



FUTURESECOLOGY

Mr & Mrs Louie Cooper

Parkton Grove, Huddersfield

PRELIMINARY ECOLOGICAL APPRAISAL (PEA) REPORT

Report Reference Number: FE642/PEA01

February 2026

Futures Ecology Ltd

Carrwood Park, Swillington Common Farm, Selby Rd, Leeds LS15 4LG

Company Number: 12125083

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REV	Issue Status	Author or Reviewer	Name & Qualifications	Position	Date
-	Draft 1	Author	J. Lally MSc BSc	Assistant Ecologist	16.02.26
		Reviewer	K. Haymes MCIEEM, BSc (Hons)	Senior Ecologist	18.02.26

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1.0 EXECUTIVE SUMMARY

- 1.1 The Site was c. 0.22ha in extent and located c. 3.7km from Huddersfield Town Centre. The Site was comprised of broadleaved woodland, bramble scrub, a non-priority pond, a gravel driveway, a line of trees, ephemeral vegetation, and a number of individual trees. The Site is surrounded by woodland to the north and south, with Hanging Stone Road present along the southern boundary of the Site. To the east lies Parkton Grove House and associated gardens, and to the west lies an area of greenspace, with grassland, trees and scrub present.
- 1.2 The proposals include the creation of a new dwelling with associated gardens and landscaping.
- 1.3 Three internationally designated sites occur within 10km of the Site. South Pennine Moors Special Area of Conservation¹ (South Pennine Moors Phase 1 Special Protection Area²) is located 5.96km south-west of the Site boundary. The South Pennine Moors Phase 2 SPA³ is located 9.06km south-west of the Site boundary. These sites are publicly accessible. There are no anticipated construction or operational impact pathways to any of these sites.
- 1.4 One site of national importance with a statutory designation was located within 2km of the Site boundary. The Honley Station Cutting Special Site of Scientific Interest⁴ is 288m south-west of the Site boundary. This site is not publicly accessible. Given the limited size and nature of the development and the lack of direct footpath links to the SSSI, no construction or operational impacts are anticipated.
- 1.5 The Site is mapped as Deciduous Woodland Habitat of Principle Importance. Impacts to this woodland will be minimal, as the majority of the east of the Site is no longer deciduous woodland – from aerial imagery this woodland was cleared over fifteen years ago. The remaining deciduous woodland on-site in the west will be entirely retained.
- 1.6 Six parcels of ancient semi-natural woodland were present within 1km of the Site, the closest of which is situated 12.25m south of the Site boundary. Impacts could arise from the development during the construction and operational phase including direct damage and indirect impacts such as pollution (dust, noise, light) to the ancient semi-natural woodland habitat. To mitigate these impacts the woodland will need to be buffered from the proposals (minimum 15m⁵) and protected during construction.
- 1.7 The Site falls almost entirely within the Kirklees Habitat Network, presumably due to the Site's previous status as entirely deciduous woodland. The proposals will preserve the integrity of the habitat network through the retention of existing deciduous woodland, as well as sensitive, ecological-focused landscaping, including proposed meadow planting. The proposals also do not sever any links within the habitat network, further maintaining its integrity. Therefore, no significant impacts on the Kirklees Habitat Network are anticipated.

¹ <https://sac.jncc.gov.uk/site/UK0030280>

² <https://publications.naturalengland.org.uk/publication/6145889668169728>

³ <https://publications.naturalengland.org.uk/publication/4885083764817920>

⁴ <https://designatedsites.naturalengland.org.uk/PDFsForWeb/Citation/1003371.pdf>

⁵ <https://www.gov.uk/guidance/ancient-woodland-ancient-trees-and-veteran-trees-advice-for-making-planning-decisions>

- 1.8 The majority of habitats present on-site are either being retained (broadleaved woodland, line of trees, individual trees) or are of low ecological value given their lack of botanical diversity (ephemeral vegetation, bramble scrub). Pond P1 will be lost under the footprint of the development. The pond does not meet the criteria for Priority Habitat and is of limited botanical diversity; however, it provides potential suitability for amphibians and will be subject to further survey and appropriate mitigation, where required. In addition, T4 will be removed, and the line of trees in the south on Site will be partially removed. However, replacement tree planting is proposed to mitigate the loss of these habitats.
- 1.9 To avoid impacts to retained habitats via physical damage, dust or pollution event during construction phase, fencing and buffers to protect the retained trees and other habitats and pollution prevention measures (including lighting) should be implemented with a Construction Environmental Management Plan (CEMP).
- 1.10 The presence of aquatic habitat (P1) on Site means the possibility of Great Crested Newt *Triturus cristatus* being present cannot be excluded. Based on this, an eDNA survey of the pond should be carried out between 15th April and 30th June, as mandated by Natural England⁶. If the results of the eDNA survey are returned as positive, then a suite of aquatic surveys on the pond will be required, in order to ascertain a population size of GCN residing within the pond. This will consist of six aquatic surveys.
- 1.11 To comply with relevant legislation any removal of vegetation (including that suitable for ground nesting species) 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.
- 1.12 Precautionary working methods for Site clearance operations are recommended with regards to badgers *Meles meles* and reptiles.
- 1.13 A sensitive lighting design in accordance with BCT Guidance⁷ should be implemented, with particular avoidance of light spill upon retained and newly created habitats. There should also be no lighting to illuminate the ancient woodland, maintaining a dark corridor between the ancient woodland and the Site. The lighting scheme 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.
- 1.14 Biodiversity enhancements have been recommended and include the provision of bird and bat boxes throughout the development as well as the creation of log piles.

⁶ [An evidence review for great crested newt eDNA monitoring protocols - NECR476](#)

⁷ Guidance Note GN08/23 Bats and Artificial Lighting At Night, Bat Conservation Trust (BCT) and the Institute of Lighting Professionals

2.0 INTRODUCTION

- 2.1 The following report has been prepared by Futures Ecology Ltd. on behalf of Mr and Mrs Louie Cooper. It provides the results of an extended Phase 1 habitat survey and preliminary protected species survey at Parkton Grove, Huddersfield (grid reference: SE 14155 12869).
- 2.2 The Phase 1 habitat survey and preliminary protected species surveys were undertaken on 16th January 2026.
- 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 was c. 0.22ha in extent and located c. 3.7km from Huddersfield Town Centre.
- 2.5 The Site was comprised of broadleaved woodland, bramble scrub, a non-priority pond, a gravel driveway, a line of trees, ephemeral vegetation, and a number of individual trees.
- 2.6 The Site is surrounded by woodland to the north and south, with Hanging Stone Road present along the southern boundary of the Site. To the east lies Parkton Grove house and associated gardens, and to the west lies an area of greenspace, with grassland, trees and scrub present.

DEVELOPMENT PROPOSALS

- 2.7 The proposals include the creation of a new dwelling with associated gardens and landscaping.

3.0 METHODOLOGY

PERSONNEL

- 3.1 The initial extended Phase 1 Survey and protected species survey assessment was conducted by J. Lally MSc BSc. J. Lally has over 2 years' experience in ecological consultancy, including habitat surveys and site assessments for protected species. J. Lally

is able to conduct River Condition Assessments (RCA) following certification as a Qualified Surveyor in September 2024 by the Cartographer RCA Team and RGS.

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 Maps⁸; and the Multi Agency Geographic Information for the Countryside (MAGIC)⁹ 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 Joint Services (WYJS)
 - Natural England's Open Dataset¹⁰
 - Landis¹¹; and
 - Woodland Trust's Ancient Tree Inventory (ATI)¹² ;
- 3.5 Relevant data requested included records of protected or notable species and sites designated for nature conservation interest.
- 3.6 The search area for designated sites and protected species is determined by the likely Zone of Influence¹³ 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.

⁸ www.google.com/maps

⁹ www.magic.defra.gov.uk

¹⁰ [Great Crested Newt eDNA Habitat Suitability Index Pond Surveys for District Level Licensing 2017, 2018, 2019 - data.gov.uk](https://data.gov.uk/dataset/great-crested-newt-edna-habitat-suitability-index-pond-surveys-for-district-level-licensing-2017-2018-2019)

¹¹ Hallett, S.H., Sakrabani, R., Keay, C.A. and Hannam, J.A. (2017) Developments in Land Information Systems: Case studies in land resource management capabilities and options. Soil Use and Management. doi: 10.1111/sum.12380. <http://onlinelibrary.wiley.com/doi/10.1111/sum.12380/full>

¹² [Ancient Tree Inventory - Woodland Trust](https://www.woodlandtrust.co.uk/ancient-tree-inventory/)

¹³ 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.

- 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 16th January 2026, during weather conditions that were clear and dry. Survey methodology followed guidance from Joint Nature Conservation Committee (JNCC) 2016¹⁴ 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 DAFOR15 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 methodology¹⁶) for the purpose of the Biodiversity Impact Assessment (BIA).

FIELD SURVEY – FAUNA

Badger *Meles meles*

- 3.11 A badger survey was undertaken on the 16th January 2026, within the application Site and 30m beyond the boundary where possible and undertaken by a suitably experienced ecologist. The survey followed standard methodology as outlined by Natural England

¹⁴ JNCC (2016) Handbook for Phase1 Habitat Survey – a technique for environmental audit. ISBN 0 86139 636 7

¹⁵ https://bsbi.org/wp-content/uploads/dlm_uploads/Sampling_Guidance_-_Annex_1_v4_April_2011.pdf

¹⁶ [ukhab – UK Habitat Classification](#)

(2015)¹⁷ and Harris *et al* (1989)¹⁸, Creswell *et al.* (1990)¹⁹. Field signs searched for include: setts, earth mounds, bedding material, mammal paths, latrines, snuffle holes, prints, hairs, scratching posts etc.. The identification of some signs on their own does not necessarily provide conclusive evidence of the presence of badgers.

- 3.12 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.
- 3.13 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)

- 3.14 The DBW was undertaken on the 16th January 2026 by a suitably experienced ecologist.

Ground Level Tree Assessment (GLTA)

- 3.15 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)²⁰ and best practice survey methodology (Collins, 2013²¹ and Mitchell-Jones, A.J. and McLeish, A.P. (eds), 2004)²². The survey was undertaken on the 16th January 2026 by a suitably experienced ecologist.
- 3.16 The trees were inspected from the ground using close focussing binoculars, a high-powered torch, and an endoscope where appropriate. 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*

¹⁷Natural 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)

¹⁸ Harris, S., Creswell, P., & Jefferies, D. (1989). *Surveying Badgers*. The Mammal Society.

¹⁹ Creswell, P., Harris, S., & Jeffries, D.J. (1990) The history, distribution, status, and habitat requirements of the badger in Britain. Nature Conservancy Council.

²⁰ Bats: surveys and mitigation for development projects: <https://www.gov.uk/guidance/bats-surveys-and-mitigation-for-development-projects> (accessed 12/11/2019)

²¹ Collins, J. (ed.) (2023) *Bat Surveys for Professional Ecologist: Good practice Guidelines* (4th edition), The Bat Conservation Trust, London.

²² Mitchell-Jones, A.J. and McLeish, A.P. (eds) (2004) *Bat Workers' Manual* (3rd edn). JNCC, Peterborough.

*Standard 8596:2015*²³). Other factors such as orientation of the 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.

- 3.17 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 1 below outlines the suitability categories as per the Bat Survey Guidelines²⁴ which now supersedes The British Standard Document²³ which groups trees with moderate and high potential.

Table 1: Suitability of Trees for Bat Roosts - Based on Table 4.2 of Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th ed.), The Bat Conservation Trust, London

Classification / Suitability	Description	Likely Further Survey Work
NONE	Either no PRFs in the tree or highly unlikely to be any.	None.
FAR	Further assessment required to establish if PRFs are present in the tree.	Aerial assessment of further GLTA required by a licenced 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.

- 3.18 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 but a precautionary working method statement may be appropriate.
 - 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

- 3.19 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.

²³ British Standard (2015) BS 8596:2015 *Surveying for bats in trees and woodland – Guide*, October 2015.

²⁴ 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**

- 3.20 OS mapping and online aerial imagery were analysed for the presence of on and off-site water bodies within 500m of the application Site in accordance with Natural England guidance²⁵.
- 3.21 Where access was possible the waterbodies were evaluated using the HSI scoring system development by Oldham *et al* (2000)²⁶ as part of the field surveys (Appendix C).
- 3.22 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.
- 3.23 Pond suitability is then determined using the scale shown below in Table 2.

Table 2: HSI Scores as a Measure of Pond Suitability

HSI 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

- 3.24 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

- 3.25 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

²⁵ Natural England: *Standing Advice Sheet: Great Crested Newts* Paragraph 4: 4.1

²⁶ Oldham, R.S., Keeble, J., Swan, M.J.S. 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)²⁷, and Froglife Advice Sheet 10 – Reptile Survey (Froglife 1999)²⁸.

Other species

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

Survey Limitations

- 3.27 The habitat and protected species survey was conducted outside the optimal period for surveys (April – September). Given the nature of the habitats present, (other than the broadleaved woodland, which is entirely retained), this was not considered a constraint.

²⁷ Gent, A.H., & Gibson, S.D., eds 1998. *Herpetofauna Workers' Manual*. Peterborough, joint Nature Conservation Committee.

²⁸ Froglife 1999. Froglife Advice Sheet 10: Reptile Survey. Froglife, London

4.0 RESULTS

DESK STUDY

- 4.1 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 Maps²⁹; and the Multi Agency Geographic Information for the Countryside (MAGIC)³⁰ to assess the landscape context of the survey area and surrounding areas.
- 4.2 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; and
 - Ancient Woodland and Habitats of Principal Importance³¹;
 - Natural England's Open Dataset³²;
 - Approved European Protected Species Mitigation (EPSM) licences.
- 4.3 In addition, the Woodland Trust's Ancient Tree Inventory (ATI)³³ and Landis³⁴ are searched for within the Site.
- 4.4 To support the field survey and compile baseline information of relevance to the Site, ecological information was sought from third party organisations:
- West Yorkshire Joint Services (WYJS);
 - West Yorkshire Bat Group (WYBG);
 - Natural England's Open Dataset³⁵.
- 4.5 Relevant data requested included records of protected or notable species and sites designated for nature conservation interest.
- 4.6 The search area for designated sites and protected species is determined by the likely Zone of Influence³⁶ 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.

²⁹ www.google.com/maps

³⁰ www.magic.defra.gov.uk

³¹ <https://magic.defra.gov.uk/magicmap.aspx>

³² <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>

³³ <https://ati.woodlandtrust.org.uk/>

³⁴ Hallett, S.H., Sakrabani, R., Keay, C.A. and Hannam, J.A. (2017) Developments in Land Information Systems: Case studies in land resource management capabilities and options. Soil Use and Management. doi: 10.1111/sum.12380. <http://onlinelibrary.wiley.com/doi/10.1111/sum.12380/full>

³⁵ <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>

³⁶ 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.

- 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), and ancient woodland as well as notable, veteran and ancient trees 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 (Chiroptera), European otter *Lutra lutra* and water vole *Arvicola amphibius*, within 2km.
- EPSM licences relating to bats within 2km and for GCN within 1km.

5.0 **RESULTS**

DESK STUDY

- 5.1 A summary of relevant information provided by third party consultees is provided below and displayed on Figures 1a and 1b. The original data has not been included in this report.

Statutory Designated Sites

- 5.2 No statutory designated sites occur within the Site boundary.
- 5.3 Three internationally designated sites occur within 10km of the Site. South Pennine Moors SAC³⁷ & South Pennine Moors Phase 1 SPA³⁸ are located 5.96km south-west of the Site boundary. The South Pennine Moors Phase 2 SPA³⁹ is located 9.06km south-west of the Site boundary. These sites are publicly accessible.
- 5.4 One site of national importance with a statutory designation was located within 2km of the Site boundary. The Honley Station Cutting SSSI⁴⁰ is 288m south-west of the Site boundary. This site is not publicly accessible.
- 5.5 Consultation with MAGIC site check confirms that the application Site lies within the 5-10km Impact Risk Zone (IRZ) for Dark Peak SSSI⁴¹. 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:
- Infrastructure: Airports, helipads and other aviation proposals.
 - Minerals, Oil and Gas: Oil & gas exploration/extraction.
 - Air Pollution: Any industrial/agricultural development that could cause air pollution (including industrial processes, livestock & poultry units with a floorspace > 500m², slurry lagoons > 750m² & manure stores > 3500 tonnes).

³⁷ <https://sac.incc.gov.uk/site/UK0030280>

³⁸ <https://publications.naturalengland.org.uk/publication/6145889668169728>

³⁹ <https://publications.naturalengland.org.uk/publication/4885083764817920>

⁴⁰ <https://designatedsites.naturalengland.org.uk/PDFsForWeb/Citation/1003371.pdf>

⁴¹ <https://designatedsites.naturalengland.org.uk/PDFsForWeb/Citation/1003028.pdf>

- Combustion: General combustion processes >50MW energy input. Including: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/combustion.

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 No sites of local importance with non-statutory designation occur within the Site. Four sites of local importance with non-statutory designation were present within 1km of the Site boundary (Table 3). These sites are publicly accessible.

Ancient Woodland and Ancient / Notable Trees

5.8 Six parcels of ancient semi-natural woodland parcels within 1km of the Site. The closest of which is situated 12.25m south of the Site boundary.

5.9 Four replanted ancient woodland parcels within 1km of the Site. The closest of which is situated 33m south of the Site boundary.

5.10 There are six notable trees within 1km of the Site boundary:

- 558.6m north-east [SE1439613386]: Common ash *Fraxinus excelsior*
- 707.6m north-east [SE1442713536]: Common ash
- 755.24m north-east [SE1444913578]: Common hawthorn *Crataegus monogyna*
- 761.95m north-east [SE1446213580]: Common ash
- 853.84m north-east [SE1452213661]: Field maple *Acer campestre*
- 861.32m north-east [SE1449013668]: Field maple

5.11 There is one veteran tree within 1km of the Site boundary:

- 675.25m north-east [SE1433513539]: Common hawthorn

Habitats of Principal Importance (HPI)

5.12 One HPI occurs within the Site, a parcel of deciduous woodland. Fifty HPIs occur within 1km of the Site boundary. One traditional orchard, eleven 'no main habitat but additional habitats present' and thirty-eight parcels of deciduous woodland are present.

Table 3: Summary of Designated Sites and Notable Habitats

Site Name	Designation	Proximity to Site (approximate)	Description
South Pennine Moors	SAC	5.96km south-west	<p>General Character⁴²: Inland water bodies (Standing water, Running water) (1%); Bogs, Marshes, Water fringed vegetation, Fens (42.7%); Heath, Scrub, Maquis and Garrigue, Phygrana (45.5%); Dry grassland, Steppes (4.8%); Humid grassland, Mesophile grassland (4.8%); Broad-leaved deciduous woodland (1%); Mixed woodland (0.1%); Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas) (0.1%)</p> <p>Annex I habitats contributing to designation: European dry heaths; active blanket bogs; old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i></p> <p>Annex I habitats present but not contributing to designation: Northern Atlantic wet heaths with <i>Erica tetralix</i>; transition mires and quaking bogs</p>
South Pennine Moors Phase 1 (Peak District Moors)	SPA	5.96km south-west	<p>The site is an extensive tract of moorland and moorland-fringe habitat. It includes most of the unenclosed moorland areas of the north, eastern and south-western Peak District, where it also extends into enclosed farmland of wet rushy pasture, hay meadows and small wetlands in the valley bottoms.</p> <p>Annex I species include merlin <i>Falco columbarius</i> (30-36 breeding pairs), golden plover <i>Pluvialis apricaria</i> (435-445 breeding pairs), and short-eared owl <i>Asio flammeus</i> (22-25 breeding pairs).</p>
The South Pennine Moors Phase 2	SPA	9.06km south-west	<p>An upland of international importance, providing habitat for an important assemblage of breeding moorland and moorland fringe birds.</p> <p>Supports nationally important breeding populations of Annex I merlin <i>Falco columbarius</i> and golden plover <i>Pluvialis apricaria</i></p>
Honley Station Cutting	SSSI	288m south-west	<p>The rock outcrops are within the eastern side of a railway cutting at Honley, on the southern outskirts of Huddersfield⁴³. This is a classic exposure for the sequence between the Soft Bed Coal and the Honley Marine Band in the Pennines area and yields abundant non-marine bivalves of the <i>Carbonicola falax</i> – <i>C. protea</i> Biozone. It has been the subject of intensive study and may be regarded as the type section for this zonal interval. Evidence of the Springwood Marine Bank is</p>

⁴² <https://sac.jncc.gov.uk/site/UK0030280>⁴³ <https://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1003371>

Site Name	Designation	Proximity to Site (approximate)	Description
			represented by a band containing <i>Lingula</i> shells, but the Holbrook Marine Band has not been located. It is a site of great importance for understanding this part of the lower Westphalian A, and is significant to geologists working in most of the coalfields in northern and central Europe, and in eastern North America.
Hey Wood	LWS	803m east	Qualifying criteria: Wd1 - Ancient semi-natural woodland (part) Also likely meet Wd3, 4 and 5 when access permission is granted
Park Wood	LWS	9.4m south	Qualifying criteria: Wd3 - species rich acid woodland
Spring Wood	LWS	624.55m south-west	Qualifying criteria: Wd1 Ancient woodland Wd3 Species rich acid woodland Wd6 Woodland network
Upper Park Wood	LWS	314.6m north-east	Qualifying criteria: Van12 - Local Nature Reserve
Ancient Semi-Natural Woodland	Ancient Woodland	33m south	Six parcels of this habitat within 1km of the Site boundary.
Ancient Replanted Woodland	Ancient Woodland	12.25m south	Four parcels of this habitat within 1km of the Site boundary.
Deciduous Woodland	HPI	On-site	Fifty parcels of this habitat within 1km of the Site boundary.
Traditional Orchard	HPI	912.22m south-east	One parcel of this habitat within 1km of the Site boundary.
'No main habitat but additional habitats present'	HPI	299.45m north-west	Thirty-eight parcels of this habitat within 1km of the Site boundary.

Local Biodiversity Action Plan (LBAP)

- 5.13 The Site falls within an area relevant to the Kirklees Biodiversity Action Plan⁴⁴.
- 5.14 The Kirklees Biodiversity Action Plan includes fourteen Habitat Action Plans for:
- Blanket bog
 - Upland heath
 - Upland oak woodland
 - Upland mixed ash woodland

⁴⁴ <https://bradleynewsdotorg.files.wordpress.com/2012/06/biodiversityactionplan.pdf>

- Ancient woodland
- Lowland acid grassland
- Species-rich hedgerows
- Species-rich grassland (Hay meadows)
- Lowland heath
- Cereal field margins
- Scrubland
- Semi natural grassland
- Riverine habitats

5.15 There are also seven Species Action Plans for:

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

Kirklees Wildlife Habitat Network (KWHN)

5.16 The KWHN forms part of the West Yorkshire Habitat Network (WYHN⁴⁵) which has been produced by combining District Wildlife Habitat Networks drawn up between 2011 and 2016 by Wakefield District Council and West Yorkshire Ecology Service (acting on behalf of Bradford, Leeds, Kirklees, and Calderdale District Councils). The Site is located within a portion of the habitat network (Figure 1).

Soil Type

5.17 The Site is located entirely within a parcel mapped as Soilscape 6; this is described as freely draining slightly acid loamy soils. This information was provided by Landis⁴⁶ and broader details of the soil structure can be found below:

- Drainage: Freely draining
- Fertility: Low
- Landcover: Arable and grassland
- Habitats: Neutral and acid pastures and deciduous woodlands; acid communities such as bracken and gorse in the uplands

⁴⁵ https://kirklees-consult.objective.co.uk/portal/pp/local_plan_1/kirklees_local_plan/klp-sp?pointId=s1551718560055

⁴⁶ <https://www.landis.org.uk/soilscaapes/>

- Carbon: Low

Protected / Notable Species Records

5.18 Records of protected and notable species provided by desk study consultees are provided in Table 4 below. The species records have been filtered to comprise relevant protected and / or notable species within 1km (and bats, water vole and otter *Lutra lutra* within 2km) of the survey area. The locations are shown on Figure 1.

Table 4: Summary of Relevant Protected and Notable Species Records

Species	Scientific Name	Conservation Status	Total No. of Records	Location / Minimum distance of records from Site boundary (m)	Grid ref. accuracy of nearest record
Bat species					
Brandt's bat	<i>Myotis brandtii</i>	WCA (Sch5), NERC (SPI), Regs (Sch2)	Field record: 1 Roost: 0 Total: 1	Field record: 916.13m W Roost: N/A	Field record: 100m Roost: N/A
Brown long-eared bat	<i>Plecotus auritus</i>	WCA (Sch5), NERC (SPI), Regs (Sch2)	Field records: 6 Roosts: 0 Total: 6	Field records: 916.13m W Roosts: N/A	Field record: 100m Roost: N/A
Common pipistrelle	<i>Pipistrellus pipistrellus</i>	WCA (Sch5), Regs (Sch2)	Field records: 29 Roosts: 11 Total: 40	Field records: 554.84m N Roosts: 711.94m W	Field record: 100m Roost: 1m
Daubenton's bat	<i>Myotis daubentonii</i>	WCA (Sch5), Regs (Sch2)	Field records: 1 Roosts: 2 Total: 3	Field records: 894.04m NW Roosts: 1289.09m NW	Field record: 10m Roost: 1m
Leisler's bat	<i>Nyctalus leisleri</i>	WCA (Sch5), Regs (Sch2)	Field records: 3 Roosts: N/A Total: 3	Field records: 932.26m SE Roosts: N/A	Field record: 1m Roost: N/A
Natterer's bat	<i>Myotis nattereri</i>	WCA (Sch5), NERC (SPI), Regs (Sch2)	Field records: 1 Roosts: N/A Total: 1	Field records: 1937.12m N Roosts: N/A	Field record: 10m Roost: N/A
Noctule Bat	<i>Nyctalus noctula</i>	WCA (Sch5), NERC (SPI), Regs (Sch2)	Field records: 10 Roosts: 0 Total: 10	Field records: 782.89m W Roosts: N/A	Field record: 1m Roost: N/A
Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>	WCA (Sch5), NERC (SPI), Regs (Sch2)	Field records: 5 Roosts: N/A Total: 5	Field records: 784.49m NW Roosts: N/A	Field record: 100m Roost: N/A
Whiskered bat	<i>Myotis mystacinus</i>	WCA (Sch5), Regs (Sch2)	Field records: 1 Roosts: 1	Field records: 916.13m W	Field record: 100m

Species	Scientific Name	Conservation Status	Total No. of Records	Location / Minimum distance of records from Site boundary (m)	Grid ref. accuracy of nearest record
			Total: 2	Roosts: 1514.94 m SE	Roost: 10m
Unknown <i>Pipistrellus</i> species	<i>Pipistrellus</i>	WCA (Sch5), NERC (SPI), Regs (Sch2)	Field records: 2 Roosts: 8 Total: 10	Field records: 1563.38m N Roosts: 458.69m N	Field record: 10m Roost: 1m
Unknown <i>Myotis</i> species	<i>Myotis</i>	WCA (Sch5), NERC (SPI), Regs (Sch2)	Field records: 4 Roosts: 2 Total: 6	Field records: 916.13m W Roosts: 932.26m SE	Field record: 100m Roost: 1m
Unknown bat	Chiroptera	WCA (Sch5), NERC (SPI), Regs (Sch2)	Field records: 8 Roosts: 7 Total: 15	Field records: 957.29m S Roosts: 704.49m SE	Field record: 10m Roost: 1m
Other mammal species					
European water vole	<i>Arvicola amphibius</i>	WCA (Sch5), NERC (SPI), KBAP	4	1750.56m NW	100m
Bird species					
Bullfinch	<i>Pyrrhula pyrrhula</i>	BoCC (Amber), NERC (SPI)	2	429.98m NW	100m
Dunnock	<i>Prunella modularis</i>	BoCC (Amber), NERC (SPI)	4	429.98m NW	100m
Greenfinch	<i>Chloris chloris</i>	BoCC (Red)	3	429.98m NW	100m
Grey wagtail	<i>Motacilla cinerea</i>	BoCC (Amber)	1	429.98m NW	100m
House martin	<i>Delichon urbicum</i>	BoCC (Red)	1	429.98m NW	100m
House sparrow	<i>Passer domesticus</i>	BoCC (Red), NERC (SPI)	4	429.98m NW	100m
Lesser black-backed gull	<i>Larus fuscus</i>	BoCC (Amber)	1	432.69m E	100m
Linnet	<i>Linaria cannabina</i>	BoCC (Red), NERC (SPI)	17	432.69m E	100m
Mallard	<i>Anas platyrhynchos</i>	BoCC (Amber)	1	429.98m NW	100m
Mistle thrush	<i>Turdus viscivorus</i>	BoCC (Red)	2	429.98m NW	100m
Moorhen	<i>Gallinula chloropus</i>	BoCC (Amber)	1	429.98m NW	100m

Species	Scientific Name	Conservation Status	Total No. of Records	Location / Minimum distance of records from Site boundary (m)	Grid ref. accuracy of nearest record
Redstart	<i>Phoenicurus phoenicurus</i>	BoCC (Amber)	1	429.98m NW	100m
Rook	<i>Corvus frugilegus</i>	BoCC (Amber)	1	432.69m E	100m
Song thrush	<i>Turdus philomelos</i>	BoCC (Amber), NERC (SPI)	4	429.98m NW	100m
Spotted flycatcher	<i>Muscicapa striata</i>	BoCC (Red), NERC (SPI)	1	429.98m NW	100m
Starling	<i>Sturnus vulgaris</i>	BoCC (Red), NERC (SPI)	3	429.98m NW	100m
Stock dove	<i>Columba oenas</i>	BoCC (Amber)	1	429.98m NW	100m
Swift	<i>Apus apus</i>	BoCC (Red)	1	429.98m NW	100m
Tawny owl	<i>Strix aluco</i>	BoCC (Amber)	1	429.98m NW	100m
Tree sparrow	<i>Passer montanus</i>	BoCC (Red), NERC (SPI)	1	683.78m SW	1000m
Whitethroat	<i>Curruca communis</i>	BoCC (Amber)	2	432.69m E	100m
Willow warbler	<i>Phylloscopus trochilus</i>	BoCC (Amber)	3	429.98m NW	100m
Woodpigeon	<i>Columba palumbus</i>	BoCC (Amber)	5	429.98m NW	100m
Wren	<i>Troglodytes troglodytes</i>	BoCC (Amber)	4	429.98m NW	100m
Reptile Species					
Slow worm	<i>Anguis fragilis</i>	WCA (Sch5), NERC (SPI)	1	683.78m SW	1000m
Amphibian species					
Common frog	<i>Rana temporaria</i>	WCA (Sch5)	1	440.73m E	10m
Common toad	<i>Bufo bufo</i>	WCA (Sch5), NERC (SPI)	1	440.73m E	10m
Fish Species					
Brown trout	<i>Salmo trutta</i>	NERC (SPI)	5	112.09m S	100m
Insect Species					
Cinnabar	<i>Tyria jacobaeae</i>	NERC (SPI)	1	432.69m E	100m

Species	Scientific Name	Conservation Status	Total No. of Records	Location / Minimum distance of records from Site boundary (m)	Grid ref. accuracy of nearest record
Small Heath	<i>Coenonympha pamphilus</i>	NERC (SPI)	1	707.26m NE	1000m
White-letter Hairstreak	<i>Satyrrium w-album</i>	NERC (SPI)	35	707.26 NE	1000m
Plant Species					
Bluebell	<i>Hyacinthoides non-scripta</i>	WCA (Sch8)	10	287.94m E	10m
Giant Hogweed	<i>Heracleum mantegazzianum</i>	WCA (Sch9)	2	67.68m S	1m
Himalayan Balsam	<i>Impatiens glandulifera</i>	WCA (Sch9)	7	112.09m S	100m
Japanese Knotweed	<i>Fallopia japonica</i>	WCA (Sch9)	161	49.46m S	1m
Rhododendron	<i>Rhododendron ponticum</i>	WCA (Sch9)	1	698.40m SW	100m

Status Key: Regs - The Conservation of Habitats and Species Regulations 2017 (*as amended*). WCA - The Wildlife and Countryside Act 1981 (*as amended*). Sch2 – 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. KBAP – Kirklees Biodiversity Action Plan.

- 5.19 There are no records of badger *Meles meles* within 200m of the Site, however the nearest known sett is located within 300m of the Site boundary. The Site does fall within an area of increased probability of badger activity.
- 5.20 A search of the MAGIC online resource revealed there were no European Protected Species Licences (EPSL) relating to bats within 2km of the Site boundary.
- 5.21 There are no EPSL's relating to GCN or records of GCN surveys from Natural England's Open Dataset⁴⁷ within 1km of the Site boundary.
- 5.22 The Site does not fall within an area of District Level Licensing (DLL).
- 5.23 A pond, river, brook, unnamed watercourse and unnamed waterbody were identified within 500m of the Site boundary:
- Pond P1 – On-site
 - River Holme – 47.8m south
 - Mag Brook – 316.37m south

⁴⁷ <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>

- WB1 – 284.12m south
- WC1 – 120.74m east

Table 5: Waterbodies Identified within 500m of the Application Site (refer to Figure 3)

Pond Ref.	Locality	Straight Line Distance / Direction. Distance via Optimal Connective Habitat in (m)	OS Grid Reference	Connectivity to Application Site
On-site pond P1	Located towards the center of the application Site.	On-site.	SE 14123 12890	On-site. Further consideration required.
River Holme	River flowing from south of the Site, parallel to it at the closest point and north-west downstream (semi-adjacent to the A616 road)	Straight line distance: 47.8m S Connective distance: N/A, A616 too large a road (barrier)	SE 14146 12811	The A616 presents a significant barrier to dispersal, acting as a barrier between the river and the Site. The river is also flowing, making it unsuitable for breeding amphibians. No further consideration.
Mag Brook	Brook that flows into the River holme, south of the Site	Straight line distance: 316.37m S Connective distance: N/A, A616 too large a road (barrier)	SE 13985 12563	The A616 presents a significant barrier to dispersal, acting as a barrier between the brook and the Site. The brook is also flowing, making it unsuitable for breeding amphibians. No further consideration.
WB1	Oblong waterbody located adjacent to where the Mag brook joins the River Holme (to the south of the Site)	Straight line distance: 284.12m S Connective distance: N/A, A616 too large a road (barrier)	SE 13935 12582	The A616 presents a significant barrier to dispersal, acting as a barrier between the waterbody and the Site. The waterbody is also over 250m away from the Site boundary, which is longer than the routine migratory distance for Great Crested Newt ⁴⁸ . No further consideration.
WC1	Watercourse flowing through deciduous woodland and treelines, close by, to the east of Site	Straight line distance: 120.74m E Connective distance: >122m	SE 14248 12804	Connective distance within routine migratory distance for GCN, however, The watercourse is flowing, making it unsuitable for breeding amphibians. No further consideration.

⁴⁸ Franklin, P.S (1993) The migratory ecology and terrestrial habitat preferences of the great crested newt *Triturus cristatus* at Little Wittenham Nature Reserve. M.Phil Thesis. De Montfort University. Dept of Applied Biology and Biotechnology.

HABITATS

- 5.24 The habitats recorded within the Site boundary during the habitat assessment comprised:
- Broadleaved woodland
 - Bramble scrub
 - Non-priority pond
 - Artificial unvegetated, unsealed surface (gravel driveway)
 - Line of trees
 - Ephemeral vegetation
 - Individual trees
- 5.25 The location of the habitats recorded are presented on Figure 2 and described below. The botanical species recorded in association with each habitat are listed in Appendix A.

Broadleaved Woodland (w1g)

- 5.26 A large area of the Site, primarily in the west, was comprised of broadleaved woodland. Species comprised frequent willow *Salix* sp., apple *Malus x domestica* and hawthorn *Crataegus monogyna*, with occasional ash *Fraxinus excelsior*, sycamore *Acer psuedoplatanus* and holly *Ilex aquifolium*.
- 5.27 Ground flora comprised frequent ivy *Hedera helix* and bramble *Rubus fruticosus* agg., with occasional common ragwort *Jacobaea vulgaris*, creeping buttercup *Ranunculus repens*, Yorkshire fog *Holcus lanatus*, wood meadow-grass *Poa nemoralis* and ground ivy *Glechoma hederacea*. For species recorded as rare, and a full species list, please see Appendix A. Common Rhododendron *Rhododendron ponticum* was also found to be present in the woodland, as were two trees (T5 & T6) with potential roosting features (PRFs) (Appendix B).



Photograph 1: Broadleaved woodland within the Site boundary (16.01.26).



Photograph 2: Broadleaved woodland within the Site boundary (16.01.26).

Bramble scrub (h3d)

- 5.28 A small strip of bramble scrub was present adjacent to the northern boundary of the Site.



Photograph 3: Bramble scrub within the Site boundary (16.01.26).

Non-priority pond (41)

- 5.29 A small pond was present towards the centre of the Site. Marginal vegetation consisted of occasional soft rush *Juncus effusus* and great reedmace *Typha latifolia*, with common reed *Phragmites australis* frequent at the margins and present across approximately 70% of the water's surface. If GCN are found to be present, the pond may attain priority status.



Photograph 4: Non-priority pond within the Site boundary (16.01.26).



Photograph 5: Non-priority pond within the Site boundary (16.01.26).

Artificial unvegetated, unsealed surface (u1c)

- 5.30 An old, gravel driveway was present in the south of the Site, flanked by a drystone wall.



Photograph 6: Artificial unvegetated, unsealed surface within the Site boundary (16.01.26).

Line of trees (33)

- 5.31 A line of trees was present on along the southern boundary of the Site, comprising species such as sycamore, horse chestnut *Aesculus hippocastanum*, ash and holly. The trees were of varying levels of maturity.



Photograph 7: Line of trees within the Site boundary (16.01.26).

Ephemeral vegetation (81)

- 5.32 The majority of the east of the Site comprised ephemeral vegetation. This area had clearly been deciduous woodland but has since been felled and is now regularly disturbed. From a review of historic aerial imagery this felling appeared to occur between 2003 and 2009. Species comprised frequent willowherb species *Epilobium* sp. and bramble, with creeping buttercup, common ragwort, soft rush, spear thistle, Yorkshire fog, ivy, and common bent *Agrostis capillaris* occurring occasionally. For species occurring rarely, and a full species list, please see Appendix A. Common Rhododendron *Rhododendron ponticum* was also found to be present in the area.



Photograph 8: Ephemeral vegetation within the Site boundary (16.01.26).



Photograph 9: Rubble pile within ephemeral vegetation, within the Site boundary (16.01.26).

Individual trees (203)

- 5.33 Four mature and semi-mature, individual trees (T1-T4) were also present in the east of the Site, consisting of an ash, sycamore, horse chestnut, and yew *Taxus baccata*.



Photograph 10: Sycamore T1 within the Site boundary (16.01.26).



Photograph 11: Yew T3 within the Site boundary (16.01.26).

BIA BASELINE

- 5.34 The Site is exempt from BNG on account of being a self-build development, consisting of less than 9 dwellings, on a Site with an area smaller than 0.5 hectares, and will consist exclusively of dwellings that are self-build or custom housebuilding as defined in section 1(A1) of the Self-build and Custom Housebuilding Act 2015⁴⁹.

FAUNA**Badger**

- 5.35 There are no records of badger within 200m of the Site boundary with the nearest known sett located within 300m of the Site.
- 5.36 Some habitats on-site (broadleaved woodland, treeline, bramble scrub) were considered suitable for badger sett making and foraging, although no signs of badger were identified on-site or within 30m of the Site (where access was possible).

Bats

- 5.37 From the desk study twelve bat species/species groups were recorded within 2km of the Site boundary, the closest of which was a field record of an unidentified *pipistrellus* species roost 458m north of the Site.

⁴⁹ [Biodiversity net gain: exempt developments - GOV.UK](https://www.gov.uk/government/news/biodiversity-net-gain-exempt-developments)

Roosts – Trees

- 5.38 Three trees (T5, T6, T7) onsite or directly adjacent to the Site were identified as needing further assessment to establish if PRFs are present in the tree (FAR).

Foraging / Commuting Habitat

- 5.39 The habitats on-site and immediately surrounding the Site (grassland, woodland, trees and line of trees) are thought to represent good suitability for foraging and commuting bats.

Great Crested Newts (GCN)

- 5.40 From the desk study no records of GCN were identified within 1km of the Site. There are no EPSL's relating to GCN or records of GCN surveys from Natural England's Open Dataset⁵⁰ within 1km of the Site boundary. The Site does not fall within an area of District Level Licensing (DLL). Great-crested newts are also a priority species, with an associated species action plan, listed in the Kirklees BAP.

Terrestrial Habitat

- 5.41 Some habitats on-site, such as woodland and bramble scrub, as well as a rubble pile, were considered to be optimal for providing commuting and shelter opportunities for GCN.

Aquatic Habitat

- 5.42 One pond P1 was located on Site, the River Holme (48m south), Mag Brook (316m S), an unnamed watercourse WC1 and one waterbody WB1 (284m S) were identified within 500m of the Site boundary.

Habitat Suitability Index (HSI) assessment

- 5.43 A HSI assessment for the on-site pond P1 was carried out on 16th January.
- 5.44 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.
- 5.45 The HSI assessment for P1 scored 0.56, which is constituted as 'below average'. The predicted presence of GCN in P1 based on this assessment is 0.2.

Reptiles

- 5.46 One reptile record was identified within 1km of the Site boundary – a slow worm *Anguis fragilis* 683m south-west.

⁵⁰<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>

- 5.47 The on-site habitats comprise broadleaved woodland, ephemeral vegetation, a treeline, scattered individual trees and areas of bramble scrub. While this habitat mix provides some structural diversity and limited shelter and foraging opportunities, it generally lacks the well-developed, sun-exposed ecotones and varied ground cover typically required to support reptile populations. As such, the Site is considered to offer sub-optimal suitability for reptile species.

Birds

- 5.48 From the desk study multiple bird records were returned within 1km of the Site. Birds red-listed as Birds of Conservation Concern within 1km of the Site include greenfinch *Chloris chloris*, house martin *Delichon urbicum*, house sparrow *Passer domesticus*, linnet *Linaria cannabina*, mistle thrush *Turdus viscivorus*, spotted flycatcher *Muscicapa striata*, starling *Sturnus vulgaris*, swift *Apus apus*, and tree sparrow *Passer montanus*.
- 5.49 The habitats on-site (line of trees, individual trees, broadleaved woodland) provide opportunities for nesting and foraging birds, although are unlikely to provide a significant resource for the local bird assemblage.

Water vole

- 5.50 From the desk study, one of water vole *Arvicola amphibius* was present within 2km of the Site, 1750m north-west.
- 5.51 There were no watercourses on Site, and the nearest watercourse was 48m south of the Site.
- 5.52 The on-site pond P1 was considered to be unsuitable for water vole, due to a high level of disturbance on-site and a lack of connectivity to any offsite watercourses.

Other species

- 5.53 From the desk study, one record of common frog *Rana temporaria* and one record of common toad *Bufo bufo* were present within 1km of the Site – both were 440m east of the Site. Pond P1 provides suitable on-site habitat for these species.
- 5.54 Multiple species listed as invasive on Schedule 9 of the Wildlife and Countryside Act⁵¹ were present within 1km of the Site (Figure 4). These included giant hogweed *Heracleum mantegazzianum* (112m south), Japanese knotweed *Fallopia japonica* (49m south), Himalayan balsam *Impatiens glandulifera* and rhododendron *Rhododendron ponticum* (690m south-west). Rhododendron was also found to be present on-site.

6.0 DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

STATUTORY DESIGNATED SITES

- 6.1 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

⁵¹ [Wildlife and Countryside Act 1981](#)

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.

- 6.2 There are no statutory designated sites within the Site boundary.
- 6.3 Three internationally designated sites occur within 10km of the Site. South Pennine Moors SAC⁵² & South Pennine Moors Phase 1 SPA⁵³ are located 5.96km south-west of the Site boundary. The South Pennine Moors Phase 2 SPA⁵⁴ is located 9.06km south-west of the Site boundary. These sites are publicly accessible.
- 6.4 There are no anticipated construction or operational impact pathways due to:
- The development does not occur within the SAC, thus there will be no loss of habitats within the SAC site.
 - The Site does not contain any habitats the SAC is designated for, thus there will be no loss of supporting habitats.
 - The Site does not support any habitats for which the designated SPA species will utilise.
 - Given that the proposed development is several kilometres away and small in size, impacts arising from increased road traffic are considered to be imperceptible from road traffic air pollution.
 - The SAC/SPA has some public access; however, impacts related to increased visitors are unlikely due to the small size of the development (one unit), and the presence of other recreational activities in the local area.
- 6.5 One site of national importance with a statutory designation was located within 2km of the Site boundary. The Honley Station Cutting SSSI⁵⁵ is 288m south-west of the Site boundary. This site is not publicly accessible. Given the limited size and nature of the development and the lack of direct footpath links to the SSSI, no construction or operational impacts are anticipated.
- 6.6 Consultation with MAGIC site check confirms that the application Site lies within the 5-10km Impact Risk Zone (IRZ) for Dark Peak SSSI⁵⁶. 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:
- Infrastructure: Airports, helipads and other aviation proposals.
 - Minerals, Oil and Gas: Oil & gas exploration/extraction.
 - Air Pollution: Any industrial/agricultural development that could cause air pollution (including industrial processes, livestock & poultry units with a floorspace > 500m², slurry lagoons > 750m² & manure stores > 3500 tonnes).
 - Combustion: General combustion processes >50MW energy input. Including: energy from waste incineration, other incineration, landfill gas generation plant,

⁵² <https://sac.incc.gov.uk/site/UK0030280>

⁵³ <https://publications.naturalengland.org.uk/publication/6145889668169728>

⁵⁴ <https://publications.naturalengland.org.uk/publication/4885083764817920>

⁵⁵ <https://designatedsites.naturalengland.org.uk/PDFsForWeb/Citation/1003371.pdf>

⁵⁶ <https://designatedsites.naturalengland.org.uk/PDFsForWeb/Citation/1003028.pdf>

pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/combustion.

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

NON-STATUTORY DESIGNATED SITES

- 6.8 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.
- 6.9 No sites of local importance with a non-statutory designation occur within the Site. Four sites of local importance with a non-statutory designation were present within 1km of the Site boundary (Table 3). These Sites are publicly accessible. The closest site is Park Wood Local Wildlife Site (LWS), located 9.4m to the south of the Site.
- 6.10 For the majority of these sites, the distance and lack of direct footpaths linked to the sites mean no construction or operational phase impacts are anticipated. Park Wood LWS is separated from the Site by Hanging Stone Road, which acts as a barrier between the two sites. However, To avoid impacts via physical damage, dust or pollution event during construction phase, fencing and buffers to protect the site and pollution prevention measures (including lighting) during construction should be implemented with a Construction Environmental Management Plan (CEMP).

Habitats of Principle Importance (HPI) and Ancient Woodland

- 6.11 One HPI occurs within the Site, a parcel of deciduous woodland. Fifty HPI's occur within 1km of the Site, made up of deciduous woodland, traditional orchards and no main habitat but additional habitat present. Almost the entirety of the Site is encompassed by a parcel of deciduous woodland HPI. Impacts to this parcel, however, will be minimal, as the majority of the east of the Site is no longer deciduous woodland – from aerial imagery this woodland was cleared over fifteen years ago. The remaining deciduous woodland on-site in the west will be entirely retained. Best construction practices are discussed in the habitat section below and also apply to the retained woodland on-site. Due to the small scale of the development, no impacts are anticipated to any of the HPI parcels within 1km of the Site.
- 6.12 Six parcels of ancient semi-natural woodland were present within 1km of the Site, the closest of which is situated 12.25m south of the Site boundary. Impacts could arise from the development during the construction and operational phase including direct damage and indirect impacts such as pollution (dust, noise, light) to the ancient semi-natural woodland habitat. To mitigate these impacts the woodland will need to be buffered from the proposals (minimum 15m⁵⁷) and protected during construction. Measures will need to be outlined within a Construction and Environmental Management Plan (CEMP). Post development there could also be impacts from lighting - to mitigate these impacts a post development lighting strategy will be required, with no lighting to illuminate the ancient

⁵⁷ <https://www.gov.uk/guidance/ancient-woodland-ancient-trees-and-veteran-trees-advice-for-making-planning-decisions>

woodland, maintaining a dark corridor between the ancient woodland and the Site. The lighting scheme should be designed in accordance with guidelines from BCT (2024)⁵⁸. 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.

Ancient / Notable Trees

- 6.13 There are six notable trees within 1km of the Site boundary, the closest of which is 558.6m from the Site boundary. Due to the distance from the Site to these trees, and the small scale of the development, no impacts are anticipated on any notable trees.

Kirklees Habitat Network

- 6.14 The Site falls almost entirely within the Kirklees Habitat Network, presumably due to the Site's previous status as entirely deciduous woodland. The proposals will preserve the integrity of the habitat network through the retention of existing deciduous woodland, as well as sensitive, ecological-focused landscaping, including proposed meadow planting. The proposals also do not sever any links within the habitat network, further maintaining its integrity. Therefore, no significant impacts on the Kirklees Habitat Network are anticipated.

HABITATS

- 6.15 Habitats receive consideration through the planning system by:
- their inclusion in specific National planning policy: such as consideration in the National Planning Policy Framework (2024)⁵⁹ 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 2020⁶⁰,
 - their inclusion in specific local policy.
- 6.16 The majority of habitats present on-site are either being retained (broadleaved woodland, individual trees) or are of low ecological value given their lack of botanical diversity (ephemeral vegetation, bramble scrub). Pond P1 will be lost under the footprint of the development. The pond does not meet the criteria for Priority Habitat and is of limited botanical diversity; however, it provides potential suitability for amphibians and will be subject to further survey and appropriate mitigation where required. In addition, T4 will be removed, and the line of trees in the south on Site will be partially removed. However, replacement tree planting is proposed to mitigate the loss of these habitats.
- 6.17 Other proposed habitat enhancements include the creation of species-rich meadow and grassland.

⁵⁸ <https://www.bats.org.uk/resources/guidance-for-professionals/bat-surveys-for-professional-ecologists-good-practice-guidelines-4th-edition>

⁵⁹ <https://www.gov.uk/government/publications/national-planning-policy-framework-2>

⁶⁰ Biodiversity 2020: A strategy for England's wildlife and ecosystem services, August 2011, Department for Environment, Food and Rural Affairs.

- 6.18 To avoid impacts to retained and partially retained habitats (broadleaved woodland, line of trees, individual trees) via physical damage, dust or pollution event during construction phase, fencing and buffers to protect the retained trees and other habitats and pollution prevention measures (including lighting) during construction should be implemented with a Construction Environmental Management Plan (CEMP).
- 6.19 Direct lighting of retained / 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. The lighting scheme should be designed in accordance with guidelines from BCT (2024)⁶¹. 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.

FAUNA

Badger

- 6.20 Badgers are relatively common and widespread in England and whilst legally protected, the emphasis of The Protection of Badgers Act 1992 is focused on protection from persecution, rather than on conservation.
- 6.21 There are no records of badger within 200m of the Site boundary with the nearest known sett located within 300m of the Site.
- 6.22 Some habitats on-site (broadleaved woodland, treeline, bramble scrub) were considered suitable for badger sett making and foraging, although no signs of badger were identified on-site or within 30m of the Site (where access was possible).
- 6.23 In order to follow best practice and given the mobile nature of this species, it is recommended that an updated badger survey is undertaken immediately prior to any works commencing on the Site to ensure continued compliance with the Protection of Badgers Act 1992.
- 6.24 To avoid impacts to badger (and other wildlife) during construction best practice working measures must be implemented. This includes:
- Any trenches / pits / excavations within the Site must be covered overnight or ramps (e.g. planks) must be provided to ensure a means of escape should an animal enter. This is particularly important if these features fill with water;
 - Any trenches / pits / excavations will be inspected each morning to ensure no animals have become trapped overnight. In the unlikely event a badger is encountered a means of escape should be provided to the animal and the animal left to disperse naturally;
 - Any exposed open pipes (>100mm outside diameter) will be capped off at the end of each working day to prevent animals gaining access;
 - Materials such as netting and cutting tools will not be left in the works area where they might entangle or injure animals; and

⁶¹<https://www.bats.org.uk/resources/guidance-for-professionals/bat-surveys-for-professional-ecologists-good-practice-guidelines-4th-edition>

- Any chemicals will be stored in secure compounds.

Bats

- 6.25 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.
- 6.26 From the desk study twelve bat species/species groups were recorded within 2km of the Site boundary, the closest of which was a field record of an unidentified *pipistrellus* species roost 458m north of the Site.

Roost - Trees

All trees with features which provide bat roosting potential are being retained under the proposals. As per the habitats section above, these trees will be buffered from constructional and operational phase impacts.

Foraging / Commuting Habitats

- 6.27 The habitats on-site and immediately surrounding the Site (grassland, woodland, individual trees and line of trees) are thought to represent good suitability for foraging and commuting bats. As the vast majority of these features are being retained and proposals include grassland enhancements which will provide an additional resource for the local bat population, further bat activity surveys are not considered to be necessary.

Great Crested Newts (GCN)

- 6.28 GCN are afforded legal protection under the Wildlife & Countryside Act 1981 (*as amended*) and the Conservation of Habitats and Species Regulations 2017 (*as amended*). This legislation makes it illegal to: deliberately disturb a GCN, damage / destroy a breeding site or resting place of a GCN, recklessly or intentionally kill, injure or take a GCN, recklessly or intentionally damage or obstruct access to or destroy any place of shelter or protection, disturb a GCN whilst they are occupying such a place of shelter or protection. GCN are also listed as a Species of Principal Importance in England under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.
- 6.29 From the desk study no records of GCN were present within 1km of the Site boundary and there were no EPSL's relating to GCN, GCN survey licence returns, or any positive GCN surveys from Natural England's Open Dataset within 1km of the Site boundary. The Site does not fall within an area of District Level Licensing (DLL).

Terrestrial Habitat

- 6.30 Some habitats on-site, such as woodland and bramble scrub, as well as a rubble pile, were considered to be optimal for providing commuting and shelter opportunities for GCN.

Aquatic Habitat

- 6.31 One pond was located on Site, and one river (48m south), a brook (316m S) and one waterbody (284m S) were identified within 500m of the Site boundary.

Summary

- 6.32 The presence of aquatic habitat (P1) on Site means the possibility of GCN being present cannot be excluded. Based on this, an eDNA survey of the pond should be carried out between 15th April and 30th June, as mandated by Natural England⁶². If the results of the eDNA survey are returned as positive, then a suite of aquatic surveys on the pond will be required, in order to ascertain a population size of GCN residing within the pond. This will consist of six surveys, made up of three of the four following methods: bottle trapping, torching, netting and egg searching.

Reptiles

- 6.33 One reptile record was identified within 1km of the Site boundary – a slow worm *Anguis fragilis* 683m south-west.
- 6.34 The on-site habitats comprise broadleaved woodland, ephemeral vegetation, a line of trees, scattered individual trees and areas of bramble scrub. While this habitat mix provides some structural diversity and limited shelter and foraging opportunities, it generally lacks the well-developed, sun-exposed ecotones and varied ground cover typically required to support reptile populations. As such, the Site is considered to offer sub-optimal suitability for reptile species.
- 6.35 Although it is considered unlikely that reptiles would be present on-site, in order to ensure there is no breach of legislation it is recommended that precautionary working methods are adopted:
- Tool-box talk to all contractors on-site regarding the presence of reptiles.
 - Vegetation to be removed during Nov – February (winter period). If vegetation is to be removed during March – October the clearance works must be overseen by an Ecological Clerk of Works (EcoW) utilising the following methods: hand-search of vegetation by the EcoW followed by a cut to 150mm. The EcoW must then undertake a second hand-search followed by the final cut to ground level. The vegetation cutting will be undertaken in a directional manner towards optimal retained habitats within or adjacent the Site to allow any animals to disperse. If any reptiles are identified at any time works will cease in that area and the individual will be left undisturbed and allowed to disperse naturally.

⁶² [An evidence review for great crested newt eDNA monitoring protocols - NECR476](#)

- Additional measures to avoid reptiles utilising habitats within the working area include: avoid creating piles of brash and/or soil piles and store materials upon pallets.
- 6.36 The boundary habitats are to be retained and buffered from impacts. To avoid impacts to retained habitats (broadleaved woodland, line of trees, individual trees) via physical damage, dust or pollution event during construction phase, fencing and buffers to protect the retained trees and other habitats and pollution prevention measures (including lighting) during construction should be implemented with a CEMP.
- 6.37 Habitat enhancements should include the provision of log piles within areas of greenspace which could be utilised by reptiles, if present in the area.

Birds

- 6.38 All wild bird 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.
- 6.39 From the desk study multiple bird records were returned within 1km of the Site. Birds listed as red-listed Birds of Conservation Concern within 1km of the Site include greenfinch *Chloris chloris*, house martin *Delichon urbicum*, house sparrow *Passer domesticus*, linnet *Linaria cannabina*, mistle thrush *Turdus viscivorus*, spotted flycatcher *Muscicapa striata*, starling *Sturnus vulgaris*, swift *Apus apus*, and tree sparrow *Passer montanus*.
- 6.40 The habitats on-site (line of trees, individual trees, broadleaved woodland) provide opportunities for nesting and foraging birds, although are unlikely to provide a significant resource for the local bird assemblage.
- 6.41 To comply with relevant legislation any removal of vegetation (including that suitable for ground nesting species) 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.
- 6.42 Proposed habitat enhancements such as grassland enhancement and tree planting will increase foraging and breeding opportunities for the local bird assemblage.
- 6.43 Provisions for bird species post-development should include incorporating a range of bird boxes onto retained mature trees.

Water Vole

- 6.44 Water vole receive protection through their inclusion on 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. Water vole are also listed as a key priority species within Lincolnshire Biodiversity Action Plan (LBAP).

6.45 From the desk study, one of water vole *Arvicola amphibius* was present within 2km of the Site, 1750m north-west.

6.46 There were no watercourses on Site, and the nearest watercourse was 48m south of the Site.

The survey found no evidence of water vole presence or activity on-site associated with pond P1. On this basis, water vole are not considered a constraint to the proposed development.

Other Species

6.47 From the desk study, one record of common frog *Rana temporaria* and one record of common toad *Bufo bufo* were present within 1km of the Site – both were 440m east of the Site.

6.48 This falls within the typical dispersal distance for these species and given the presence of terrestrial habitat suitable for sheltering and foraging, their presence within Pond P1 and the Site cannot be ruled out. The loss of Pond P1 therefore has the potential to affect common amphibians. Aforementioned GCN surveys will be undertaken to determine presence/absence and inform appropriate mitigation measures. In the absence of great crested newt, impacts to common amphibians can be addressed through precautionary working methods and habitat enhancement.

7.0 BIODIVERSITY ENHANCEMENTS

- 7.1 The Site is exempt from BNG on account of being a self-build development, consisting of less than 9 dwellings, on a Site with an area smaller than 0.5 hectares, and will consist exclusively of dwellings that are self-build or custom housebuilding as defined in section 1(A1) of the Self-build and Custom Housebuilding Act 2015⁶³.
- 7.2 In accordance with NPPF (2024) and The Environment Act 2021, the development should incorporate features to encourage biodiversity and retain and where possible enhance existing features of nature conservation value within the Site.
- 7.3 The discussion section identified ecological enhancements that should be incorporated into the development proposal. Outlined below are further additional measures for consideration:
- New landscape planting including trees and shrubs to use native species which bear fruit and nectar.
 - Installation of a variety of bird and bat boxes upon mature trees and new dwellings.
 - Installation of invertebrate boxes within new dwellings e.g., bee houses.
 - Any formal lawn areas should where possible be seeded with a species rich flowering lawn mix such as EL1 – Flowering Lawn Mix, Emorsgate Seeds.

⁶³ [Biodiversity net gain: exempt developments - GOV.UK](https://www.gov.uk/government/news/biodiversity-net-gain-exempt-developments)

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
Woodland		
Apple	<i>Malus x domestica</i>	F
Ash	<i>Fraxinus excelsior</i>	O
Bramble	<i>Rubus fruticosus</i> agg.	F
Common nettle	<i>Urtica dioica</i>	R
Common ragwort	<i>Jacobaea vulgaris</i>	O
Creeping buttercup	<i>Ranunculus repens</i>	O
Crested buckler fern	<i>Dryopteris cristata</i>	R
Curled dock	<i>Rumex crispus</i>	R
Foxglove	<i>Digitalis purpurea</i>	R
Ground ivy	<i>Glechoma hederacea</i>	O
Hawthorn	<i>Crataegus monogyna</i>	F
Holly	<i>Ilex aquifolium</i>	O
Ivy	<i>Hedera helix</i>	F
Spear thistle	<i>Cirsium vulgare</i>	O
Sycamore	<i>Acer pseudoplatanus</i>	O
Willow species	<i>Salix</i> sp.	F
Wood meadow grass	<i>Poa nemoralis</i>	O
Yorkshire fog	<i>Holcus lanatus</i>	O
Pond		
Common reed	<i>Phragmites australis</i>	D
Great reedmace	<i>Typha latifolia</i>	O
Soft rush	<i>Juncus effusus</i>	O
Ephemeral vegetation		
Common bent	<i>Agrostis capillaris</i>	O
Bramble	<i>Rubus fruticosus</i> agg.	F
Coltsfoot	<i>Tussilago farfara</i>	R
Common ragwort	<i>Jacobaea vulgaris</i>	O
Creeping buttercup	<i>Ranunculus repens</i>	O
Curled dock	<i>Rumex crispus</i>	R
Dandelion	<i>Taraxacum officinale</i>	R
Foxglove	<i>Digitalis purpurea</i>	R
Ivy	<i>Hedera helix</i>	F
Nipplewort	<i>Lapsana communis</i>	R
Soft rush	<i>Juncus effusus</i>	O
Spear thistle	<i>Cirsium vulgare</i>	O
Willowherb species	<i>Epilobium</i> sp.	F
Yorkshire fog	<i>Holcus lanatus</i>	O
Line of trees		
Ash	<i>Fraxinus excelsior</i>	-
Holly	<i>Ilex aquifolium</i>	-
Horse chestnut	<i>Aesculus hippocastanum</i>	-
Sycamore	<i>Acer pseudoplatanus</i>	-
Individual trees		


Ash	<i>Fraxinus excelsior</i>	-
Horse chestnut	<i>Aesculus hippocastanum</i>	-
Sycamore	<i>Acer pseudoplatanus</i>	-
Yew	<i>Taxus baccata</i>	-

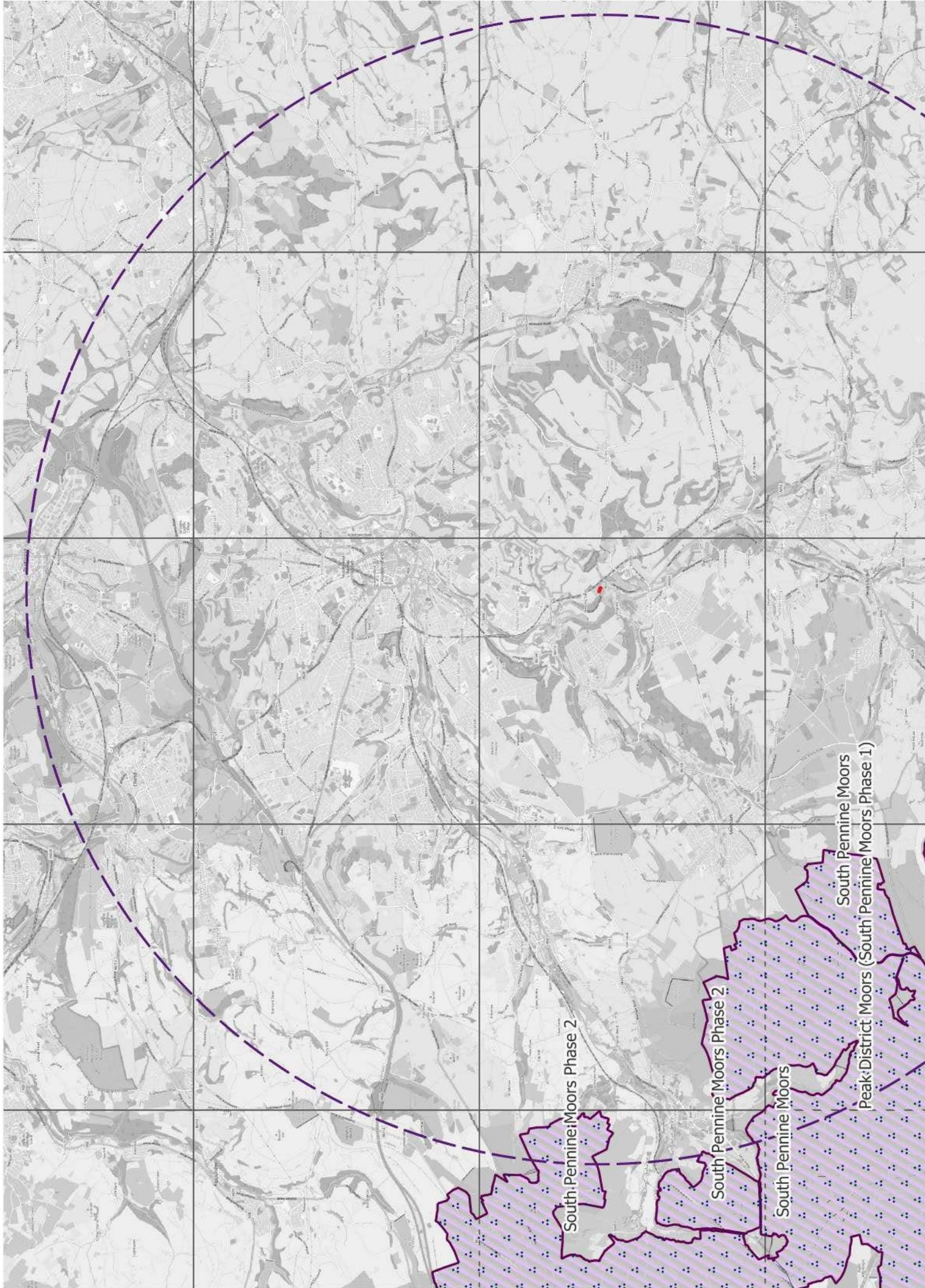
DAFOR: D=dominant, A=abundant, F=frequent, O=occasional, R=Rare, L=Locally

APPENDIX B: GROUND BAT TREE ASSESMENT

Tree Reference (Figure 2)	Species	PRF's	Bat Roosting Potential
T5 (within woodland)	Hawthorn	Ivy present all the way up the trunk and could potentially be obscuring PRF's.	FAR
T6 (within woodland)	Sycamore	Ivy present all the way up the trunk and could potentially be obscuring PRF's.	FAR
T7 (off-site)	Horse Chestnut	Knothole present 4m up trunk, with north-westerly aspect.	FAR

APPENDIX C: HABITAT SUITABILITY INDEX ASSESSMENT

Waterbody Reference	SI -1	SI -2	SI -3	SI -4	SI -5	SI -6	SI -7	SI -8	SI -9	SI -10	HSI score	Pond Suitability	Predicted Presence	Pond Photographs
	Geographical Location	Pond Area	Pond Drying	Water Quality	Shade	Fowl	Fish	Ponds	Terrestrial Habitat	Macrophytes				
P1	1	0.1	0.1	0.33	1	1	1	0.96	1	1	0.56	Below average	0.2	



South Pennine Moors Phase 2

South Pennine Moors Phase 2

South Pennine Moors

South Pennine Moors
Peak District Moors (South Pennine Moors Phase 1)



