FUTURESECOLOGY

Yorkshire Country Properties

Abbey Road, Shepley

PRELIMINARY ECOLOGICAL APPRAISAL (PEA) REPORT

Report Reference Number: FE78/PEA01

April 2024

Please note that the report is likely to be valid for a period of 12 months[1]. Where specific protected species surveys are undertaken the validation period of these surveys differs and must be considered carefully when utilising the data present within this report. For example, bat nocturnal emergency surveys are likely to be valid for a period of two seasons (a season being May – September) to support a planning application though to apply for a European Protected Species Licence surveys must be up to date and should be conducted in the current or most recent optimal survey season.

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[1] https://cieem.net/wp-content/uploads/2019/04/Advice-Note.pdf

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1.0 EXECUTIVE SUMMARY

1.1 The Site is c. 0.51ha in extent and situated in the north-east of Shepley. Habitats present on-site included poor semi-improved grassland, bare ground, hardstanding, a defunct hedgerow and a broadleaved tree. The Site is immediately surrounded by existing residential properties to the south. Beyond this, the landscape is largely pastoral and agricultural field compartments alongside parcels of woodland. The development proposals include 7 residential dwellings with associated parking and gardens.

1.2 Two internationally designated sites occur within 10km of the Site. The Peak District Moors (South Pennine Moors Phase 1) SAC/SPA falls 8km south-west of the Site boundary and Denby Grange Colliery Ponds SAC falls 8.3km north-east of the Site Boundary. The Site falls within the 5-10km Impact Risk Zone (IRZ) for the Dark Peak SSSI (within the Peak District Moors SAC/SPA) and Denby Grange Colliery Ponds SSSI (within the Denby Grange Colliery Ponds SAC). However, the proposals are not considered to result in an adverse effect on the integrity of the SSSI sites or result in any Likely Significant Effect (LSE) to the internationally designated sites.

1.3 Four Local Wildlife Sites (LWS) were present within 1km of the Site boundary. The proposal is not considered to result in any potential direct or indirect impacts to any of these sites during the construction or operational phase of the development.

1.4 Habitats of Principal Importance (HPI) and the Kirklees Wildlife Habitat Network (KWHN) are present within 100m of the Site. To prevent impacts to the off-site habitats during the construction phase of the development, it is recommended that they are protected from adverse impacts through the implementation of a Construction Environmental Management Plan (CEMP).

1.5 The unmanaged grassland on-site was of low species diversity and its loss is not though to pose a constraint to the development. The boundary hedgerow and broadleaved tree provide inherent value to a range of wildlife and connectivity to the wider environment. These habitats are to be retained within the scheme and will be protected during construction through the implementation of a Construction Environmental Management Plan (CEMP).

1.7 Suitable foraging and commuting habitat are present on site for the local bat population though they are of a limited size. Although the grassland will be lost under the footprint of the development, the boundary habitats are to be retained within the scheme. To minimise pre and post development impacts in relation to bats and other wildlife the lighting scheme will be designed in accordance with guidelines from BCT (2023)[2].

1.8 Precautionary working methods are recommended for Site clearance operations with regards to nesting birds, hedgehog *Erinaceus europaeus* and amphibian species.

[2] https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/

1.9 Several ecological enhancements which could be incorporated into the design proposal have been recommended within Section 5 & 6, including bat and bird boxes.

2.0 INTRODUCTION

2.1 The following report has been prepared by Futures Ecology Ltd. on behalf of Yorkshire Country Properties. It provides the results of an extended Phase 1 habitat survey and preliminary protected species survey at land east of Abbey Road, Shepley (grid reference: SE1998910042).

2.2 The Phase 1 habitat survey and preliminary protected species surveys were undertaken on 18th March 2024.

2.3 The key objectives of the Preliminary Ecological Appraisal Report (PEAR) are to:

- gain an understanding of the baseline ecology of the Site and immediate surrounding area.
- determine whether the Site supports or has the potential to support protected species.
- identify any likely ecological constraints and mitigation measures likely to be required.
- identify the opportunities offered by the potential project to deliver ecological enhancement.
- assess the potential of the development to deliver measurable net gain.

SITE LOCATION AND CONTEXT

2.4 The Site is c. 0.51ha in extent and situated in the north-east of Shepley. Habitats present on-site included poor semi-improved grassland, bare ground, hardstanding, a defunct hedgerow and a broadleaved tree.

2.5 The Site is immediately surrounded by existing residential properties to the south. Beyond this, the landscape is largely pastoral and agricultural field compartments alongside parcels of woodland.

DEVELOPMENT PROPOSALS

2.6 The development proposals include 7 residential dwellings with associated parking and gardens.

BACKGROUND

2.7 The construction of the access road and tree / woodland removal works within the current application Site and on the adjacent land have been undertaken under a separate consented planning application approved in October 2021 (Planning Ref.: 2020/62/93358/E). An Ecological Impact Assessment for this application was produced by MAB Environment & Ecology Ltd. in 2021 (Report Ref.: EcIA: Phase 2 Abbey Rd, Shepley Rev 2 2021). A Biodiversity Impact Assessment was also produced by Futures Ecology in 2021 (Report Ref.: FE78/BIA01).

2.8 The previous EcIA concerning the wider development site subject to application 2020/62/93358/E highlighted important ecological features including nesting birds,

3.0 METHODOLOGY

PERSONNEL

DESK STUDY

3.2 Prior to the field survey, aerial photographs and mapping tools were reviewed using online mapping resources at a minimum scale of 1:25,000; Google Maps[3]; and the Multi Agency Geographic Information for the Countryside (MAGIC)[4] to assess the landscape context of the survey area and surrounding areas.

3.3 The MAGIC website was used to obtain information about:

- Statutory designated sites of international, national and local importance;
- Impact Risk Zones (IRZs) for Sites of Special Scientific Interest (SSSIs), Special Protection Areas (SPAs), Special Areas of Conservation (SACs) and Ramsar sites;
- Approved European Protected Species Mitigation (EPSM) licences, and
- Natural England Environmental DNA surveys and Habitat Suitability Assessments of Ponds for great crested newt in support of District Level mitigation Licensing.

3.4 To support the field survey and compile baseline information of relevance to the Site, ecological information was sought from third party organisations:

- West Yorkshire Ecological Service (WYES);
- West Yorkshire Bat Group (WYBG); and
- Natural England's Open Dataset[5].

3.5 Relevant data requested included records of protected or notable species and sites designated for nature conservation interest.

[3] www.google.com/maps
[4] www.magic.defra.gov.uk
[5] https://data.gov.uk/dataset/8643f1b9-b419-4ee8-8e9c-18200e0edc31/great-crested-newt-edna-habitat-suitability-index-pond-surveys-for-district-level-licensing-2017-2018-2019

3.6 The search area for designated sites and protected species is determined by the likely Zone of Influence[6] and the likely significant affect. The search areas for the various levels of site designation and for protected / notable species is detailed below:

- Sites of international statutory designation such as Special Area of Conservation (SAC), Special Protection Area (SPA) and Ramsar Sites are searched for within a 10km radius around the application site.
- Sites of national or regional importance with a statutory designation of Site of Special Scientific Importance (SSSI) or National Nature Reserve (NNR) within 2km.
- Sites of local importance with statutory designation of Local Nature Reserve (LNR), or non-statutory designation of Site of Importance for Nature Conservation (SINC) or the equivalent Local Wildlife Site (LWS) within 1km; and
- Records of notable / protected species (i.e., including Species of Principal Importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 and local Biodiversity Action Plan (LBAP) species within 1km and bats within 2km.
- EPSM licences relating to bats within 2km and GCN within 1km.

FIELD SURVEY – HABITATS

Extended Phase 1 Survey

3.7 The survey was undertaken on 18th March 2024. Survey methodology followed guidance from Joint Nature Conservation Committee (JNCC) 2016[7] comprising a walkover of the survey area mapping (using JNCC standard habitat codes) and broadly describing and classifying the principal habitat types and other features of interest. The frequencies at which plant species occurred were noted using the DAFOR8 method. Whilst the plant species lists obtained should not be regarded as exhaustive, sufficient information was obtained to determine broad habitat types.

3.8 Habitats were also assessed for their potential to support protected or notable species including any incidental sightings of birds recorded during the walkover. Where potentially suitable habitats were observed during the scope of this assessment, detailed protected species surveys were undertaken using methodology detailed below.

3.9 The distribution and extent of any invasive species listed on Schedule 9, Section 14 of the Wildlife and Countryside Act 1981 (*as amended)* were also noted during the survey.

UK Habitat Classification (UK Hab)

3.10 A summary of the habitats present on-site is provided within the report including UK Hab equivalent habitats (from the UK Habitats Classification methodology[9]).

[6] The Zone of Influence (ZOI) is defined by CIEEM as being the "area over which ecological features may be affected by biophysical changes as a result of a proposed project and associated activities" CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland. Terrestrial, Freshwater and Marine.

[7] JNCC (2016) Handbook for Phase1 Habitat Survey – a technique for environmental audit. ISBN 0 86139 636 7

[8] https://bsbi.org/wp-content/uploads/dlm_uploads/Sampling_Guidance_-_Annex_1_v4_April_2011.pdf

[9] ukhab – UK Habitat Classification

Hedgerows

3.11 Any hedgerows present within the application survey area were assessed against the Wildlife and Landscape criteria contained within the Statutory Instrument No: 1160 – The Hedgerow Regulations 1997[10] to determine whether they qualified as an 'Important Hedgerow' under the regulations. It should be noted that hedgerows may also qualify as 'Important Hedgerows' under the Archaeology and History criteria of this Act, which is outside the scope of this assessment.

3.12 In addition, any hedgerows present are also surveyed using the Hedgerow Evaluation and Grading System (HEGS)[11]. This method assesses the hedgerows by recording canopy species composition, ground flora and climber species. Measurements are taken regarding, the structure of the hedgerows, which include height, width and gaps present, as well as associated features such as the number and species of tree standards, banks, ditches and grass verges.

3.13 Each hedgerow is given a grade using the HEGS system with the suffixes '+' and '-', which represent the upper and lower limit of each grade. The grade represents a continuum on a scale from 1+ (the highest score and also hedges of the greatest nature conservation priority) as follows:

Table 1: Nature Conservation Value of Hedgerows

Grade	Value of Hedgerow
-1, 1, 1+	High to Very High
-2, 2, 2+	Moderately High to High
-3, 3, 3+	Moderate
-4, 4, 4+	Low

Habitat of Principal Importance

3.14 All hedgerows consisting predominantly (i.e., 80% or more cover) of at least one woody UK native species are a Habitat of Principal Importance (HPI) (as described by the UK Biodiversity Action Plan (BAP) Hedgerow Habitat Action Plan (HAP)) under the Natural Environment and Rural Communities (NERC) Act in England under Section 41 of the NERC Act 2006, where each UK country can define the list of woody species native to their respective country. Therefore, the percentage abundance of woody species contained within the hedgerows was recorded.

FIELD SURVEY – FAUNA

[10] DEFRA (1997) The Hedgerow Regulations 1997: *A Guide to the Law and Good Practice,* London HMSO.
[11] Clements, D.K. & Tofts, R.J. (1992) Hedgerow Evaluation and Grading System (HEGS): A methodology for the ecological survey evaluation and grading of hedgerows.

3.16 The status and level of activity associated with a sett are categorised using the following information;

- Main sett: usually continuously used with significant signs of activity, including a large number of holes and spoil mounds;
- Annexe sett: usually found close to a main sett and connected to it by well used paths. These setts are not continuously occupied;
- Subsidiary: lesser-used setts usually comprising a few holes and without associated well-used paths.
- Outlier: one or two holes without well-worn paths, with very sporadic use.

3.17 The level of activity is determined by the following parameters;

- Active: clear of debris, trampled spoil mounds and obviously active e.g., presence of prints, hair and bedding;
- Disused: partially or completely blocked or collapsed.

Bats

Daytime Bat Walkover (DBW)

3.18 The DBW was undertaken on the 18th March 2024.

Ground Level Tree Assessment (GLTA)

3.19 All trees to be affected by the proposals within the survey area were assessed for their potential to support roosting bats using statutory guidance (Natural England, 2019)[15] and best practice survey methodology (Collins, 2013[16] and Mitchell-Jones, A.J. and McLeish, A.P. (eds), 2004)[17].

3.20 The trees were inspected from the ground using close focussing binoculars. Potential Roosting Features (PRF) for bats such, holes / cavities, loose bark, cracks / splits, occluded bark, and gaps behind ivy stems (please note that this list is not exhaustive) were sought (Based on P16, *British Standard 8596:2015*[18]). Other factors such as orientation of the

[12]Natural England (2015) Badger Surveys and Mitigation accessed May 2021 https://www.gov.uk/guidance/badgers-surveys-and-mitigation-for-development-projects#survey-methods (accessed December 2019)
[13] Harris, S., Creswell, P., & Jefferies, D. (1989). *Surveying Badgers.* The Mammal Society.
[14] Cresswell, P., Harris, S., & Jeffries, D.J. (1990) The history, distribution, status, and habitat requirements of the badger in Britain. Nature Conservancy Council.
[15] Bats: surveys and mitigation for development projects: https://www.gov.uk/guidance/bats-surveys-and-mitigation-for-development-projects (accessed 12/11/2019)
[16] Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologist: Good practice Guidelines (4th edition), The Bat Conservation Trust, London.
[17] Mitchell-Jones, A.J. and McLeish, A.P. (eds) (2004) *Bat Workers' Manual (3rd edn*). JNCC, Peterborough.
[18] British Standard (2015) BS 8596:2015 *Surveying for bats in trees and woodland – Guide*, October 2015.

feature, its height from the ground, the direct surroundings and its location in respect to other features may enhance or reduce the potential value of the PRF. Signs indicating possible use by bats were also recorded such as bat droppings, odour, scratches, staining and audible sounds.

3.21 An assessment was made on the level of bat roosting potential offered by the trees, based on the presence of the features detailed above. Table 2 below outlines the suitability categories as per the Bat Survey Guidelines[19] which now supersedes The British Standard Document[14] which groups trees with moderate and high potential.

Table 2: Suitability of Trees for Bat Roosts – Based on Table 4.2 of Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologist: Good practice Guidelines (4th edition), The Bat Conservation Trust, London

Classification / Suitability	Description	Likely Further Survey Work
NONE	Either no PRFs in the tree of highly unlikely to be any	None
FAR	Further assessment required to establish if PRFs are present in the tree.	Aerial Assessment or further GLTA required by a licensed or accredited bat licence worker.
PRF	A tree with at least one PRF present.	PRF Inspection Survey (Aerial Assessment). If this is not possible alternative access methods such as a MEWP and / or nocturnal survey work must be considered.

3.22 Upon completion of the above assessment the PRF's are assigned the following:

- PRF-I – PRF is only suitable for individual bats or very small numbers of bats due to size of lack of suitable surrounding habitats. No further survey work may be required.
- PRF-M – PRF is suitable for multiple bats and may therefore be used by a maternity colony. These will require further aerial (close) inspection and / or nocturnal surveys which comprise 3 visits between May – September, with at least two in the period May – August. Each visit should be at least 3 weeks apart.

Foraging / Commuting Habitat

3.23 The potential for the Site and immediate surrounds to support foraging and commuting bats was also assessed, with particular regard being given to the presence of continuous treelines providing good connectivity in the landscape, and the presence of varied habitat such as scrub, woodland, grassland and open water in the vicinity.

[19] Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologist: Good practice Guidelines (4th edition), The Bat Conservation Trust, London.

Great Crested Newt (GCN) *Triturus cristatus*

Aquatic Habitat

3.24 OS mapping, online aerial imagery and the Kirklees planning portal[20] were analysed for the presence of on and off-site water bodies within 500m of the application Site in accordance with Natural England guidance[21].

Habitat Suitability Index (HIS)

3.25 The on-site ephemeral ponds present on-site were evaluated on the 18th March 2024 using the HIS scoring system developed by Oldham *et al.*, 2000[22].

3.26 The scoring system produces a value of habitat suitability calculated from scores achieved under a variety of categories which include: the location within the UK, pond area, frequency of drying out, water quality, percentage shade, presence of waterfowl, presence of fish, number of other ponds within 1km, quality of surrounding terrestrial habitat, percentage coverage by macrophytes.

3.27 Pond suitability is then determined using a scale shown in Table 2.

Table 3: HIS Scores as a Measure of Pond Suitability

HIS Score	Pond Suitability
<0.5	Poor
0.5 – 0.59	Below average
0.6 – 0.69	Average
0.7 – 0.79	Good
>0.8	Excellent

Terrestrial Habitat

3.28 An assessment of the suitability of the terrestrial habitats within the Site to support GCN was completed within the subject Site. Suitable terrestrial habitat includes shelter habitat such as scrub and rank vegetation and habitat that could provide suitable hibernation sites such as rubble piles, tussock grassland and compost heaps.

Reptiles

3.29 An assessment of the suitability of the habitats present to support common reptile species was completed at the time of the habitat survey. This involved a review of habitats and habitat structure suitable for the shelter of reptiles such as areas of scrub and woodpiles, grassland with well developed, varied structure; and also, the appropriate juxtaposition of areas suitable for basking shelter and forage/hunting. This assessment

[20] https://mapping.kirklees.gov.uk/connect/analyst/mobile/#/main
[21] Natural England: *Standing Advice Sheet: Great Crested Newts* Paragraph 4: 4.1
[22] Oldham, R.S., Keeble, J., Swan, MJS and Jeffcote, M (2000) Evaluating the suitability of habitat for the great crested newt Triturus cristatus. Herpetological Journal 10 (4), 143-155pp.

was based on the methodology detailed in the Herpetofauna Workers Manual (Gent and Gibson, 1998)[23], and Froglife Advice Sheet 10 – Reptile Survey (Froglife 1999)[24].

Other species

3.30 Any sightings, evidence of or suitable habitats for other protected fauna, local Biodiversity Action Plan (BAP) species or otherwise notable species was recorded during the survey.

Survey Limitations

3.31 The habitat survey was undertaken in March 2024, which is outside of the optimal period (April – September), however given the habitats present on-site this is not thought to be a significant limitation. Furthermore, historical habitat data is available from 2021 (EcIA and BIA Reports associated with Planning Ref.: 2020/93358).

3.33 The Site boundary was updated to include a small area of additional adjacent land after the initial Site visit in March 2024. As such, this area was assessed using photographs taken by Yorkshire Country Properties on the 8th April 2024. The additional area was largely bare ground with portacabins also present.

4.0 RESULTS

DESK STUDY

4.1 A summary of relevant information provided by third party consultees is provided below. The original data has not been included in this report and a summary of the relevant findings is provided upon Figure 1.

Statutory Designated Sites

4.2 No statutory designated sites occur within the Site boundary.

4.3 Two internationally designated sites occur within 10km of the Site. Peak District Moors SPA (South Pennine Moors Phase 1) SAC/SPA falls 8km south-west of the Site boundary and Denby Grange Colliery Ponds SAC falls 8.3km north-east of the Site Boundary.

4.4 No sites of national or regional importance with a statutory designation were located within 2km of the site boundary.

4.5 Consultation with MAGIC site check confirms that the application site lies within the 5-10km Impact Risk Zone (IRZ) for Dark Peak SSSI and Denby Grange Colliery Ponds SSSI.

[23] Gent, A.H., & Gibson, S.D., *eds* 1998. *Herpetofauna Workers' Manual*. Peterborough, joint Nature Conservation Committee.
[24] Froglife 1999. Froglife Advice Sheet 10: Reptile Survey. Froglife, London

However, the development proposals do not fall within the categories that would otherwise require consultation with Natural England due to their potential impact, those being:

- *Residential development of 100 units or more.*
- *Any residential development of 50 or more houses outside existing settlements/urban areas.*

4.6 No sites of local importance with a statutory designation were located within 1km of the Site boundary.

Non-Statutory Designated Sites

4.7 No sites of local importance with non-statutory designation occur within the Site.

4.8 Four sites of local importance with non-statutory designation were present within 1km of the Site boundary (Table 4), the nearest of which is Yew Tree Wood LWS located 300m south-east of the Site boundary.

Table 4: Statutory and Non-Statutory Designated Sites

Site Name	Designation	Proximity to site (approximate)	Description
Dark Peak/Peak District Moors	SAC / SPA / SSSI	8km south-west	Designated for supporting internationally important mosaics of habitats including blanket bog, upland heathland, upland oak woodland and hay meadows, and these in turn support a number of rare species including birds such as merlin *Falco columbarius*, short-eared owl *Asio flammeus*, twite *Linaria flavirostris* and golden plover *Pluvialis apricaria*.
Yew Tree Wood	LWS/Ancient Woodland (Planted)	300m south-east	The site meets Criteria Wd3.
Gelder Wood	LWS/Ancient Woodland (Semi-Natural)	680m north	Gelder Wood is an ancient woodland site but has been replanted so does not meet Criteria Wd1 for ancient semi-natural woodland.

Site Name	Designation	Proximity to site (approximate)	Description
Shepley Mill Wood	LWS/Ancient Woodland (Semi-Natural)	750m north-east	Shepley Mill Wood is on an ancient woodland site, but appears to be mainly replanted therefore does not meet Criteria Wd1 for ancient semi-natural woodland.
Upper and Lower Stones Wood	LWS/Ancient Woodland (Semi-Natural)	880m north-west	A large ancient woodland site which consists of Round Wood to the north, Lower Stone Wood in the centre and Upper Stone Wood to the south. This site has been designated on Wd1 for ancient semi-natural woodland and Wd3 for acid woodland species diversity. Most of the woodland appears to be seminatural, although there are a few small areas of Beech plantation in Upper Stone Wood and some areas of more recent regeneration after quarrying in Round Wood.

Habitats of Principal Importance (HPI) and Ancient Woodland

4.9 Several HPIs occur within 1km of the Site including deciduous woodland, good quality semi-improved grassland, lowland meadows, traditional orchard and no main habitat. The nearest parcel is classified as deciduous woodland and present 40m south of the site boundary.

4.10 Several parcels of ancient woodland are present within 1km of the Site boundary, the nearest of which is Ancient Replanted Woodland located 300m south-east of the Site boundary.

Kirklees Wildlife Habitat Network (KWHN)

4.11 The Wildlife Habitat Network provides a landscape scale approach to the creation, protection, enhancement and management of networks of biodiversity and green infrastructure. The Site does not lie within the Kirklees Wildlife Habitat Network (KWHN)[25]. At its closest point the KWHN is located c.78m south-east of the Site boundary, along High Moor Lane.

Local Biodiversity Action Plan (LBAP)

4.12 The local biodiversity action plan for the Site is Kirklees Biodiversity Action Plan[26].

4.13 Habitats for which action plans have been produced:

- Ancient Woodland
- Blanket Bog

[25] https://consult.kirklees.gov.uk/portal/pp/local_plan_1/kirklees_local_plan/klp-sp?pointId=s1551718560055
[26] https://bradleynewsdotorg.files.wordpress.com/2012/06/biodiversityactionplan.pdf

- Cereal Field Margins
- Lowland Acid Grassland
- Lowland Heath
- Reedbed
- Riverine habitats
- Scrubland
- Semi Natural Grassland
- Species-rich Grassland (Hay Meadows)
- Species-rich Hedgerows
- Upland Heath
- Upland Mixed Ash Woodland
- Upland Oak Woodland

4.1 Species for which action plans have been developed:

- Floating water plantain *Luronium natans*
- Great crested newt
- Marsh helleborine *Epipactis palustris*
- Pillwort *Pilularia globulifera*
- Red wood ant *Formica rufa*
- Water vole *Arvicola amphibius*
- White-clawed crayfish *Austropotamobius pallipes*

Protected / Notable Species Records

4.2 Records of protected and notable species provided by desk study consultees are provided in Table 5 below. The species records have been filtered to comprise relevant protected and / or notable species within 1km (and bats within 2km) of the survey area from the last 20 years. The locations are shown on Figure 1.

Table 5: Summary of Relevant Protected Species Records

Species common name	Latin	Conservation status	Total no. of records	Location / Minimum distance of records from Site boundary (m)	Grid ref. accuracy of nearest record
Bat species					
Common pipistrelle	*Pipistrellus pipistrellus*	Regs (Sch2), WCA (Sch5), WYBAP, LBAP	Roost:10 Field Record: 16 Total: 26	Roost: 546m west Field record: 546m west	Roost: 1m Field record: 1m

Species common name	Latin	Conservation status	Total no. of records	Location / Minimum distance of records from Site boundary (m)	Grid ref. accuracy of nearest record
Soprano pipistrelle	*Pipistrellus pygmaeus*	Regs (Sch2), NERC (SPI), WCA (Sch5), WYBAP	Roost: 0 Field Record: 1 Total: 1	Roost: NA Field record: 669m north	Roost: NA Field record: 100m
Noctule bat	*Nyctalus noctula*	Regs (Sch2), NERC (SPI), WCA (Sch5), WYBAP	Roost: 0 Field Record: 4 Total: 4	Roost: NA Field record: 669m north	Roost: NA Field record: 100m
Daubenton's bat	*Myotis nattereri*	Regs (Sch2), WCA (Sch5), WYBAP	Roost: 0 Field Record: 1 Total: 0	Roost: NA Field record: 669m north	Roost: NA Field record: 100m
Myotis bat species	*Myotis* spp.	Regs (Sch2), WCA (Sch5), WYBAP	Roost: 0 Field Record: 1 Total: 1	Roost: NA Field record: 546m west	Roost: NA Field record: 1m
Brown long-eared bat	*Plecotus auritus*	Regs (Sch2), NERC (SPI), WCA (Sch5), WYBAP	Roost: 2 Field Record: 1 Total: 3	Roost: 759m east Field record: 572m north	Roost: 1m Field record: 1m
Unidentified bat species	-	Regs (Sch2), WCA (Sch5), WYBAP, LBAP	Roost:5 Field Record: 2 Total: 7	Roost: 173m west Field record: 984m north	Roost: 1m Field record: 100m
Other mammal species					
European water vole	*Arvicola amphibius*	WCA (Sch5), NERC (SPI), LBAP	1	956m north-east	1m
Bird species					
Common bullfinch	*Pyrrhula pyrrhula*	BoCC (Amber), NERC (SPI)	2	368m east	100m
Common cuckoo	*Cuculus canorus*	BoCC (Red), NERC (SPI)	3	984m north	100m
Common gull	*Larus canus*	BoCC (Amber)	1	984m north	100m
Common whitethroat	*Curruca communis*	BoCC (Amber)	2	984m north	100m
Fieldfare	*Turdus pilaris*	BoCC (Red), WCA (Sch1_part1)	2	984m north	100m
Greenfinch	*Chloris chloris*	BoCC (Red)	1	984m north	100m
Grey wagtail	*Motacilla cinerea*	BoCC (Amber)	2	984m north	100m

Species common name	Latin	Conservation status	Total no. of records	Location / Minimum distance of records from Site boundary (m)	Grid ref. accuracy of nearest record
Hobby	*Falco subbuteo*	WCA (Sch1_part1)	1	984m north	100m
House martin	*Delichon urbicum*	BoCC (Red)	3	984m north	100m
House sparrow	*Passer domesticus*	BoCC (Red), NERC (SPI)	1	984m north	100m
Kestrel	*Falco tinnunculus*	BoCC (Amber)	1	984m north	100m
Lesser black-backed gull	*Larus fuscus*	BoCC (Amber)	1	984m north	100m
Lesser redpoll	*Acanthis cabaret*	BoCC (Red), NERC (SPI)	3	984m north	100m
Lesser spotted woodpecker	*Dendrocop os minor*	BoCC (Red), NERC (SPI)	1	984m north	100m
Linnet	*Linaria cannabina*	BoCC (Red), NERC (SPI)	2	984m north	100m
Meadow pipit	*Anthus pratensis*	BoCC (Amber)	1	984m north	100m
Pink-footed goose	*17nswer brachyrhyn chus*	BoCC (Amber)	2	984m north	100m
Redwing	*Turdus iliacus*	BoCC (Amber), WCA (Sch1_part1)	3	984m north	100m
Song thrush	*Turdus philomelos*	BoCC (Amber), NERC (SPI)	3	368m east	100m
Sparrowhawk	*Accipiter nisus*	BoCC (Amber)	1	984m north	100m
Swallow	*Hirundo rustica*	WYBAP	3	750m east	10m
Swift	*Apus apus*	BoCC (Red)	2	984m north	100m
Tawny owl	*Strix aluco*	BoCC (Amber)	1	984m north	100m
Tree sparrow	*Passer montanus*	BoCC (Red), NERC (SPI)	1	984m north	100m
Willow tit	*Poecile montanus*	BoCC (Red), NERC (SPI)	1	984m north	100m
Woodpigeon	*Columba palumbus*	BoCC (Amber)	2	368m east	100m

Species common name	Latin	Conservation status	Total no. of records	Location / Minimum distance of records from Site boundary (m)	Grid ref. accuracy of nearest record
Wren	*Troglodytes troglodytes*	BoCC (Amber)	2	368m east	100m
Yellow wagtail	*Motacilla flava*	BoCC (Red), NERC (SPI)	1	984m north	100m
Yellowhammer	*Emberiza citrinella*	BoCC (Red), NERC (SPI)	2	984m north	100m
Other species					
Wall butterfly	*Lasiommata megera*	NERC (SPI)	1	984m north	100m
White-letter hairstreak butterfly	*Satyrium w-album*	NERC (SPI), WYBAP	1	984m north	100m

Status Key: Regs – The Conservation of Habitats and Species Regulations 2017 (*as amended*). WCA – The Wildlife and Countryside Act 1981 (*as amended*). Sch 1 – Schedule 1. Sch 2 – Schedule 2. Sch5 – Schedule 5. Sch8 – Schedule 8. Sch9 – Schedule 9. NERC – England Natural Environment and Rural Communities Act (2006) Section 41. SPI – Species of Principal Importance. BoCC – Birds of Conservation Concern. WYBAP – West Yorkshire Biodiversity Action Plan. LBAP – Kirklees Biodiversity Action Plan.

4.4 There are two EPSLs relating to bats within 2km of the Site boundary:

- 715m west (EPSM2011-3782, common pipistrelle, 08/12/2011 – 01/12/2013);
- 2km south-east (2014-5044-EPS-MIT, common pipistrelle, 08/01/2015 – 30/09/2020).

4.5 There are no EPSLs relating to GCN within 1km of the Site boundary.

4.6 There were no records of GCN surveys from Natural England's Open Dataset[27] within 1km of the Site boundary.

4.7 From studying mapping resources, eight ponds were identified within 500m of the Site. Further details can be found in the GCN section below. Five watercourses were also identified within 500m, although these were considered suboptimal for GCN as they are recorded as flowing on map resources.

[27] https://data.gov.uk/dataset/8643f1b9-b419-4ee8-8e9c-18200e0edc31/great-crested-newt-edna-habitat-suitability-index-pond-surveys-for-district-level-licensing-2017-2018-2019

HABITATS

4.8 The habitats recorded within the Site boundary during the Phase 1 habitat survey included:

- Poor semi-improved grassland;
- Bare ground;
- Hardstanding;
- Defunct hedgerow; and
- A broadleaved tree.

Poor semi-improved grassland (g4 – modified grassland)

4.9 The eastern section of the Site comprised unmanaged poor semi-improved grassland (Photographs 1 and 2). Species present included abundant bent grass *Agrostis* sp. alongside frequent perennial rye-grass *Lolium perenne*, Yorkshire-fog *Holcus lanatus* and creeping buttercup *Ranunculus repens*. Cock's-foot *Dactylis glomerata*, common hogweed *Heracleum sphondylium*, dock *Rumex obtusifolius* and common sorrel *Rumex acetosa* were occasional. Locally frequent species included common nettle *Urtica dioica*, creeping thistle *Cirsium arvense*, groundsel *Senecio vulgaris*, bramble *Rubus fruticosus* agg., and soft rush *Juncus effusus*. Ragwort *Jacobaea vulgaris*, spear thistle *Cirsium vulgare* and foxglove *Digitalis purpurea* were rare.

Photograph 1: The poor semi-improved grassland in the east of the Site (18.03.2024).

Photograph 2: The poor semi-improved grassland in the south of the Site (18.03.2024).

Bare ground (540 – bare ground)

4.10 A small area of cleared bare ground with portacabins was present in in the west of the Site (Photograph 3).

Photograph 3: Cleared bare ground in the west of the Site (08.04.2024).

Hardstanding (u1b6 – other developed land)

4.11 An existing access road was present in the west of the Site (Photograph 4). A watercourse (WC1) flowing south-west to north-east was culverted beneath this, see section below.

Photograph 4: An existing access road present in the west of the Site (18.03.2024).

Defunct hedgerow (h2ag – other native hedgerow)

4.12 A short length of outgrown native hedgerow was present along a length of the south-eastern Site boundary (Photograph 5). Hawthorn *Crataegus monogyna* was dominant with occasional elder *Sambucus nigra* and holly *Ilex aquifolium*. Bramble and ivy *Ilex aquifolium* were frequent. Hedgerow H1 is considered to be a Habitat of Principal Importance (HPI) under the NERC Act 2006 and has moderate conservation value (Grade 3) under the HEGS assessment.

Table 6: Summary of Hedgerow Survey

Hedgerow Reference (Figure 2)	Length (m)	Species Present (with DAFOR[28])	Hedgerow Evaluation and Grading System (HEGS) Score	Hedgerows Regulations – Important Hedgerow?	HPI (>80% native species)
H1	20	Hawthorn *Crataegus monogyna* (A) Bramble *Rubus fruticosus* agg. (F) Ivy *Hedera helix* (F) Elder *Sambucus nigra* (O) Holly *Ilex aquifolium* (O)	**-3** (Moderate)	**No**	**Yes**

Photograph 5: Hedgerow H1 along the south-eastern Site boundary (18.03.2024).

Broadleaved tree (32 – scattered trees)

4.13 A mature ash *Fraxinus excelsior* tree was present along the south-eastern Site boundary, adjacent to a neighbouring residential property (Photograph 6).

Photograph 6: The mature ash present along the south-western Site boundary (18.03.2024).

[28] DAFOR: D=dominant, A=abundant, F=frequent, O=occasional, R=Rare, L=Locally

Target notes

4.14 Two shallow ephemeral pools were present within the grassland in the east of the Site (TN1a and TN1b, Photographs 7 and 8).

4.15 Brash piles and wood chip piles were present in the east of the Site which could provide refugia for reptile and amphibian species (TN2, Photograph 9).

4.16 Refuse was present within the grassland in the south of the Site (TN3, Photograph 10).

Photograph 7: A small ephemeral pool in the east in the Site (TN1a).

Photograph 8: A small ephemeral pool in the east in the Site (TN1b).

Photograph 9: An example of the woodchip piles in the grassland in the east of the Site (TN2).

Photograph 10: Refuse present in the south of the Site (TN3).

Immediately off-site habitats

4.17 A watercourse (WC1) was culverted beneath the existing access road in the west of the Site. Unculverted sections of the watercourse were present to the south (Photograph 11) and north (Photograph 12).

Photograph 11: An unculverted section of the watercourse to the south of the access road.

Photograph 12: An unculverted section of the watercourse to the north of the access road.

FAUNA

Bats

4.20 From the desk study up to eight bat species were identified within 2km of the Site (common pipistrelle, soprano pipistrelle, pipistrelle bat species, noctule bat, Daubenton's bat, *Mytois* bat species, brown long-eared bat and an unidentified bat species). There were also two EPSLs relating to bats within 2km of the Site boundary with the nearest one being located 715m west of the Site.

Roosts – Trees

4.21 The mature ash tree on the south-eastern Site boundary did not have any features which would be considered suitable for roosting bats. As such it was classed as 'NONE'.

Foraging / Commuting Habitat

4.22 The unmanaged grassland and hedgerow habitat on-site does offer some limited habitat which could be used by a small number of foraging and / or commuting bats. Therefore, the habitats would be considered of low suitability for foraging and commuting bats.

4.24 There were no European Protected Species Licences relating to GCN and there was no records of GCN surveys from Natural England's Open Dataset[29] within 1km of the Site boundary.

Aquatic habitat

4.25 Two ephemeral waterbodies (TN1a and TN1b) were present within the Site. A further eight ponds were present within 500m of the Site boundary. Further details can be found within Table 7.

4.26 Five watercourses were also identified within 500m, although these were considered suboptimal for GCN as they are recorded as flowing on map resources.

Table 7: Waterbodies Identified On-Site and Within 500m of The Application Site

Pond Ref.	Locality	Straight Line Distance / Distance via Optimal Connective Habitat	OS Grid Reference	I Result (Appendix B)	Additional Information
TN1a	On-site	N/A	SE199851 0048	Below average	A small, shallow ephemeral pond present on-site, likely to be caused my high winter rainfall. The ponds are not visible on aerial imagery and were not previously identified on-site in 2021 (MAB Environment & Ecology Ltd., EcIA: Phase 2 Abbey Rd, Shepley Rev 2 2021). The depth of water was 5 – 10cm and the pond was considered to offer below average suitability for GCN. **No Likely Potential Constraint.**
TN1b	On-site	N/A	SE199771 0053	Below average	A small, shallow ephemeral pond present on-site, likely to be caused my high winter rainfall. The ponds are not visible on aerial imagery and were not previously identified on-site in 2021 (MAB Environment & Ecology Ltd., EcIA: Phase 2 Abbey Rd, Shepley Rev 2 2021). The depth of water was 5-10cm and the pond was considered to offer below average suitability for GCN. **No Likely Potential Constraint.**

[29] https://data.gov.uk/dataset/8643f1b9-b419-4ee8-8e9c-18200e0edc31/great-crested-newt-edna-habitat-suitability-index-pond-surveys-for-district-level-licensing-2017-2018-2019

Pond Ref.	Locality	Straight Line Distance / Distance via Optimal Connective Habitat	OS Grid Reference	I Result (Appendix B)	Additional Information
P1	Associated with residential property	Straight line distance: 110m south Likely connective distance: 135m	SE200370 9904	N/A	This pond is present on the Kirklees planning portal mapping[30], but does not seem to be present on recent aerial imagery. To reach the Site from pond P1 GCN would have to cross several minor roads and commute around buildings. Given there is optimal habitat (trees, hedgerows, grassland) closer to the pond, if GCN were present within P1 they would be unlikely to commute onto the Site. **No Likely Potential Constraint.**
P2	Small ornamental pond within residential property.	Straight line distance: 245m south-west Likely connective distance: 300m	SE197120 9910	N/A	To reach the Site from pond P2 GCN would likely have to commute up to 300m which includes crossing several minor roads going around buildings. This is considered to be above the maximum routine migratory range for GCN[31]. If GCN were present within P2 they would be unlikely to commute onto the Site. **No Likely Potential Constraint.**
P3	Small ornamental pond within residential property.	Straight line distance: 250m south-west Likely connective distance: 300m	SE197040 9908	N/A	To reach the Site from pond P3 GCN would likely have to commute up to 300m which includes crossing several minor roads and going around buildings. This is considered to be above the maximum routine migratory range for GCN[32]. If GCN were present within P3 they would be unlikely to commute onto the Site. **No Likely Potential Constraint.**

[30] https://mapping.kirklees.gov.uk/connect/analyst/mobile/#/main
[31] Kovar, R., Brabec, M., Vita, R. and Bocek, R. (2009) Spring migration distances of some central European amphibian species. Amphibia-Reptilia, 30: 367-378 and http://publications.naturalengland.org.uk/publication/134002
[32] Kovar, R., Brabec, M., Vita, R. and Bocek, R. (2009) Spring migration distances of some central European amphibian species. Amphibia-Reptilia, 30: 367-378 and http://publications.naturalengland.org.uk/publication/134002

Pond Ref.	Locality	Straight Line Distance / Distance via Optimal Connective Habitat	OS Grid Reference	I Result (Appendix B)	Additional Information
P4	To the south of watercourse WC4, set within woodland	Straight line distance: 439m south Likely connective distance: >500m	SE198260 9594	N/A	Pond P4 is over 250m from the Site, which is considered to be the maximum routine migratory range for GCN[33]. Furthermore, the likely connective distance is over 500m and includes crossing minor roads. Given there is optimal habitat (woodland) surrounding the pond, if GCN were present within pond P4 they would be unlikely to commute onto the Site. **No Likely Potential Constraint.**
P5	Within field to the rear of residential properties	Straight line distance: 387m west Likely connective distance: N/A	SE194621 0143	N/A	Pond P5 is over 250m from the Site, which is considered to be the maximum routine migratory range for GCN[34]. Furthermore, the presence of a main road (Abbey Road) between pond P5 and the Site represents a barrier to GCN dispersal. As such, if GCN were present within pond P5 they would be unlikely to commute onto the Site. **No Likely Potential Constraint.**
P6	Ornamental pond within residential property	Straight line distance: 420m north Likely connective distance: N/A	SE194321 0173	N/A	Pond P6 is over 250m from the Site, which is considered to be the maximum routine migratory range for GCN[35]. Furthermore, the presence of a main road (Abbey Road) between pond P5 and the Site represents a barrier to GCN dispersal. As such, if GCN were present within pond P6 they would be unlikely to commute onto the Site. **No Likely Potential Constraint.**

[33] Kovar, R., Brabec, M., Vita, R. and Bocek, R. (2009) Spring migration distances of some central European amphibian species. Amphibia-Reptilia, 30: 367-378 and http://publications.naturalengland.org.uk/publication/134002
[34] Kovar, R., Brabec, M., Vita, R. and Bocek, R. (2009) Spring migration distances of some central European amphibian species. Amphibia-Reptilia, 30: 367-378 and http://publications.naturalengland.org.uk/publication/134002
[35] Kovar, R., Brabec, M., Vita, R. and Bocek, R. (2009) Spring migration distances of some central European amphibian species. Amphibia-Reptilia, 30: 367-378 and http://publications.naturalengland.org.uk/publication/134002

Pond Ref.	Locality	Straight Line Distance / Distance via Optimal Connective Habitat	OS Grid Reference	I Result (Appendix B)	Additional Information
P7	Ornamental pond within residential property	Straight line distance: 172m north Likely connective distance: N/A	SE198751 0272	N/A	Pond P7 is over 250m from the Site, which is considered to be the maximum routine migratory range for GCN[36]. Furthermore, the presence of a main road (Abbey Road) between pond P5 and the Site represents a barrier to GCN dispersal. As such, if GCN were present within pond P7 they would be unlikely to commute onto the Site. **No Likely Potential Constraint.**
P8	In a field to the rear of residential properties	Straight line distance: 410m north Likely connective distance: N/A	SE199481 0506	N/A	Pond P8 is over 250m from the Site, which is considered to be the maximum routine migratory range for GCN[37]. Furthermore, the presence of a main road (Abbey Road) between pond P5 and the Site represents a barrier to GCN dispersal. As such, if GCN were present within pond P8 they would be unlikely to commute onto the Site. **No Likely Potential Constraint.**

Terrestrial habitat

4.27 The unmanaged grassland and hedgerow habitat on-site represents suitable habitat for GCN. The brash piles and woodchip would also provide suitable refugia for GCN.

Reptiles

4.28 From the desk study, no reptiles were identified within 1km of the Site boundary.

4.29 This species group was not previously identified on-site in 2021 (MAB Environment & Ecology Ltd., EcIA: Phase 2 Abbey Rd, Shepley Rev 2 2021).

4.30 The habitats present on-site (grassland, hedgerow, wood chip and brash piles) do offer some limited structural diversity which would provide suitable habitat for reptile species.

Birds

4.31 From the desk study a range of bird species were present within 1km of the Site.

[36] Kovar, R., Brabec, M., Vita, R. and Bocek, R. (2009) Spring migration distances of some central European amphibian species. Amphibia-Reptilia, 30: 367-378 and http://publications.naturalengland.org.uk/publication/134002

[37] Kovar, R., Brabec, M., Vita, R. and Bocek, R. (2009) Spring migration distances of some central European amphibian species. Amphibia-Reptilia, 30: 367-378 and http://publications.naturalengland.org.uk/publication/134002

4.32 Incidental sightings during the Phase 1 Habitat survey included magpie *Pica pica* and blue tit *Cyanistes caeruleus*.

4.33 The Site offers nesting (grassland, hedgerow, tree) as well as foraging opportunities for a range of urban fringe bird species.

Other species

4.34 A single record of water vole *Arvicola amphibius* (an SPI) was present 956m north-east of the Site boundary. A reprofiled watercourse (WC1) is present off-site to the west and is culverted beneath the existing access road. However, water vole were not previously identified within this watercourse in 2021 (MAB Environment & Ecology Ltd., EcIA: Phase 2 Abbey Rd, Shepley Rev 2 2021).

4.35 Two SPI butterfly species (wall butterfly *Lasiommata megera* and white-letter hairstreak butterfly *Satyrium w-album*) were present 984m north of the Site boundary. The wall butterfly favours short, open grassland, where turf is broken or stony. The white-letter hairstreak butterfly breeds on various elm species *Ulmus* sp. The Site is lacking these habitats.

4.36 Although no records of other notable species were identified from the desk study, the Site is considered suitable for hedgehog *Erinaceus europaeus* (an SPI) given the presence of unmanaged grassland, hedgerow and brash pile on-site.

4.37 No amphibian records were retuned within 1km of the Site boundary. However, given the presence of unmanaged grassland and two ephemeral ponds on-site, the Site is considered to provide suitable habitat for common amphibian species such as common toad *Bufo bufo* (an SPI).

5.0 DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

STATUTORY DESIGNATED SITES

5.1 Sites such as SPA and SAC are afforded protection under the Conservation of Habitats and Species Regulation 2017 (as amended). This legislation transposes European Council Directives 92/43/EEC (EC Habitats Directive) Directive 2009/145/EC (Wild Birds Directive) into domestic law. The purpose of this legislation is to provide protection for natural habitats, wild flora and fauna of international importance.

5.2 Two internationally designated sites occur within 10km of the Site. The Peak District Moors (South Pennine Moors Phase 1) SAC/SPA falls 8km south-west of the Site boundary and Denby Grange Colliery Ponds SAC falls 8.3km north-east of the Site Boundary.

Information to Inform an Appropriate Assessment[38]

5.3 The proposed development is considered unlikely to result in any likely significant effects (LSE) upon Peak District Moors SPA (South Pennine Moors Phase 1) SAC/SPA/SSSI or Denby Grange Colliery Ponds SAC/SSSI due to the following:

- The proposed development Site does not occur within the SAC/SSSI thus there will be no direct loss of habitats within them.
- There will be impacts to functionally linked land given that the development is of a limited size and located over c. 8km from the designated sites.
- Given that the proposed development is for 5 dwellings several kilometres away within Shepley, impacts arising from non-physical disturbance (noise, vibration and light pollution) and air pollution (increased road traffic) are considered to be absent / imperceptible.
- Impacts through recreation are thought to be imperceptible given that the proposed development is for 5 dwellings over c. 8km away from the designated site.
- As the development Site is located at over c. 8km from both of the designated sites, there is not considered to be any impacts from the urban edge effect[39].
- There are no direct hydrological links between the Site and the SAC/SSSI.

5.4 No sites of national or regional importance with a statutory designation were located within 2km of the Site boundary.

5.5 Consultation with MAGIC site check confirms that the application Site lies within the 5-10km Impact Risk Zone (IRZ) for the Dark Peak SSSI and Denby Grange Colliery Ponds SSSI. However, the development proposals do not fall within the categories that would otherwise require consultation with Natural England due to their potential impact.

5.6 No sites of local importance with a statutory designation were located within 1km of the Site boundary.

NON-STATUTORY DESIGNATED SITES

5.7 Local sites are not protected by law but do receive consideration in both national and local planning policy. Local sites have a role in meeting overall national biodiversity targets and appropriate weight should be attached to designated sites in making planning decisions.

5.8 Four sites of local importance with non-statutory designation were present within 1km of the Site boundary, the nearest of which is Yew Tree Wood LWS located 300m south-east of the Site boundary. The LWS sites either have established footpaths (Shepley Mill Wood, Upper and Lower Stones Wood) or no public access (Yew Tree Woods, Gelder Wood).

[38] https://www.kirklees.gov.uk/beta/planning-policy/pdf/supportingDocuments/naturalEnvironment/Habitats-Regulations-Assessment.pdf

[39] Urban Edge Effect - fly tipping; dumping of garden waste and resultant introduction of invasive/alien plants; traffic causing air pollution and rat running along minor roads and tracks; off-road vehicles leading to track erosion; disturbance to (conservation) grazing livestock; increased incidence of wildfire; and predation from domestic pets and urban scavengers.

5.9 Given the intervening distance from the application Site as well as the limited number of dwellings proposed, no construction (pollution events including dust deposition) or operational (increased recreational pressure) impacts are anticipated.

HABITATS OF PRINCIPAL IMPORTANCE (HPI) AND ANCIENT WOODLAND

5.10 Several HPIs occur within 1km of the Site including deciduous woodland, good quality semi-improved grassland, lowland meadows, traditional orchard and no main habitat. The nearest parcel is defined as deciduous woodland and present 40m south of the site boundary. To prevent impacts to the off-site HPIs during the construction phase of the development, it is recommended that this area is protected from adverse impacts from development, via dust or pollution, through the implementation of a Construction Environmental Management Plan (CEMP). The HPIs appear to either have established footpaths (Shepley Mill Wood) or no public access (Yew Tree Woods, Gelder Wood). As such, no operational (increased recreational pressure) impacts are anticipated.

5.11 Several parcels of ancient woodland (also designated as LWS) are present within 1km of the Site boundary, the nearest of which is Ancient Replanted Woodland located 300m south-east of the Site boundary. These sites either have established footpaths (Shepley Mill Wood) or no public access (Yew Tree Woods, Gelder Wood). Given the intervening distance from the application Site as well as the limited number of dwellings proposed, no construction (pollution events including dust deposition) or operational (increased recreational pressure) impacts are anticipated.

KIRKLEES WILDLIFE HABITAT NETWORK (KWHN)

5.12 At its closest point the KWHN is located c. 78m south-east of the Site boundary, along High Moor Lane.

5.13 To prevent impacts to habitats located within the KWHN during the construction phase of the development, it is recommended that the off-site area is protected from adverse impacts from development, via dust or pollution, through the implementation of a Construction Environmental Management Plan (CEMP). No operational (increased recreational pressure) impacts are anticipated.

HABITATS

5.14 Habitats receive consideration through the planning system by:

- their inclusion in specific National planning policy: such as consideration in the National Planning Policy Framework (2023)[40] for veteran trees, ancient woodland, non-statutory sites, and ecological networks.
- classification as a Habitat of Principal Importance (HPI) for the conservation of biodiversity under the Natural Environment and Rural Communities (NERC) Act 2006, from which are also derived Priority Habitats under local Biodiversity Action Plan (LBAP) and Priority Habitat for England under Biodiversity 2020[41],

[40] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1182995/NPPF_Sept_23.pdf
[41] Biodiversity 2020: *A strategy for England's wildlife and ecosystem services,* August 2011, Department for Environment, Food and Rural Affairs.

- their inclusion in specific local policy.

5.15 The unmanaged grassland on-site was of low species diversity and its loss is not a constraint to the development. The boundary hedgerow (H1) and broadleaved tree provide inherent value to a range of wildlife and connectivity to the wider environment. These habitats are to be retained within the scheme. To prevent impacts to retained habitats during the construction phase of the development, it is recommended that the hedgerow (H1) and broadleaved tree is protected from adverse impacts from development, via dust or pollution (including lighting), through the implementation of a Construction Environmental Management Plan (CEMP).

5.16 Direct lighting of retained and newly planted habitats during the operational phase could result in crepuscular / nocturnal species avoiding these habitats. Lighting should be designed to prevent post development impacts from new development lighting, particularly avoiding retained boundary features. The lighting scheme should be designed in accordance with guidelines from BCT (2023)[42].

FAUNA

[42] https://www.bats.org.uk/news/2023/08/bats-and-artificial-lighting-at-night-ilp-guidance-note-update-released#:~:text=This%20free%20guidance%20is%20now,a%20Guidance%20Note%20GN08%2F23.&text=The%20new%20guidance%20(GN08%2F23,and%20sponsored%20by%20Kingfisher%20Lighting.

Bats

5.21 All species of UK bats and their roosts are listed on the Conservation of Habitats and Species Regulations 2017 (as amended) making it illegal to deliberately disturb any such animal or damage / destroy a breeding site or roosting place of any such animal. Bats are also afforded full legal protection under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Under this legislation it is illegal to recklessly or intentionally kill, injure or take a species of bat or recklessly or intentionally damage or obstruct access to or destroy any place of shelter or protection or disturb any animal whilst they are occupying such a place of shelter or protection. Seven bat species, including brown long-eared, noctule and soprano pipistrelle are Species of Principal Importance under the NERC Act 2006.

5.22 From the desk study up to eight bat species were identified within 2km of the Site (common pipistrelle, soprano pipistrelle, pipistrelle bat species, noctule bat, Daubenton's bat, *Mytois* bat species, brown long-eared bat and an unidentified bat species). There were also two EPSLs relating to bats within 2km of the Site boundary with the nearest one being located 715m west of the Site.

Roosts – Trees

5.23 The mature ash tree on the south-eastern Site boundary did not have any features which would be considered suitable for roosting bats. As such it was classed as 'NONE'. Thus, the presence of a bat roost is not a statutory constraint to the proposals.

5.24 At least two integrated bat boxes (e.g. Ibstock integrated bat box) on the new dwellings should be provided within the scheme to provide an enhancement for the local bat population.

Foraging / Commuting habitat

5.25 The unmanaged grassland and hedgerow habitat on-site does offer some limited habitat which could be used by a small number of foraging and / or commuting bats. Therefore, the habitats would be considered of low suitability for the local bat population. Although the grassland will be lost under the footprint of the development, the boundary habitats (hedgerow and tree) are to be retained within the scheme. Due the minimal size of the site and retention of the boundary habitats it is considered to be justified and proportionate that no further bat activity surveys are required.

5.26 To prevent impacts to retained habitats during the construction phase of the development, it is recommended that this area is protected from adverse impacts from development, via dust or pollution (including lighting), through the implementation of a Construction Environmental Management Plan (CEMP).

5.27 As part of any future detailed development design, care should be taken to avoid inappropriate lighting of any new structural planting or retained boundary features (hedgerow and trees). Artificial light can deter some more sensitive species and can

impact upon foraging and commuting routes. To minimise post development impacts, a sensitive lighting scheme should be adopted to ensure that boundary habitats / ecological landscape planting will not be illuminated. The lighting scheme will be designed in accordance with guidelines from BCT (2023)[43]. It should be designed and positioned to reduce spill and be downwardly directional, of 1 lux or less LED lamps and ideally set on motion sensors on short timers.

Aquatic habitat

5.30 Two ephemeral ponds (TNa and TNb) were present on-site during the Phase 1 Habitat survey both with a below average HSI. These waterbodies are considered to have been created by the recent wet weather and have not ben recorded during previous surveys undertaken in 2021 (EcIA - MAB Environment & Ecology Ltd., Phase 2 Abbey Rd, Shepley Rev 2 2021; BIA – Futures Ecology, FE78/BIA01).

5.31 A further eight ponds were identified within 500m of the Site. Five of these waterbodies (P4, P5, P6, P7, P8) are over 250m from the Site boundary, considered to be the maximum routine migratory range for GCN[44], or beyond a main road (Abbey Road) which is a barrier to dispersal. Although ponds P2 and P3 are within 250m of the Site, the likely connective distance via optimal habitat is also over 250m and includes crossing several minor roads and commuting around buildings. Pond P1 is present on the Kirklees planning portal mapping [45], but is not present on recent aerial imagery. For a GCN to reach the Site from pond P1, the GCN would have to cross several minor roads and commute around buildings. Given there is optimal habitat (trees, hedgerows, grassland) closer to the pond, if GCN were present within P1 they would be unlikely to commute onto the Site.

Terrestrial Habitat

5.32 The unmanaged grassland and hedgerow habitat on-site represents suitable habitat for GCN. The brash piles and woodchip would also provide suitable refugia for GCN.

[43] https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/
[44] Kovar, R., Brabec, M., Vita, R. and Bocek, R. (2009) Spring migration distances of some central European amphibian species. Amphibia-Reptilia, 30: 367-378 and http://publications.naturalengland.org.uk/publication/134002
[45] https://mapping.kirklees.gov.uk/connect/analyst/mobile/#/main

Summary

5.33 No GCN records have been identified within 1km of the site nor have GCN been previously identified as a potential constraint to the proposals for the granted planning permission (reference: 2020/93358).

5.34 The two waterbodies present on Site are considered to be of limited suitability for GCN and are likely to have been created from the recent wet weather. A further eight waterbodies are present within 500m of the Site boundary. However, should GCN be present within any of these waterbodies P1 to P8 (as outlined above) the GCN would not be considered likely to commute to utilise the terrestrial habitats within the Site. Therefore, no further survey work is recommended in relation to GCN.

Reptiles

5.35 All common reptile species are partially protected under Sections 9(1) and 9(5) of Schedule 5 of the Wildlife and Countryside Act 1981 (*as amended*) which protects them from intentional killing/injury, possession, and transport. Common reptiles are also Species of Principal Importance under Section 41 of the Natural Environment and Rural Communities Act 2006.

5.36 No records of reptile species were present within 1km of the Site boundary and this species group was not previously identified on-site in 2021 (MAB Environment & Ecology Ltd., EcIA: Phase 2 Abbey Rd, Shepley Rev 2 2021).

5.37 Suitable habitats on-site (poor semi-improved grassland, hedgerow, brash piles) do provide some structural diversity to provide shelter and foraging habitat for reptiles, although the Site generally lacks ecotones.

5.38 Given the lack of nearby records and lack of habitat ecotones on-site, it is considered unlikely that reptiles would be present and therefore do not pose a constraint to development.

Birds

5.39 All wild birds species are protected while nesting by the Wildlife and Countryside Act (1981) (as amended). This legislation protects wild birds, their nests and eggs from intentional harm, and makes it illegal to intentionally kill, injure or take any wild birds; take, damage or destroy the nest of a wild bird while the nest is in use of being build or take / destroy an egg of a wild bird.

5.40 From the desk study a range of bird species were present within 1km of the Site. The Site offers nesting (grassland, hedgerow and tree) and foraging opportunities, although limited, for a range of urban fringe bird species. Given the limited extent of habitats, the Site is considered unlikely to represent a significant resource to the local bird population and therefore a suite of breeding bird surveys[46] would not be considered proportionate. Furthermore, they were not required under the previous application (Planning Ref.: 2020/62/93358/E).

[46] https://birdsurveyguidelines.org/methods/survey-method/

5.41 However, to comply with relevant legislation any removal of vegetation and clearance of arable land should be timed to avoid the nesting season where possible (March to August inclusive, although dates vary depending on species and weather conditions). Where it is not feasible, affected areas should be checked for nests in advance by an experienced ecologist. Any active nests identified will be left with a minimum 5m buffer to be identified by the ecologist, until such a time all birds have fledged.

5.42 At least two bird boxes (e.g. 32mm Woodstone nest box and a Woodstone house sparrow nest box) should be provided within the scheme to provide additional nesting habitat for the local bird population.

Water vole

5.43 Water vole are protected by Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This makes it an offence to: Intentionally kill, injure or take water vole; Possess or control live or dead water vole or any part of a water vole; Intentionally or recklessly damage destroy or obstruct access to any structure or place which a water vole uses for shelter or protection, or disturb water vole using such a place; Sell, offer, advertise or transport live or dead water voles for sale.

5.44 A single record of water vole was present 956m north-east of the Site boundary. A reprofiled watercourse (WC1) is present off-site to the west and is culverted beneath the existing access road. However, water vole were not previously identified within this watercourse in 2021 (MAB Environment & Ecology Ltd., EcIA: Phase 2 Abbey Rd, Shepley Rev 2 2021). Given the lack of on-site records and reprofiling works (associated with the consented application ref.: 2020/62/93358/E), water vole are considered to be absent from the Site.

Invertebrates

5.45 Two SPI butterfly species (wall butterfly *Lasiommata megera* and white-letter hairstreak butterfly *Satyrium w-album*) were present 984m north of the Site boundary. The wall butterfly favours short, open grassland, where turf is broken or stony. The white-letter hairstreak butterfly breeds on various elm species *Ulmus* sp. Given the lack of these habitats, the Site is considered suboptimal for these species and they are unlikely to be present.

Hedgehog

5.46 The hedgehog population in Britain has rapidly declined in recent years with a third thought to be lost since 2020[47]. Hedgehogs are listed as a Species of Principal Importance under NERC Act (2006) and as such are a material consideration during the planning process.

5.47 Although no records of other notable species were identified from the desk study, the Site is considered suitable for hedgehog given the presence of unmanaged grassland, hedgerow and brash pile on-site.

[47] Wilson E & Wembridge, D (2018) *The State of Britain's Hedgehogs 2018.* British Hedgehog Preservation Society and Peoples Trust for Endangered Species.

5.48 Vegetation removal has a risk of causing injury or death to this species. All clearance works (i.e. clearance of brash piles, refuse, rough grass etc.) should be undertaken when hedgehog are likely to be fully active (April to September). In order to minimise risk, it is recommended that vegetation removal is undertaken in a precautionary manner. This should comprise a visual check of long vegetation areas prior to removal followed by the cutting of tall / woody vegetation to 150mm above ground level in the first instance with all cut vegetation removed by hand from the working area. In areas of dense vegetation the cleared vegetation should then be left for 24 hours prior to clearing vegetation to ground level and grubbing out of roots to allow hedgehogs or other fauna to disperse from the working area.

5.49 During any excavations, an access ramp should be provided overnight to allow trapped animals an escape route. Chemicals should be stored in secure compounds and open pipes should be temporarily capped at the end of each working day to prevent any animals gaining access. These precautions will protect wildlife such as hedgehog from harm during works.

5.50 Provisions for this species during the operational phase of the development should include the installation of hedgehog gaps (c .13cm x 13cm) within boundary treatments to allow access to garden habitats which area suitable for foraging hedgehog.

Other amphibians

5.51 No amphibian records were retuned within 1km of the Site boundary. However, given the presence of unmanaged grassland and two ephemeral ponds on-site, the Site is considered to provide suitable habitat for common amphibian species such as common toad *Bufo bufo*.

5.52 All clearance works (i.e. clearance of brash piles, refuse, rough grass etc.) should be undertaken when amphibian species are likely to be fully active (April to September).

5.53 During any excavations, an access ramp should be provided overnight to allow trapped animals an escape route. Chemicals should be stored in secure compounds and open pipes should be temporarily capped at the end of each working day to prevent any animals gaining access. These precautions will protect wildlife such as amphibian species from harm during works.

6.0 BIODIVERSITY ENHANCEMENTS

6.1 In accordance with NPPF (2023), The Environment Act 2021, and Policy LP30 Biodiversity & Geodiversity of the Kirklees Local Plan[48], the development should incorporate features to encourage biodiversity, and retain and where possible enhance existing features of nature conservation value within the site.

6.2 Proposals should aim to increase diversity of habitats present and provide structural diversity. Recommendations include:

[48] https://www.kirklees.gov.uk/beta/planning-policy/pdf/local-plan-strategy-and-policies.pdf

- Using native tree and shrub species which bear fruit and nectar in any new landscape planting; and
- Seeding any formal lawn areas with a species rich flowering lawn mix (e.g. EL1 – Flowering Lawn Mix, Emorsgate Seeds) where possible.

6.3 Species specific recommendations have been made in Section 5 above. Additional measures could include the Installation of invertebrate boxes within new dwellings e.g. bee houses.

APPENDIX A: BOTANICAL SPECIES LIST

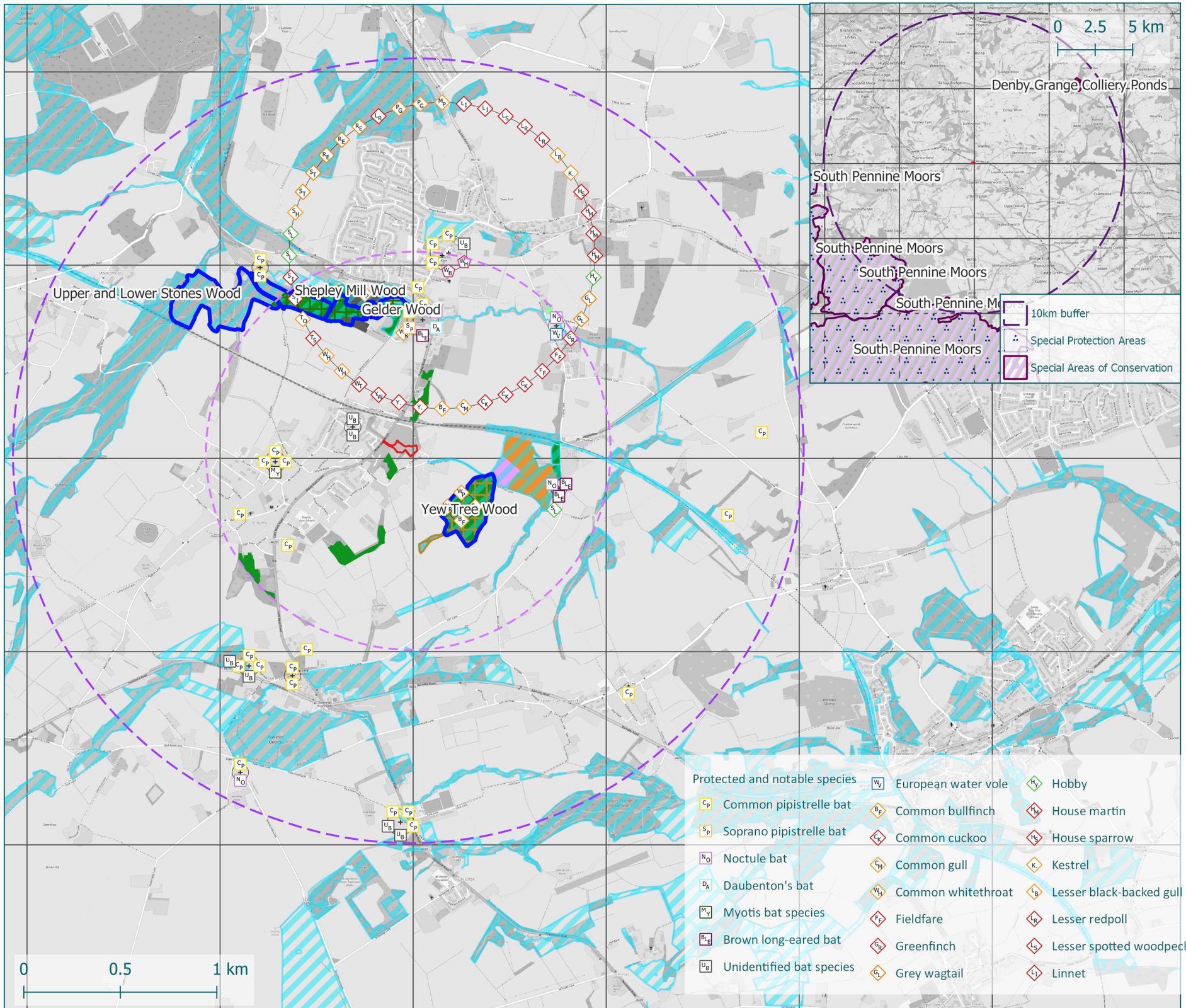
The habitat types were mapped within the Site and a representative species list for each habitat type recorded. Species lists are not exhaustive of all flora present in each habitat type.

Common Name	Scientific Name	DAFOR
Poor semi-improved grassland		
Bent	*Agrostis* sp.	A
Bramble	*Rubus fruticosus* agg.	LF
Cleavers	*Galium aparine*	LA
Cock's-foot	*Dactylis glomerata*	O
Common hogweed	*Heracleum sphondylium*	O
Common nettle	*Urtica dioica*	LF
Common sorrel	*Rumex acetosa*	O
Cow parsley	*Anthriscus sylvestris*	F
Creeping buttercup	*Ranunculus repens*	F
Creeping thistle	*Cirsium arvense*	LF
Dandelion	*Taraxacum officinale* agg.	R
Dock	*Rumex obtusifolius*	O
Foxglove	*Digitalis purpurea*	R
Groundsel	*Senecio vulgaris*	LF
Moss	Bryophyta	LA
Perennial rye-grass	*Lolium perenne*	F
Ragwort	*Jacobaea vulgaris*	R
Soft rush	*Juncus effusus*	LF
Spear thistle	*Cirsium vulgare*	R
Willowherb	*Epilobium* sp.	F
Yorkshire-fog	*Holcus lanatus*	F

DAFOR: D=dominant, A=abundant, F=frequent, O=occasional, R=Rare, L=Locally

APPENDIX B: GCN HABITAT SUITABILITY ASSESSMENT (HSI) RESULTS

Waterbody Reference	SI -1 Geographical Location	SI – 2 Pond Area	SI -3 Pond Drying	SI -4 Water Quality	SI -5 Shade	SI -6 Fowl	SI -7 Fish	SI -8 Ponds	SI -9 Terrestrial Habitat	SI -10 Macrophytes	HSI score	Pond Suitability	Predicted Presence
TNa1	A / 1	3 / 0.05	Annually / 0.1	Moderate / 0.67	0 / 1	Absent / 1	Absent / 1	11 / 0.96	Good / 1	0 / 0.3	0.50	**Below Average**	0.1
TNa2	A / 1	0.5 / 0.05	Annually / 0.1	Moderate / 0.67	0 / 1	Absent / 1	Absent / 1	11 / 0.96	Good / 1	0 / 0.3	0.50	**Below Average**	0.1



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Key

- Site Boundary
- 1km buffer
- 2km buffer
- Local Wildlife Site (LWS)
- Kirklees Wildlife Habitat Network

Habitats of Principal Importance (HPI)

- Deciduous woodland
- Traditional orchard
- Good quality semi improved grassland
- Lowland meadows
- No main habitat but additional habitats present

Ancient Woodland

- Ancient Semi-Natural Woodland
- Planted Ancient Woodland Sites

Protected and notable species

- Common pipistrelle bat
- Soprano pipistrelle bat
- Noctule bat
- Daubenton's bat
- Myotis bat species
- Brown long-eared bat
- Unidentified bat species
- European water vole
- Common bullfinch
- Common cuckoo
- Common gull
- Common whitethroat
- Fieldfare
- Greenfinch
- Grey wagtail
- Hobby
- House martin
- House sparrow
- Kestrel
- Lesser black-backed gull
- Lesser redpoll
- Lesser spotted woodpecker
- Linnet
- Meadow pipit
- Pink-footed goose
- Redwing
- Song thrush
- Sparrowhawk
- Swallow
- Swift
- Tawny owl
- Tree sparrow
- Willow tit
- Woodpigeon
- Wren
- Yellow wagtail
- Yellowhammer
- Wall butterfly
- White-letter hairstreak butterfly

Client:	Yorkshire Country Properties	Plan Reference:	FE78_01	Author:	MB
Project:	Abbey Road, Shepley	Project Reference:	FE78	Date:	8/4/2024
Title:	Figure 1 - Site Location & Desk Study Results Plan	Report Reference:	FE78/PEA01	Scale:	NTS@A3

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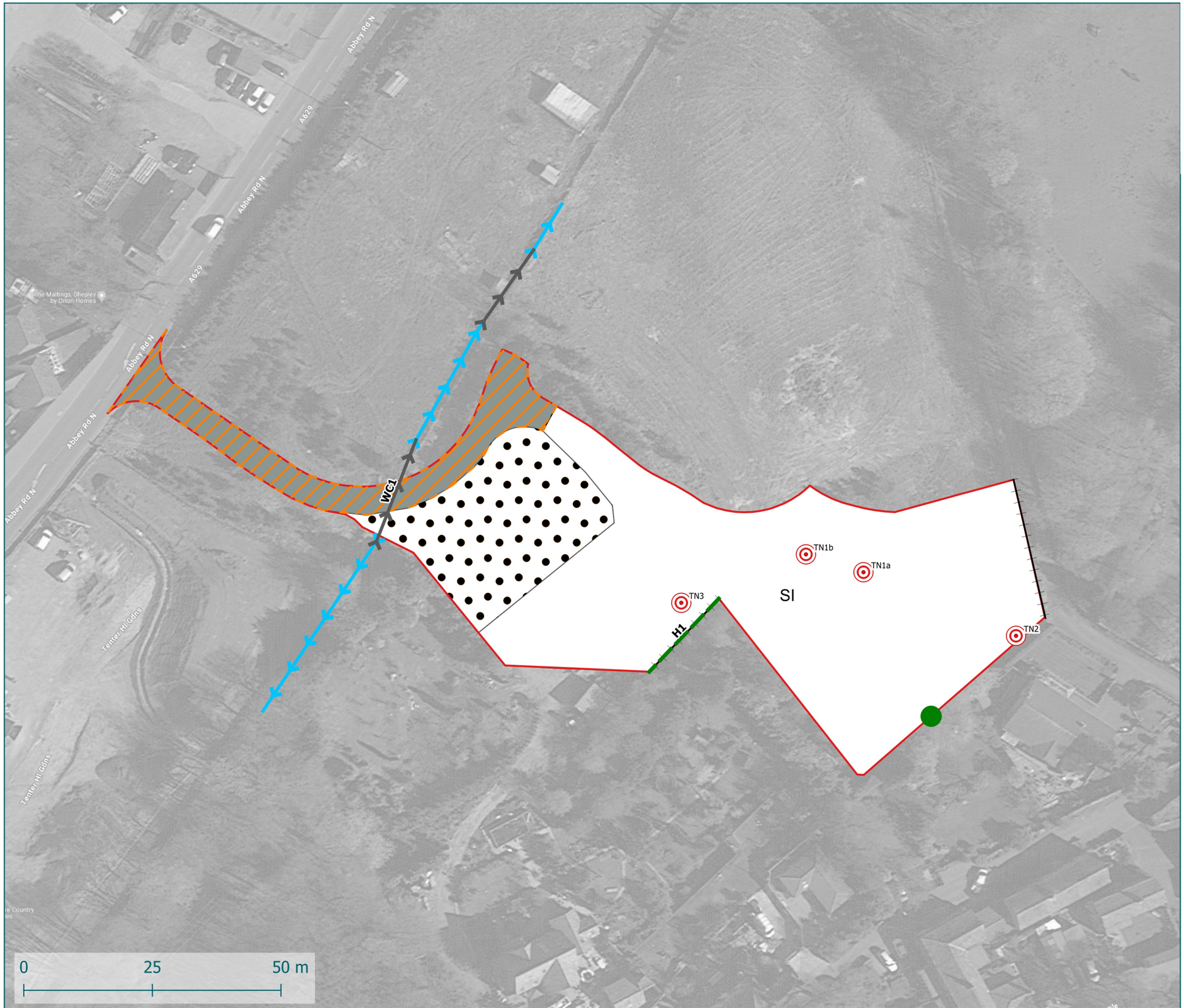

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Key

- Site Boundary
- Existing Access Road

Phase 1 Habitats

- Hardstanding
- SI — Poor semi-improved grassland
- Bare ground
- Defunct hedge - species-poor
- Running water
- Running water (culvert)
- Fence
- Broadleaved tree
- Target note

Client:	Yorkshire Country Properties	Plan Reference:	FE78_02	Author:	MB
Project:	Abbey Road, Shepley	Project Reference:	FE78	Date:	8/4/2024
Title:	Figure 2 - Phase 1 Habitat Plan	Report Reference:	FE78/PEA01	Scale:	1:750

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Key

- Site Boundary
- 250m buffer
- 500m buffer
- Waterbody (with ref.)
- Watercourse (with ref.)

Client:	Yorkshire Country Properties	Plan Reference:	FE78_03	Author:	MB
Project:	Abbey Road, Shepley	Project Reference:	FE78	Date:	8/4/2024
Title:	Figure 3 - Waterbody Location Plan	Report Reference:	FE78/PEA01	Scale:	NTS@A3

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