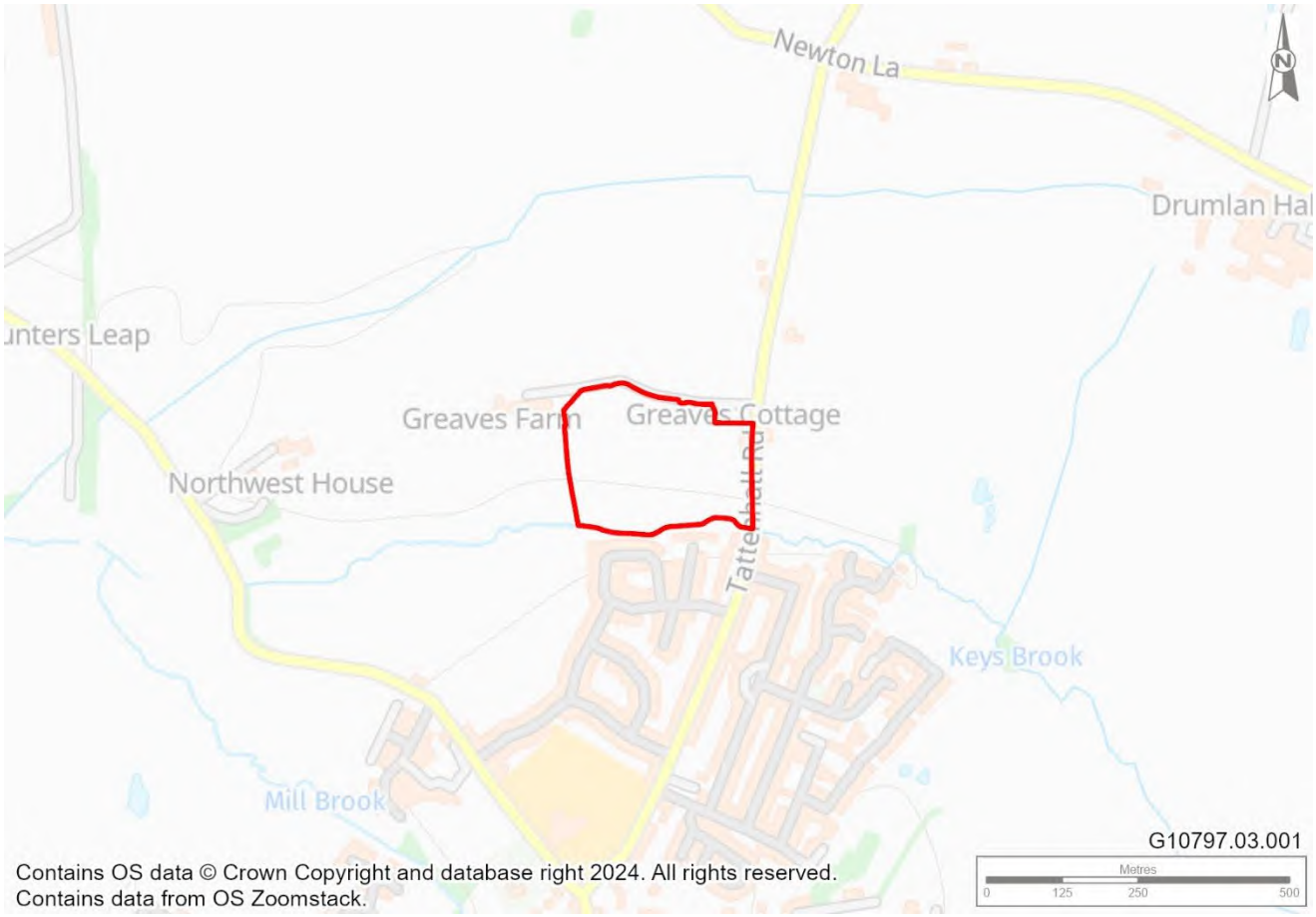


Figure 1: Site location

Proposals

1.7 Proposals are for an outline planning application for the erection of up to 110 residential dwellings (including affordable housing), introduction of structural planting and landscaping, public open space, sustainable urban drainage system and associated works (all matters reserved except for access).

Planning Context

1.8 Relevant information regarding local planning policy is provided in the Ecological Desk Study (TEP Ref 10797.03.001).

1.9 The following policies within the Cheshire West and Chester Local Plan Parts 1&2 are of relevance to ecology and biodiversity:

- ENV3 – Green Infrastructure
- ENV4 – Biodiversity and Geodiversity

- STRAT 9 – Green Belt and Countryside
- DM44 – Protecting and Enhancing the Natural Environment; and
- DM45 – Trees, Woodland and Hedgerows.

1.10 Under the National Planning Policy Framework 2023[3] (NPPF), opportunities to achieve biodiversity net gain within developments should be pursued.

Scope

1.11 This ecological assessment considers potential ecological effects upon any notable habitats or species which may be present or adjacent to the site.

1.12 This report provides baseline information on the habitats and protected species present within the site, gathered during a desktop study and habitat walkover survey undertaken in October 2024.

1.13 This report presents the findings of the PEA, the objectives of which are to:

- Detail the methods and results of the aforementioned surveys;
- Identify features of ecological value within the Site, such as legally protected species or habitats of importance to biodiversity;
- Identify any non-native invasive species within the Site and provide advice regarding removal or management;
- Advise on avoidance or mitigation requirements that may be needed prior to development commencing; and
- Provide outline recommendations for biodiversity enhancement within Site proposals in accordance with the National Planning Policy Framework (NPPF).

[3] National Planning Policy Framework (2023). Department for Levelling Up, Housing and Communities. *National Planning Policy Framework (publishing.service.gov.uk)*

2.0 Methods

Desk Study

2.1 In line with current best practice (CIEEM, 2016[4], 2017b[5]), information regarding designated sites, notable habitats and existing protected and notable species records of the past decade, within a 2km minimum radius of the site was collated and reviewed to inform this ecological assessment. Further detail regarding ecological zones of influence (EZOI) applied for different ecological features and the sources of information included are presented in the Ecological Desk Study (TEP Ref 10797.03.001).

2.2 In brief, key data sources included Natural England (open-source data), Environment Agency (open-source data); Cheshire West and Chester Council (CWAC), Biodiversity Information Centre for Cheshire, Halton, Warrington & Wirral Records Centre (RECORD) and Cheshire Biodiversity Action Plan (LBAP) and a review of relevant (within the past ten years) species records.

2.3 Statutory designated wildlife sites were searched for as follows (EZOI applied for each is indicated in brackets):

- Ramsar sites (10km);
- National Sites Network (10km), includes Special Areas of Conservation (SAC) and Special Protection Areas (SPA);
- Site of Special Scientific Interest (SSSI) (5km);
- National Nature Reserve (NNR) (5km); and
- Marine Nature Reserve (MNR) (5km);
- Local Nature Reserves (LNR) (2km).

2.4 Non-statutory designated wildlife sites were searched for within 2km of the site and, within Cheshire, these may include:

- Local Wildlife Sites (LWS);
- County Wildlife Sites (CWS);
- Unconfirmed Wildlife Sites (UWS); and
- Other Sites of Wildlife Interest (OSWI).

[4] CIEEM (2016) Guidelines for Accessing and Using Biodiversity Data. Chartered Institute of Ecology & Environmental Management

[5] CIEEM (2017b) Guidelines for Preliminary Ecological Appraisal, 2nd Edition. Chartered Institute of Ecology & Environmental Management

2.5 Notable habitats were searched for within 2km of the site. Notable habitats may include those listed under any of the following:

- Ancient woodland;
- Main rivers;
- Habitats of principal importance (HPI) as listed by the requirements of Section 41 (S41) of the Natural Environment and Rural Communities (NERC) Act 2006[6]; and
- Local Biodiversity Action Plan Habitats (LBAP).

2.6 Pre-existing records for notable species were reviewed from the combined data sources, where found from within approximately 2km of the site. Notable species include those listed under any of the following:

- Protected animal species under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (EPS);
- Protected bird species under Schedule 1 of the Wildlife and Countryside Act 1981, as amended (WCA1);
- Protected animal species under Schedule 5 of the Wildlife and Countryside Act 1981, as amended (WCA5);
- Protected plant species under Schedule 8 of the Wildlife and Countryside Act 1981, as amended (WCA8);
- Invasive non-native plant species under Schedule 9 of the Wildlife and Countryside Act 1981, as amended (WCA9);
- Invasive non-native species under the Invasive Alien Species (Enforcement and Permitting) Order 2019 (IAS);
- Species of principal importance (SPI) as listed by the requirements of S41 of NERC;
- Protection of Badgers Act 1992 (PBA);
- Red and Amber listed Birds of Conservation Concern (BRd/BAm); and
- Cheshire Biodiversity Action Plan Species (LBAP).

[6] Section 41 of the Natural Environment and Rural Communities Act requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England.

Limitations

2.7 Species records can provide a useful indication of the species present within the search area, although the absence of a given species from the dataset cannot be taken to represent actual absence.

Habitats and Flora

Habitat Survey

2.8 An extended Phase 1 habitat survey was completed by a suitably experienced TEP ecologist, certified to Level 3 under the Field Identification Skills Certification. The survey was completed on 31st October 2024. The survey was carried out in accordance with the UK Habitat Classification (UKHab) assessment method and Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017b). The method records the habitat types present, within the survey route, based on the JNCC/UKHab descriptions. Plant species were identified in accordance with the New Flora of the British Isles (Stace, 2019[7]) and recorded as target notes using the DAFOR[8] scale, where relevant.

2.9 The survey was expanded to include off-site habitats adjacent to the site in order to provide context. Adjacent habitats were viewed from accessible locations within the site boundary. Habitats are displayed with the site boundary on Drawing G10797.03.008.

Limitations

2.10 The habitat survey was undertaken outside of the optimum survey period of April to mid-October.

2.11 Any ecological survey represents a snapshot of ecological conditions at the time of survey; ecological conditions may change over time. Efforts to identify dominant plant species for the purposes of characterising broad habitat types do not constitute a detailed botanical survey.

Fauna

2.12 Ordnance Survey maps and aerials were reviewed to identify potentially suitable habitats offsite within influence (e.g. dispersal distances for mobile species) of the site. The Ecological Desk Study identified any pre-existing records for protected and notable species within at least 2km of the Site.

[7] *Clive Stace (2019) New Flora of the British Isles*

[8] *DAFOR = Dominant, Abundant, Frequent, Occasional & Rare*

2.13 The habitat survey included an extended assessment of the habitats present for their potential to support notable or protected wildlife species, as described at paragraphs 2.5 and 2.6. Any signs indicating the presence of these species were recorded.

2.14 In combination, this data informed the ecological evaluation of the site and impact assessment for the proposed development.

Amphibians

2.15 A Habitat Suitability Index (HSI) of one on-site pond (P1) was carried out to assess suitability to support great crested newts (GCN).

2.16 HSI is a standard measure of calculating the suitability of a pond to support breeding GCN, based on an assessment of 10 characteristics (indices), including size, shading, depth, and vegetation profile. The assessment generates a number between 0 and 1 for each of the indices which are combined to provide an overall assessment of a pond's suitability to support GCN on a categorical scale, as presented in Table 1. The assessment has not been designed for or tested on other waterbodies such as ditches.

Table 1: HSI Suitability Scores

HSI Score	Suitability	Predicted GCN Occupancy of Ponds in each Category
<0.5	Poor	3%
0.5 to 0.59	Below Average	20%
0.6 to 0.69	Average	55%
0.7 to 0.79	Good	79%
>0.8	Excellent	93%

Limitations

2.17 The HSI was undertaken outside of the optimum survey period of April to mid-October.

Bats – Ground Level

2.18 A Ground Level Tree Assessment (GLTA) of trees within and immediately adjacent to the site was carried out to determine their suitability to provide bat roost habitat. The habitats on site and the surrounding area were also assessed for potential to support roosting, foraging and commuting bats. The GLTA was undertaken at the same time as the Phase 1 Habitat Survey.

2.19 The GLTA involved the surveyor using close focussing binoculars to search from the ground for any Potential Roost Features (PRFs), which may be used by bats. Most tree roosts are created by one or a combination of the following:

- Old woodpecker holes;
- Splits in trunk, bough or large branches;
- Rot holes in trunk, bough or large branches;
- Holes formed by two boughs or branches growing in contact;
- Loose or lifting bark; and
- Underneath a covering of dense latticed creeper, usually ivy (*Hedera helix*).

2.20 Following the GLTA, the structures and trees within the site were categorised in accordance with the criteria for roost habitat assessments identified in the Bat Conservation Trust (BCT) 2023 Good Practice Guidelines (Collins)[9]. Bat roost habitat suitability categorisation details are described in Table 2. Roost habitat suitability categorisation takes into consideration parameters such as location, habitat connectivity, materials, condition and aspect of trees. A daytime GLTA tree inspection survey was carried out on all trees within the site on 31st October 2024 by two suitably experienced TEP ecologists.

Table 2: Categorisation of Potential Roost Features (PRFs) of Trees for Bat Species

Suitability:	Description:
Negligible	No potential roosting features (PRFs) are present.
PRF-I	PRF is only suitable for individual bats or very small numbers of bats either due to size or lack of suitable surrounding habitats.
PRF-M	PRF is suitable for multiple bats and may therefore be used by a maternity colony.

Limitations

2.21 There are no seasonal constraints for undertaking the preliminary bat roost assessments of trees. However, the optimal period to undertake this survey of trees is between December and March when trees are out of leaf. This survey was undertaken in October.

[9] Collins, J. (ed.) (2023). Bat Surveys for Professional Ecologists: Good Practice Guidelines. (4th edn). The Bat Conservation Trust, London.

Ecological Assessment Process

2.22 This PEA follows the published guidelines (CIEEM, 2018) and accepted best practice approach (BS42020:2013[10]) of the mitigation hierarchy whereby impacts are first avoided or, where this is not possible, reduced or mitigated or, as a last resort, compensated.

2.23 In summary, the following procedure was undertaken during this EcIA:

- Describe the baseline and identify important ecological features;
- Describe important ecological features and identify those which may potentially be affected by the Site;
- Identify potential impacts upon important ecological features and characterise the effect of such impacts (in respect of biophysical changes and taking account of relevant aspects of ecosystem structure or function);
- Incorporate measures to avoid or reduce these effects;
- Determine whether residual ecological effects are considered significant after avoidance or mitigation;
- Identify appropriate compensation measures to offset significant residual effects; and
- Identify opportunities for ecological enhancement.

2.24 Important ecological features are identified and valued, ecological impacts are characterised and assessed, and recommendations for appropriate mitigation, compensation and enhancement are made, in accordance with CIEEM guidance.

2.25 BS42020:2013 defines a significant effect as one "which is important, notable, or of consequence, having regard to its context". CIEEM describes significance as "a concept related to the weight that should be attached to effects when decisions are made". CIEEM defines an ecological effect as significant if it is "sufficiently important to require assessment and reporting so that the decision maker is adequately informed of the environmental consequences of permitting a project".

2.26 BS42020:2013 sets out a practical approach to determining the significance of an ecological effect, applicable at all levels of decision making in legal and policy terms, as follows:

- will the effect on biodiversity influence the balance of planning considerations and therefore the decision as to whether planning permission is likely to be refused or granted; and

[10] British Standards Institution (2013) BS 42020:2013: Biodiversity — Code of practice for planning and development. BSI Standards Limited, London

- if planning permission is granted, is the effect important enough to warrant the use of planning conditions and/or obligations to guarantee proposed measures or to impose restrictions, or to seek further requirements (e.g. for mitigation, compensation, enhancement, monitoring or management).

2.27 Significance is therefore assessed on a case-specific basis according to the importance of the ecological feature (wildlife site, habitat or species) within the conservation hierarchy, and the effect upon it.

Assumptions

2.28 Information provided by third parties, including publicly available information, is assumed to be correct at the time of publication.

3.0 Results

Planning Context

3.1 The NPPF at Chapter 15: Conserving and Enhancing the Natural Environment requires that development delivers net gains in biodiversity in addition to minimising the impacts on biodiversity. The chapter highlights the need to protect and enhance valued landscapes, geological conservation interests and soils, as well as recognising the wider benefits of ecosystems.

3.2 The Cheshire West and Chester Local Plan is split into two parts, Part One was adopted in January 2015 and Part Two was adopted in July 2019 by Cheshire West and Chester Council. Relevant extracts of local planning policy are provided in the Ecological Desk Study (TEP Ref 10797.03.001). The following policies relate to biodiversity and nature conservation

- ENV3 – Green Infrastructure
- ENV4 – Biodiversity and Geodiversity
- STRAT 9 – Green Belt and Countryside
- DM44 – Protecting and Enhancing the Natural Environment; and
- DM45 – Trees, Woodland and Hedgerows.

Wildlife Sites

National Sites Network

3.3 Full details regarding designated sites are provided within the Ecological Desk Study (TEP Ref: 10797.03.001)

3.4 There are three sites of International Importance located within 10km of the site. These are:

- River Dee and Bala Lake, SAC – approx. 7.3km west of the site;
- River Dee and Bala Lake (Wales), SAC – approx. 7.6km west of the site; and
- Midland Meres and Mosses Phase 2, RAMSAR – approx. 8.7km southeast.

Other Statutory Wildlife Sites

3.5 There are two sites of National Importance located within 5km. These are:

- Peckforton Woods, SSSI – approx. 4.1km southeast of the site; and
- Raw Head, SSSI - approx. 4.5km southeast of the site.

3.6 SSSI Impact Risk Zones (IRZ) highlight the potential for effects on a SSSI if certain types of development are planned within a specified radius of it. The site falls within a single IRZ. The proposals do not meet any of the risk parameters identified for this IRZ.

Local Wildlife Sites

3.7 There are six non-statutory local wildlife sites identified within 2km of the site. Of most relevance are the following:

- Glebe Meadow, Tattenhall, LWS – approx. 500m south of the site; and
- Disused Railway at Gateshead Lane, LWS – approx. 800m west of the site.

Habitats and Flora

Pre-existing Data

3.8 The Desk Study did not identify any notable habitats on, adjacent to or connected with the site.

3.9 No records of protected or notable species or non-native invasive species of flora were returned for within the site.

3.10 Flora records returned within 2km of the site as follows:

- Protected and notable species: Black poplar *Populus nigra subsp. betulifolia*, LBAP;
- Non-native invasive species: Japanese knotweed *Fallopia japonica,* WCA9.

3.11 Habitats of ecological value present in and around the site are described below and illustrated in Drawing G10797.03.008. Target notes (TN) and photographs illustrative of the habitat/feature described are provided in Appendix A.

3.12 Table 3 indicates the areas of habitats within the site, along with a condition assessment, where relevant to the habitat type, for the purposes of informing the biodiversity impact assessment using the Natural England Biodiversity Metric 4.

Table 3: Summary of key habitat features with the site

Habitat Type *(corresponding JNCC Phase 1 habitat type)*	Total Area (ha)	Condition Assessment	Distinctiveness
Grassland – Modified Grassland	6.20	Poor	Low
Sparsely Vegetated Land – Ruderal/Ephemeral	0.03	Poor	Low

Habitat Type *(corresponding JNCC Phase 1 habitat type)*	Total Area (ha)	Condition Assessment	Distinctiveness
Species-rich native hedgerow with trees (H1)	0.13	Good	High
Species-rich native hedgerow (H2)	0.09	Good	Medium
Native hedgerow (H3)	0.17	Good	Low
Native hedgerow (H4)	0.16	Good	Low
Native hedgerow (H5)	0.20	Good	Low
Lakes – Ponds (non-priority habitat)	0.01	Moderate	Medium
Individual trees – Rural trees	0.34	Good	Medium
Developed land: sealed surface	0.08	N/A	V. Low

Trees

3.13 There are numerous broad-leaved trees situated at the site boundaries. Tree cover is denser to the south-eastern corner running adjacent to the Keys Brook consisting of English oak *Quercus robur*, alder *Alnus glutinosa* and beech *Fagus sylvatica*. White willow *Salix alba* is also present within this group; however, this is located on the opposite side of the brook but overhangs onto the site.

3.14 Several mature sessile oak *Quercus petraea* and English oak trees are present to the field boundaries. These trees are all in good condition and all have bat roosting potential in the form of split branches, dead wood and woodpecker holes.

Grasslands and Ruderal/Ephemeral

3.15 The site predominantly consists of modified grassland that at the time of survey was in use as a horse paddock. This area comprises grass species with perennial rye-grass *Lolium perenne* occurring abundantly and Yorkshire fog *Holcus lanatus* and creeping soft-grass *Holcus mollis* appearing rarely within the sward. Creeping buttercup *Ranunculus repens* covers a large proportion of the grassland with curled dock *Rumex crispus* also occurring frequently. The sward height is approximately 2cm.

3.16 An area of ruderal ephemeral is present to the west of the site situated on a small bunded bank, possibly in association with the stables. Nettle *Urtica dioica* is the dominant species here with bramble *Rubus*

fruiticosus and cock's foot *Dactylis glomerata* appearing less frequently. Evidence of mammal digging was present throughout.

Wetlands

3.17 The site contained one ephemeral pond at the time of the survey. This comprised a depression in the field which was waterlogged and large enough to be reasonably flooded year-round.

3.18 The Key Brook is located directly adjacent to the southern site boundary and runs the full length of the site. The brook is bounded by trees and hedgerow and provides suitable habitat for otter *Lutra lutra* and water vole *Arvicola amphibious*.

Hedgerows

3.19 The site contains five boundary hedgerows, however as the survey was undertaken in late October, further surveys would be recommended to scope for any protected or invasive species in the ground flora.

3.20 Hedgerow H1 is located to the eastern boundary of the site, running alongside Tattenhall Road. This is a species rich native hedgerow with trees. Species here include blackthorn *Prunus spinosa*, hawthorn *Crataegus monogyna*, elder *Sambucus nigra*, hazel *Corylus avellana* and English oak.

3.21 Hedgerow H2 is also located to the northeast of the site, this hedgerow provides a boundary to the adjacent garden and is a species rich hedgerow with a similar makeup to H1.

3.22 Hedgerow H3 is located at the northwestern boundary of the site. This is a blackthorn hedgerow which is heavily managed.

3.23 Hedgerow H4 is located at the western boundary of the site. Like hedgerow H2, this is also a blackthorn hedge which is heavily managed. This hedge contains two mature oak trees.

3.24 Hedgerow H5 is located to the southern boundary of the site. This is a native hedgerow comprising blackthorn and hawthorn and is partly managed.

Notable or Invasive Flora

3.25 No notable or invasive flora was identified on site during the survey.

Habitat Connectivity

3.26 The habitat surrounding the site to the north, east and west is open countryside and agricultural fields with associated hedgerows. The village of Tattenhall is situated to the south. Habitat connectivity between the site and the immediate landscape is good for all species as there are a lack of significant barriers to movement. The trees and hedgerows along the Keys Brook provide good connectivity for bats and birds to the wider landscape and the brook provides good commuting, foraging and burrowing habitat for otter and water vole.

3.27 The hedgerows around the site also provide good connectivity for bats and birds as well as for commuting and hibernating amphibians and sheltering and hibernating hedgehog *Erinaceus europaeus*.

Fauna

Amphibians

3.28 The desk study returned 14 records for great crested newt *Triturus cristatus* (GCN) for within 2km of the site. The closest record is situated approx. 370m to the east of the site.

3.29 There is one small ephemeral field pond on site and 6 ponds within 250m.

3.30 A HSI assessment was undertaken at the one onsite pond (P1). The survey results for pond P1 showed that the pond had a HSI score of 0.60 which assessed the waterbody of being "average" GCN habitat to breed.

3.31 The grassland, scattered scrub, and bunded bank within the site provide suitable habitat for foraging and ranging common amphibians, including GCN. The root balls of trees and hedgerows, tall ruderal, and scrub provide suitable habitat for commuting and hibernating amphibians.

Badger

3.32 The desk study returned 4 records for badger *Meles meles* for within 2km of the site.

3.33 The grassland and bunded area within the site provide good opportunities for sett creation.

3.34 Field evidence of badger was found in the bunded area on the western side of the site, this mainly consisted of snuffle holes. No evidence of existing setts or sett building was found on site; therefore, badger may use the site for foraging and commuting as part of a larger range.

Bats

3.35 The desk study returned records of bats from within 2km of the site comprising the following species:

- Brown Long-eared Bat *Plecotus auritus*
- Common Pipistrelle *Pipistrellus pipistrellus*
- Myotis bat species *Myotis*
- Noctule Bat *Nyctalus noctule*
- Pipistrelle Bat species *Pipistrellus sp.*
- Soprano Pipistrelle *Pipistrellus pygmaeus*

3.36 Four Natural England mitigation licence for bats has been identified within 2km of the site:

Table 4: Natural England mitigation licences within 2km of the site

Species	Licence Number	Dates	Licensable Activities
Brown Long-eared Bat Common Pipistrelle Soprano Pipistrelle	2016-21792-EPS-MIT	16/03/2016 – 31/03/2021	Destruction of a resting place
Common Pipistrelle	2015-15230-EPS-BDX	15/09/2015 – 31/10/2015	Impact on a breeding site Damage of a breeding site Damage of a resting place Destruction of a breeding site Destruction of a resting place
Brown Long-eared Bat Common Pipistrelle Soprano Pipistrelle	2016-21792-EPS-MIT	16/03/2016 – 31/03/2021	Destruction of a resting place
Common Pipistrelle Soprano Pipistrelle	2018-35123-EPS-MIT	04/06/2018 – 31/12/2018	Destruction of a resting place

Ground Level Tree Assessment

3.37 Most of the trees on site were considered to be suitable for roosting bats. These trees are mature specimens of varied species which have at least one suitable PRF present.

3.38 All trees were assessed as requiring Further Assessment for bat roost suitability in line with current guidelines. Refer to Appendix A.

Buildings

3.39 There are several buildings to the eastern corner of the site which comprise of stables and outbuildings. A few of the buildings had bat suitability owing to the nature of use, the building composition and surrounding habitats.

3.40 The buildings were assessed as requiring Further Assessment for bat roost suitability in line with current guidelines. Refer to Appendix A.

Birds

3.41 The desk study identified numerous records of Schedule 1 bird species within 2km of the site. The species which could utilise the site and near environs include:

- Barn Owl *Tyto alba*
- Fieldfare *Turdus pilaris*

- Redwing *Turdus iliacus*.

3.42 Bird Species of Principal Importance recorded within 2km, which could utilise the site and near environs include:

- Grasshopper Warbler *Locustella naevia*
- House Sparrow *Passer domesticus*
- Lapwing *Vanellus vanellus*
- Reed Bunting *Emberiza schoeniclus*

3.43 The grassland, hedgerows and tree habitats on site offer good potential for nesting birds.

Water Vole/Otter

3.44 The desk study returned one record for water vole for within 2km of the site and one record for otter for within 2km of the site. Both species were recorded on the Mill Brook approx. 1km south.

3.45 Keys Brook which flows directly adjacent to the southern site boundary provides suitable commuting, foraging, burrowing and sheltering for both of these species.

Brown Hare

3.46 The desk study did not identify any records of brown hare *Lepus europaeus* for within 2km of the site. No evidence of brown hare was identified on the site during the survey. The grassland, ruderal/ephemeral and hedgerows provide suitable habitat for foraging, nesting and commuting brown hare.

Hedgehog

3.47 The desk study identified one records of hedgehog within 2km of the site. No evidence of hedgehog was identified on site during the survey. The grassland on site provides suitable foraging habitat and the hedgerows and tall ruderal/ephemeral habitat provides suitable shelter and hibernation potential for hedgehog.

Other Relevant Species

Invertebrates

3.48 The desk study returned records of notable invertebrate species Ringlet *Aphantopus hyperantus* and White-letter Hairstreak *Satyrium w-album* for within 2km of the site. The trees, grassland and hedgerows on site provide suitable habitat for invertebrates.

Polecat

3.49 The desk study identified two records of polecat *Mustela putorius* for within 2km of the site. No evidence of polecat was identified on site during the survey. The wooded area along the brook provides suitable habitat for ranging and foraging polecat.

Reptiles

3.50 The desk study did not identify any records of reptiles for within 2km of the site. No evidence of reptiles was found on site during the survey. The hedgerows, ruderal/ephemeral and wooded area alongside the brook provide suitable sheltering and foraging habitat for reptiles.

4.0 Assessment of Potential Impacts

4.1 This section assesses the potential impacts on ecological features associated with the Site described in Section 1.0 and detailed in Appendix A.

4.2 Consideration is given to the 'mitigation hierarchy', i.e. that impacts are first avoided or where this is not practicable, mitigated and as a final resort, compensated (off-set).

Wildlife Sites

National Sites Network

4.3 The four sites internationally designated and two sites nationally designated for nature conservation are located over 2km from the site, beyond several major barriers to species movement and similar or supporting habitats are not present within the site. Given the distance of these designated sites from the site, no direct or indirect impacts are anticipated as a result of the proposed development.

4.4 The site is located within SSSI IRZ for Peckforton Woods SSSI. The proposals, comprising residential buildings, do not meet the risk parameters identified for this IRZ.

Local Wildlife Sites

4.5 There are six non-statutory designated wildlife sites within 2km of the proposed development site. The closest of these are:

- Glebe Meadow, Tattenhall, LWS – approx. 500m south of the site; and
- Disused Railway at Gateshead Lane, LWS – approx. 800m west of the site.

4.6 Given the degree of separation as a result of existing developments between the site and the designated site, no direct or indirect impacts are anticipated on as a result of the development proposals.

Habitats and Flora

Notable Habitats

4.7 No notable habitats were present on site or were identified within the wider area.

Hedgerows

4.8 Hedgerows form ecological linkages and corridors within the landscape and are important at a local level. The native hedgerows on site are considered to be of high value to several species. Any loss of hedgerow within the site would have an impact on the ecological value of the site.

4.9 H1 and H2 are species rich native hedgerows and are considered to be of the highest value within the site.

Trees

4.10 Several large mature trees are present within the site's boundaries. Any loss or damage to the trees would have a negative impact on the ecological value of the site.

Standing Water

4.11 An area of standing water is present within the site which is large enough to be flooded most of the year. Loss of this waterbody would have a negative impact on the ecological value of the site.

4.12 Replacement of the waterbody is recommended within the site in the form of a wildlife pond or SUD's pond.

Running Water

4.13 The Key Brook is located directly adjacent to the southern site boundary. No direct impacts are anticipated on the brook.

Notable or Invasive Flora

4.14 No protected (WCA8) or invasive (WCA9) plant species were identified during the habitat survey.

Fauna

Amphibians

4.15 GCN and their habitats are fully protected under the Habitats Regulations, the Wildlife & Countryside Act 1981 (as amended) and a local priority species on the LBAP for Cheshire.

4.16 There are six ponds within 250m of the site which are not separated to the site by major barriers.

4.17 GCN have historically been present approximately 370m to the east of the site.

4.18 Suitable terrestrial habitat in the form of an ephemeral pond, scrub, hedgerows and scattered trees is present within the site.

4.19 Based on this there will be implications for the development with regard to amphibians and further assessment will be required.

Badger

4.20 Badgers are protected under the Protection of Badgers Act 1992 from killing, injury and certain acts of cruelty. Their setts are also protected from damage, obstruction or destruction.

4.21 The habitats on site and within the surrounding area are suitable for badger. Field evidence of badger was also found on site. Therefore, there may be implications for the proposed development with regards to badger.

Bats

4.22 All British bats are European protected species, afforded full protection under the Habitats Regulations and the Wildlife & Countryside Act 1981 (as amended). Bats are protected from killing or injury, and from disturbance at the place of rest. Bat roosts are also protected from obstruction, damage or destruction (whether or not a bat is in occupation at the time). Several species are also SPI.

Roosting

4.23 Trees on site were assessed as having PRF-I to PRF-M suitability for roosting bats. Any trees to be removed or impacted by development will require additional surveys.

Commuting and foraging

4.24 The hedgerows, grassland and scrub on site and trees running alongside the brook offer good opportunities for foraging bats and the site has good connectivity to other habitats in the surrounding area. However, if these habitats are to be lost or impacted under development proposals, this would have a direct impact on connectivity for foraging bats and additional surveys will be required

Birds

4.25 Native nesting birds, their nests and eggs are protected under the Wildlife & Countryside Act 1981 (as amended) from damage and destruction, from the time of nest construction to fledging of the young.

4.26 The habitats within the site, including the grassland, hedgerows and trees, provide potential to support foraging and nesting birds.

4.27 There is a risk of damage or destroying a nest if tree felling or lopping or vegetation clearance is carried out in the nesting period (generally considered to be between March to August inclusive, although geographical position of the Site will influence this period, and some species nest also commonly nest outside this period).

Otter/ Water Vole

4.28 Otters and their habitats are protected under the Habitats Regulations and the Wildlife & Countryside Act 1981 (as amended). The otter is also a SPI.

4.29 Water voles are fully protected under the Wildlife and Countryside Act 1981 (as amended) and are a SPI and local priority species on the LBAP. They are protected from capture, killing and injury and from

disturbance in their place of shelter. Their places of shelter are also protected from damage, destruction, and obstruction.

4.30 Otters require riparian habitats for foraging and commuting within wetlands, with woodland in close proximity for shelter. The fast-running brook on the southern boundary is suitable to support water vole and commuting otter. Therefore, there may be implications for the proposed development if works are within 5m of the watercourse with regard to water vole and 10m of the watercourse with regard to otter. Further surveys are recommended.

Brown Hare

4.31 Brown hare are a species of principal importance and a local priority species on the LBAP. The hedgerows, grassland and tall ruderal habitat within and adjacent to the site provide suitable foraging, commuting and sheltering habitat for brown hare. Brown hare are likely to disperse once development commences, however, there are limited implications to the proposed developments with regards to.

Hedgehog

4.32 Hedgehogs are a species of principal importance. The grassland, ruderal and hedgerows within the site provide suitable foraging, commuting, sheltering and hibernating habitat for hedgehogs. Therefore, there may be implications for the proposed development with regards to hedgehogs

Other

Invertebrates

4.33 The habitats within the site are considered to offer limited suitability to support largely confined to the trees and hedgerows with the majority of the site being modified grassland. If suitable invertebrate habitat will be lost as a result of development proposals, there may be implications for the proposed development with regard to invertebrates.

Polecat

4.34 The Wildlife and Countryside Act 1981 (as amended) lists the polecat on Schedule 6. This prohibits certain methods of killing or taking animals, which are specified in Section 11. Polecat are also listed as a species of principal importance under the NERC Act 2006.

4.35 Polecats usually occupy a variety of lowland habitats from farmland to woodlands, often preferring farmland with hedgerows and small woods, and it typically dens in rabbit burrows, log piles, haystacks, dry stone walls and farm buildings. Habitats within the site are largely unsuitable for supporting denning or sheltering polecat but do provide suitable foraging and commuting opportunities. However, the foraging and commuting opportunities are limited and as such there are no implications for polecat.

Reptiles

4.36 Common lizard, slow-worm, grass snake and adder are protected under the Wildlife and Countryside Act 1981 (as amended) from killing and injury and are all S41 species of principal importance (SPI).

4.37 Reptiles favour a range of habitat types and varying topography to provide a combination of necessary conditions required for shelter, foraging and basking. As the habitats within the site provide potential to support foraging/sheltering reptiles there may be implications with regards to these species, in particular slow worm and grass snake, if any vegetation clearance is proposed.

5.0 Mitigation and Enhancement

5.1 This section describes appropriate and proportionate measures for impact avoidance, mitigation and enhancement required or recommended to address the potential ecological effects described in Section 4.0.

Relevant Planning Policies and Guidance

5.2 The proposed development should take into consideration current National and Local Policies, to address potential ecological issues with regard to proposed development and aim to maintain, protect and enhance biodiversity and the ecological network in the local and wider area.

Standard Recommendations to Preserve Wildlife

5.3 Standard pollution prevention and dust control measures should be set out in a Construction Environmental Management Plan (CEMP) and implemented during site clearance and construction works. The CEMP will identify measures to ensure the potential for indirect impacts on retained habitats within and adjacent to the site are mitigated for.

Protected Sites

Statutory Wildlife Sites

5.4 SSSIs are a statutory notification made under the Wildlife & Countryside Act 1981 (as amended); this Act also includes provision for the protection and management of SSSIs. LNRs are a statutory designation made under Section 21 of the National Parks and Access to the Countryside Act 1949, amended by Schedule 11 of the Natural Environment and Rural Communities Act 2006[11], by principal local authorities.

5.5 The site is located within SSSI IRZs for Peckforton Woods SSSI. The proposals do not meet the risk parameters identified for these IRZ.

Avoidance and Mitigation Required

5.6 No direct and indirect impacts on SSSI's are anticipated, therefore, no mitigation is required.

[11] Natural Environment and Rural Communities Act 2006 c. 16 https://www.legislation.gov.uk/ukpga/2006/16/

Local Wildlife Sites

5.7 LWS are non-statutory designations made by local authorities under the Town and Country Planning system and are a material consideration when planning applications are being determined.

Avoidance and Mitigation Required

5.8 Direct and indirect impacts on LWS's are not anticipated. Nonetheless, standard pollution prevention and dust control measures should be set out in a contractors CEMP and implemented during site clearance and construction works. The CEMP will identify measures to ensure the potential for indirect impacts on retained habitats within and adjacent to the site.

Habitats and Flora

Hedgerows and Trees

Avoidance and Mitigation Required

5.9 All retained trees and native hedgerows within and adjacent to the site should be suitably protected in accordance with BS5837:2012, to ensure no damage to the canopy or root zone during site clearance and construction works. A Root Protection Zone (RPZ) should be implemented around retained trees adjacent to the site if development is likely to affect the trees, their roots and overhanging canopies.

5.10 Replacement planting of trees and/or scrub within the site is recommended to mitigate for any loss of these habitats to the development. All tree and/or scrub loss is replaced with native, locally stocked species.

Other Habitats

Avoidance and Mitigation Required

5.11 A River Condition Assessment of the Keys Brook is recommended prior to construction works commencing.

5.12 Standard pollution prevention and dust control measures should be set out in a contractors CEMP and implemented during site clearance and construction works to ensure no direct or indirect impacts on to the Keys Brook which runs adjacent to the south of the site.

Fauna

Amphibians

5.13 GCN and their habitats are fully protected under the Habitats Regulations and the Wildlife & Countryside Act 1981 (as amended). GCN and common toad are also SPI, and GCN are listed as a priority species on the Cheshire LBAP.

Avoidance and Mitigation Required

5.14 It is recommended that further assessment of the on-site ephemeral pond and further six water bodies within 250m of the site is undertaken. Habitat suitability assessments (HSI) and Environmental DNA (eDNA) surveys should be undertaken in order to confirm the likely presence/absence of GCN and inform any future planning application. eDNA samples can only be taken between mid-April to June (inclusive).

5.15 Should a positive eDNA result be returned, subsequent population estimate surveys may be required to inform a future protected species mitigation licence application to Natural England. This will consist of six survey visits to the waterbody between the months of mid-March to mid-June, with at least three surveys undertaken in peak season, between mid-April and mid-May. Should the presence of great crested newt be confirmed, a mitigation licence is likely to be required. Alternatively, the development could enter Natural England's District Level Licencing (DLL) scheme.

5.16 If GCN are confirmed as likely absent from the site, precautionary working measures should be adopted to minimise the risk of harm or injury to common amphibian species during site clearance, vegetation clearance and construction works. Measures should be outlined within a Precautionary Working Method Statement (PWMS) to inform the contractors CEMP to ensure no harm or injury to common toad.

Additional Measures or Enhancement Recommended

5.17 The inclusion of newly created habitats on site such as rough grassland, scrub, tree and hedgerow planting and the provision of amphibian hibernacula will compensate for the loss of suitable terrestrial and hibernation habitat for amphibians.

Badger

5.18 Badgers are protected under the Protection of Badgers Act 1992[12] from killing, injury and certain acts of cruelty. Their setts are also protected from damage, obstruction or destruction.

[12] Protection of Badgers Act 1992 c. 51 *https://www.legislation.gov.uk/ukpga/1992/51/*

Avoidance and Mitigation Required

5.19 A badger survey between July and November, of land within 30m of the site is recommended following the standard approach detailed in Surveying Badgers (Harris et al., 1989) and used during the National Badger Survey (Cresswell et al., 1990). If there are any badger setts present adjacent to the site and an appropriate buffer cannot be maintained, then further survey may be required to establish activity. If an active sett is discovered that cannot be retained or an appropriate buffer cannot be retained, then mitigation would need to be agreed by the ecologist with Natural England and a licence would likely be required before works could lawfully proceed.

5.20 If no badger setts are identified during the initial badger survey a pre-construction check for badgers will be required prior to works commencing to confirm that no new setts have been excavated within or immediately adjacent to the site which may be impacted by the proposals. In the event that a potential sett is uncovered during the preconstruction check or vegetation clearance, then works would be delayed or stopped immediately and the protocol described above should be followed.

Avoidance and Mitigation

5.21 There is also potential for impacts on badgers during site clearance and construction works. Standard precautionary working measures will need to be implemented to ensure no harm or disturbance to foraging or ranging badgers as a result of the development. These measures should be set out within the PWMS.

Bats

5.22 All British bats are European protected species, afforded full protection under the Habitats Regulations and the Wildlife & Countryside Act 1981 (as amended). Bats are protected from killing or injury, and from disturbance at the place of rest. Bat roosts are also protected from obstruction, damage or destruction (whether or not a bat is in occupation at the time). Several species are also SPI and present on the Cheshire LBAP.

Further Survey and Assessment

5.23 Trees that are classed as PRF-I can be soft felled following the production of a Precautionary Working Method Statement (PWMS).

5.24 Additional surveys will be required on trees that are classified as PRF-M bat roost suitability which will be directly impacted by the development. This would include 3 PRF climbed inspection surveys to determine the presence of bats and/or requirements for further survey.

5.25 If PRF-M trees cannot be climbed, then dusk emergence bat surveys would be required to watch, listen for and record bats exiting or entering the trees.

5.26 In accordance with BCT Guidelines, three survey visits will be required for PRF-M or a confirmed roost, then a total of three PRF inspection surveys and/or nocturnal roost surveys will be required to be

undertaken during the period May to September in suitable weather conditions with surveys spaced at least 3 weeks apart. The surveys must be completed between May and September, with at least one visit between May and August.

5.27 Following PRF/ nocturnal roost survey, if bats are confirmed roosting within any trees, there will be a requirement to obtain a European Protected Species (EPS) Mitigation Licence from Natural England prior to felling. Following submission of a licence application, NE aim to return the outcome of the licence application within 6 weeks. This should be taken into consideration in line with the proposed programme of works.

5.28 Impacts due to lighting on features such as trees, hedgerows and the brook will require a bat activity survey in the form of walked transects and static placement.

5.29 If significant vegetation removal is required bat activity surveys in the form of nighttime bat walkover surveys (NBW) and deployment of static detectors may be required.

5.30 Three NBW surveys would be undertaken, with one NBW survey per season: spring (April/May), summer (June/July/August) and autumn (September/October) to sample as much of the bat active season (April/May to September/October).

5.31 Static detectors would be deployed in fixed locations for a minimum of five consecutive nights per recording period. Automated static monitoring surveys are normally completed once per season (spring/summer/autumn) or once per month, from April to October inclusive.

Avoidance and Mitigation Required

5.32 A Sensitive Lighting Strategy should be implemented to avoid adverse impacts on bats and maintain dark corridors. This is of particular relevance to construction during the autumn and spring when bats are active, and when working hours fall within an hour of dusk or dawn and artificial lighting is required.

5.33 It is recommended that bat boxes are erected upon new buildings or trees to provide additional opportunities to roosting bats within the site.

Birds

5.34 Native nesting birds, their nests and eggs are protected under the Wildlife & Countryside Act 1981 (as amended) from damage and destruction, from the time of nest construction to fledging of the young.

Avoidance and Mitigation Required

5.35 Works should be completed outside of the nesting period (typically taken to be March to September inclusive). Where avoidance of the nesting period is not practicable, a nesting bird check must be carried out by an ecologist no more than 24 hours prior to the works, to confirm that no active nests are present. In the event that an active nest is identified, works within the surrounding area must halt until the chicks

have fledged. The required radius of the exclusion area will depend on the species found nesting and the context of the nesting location.

5.36 Extensive clearance of potential bird nesting habitat is not recommended during the core breeding season, which could have a fragmentation impact for suitable breeding habitat and development programmes will take this constraint into account.

5.37 It is recommended that several bird nest boxes are erected upon new buildings or trees to provide additional opportunities to nesting bird species within the site.

Otter/ Water Vole

5.38 Otters and their habitats are protected under the Habitats Regulations and the Wildlife & Countryside Act 1981 (as amended). The otter is also a SPI.

5.39 Water voles are fully protected under the Wildlife and Countryside Act 1981 (as amended) and are a SPI and local priority species on the LBAP. They are protected from capture, killing and injury and from disturbance in their place of shelter. Their places of shelter are also protected from damage, destruction, and obstruction.

Avoidance and Mitigation Required

5.40 **Otter:** An otter survey should be undertaken on the Keys Brook, 200m up and downstream and immediate 30m riparian corridor. The survey will identify any signs of active presence of otter within the watercourse and immediate habitat. Signs include, spraints, feeding remains, footprints, pathways and slides in and out of the river, temporary or permanent shelters/holts.

5.41 Any permanent holt found within 30m of the application site likely to be impacted by development may require additional monitoring and mitigation may be required.

5.42 **Water Vole:** Water vole surveys should be undertaken on the Keys Brook. To satisfy planning (Dean et al 2016), two surveys are required to accurately determine the presence or absence of water vole, with one survey undertaken between mid-April and June and the second undertaken at least two months later between July and September. Water vole field signs include burrows, latrines, footprints, feeding remains and runs. If water vole is found to be present within the development footprint and a buffer of a minimum of 5m cannot be maintained, then mitigation will be required.

5.43 The first survey, undertaken in Spring, would involve a detailed habitat assessment. If the ditches are found to be unsuitable for water vole, they do not hold water at the time of survey, further surveys would not be required.

Brown Hare

5.44 Precautionary working measures should be adopted to minimise the risk of harm or injury to brown hare during vegetation clearance and construction works. Measures should be outlined within a protected/priority species Precautionary Working Method Statement (PWMS) to ensure no harm or injury to brown hare, if present on site.

Hedgehog

5.45 Precautionary working measures should be adopted to minimise the risk of harm or injury to hedgehogs during vegetation clearance and construction works. Measures should be outlined within a protected/priority species Precautionary Working Method Statement (PWMS) to ensure no harm or injury to hedgehogs, if present on site.

5.46 Work likely to cause disturbance during hibernation – for example removal of hibernation habitats such as hedgerows – should ideally not take place during November to March.

Additional Measures or Enhancement Recommended

5.47 One of the factors contributing to the decline of hedgehogs in the UK is habitat fragmentation, caused in part by garden boundaries becoming more secure. Consideration could be given to hedgehog-friendly features in the development through providing links between garden areas and provision of hedgehog boxes in retained habitats

Other Species

Invertebrates

5.48 Habitats within the site have been assessed to have moderate suitability for invertebrate species and as such will not require additional surveys, however consideration should be given for the following enhancements.

Additional Measures or Enhancement Recommended

5.49 'Bug hotels' could be mounted near to new or existing woodland or scrub planting to mitigate for any habitat losses. Any deadwood and brash that may arise from tree pruning and scrub clearance could also be retained to create habitat piles within the wider site. Additional habitat such as meadow planting with good native flora diversity could be included within landscaping proposals.

Reptiles

5.50 Common lizard, slow-worm, grass snake and adder are protected under the Wildlife and Countryside Act 1981 (as amended) from killing and injury and are all SPI. Adder *Vipera berus* and slow worm *Angius fragilis* are also listed on the Cheshire LBAP.

Avoidance and Mitigation Required

5.51 It is recommended that a Precautionary Working Method Statement (PWMS) for reptiles is produced and implemented during the site clearance and development works, due to the risk of reptiles using the site for commuting and/or foraging. The PWMS will set out the working methods that will need to be adhered to avoid impacts on any reptiles that may be encountered during the works. The measures are similar to those required for common amphibians, as above.

Annex A: Target Notes

Target Notes

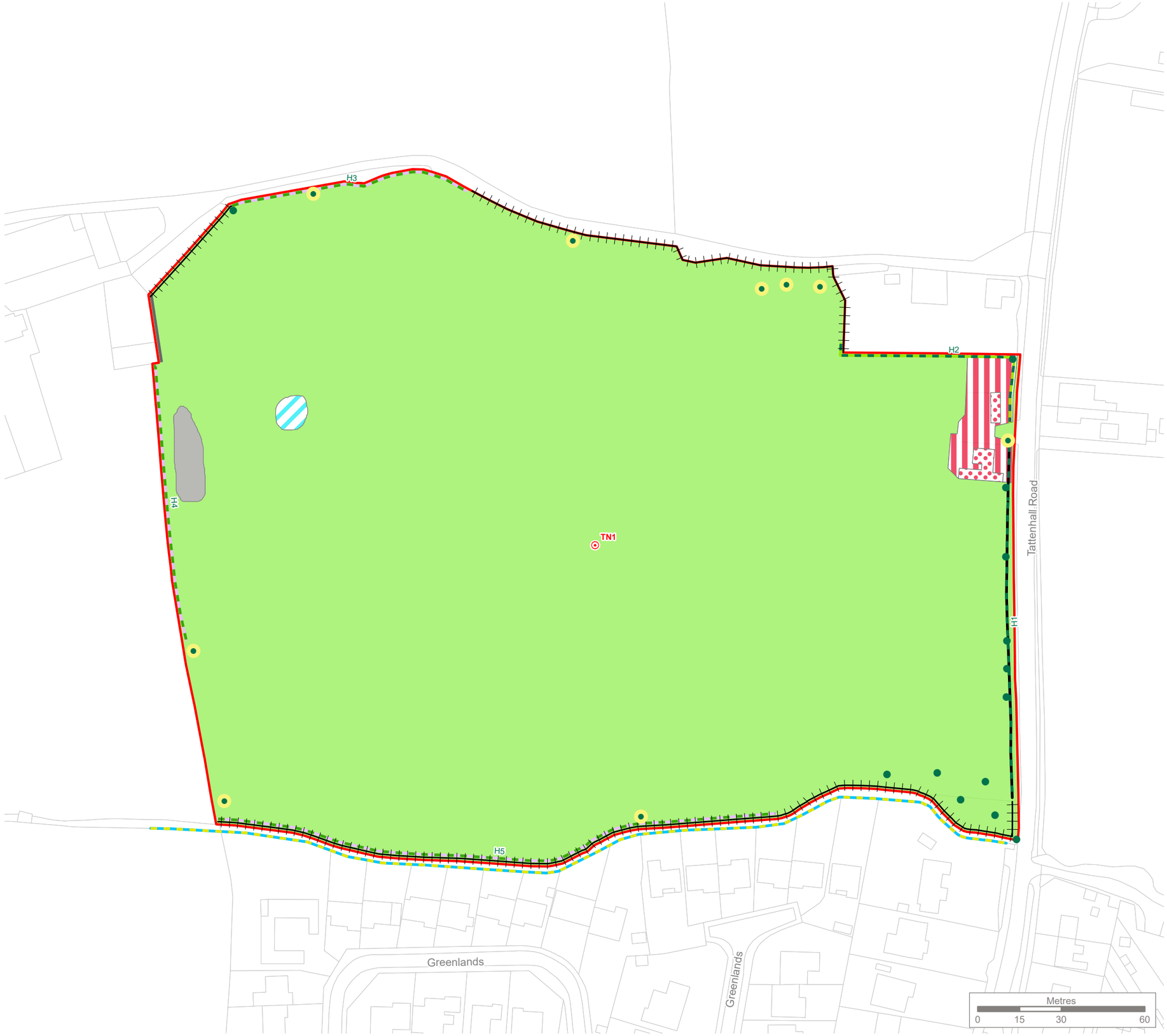
KEY to DAFOR Scale of Abundance

Value	Cover	Notes
D = Dominant	>75%	Rarely used in practice
A = Abundant	51-75%	Very common in many parts of the target note area
F = Frequent	26%-50%	Several plants in several locations across target note area
O = Occasional	11-25%	Several plants in a few locations, or vice versa
R = Rare	1-10%	Small number of individuals, scattered or clustered within target note area/ site

Lolium perenne	Perennial Ryegrass	A
Ranunculus repens	Creeping Buttercup	A
Prunus spinosa, Canopy	Blackthorn	F
Quercus petraea, Canopy	Sessile Oak	F
Quercus robur, Canopy	English Oak	F
Rumex crispus	Curled Dock	F
Acer platanoides, Canopy	Norway Maple	O
Alnus glutinosa, Canopy	Alder	O
Urtica dioica	Nettle	O
Acer pseudoplatanus, Canopy	Sycamore	R
Carpinus betulus, Canopy	Hornbeam	R
Crataegus monogyna, Canopy	Hawthorn	R
Dactylis glomerata	Cock's-foot	R
Fagus sylvatica, Canopy	Beech	R
Fraxinus excelsior, Canopy	Ash	R
Galium aparine	Cleavers	R
Holcus lanatus	Yorkshire-fog	R
Holcus mollis	Creeping Soft-grass	R
Populus nigra, Canopy	Black Poplar agg.	R
Rubus fruticosus agg.	Bramble	R
Salix alba, Canopy	White Willow	R
Salix species, Canopy	Willow species	R
Sambucus nigra, Canopy	Elder	R

Drawings

Drawing 1: UK Habitat Survey (Ref G10797.03.008B)



KEY

- Site boundary
- Target note
- 200 Tree
- u1e 114 Dry stone wall
- u1e 612 Fence
- h2a Native hedgerow
- h2a5 Species-rich native hedgerow
- h2a5 11 Species-rich native hedgerow with trees
- r2b Other rivers and streams
- g4 Modified grassland
- r1 Standing open water and canals
- s Sparsely vegetated land
- u1b Developed land; sealed surface
- u1b5 Buildings

Tree Assessment for Bat Roost Potential

- PRF-I: Tree with potential roost feature suitable for individual/very small numbers of bats

Note:
The locations of habitats and habitat features are indicative.

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Site Map



Rev	Description	Drawn	Approved	Date
B	Updates to habitats.	IJ	PB	15/05/2025
A	Updated from Phase 1 to UK Habitat symbology.	MG	SV	21/02/25

TEP | THE ENVIRONMENT PARTNERSHIP

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Project
Tattenhall Road, Tattenhall

Title
UK Habitat Classification Survey

Drawing Number
G10797.03.008B

Drawn	Checked	Approved	Scale	Date
MG	MK	SV	1:1,400 @ A3	15/05/2025

HEAD OFFICE	MARKET HARBOROUGH	GATESHEAD	LONDON	CORNWALL
WARRINGTON				
01925 844004	01858 383120	0191 605 3340	020 3096 6050	01326 240081
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