



FUTURESECOLOGY

Persimmon Homes

Land at Paddock Road, Kirkburton

Ecological Impact Assessment (EcIA)

Report Reference Number: FE589/EcIA01

September 2026

Please note that the report is likely to be valid for a period of 12 months¹. 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.

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	E. Padmore BSc (Hons)	Senior Ecologist	22/07/2026
	Issued	Reviewer	A. Eales BSc (Hons)	Ecology Director	07/09/2026

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

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1.0 **EXECUTIVE SUMMARY**

- 1.1 An Ecological Impact Assessment (EcIA) was undertaken following published guidelines on the likely significant effects upon biodiversity as a result of development proposals. The assessment draws from a desk study and field surveys of the Site and adjacent habitats.
- 1.2 This report has been produced to inform an outline planning application for up to 160 residential dwellings. The development includes internal roads, car parking, public open space, and landscaped areas.
- 1.3 The assessment identified the following ecological features which could be affected by proposals or warrant consideration due to the legal protection afforded them:
 - Denby Grange Colliery Ponds Special Area of Conservation (SAC) / Site of Special Scientific Interest (SSSI)
 - Lepton Great Wood Local Wildlife Site (LWS)
 - Ancient Woodland
 - Habitats of Principal Importance (HPI)
 - West Yorkshire Habitat Network (WYHN)
 - Broadleaved trees
 - Badger *Meles meles*
 - Roosting bats
 - Generalist bat species
 - Breeding birds
 - Hedgehogs
- 1.4 Denby Grange Colliery Ponds Special Area of Conservation (SAC) / Site of Special Scientific Interest (SSSI) is located 6.8km east of the Site boundary. No impacts from the construction or operational phases are anticipated.
- 1.5 No direct construction phase impacts on Lepton Great Wood Local Wildlife Site (LWS), Habitats of Principal Importance (HPI), ancient woodland, or West Yorkshire Habitat Network (WYHN) are anticipated given the intervening distance between these sites and the development. Potential impacts from increased visitors during the operational phase could occur and so well-defined footpaths within the development and distribution of homeowner packs with information are recommended to mitigate for this.
- 1.6 The majority of habitats onsite (mown/grazed poor semi-improved grassland) were of low ecological value. Broadleaved trees provide greater ecological value, particularly where they form connective habitats (such as field margin treelines). Retained habitat will be protected during the construction phase through the implementation of a Construction and Environmental Management Plan (CEMP).
- 1.7 Nine on-site trees (T1 to T9) were considered to provide potential roosting features for bats. These trees are currently retained and buffered within the proposals, and additional

planting is proposed ensuring that these potential roost trees remain connected to the wider environment.

- 1.8 The habitats onsite were considered to be of moderate value to foraging and commuting bats. Bat activity surveys are currently being undertaken to determine the utilisation of the site. Depending on the results of the bat activity surveys, it is anticipated that the retention of boundary habitats where possible within the scheme, as well as additional planting to improve the connectivity of the site, will ensure the site remains a suitable habitat for foraging and commuting bats.
- 1.9 Artificial light can deter some more sensitive bat 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 including all trees will not be illuminated. As part of any future detailed development design, care should be taken to avoid inappropriate lighting of retained habitats.
- 1.10 Habitats present also provide suitability for breeding birds. Breeding bird surveys were undertaken in 2026. Depending on the results of the surveys, it is anticipated that the retention of boundary habitats where possible within the scheme, as well as additional planting, and the provision of nest boxes will ensure the site remains a suitable habitat for foraging and nesting bird species.
- 1.11 Habitats present on Site provide some limited suitability for badgers *Meles meles*, great crested newts (GCN) *Tristurus cristatus*, reptiles, nesting birds, and hedgehog *Erinaceus europaeus*. Pre-commencement surveys and/or precautionary working methods are recommended for these species/species groups.

2.0 INTRODUCTION

- 2.1 The following report has been prepared by Futures Ecology Ltd. on behalf of Persimmon Homes. It provides the results of a suite of ecology surveys conducted in 2025 and 2026 at Land at Paddock Road, Kirkburton (grid reference: SE 20013 13367).
- 2.2 This document has been prepared with reference to the Chartered Institute of Ecology and Environmental Management's (CIEEM) Ecological Impact Assessment (EclA) Guidelines². The key findings of the ecological assessments and the application of the mitigation hierarchy have been employed at each stage of the development design process to minimise impacts and maximise the ecological benefit of the scheme.
- 2.3 The key objectives of EclA 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 use this to inform the development design process.
 - Assess the likely significant impacts of the proposals on the Important Ecological Features.
 - Identify mitigation measures likely to be required.
 - Identify the opportunities offered by the proposed project to deliver ecological enhancement.
- 2.4 This report should be read in conjunction with the separate Biodiversity Impact Assessment (BIA) Report, Futures Ecology Ltd., Report Ref: FE589/BIA01, September 2026.
- 2.5 Please note that bat activity surveys and breeding bird surveys are ongoing at the time of writing. Separate reports detailing the results of these surveys will be provided upon completion of surveys and result analysis (Report Refs: FE589/BBR01 and FE589/BAT01).

SITE LOCATION AND CONTEXT

- 2.6 The Site is c. 7.57ha in extent and comprised four poor semi-improved grassland fields, utilised for horse grazing. The fields were separated with a mixture of fences, dry stone walls, and scattered trees. Some small areas of tall ruderal vegetation were present throughout the Site. Within the centre of Site were a number of temporary structures, comprising storage containers, chicken coops, and sheds, as well as large hay piles and rubbish heaps.
- 2.7 The Site is located on the northern edge of the village of Kirkburton, c. 6km southeast of the centre of Huddersfield, West Yorkshire. The Site is bound by Moor Lane to the north, Paddock Road to the east, and Burton Acres Lane to the south. To the west, the Site is bound partly by residential houses and partly by a playing field. The landscape

² CIEEM (2024) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.3. Chartered Institute of Ecology and Environmental Management, Winchester.

immediately surrounding the Site comprises the residential development of Kirkburton to the south and west. To the north and east lies primarily agricultural land.

DEVELOPMENT PROPOSALS

- 2.8 Outline planning application for up to 160 residential units with associated gardens, infrastructure and greenspace provision.

3.0 METHODOLOGY

PERSONNEL

- 3.1 The habitat survey and protected species assessment was conducted by D. Heppenstall BSc (Hons). D. Heppenstall has over 1.5 years' experience of conducting and leading field surveys across a wide range of sites and is appropriately qualified for the surveys based on the CIEEM competencies.
- 3.2 The reptile surveys were carried out by suitably experienced ecologists, being B. Draper ACIEEM, BSc (Hons), M. Page MSc, BSc (Hons), J. Lally MSc, BSc (Hons), E. Kershaw-Smith BSc (Hons), MSc, S. Simcock BSc (Hons), and S. Mather MZool (Hons).
- 3.3 B. Draper has over 5 years' experience in ecological consultancy, conducting and leading field surveys for protected species, habitat mapping, project managing and providing planning support. B. Draper is an experienced Ecological Clerk of Works, holds a GCN class licence (2025-80197-SCI-CL08), is qualified to perform Aerial Tree Climbs and Rescues (CS38), and has a Level 3 certificate in plant identification skills (Field Identification Skills Certificate).
- 3.4 M. Page has over 2 years' experience in conducting and leading field surveys for protected species across a wide range of sites. M. Page is an experience Ecological Clerk of Works that has closed two badger setts and supervised the creation of one artificial sett on the behalf of a Natural England licence-holder.
- 3.5 J. Lally has 2 years' experience of conducting and leading protected species and habitat surveys across a wide range of sites. 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.
- 3.6 E. Kershaw-Smith has one season of experience in conducting protected species surveys and is currently undergoing training for Batability sound analysis.
- 3.7 S. Simcock has 4 years' combined experience of conducting ornithological and phase 1 habitat surveys in both an ecological consultancy and voluntary capacity; as well as over 1 years' experience conducting protected species surveys. S. Simcock has a provisional Level 4 certificate in plant identification skills (Field Identification Skills Certificate) from the Botanical Society of Britain and Ireland (BSBI).
- 3.8 S. Mather has 3 years' experience carrying out ornithological surveys on a professional and voluntary capacity; as well as one season of experience in conducting protected species surveys.

DESK STUDY

- 3.9 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 Maps³; and the Multi Agency Geographic Information for the Countryside (MAGIC)⁴ to assess the landscape context of the survey area and surrounding areas.
- 3.10 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.
- 3.11 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);
 - Woodland Trust's Ancient Tree Inventory (ATI)⁵;
 - Ancient Woodland and Habitats of Principal Importance (MAGIC)⁶;
 - Land Information System (LandIS)⁷; and
 - Natural England's Open Dataset⁸.
- 3.12 Relevant data requested included records of protected or notable species and sites designated for nature conservation interest.
- 3.13 The search area for designated sites and protected species is determined by the likely Zone of Influence⁹ and the likely significant effect. 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.

³ www.google.com/maps

⁴ www.magic.defra.gov.uk

⁵ <https://ati.woodlandtrust.org.uk/>

⁶ <http://www.magic.defra.gov.uk/>

⁷ 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 10.1111/sum.12380. <http://onlinelibrary.wiley.com/doi/10.1111/sum.12380/full>

⁸ <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>

⁹ 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

Habitat Survey

- 3.14 The survey was undertaken on the 17th July 2025, during weather conditions that were clear and dry. Survey methodology followed guidance from Joint Nature Conservation Committee (JNCC) 2016¹⁰ 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 DAFOR¹¹ method. Whilst the plant species lists obtained should not be regarded as exhaustive, sufficient information was obtained to determine broad habitat types.
- 3.15 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.
- 3.16 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)

- 3.17 A summary of the habitats present on-site is provided within the report including UK Hab equivalent habitats (from the UK Habitats Classification methodology¹²) for the purpose of the Biodiversity Impact Assessment (BIA).

FIELD SURVEY – FAUNA

Badger *Meles meles*

- 3.18 A badger survey was undertaken on the 17th of July 2025, within the application site and 30m beyond the boundary where possible. The survey followed standard methodology as outlined by Natural England (2015)¹³ and Harris *et al* (1989)¹⁴, Creswell *et al.* (1990)¹⁵.

¹⁰ JNCC (2016) Handbook for Phase1 Habitat Survey – a technique for environmental audit. ISBN 0 86139 636 7

¹¹ https://bsbi.org/wp-content/uploads/dlm_uploads/Sampling_Guidance_-_Annex_1_v4_April_2011.pdf

¹² [ukhab – UK Habitat Classification](#)

¹³ Natural England (2015) Badger Surveys and Mitigation accessed May 2021 <https://www.gov.uk/guidance/badgers-surveys-and-mitigation-for-development-projects#survey-methods>

¹⁴ Harris, S., Creswell, P., & Jefferies, D. (1989). *Surveying Badgers*. The Mammal Society.

¹⁵ Creswell, P., Harris, S., & Jeffries, D.J. (1990) The history, distribution, status, and habitat requirements of the badger in Britain. Nature Conservancy Council.

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.

Bats

Daytime Bat Walkover (DBW)

- 3.19 The DBW was undertaken on the 17th July 2025.

Ground Level Tree Assessment (GLTA)

- 3.20 All trees within the survey area were assessed for their potential to support roosting bats using statutory guidance (Natural England, 2019)¹⁶ and best practice survey methodology (Collins, 2023¹⁷ and Mitchell-Jones, A.J. and McLeish, A.P. (eds), 2004)¹⁸.
- 3.21 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 Standard 8596:2015*¹⁹). 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.
- 3.22 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 Guidelines²⁰ which now supersedes The British Standard Document¹⁴ 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 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 or 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 licensed 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.

¹⁶ Bats: surveys and mitigation for development projects: <https://www.gov.uk/guidance/bats-surveys-and-mitigation-for-development-projects>

¹⁷ Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologist: Good practice Guidelines (4th edition), The Bat Conservation Trust, London.

¹⁸ Mitchell-Jones, A.J. and McLeish, A.P. (eds) (2004) *Bat Workers' Manual (3rd edn)*. JNCC, Peterborough.

¹⁹ British Standard (2015) BS 8596:2015 *Surveying for bats in trees and woodland – Guide*, October 2015.

²⁰ Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologist: Good practice Guidelines (4th edition), The Bat Conservation Trust, London.

- 3.23 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

- 3.24 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.

Nighttime Bat Walkover (NBW) and Automated Static Detector Surveys

- 3.25 Further surveys are currently ongoing, comprising one NBW per season (spring – April/May, summer – June/July/August, autumn – September/October) and monthly static passive recording broadband detector deployment, as stipulated in the guidance document Bat Conservation Trust (BCT) Guidelines for sites with Moderate or High suitability for bats²¹. Full survey methodologies and results will be presented within a separate Bat Survey Report.

Great Crested Newt (GCN) *Triturus cristatus*

Aquatic Habitat

- 3.26 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 guidance²².

Terrestrial Habitat

- 3.27 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

- 3.28 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

²¹ Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn). The Bat Conservation Trust, London

²² Natural England: *Standing Advice Sheet: Great Crested Newts* Paragraph 4: 4.1

and woodpiles, grassland with well developed, varied structure; and also, the appropriate juxtaposition of areas suitable for basking shelter and forage/hunting. This assessment 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.

- 3.29 A series of presence / absence surveys were undertaken between April and June 2026. Surveys were undertaken and designed using guidance outlined provided by Natural England (2022)²⁵, Gent and Gibson (1998)²⁶ and Froglife (1999)²⁷.
- 3.30 To undertake the reptile surveys a total of 30 ‘refugia’ were distributed across the application site on the 18th of March 2026 and left for a period of at least two weeks to ‘bed in’. The refugia comprised 30 bituminous roofing felt sheets (0.5m x 0.5m). See Figure 4 for distribution of reptile mats within the Site.
- 3.31 A minimum of seven survey visits were then undertaken when ambient air temperatures were between 9 and 19°C. Table 2 below provides details of the survey dates and weather conditions. On each survey refugia were approached slowly and observed from a distance to determine whether reptiles were basking on top. Each refugia was then cautiously turned over and inspected for reptiles underneath.

Table 2: Reptile survey dates and weather conditions

Date	Time	Temperature °C	Rain (0-5)	Wind (0-5)	Cloud (%)
20/04/2026	10:15 – 11:00	10	0	0	25
22/04/2026	16:00 – 18:00	13	0	4	5
24/04/2026	09:55 – 10:45	9	0	1	0
29/04/2026	09:00 – 09:45	9	0	1	0
05/05/2026	09:10 – 09:55	9	0	1	15
11/05/2026	16:00 – 16:50	11	0	1	85
21/05/2026	09:25 – 10:25	16	0	1	100
09/06/2026	07:45 – 09:45	10	0	3	75

Birds

- 3.32 Breeding bird surveys were undertaken between March and July 2026. Full survey methodologies and results will be presented within a separate Breeding Bird Report.

Other

- 3.33 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.

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

²⁵ Natural England (2022) Reptiles: advice for making planning decisions accessed August 2025 <https://www.gov.uk/guidance/reptiles-advice-for-making-planning-decisions>

²⁶ Gent, A.H., & Gibson, S.D., eds 1998. *Herpetofauna Workers' Manual*. Peterborough, joint Nature Conservation Committee.

²⁷ Froglife 1999. Froglife Advice Sheet 10: Reptile Survey. Froglife, London

Survey Limitations

- 3.34 The entirety of the Site could be accessed and surveyed, and the habitat survey was undertaken in July, which is within the optimal season (April – September) for the majority of habitats.
- 3.35 The Ground Level Tree Assessment (GLTA) was undertaken in July 2025, which is outside of the optimal survey season (December – March, when leaves are absent). This could obscure potential PRFs suitable for bats. However, it was considered that visibility was sufficient to assess the relevant features.

ASSESSMENT**Importance**

- 3.36 Ecological features are those that are considered to be important and potentially affected by the project. Importance may relate, for example, to the quality or extent of designated sites or habitats, to habitat/species rarity, to the extent to which they are threatened throughout their range, or to their rate of decline (CIEEM 2024)²⁸.

Geographical Context

- 3.37 The importance of an ecological feature is considered within a defined geographical context. For the purposes of the assessment this is:
- International (European)
 - National (United Kingdom)
 - Regional (Yorkshire and the Humber)
 - County (West Yorkshire)
 - District (Kirklees)
 - Local (Kirkburton)
- 3.38 The assessment of the importance of the ecological features and the potential likelihood of an effect of the development will identify which ecological features could be significantly affected by the proposal. Only these features will be taken forward for further assessment.
- 3.39 Where further surveys are required to determine whether an effect would be significant, the precautionary principle would be applied, and a significant effect assumed.

²⁸ CIEEM (2024) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.3. Chartered Institute of Ecology and Environmental Management, Winchester.

Further Assessment

Significance

- 3.40 In order to assess the significance of effects, Important Ecological Features that could potentially be affected by the development have been identified and described and the potential effects quantified using a range of characteristics:
- Positive / negative
 - Extent
 - Magnitude
 - Duration
 - Frequency / timing
 - Reversibility
- 3.41 For the purposes of this assessment, a 'significant effect' is an effect that either supports or undermines biodiversity conservation objectives for 'important ecological features' or for biodiversity in general. Conservation objectives may be specific (e.g., for a designated site) or broad (e.g., national / local nature conservation policy) or more wide-ranging (enhancement of biodiversity)²⁹.

Mitigation, Compensation and Enhancement

- 3.42 Where significant effects have been identified, the mitigation hierarchy has been considered: avoiding significant effects where possible, applying mitigation measures to minimise unavoidable significant effects and compensating for any remaining significant effects.
- 3.43 The assessment will include mitigation, compensation and enhancements which are proposed.

Residual Effects

- 3.44 Upon completion of the above, residual significant effects will then be identified. It is then only necessary to assess and report significant residual effects (those that remain after mitigation measures have been considered).

Cumulative Effects

- 3.45 Consideration is given to the effects that may arise cumulatively from the development proposed in combination with other plans and projects proposed/consented but not yet built and operational.

²⁹ CIEEM (2024) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.3. Chartered Institute of Ecology and Environmental Management, Winchester.

4.0 **LEGISLATION, PLANNING POLICY AND GUIDANCE**

- 4.1 The policy and guidance framework for nature conservation is provided by various national, regional, and local planning policies as outlined below, with further details, as necessary, within relevant subsequent sections.

Legislative Framework

- 4.2 The following legislation and European Directives afford protection to wildlife and have been used to inform this assessment.

- The Environment Act 2021³⁰
- The Conservation of Habitats & Species Regulations 2017 (as amended)³¹;
- The EC Habitats Directive (Directive 92/43/EEC)³² as translated into UK law by The Conservation of Habitat and Species Regulations 2017 (as amended);
- The EC Birds Directive (Directive 79/409/EEC)³³; as translated into UK law by The Conservation of Habitat and Species Regulations 2017 (as amended);
- Wildlife and Countryside Act 1981 (as amended) (WCA)³⁴;
- Natural Environment and Rural Communities Act 2006 (NERC)³⁵.
- The Protection of Badgers Act 1992³⁶.
- The Hedgerow Regulations Act 1997³⁷.

National Planning Policy

- 4.3 The latest National Planning Policy Framework (NPPF, 2024)³⁸ sets out the Government's planning policies for England and how these are expected to be applied within the planning system. It provides a framework for local councils to produce local plans and determine planning applications in order to achieve more sustainable developments. In relation to ecology and biodiversity, Chapter 15: Conserving and enhancing the natural environment, is of relevance to this report.
- 4.4 The Government Circular, Biodiversity and geological conservation: circular 06/2005³⁹, defines statutory nature conservation sites and protected species as a material consideration in the planning process.
- 4.5 The former UK Biodiversity Action Plan (BAP) has been used to compile the statutory lists of priority species and habitats as required under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 (also referred to as Habitats and Species of Principal Importance). These lists continue to be regarded as conservation priorities

³⁰ <https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted>

³¹ HMSO. The Conservation of Habitats and Species Regulations 2017 (as amended) - No.1012

³² EC (1992) Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora (The EC Habitats Directive).

³³ EC (1979), Council Directive 79/409/EEC on the Conservation of wild birds (EC Birds Directive).

³⁴ HMSO. The Wildlife and Countryside Act 1981 (as amended).

³⁵ HMSO. (2006), Natural Environment and Rural Communities Act.

³⁶ HMSO. The Protection of Badgers Act 1992 (as amended).

³⁷ HMSO. The Hedgerow Regulations Act 1997

³⁸ Ministry of Housing, Communities & Local Government (December 2024). National Planning Policy Framework. London

³⁹ <https://assets.publishing.service.gov.uk/media/5a78c5e7ed915d04220653ab/147570.pdf>

under the NPPF, although the UK Biodiversity Action Plan (BAP) has now been superseded by the UK Post-2010 Biodiversity Framework⁴⁰ and Biodiversity 2020⁴¹.

Local Planning Policy

- 4.6 Within Kirklees all planning decisions are expected to be based on the Kirklees Local Plan (adopted February 2019). The key local policy concerned with ecology is Policy LP30: Biodiversity & Geodiversity, which states the following:

Development proposals will be required to:

- i. result in no significant loss or harm to biodiversity in Kirklees through avoidance, adequate mitigation or, as a last resort, compensatory measures secured through the establishment of a legally binding agreement;*
- ii. minimise impact on biodiversity and provide net biodiversity gains through good design by incorporating biodiversity enhancements and habitat creation where opportunities exist;*
- iii. safeguard and enhance the function and connectivity of the Kirklees Wildlife Habitat Network at a local and wider landscape-scale unless the loss of the site and its functional role within the network can be fully maintained or compensated for in the long term;*
- iv. safeguard and enhance the function and connectivity of the Kirklees Wildlife Habitat Network at a local and wider landscape-scale unless the loss of the site and its functional role within the network can be fully maintained or compensated for in the long term;*
- v. incorporate biodiversity enhancement measures to reflect the priority habitats and species identified for the relevant Kirklees Biodiversity Opportunity Zone.*

Local Biodiversity Action Plan

- 4.7 Local BAPs are a key element for securing the requirements of the NPPF at a local level, consequently this assessment has taken due consideration of the priority habitats and species within the Kirklees Biodiversity Strategy⁴².

Other guidance

Birds of Conservation Concern

- 4.8 Leading governmental and non-governmental conservation organisations in the UK have reviewed the population status of 245 bird species regularly found in Britain and, using standardised criteria, have assessed and assigned all bird species onto lists of conservation concern⁴³.

⁴⁰ JNCC and Defra (on behalf of the Four Countries' Biodiversity Group) (2012) UK Post-2010 Biodiversity Framework. July 2012.

⁴¹ DEFRA (2011) Biodiversity 2020: A strategy for England's wildlife and ecosystem services.

⁴² <https://www.kirklees.gov.uk/beta/delivering-services/policies-and-strategies.aspx>

⁴³ Stanbury et al (2021), The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. British Birds 114, 723-747. https://britishbirds.co.uk/sites/default/files/BB_Dec21-BoCC5-IUCN2.pdf

- 4.9 Birds are placed into one of three lists - Red, Amber or Green and although these listings offer no further legal protection, they are meant to guide conservation action for the individual species. The listings reflect an individual species' global and European conservation status as well as that within the UK and additionally measure the importance of the UK population in international terms.

5.0 **RESULTS (BASELINE)**

DESK STUDY

- 5.1 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

- 5.2 No internationally designated sites occur within the Site boundary. One internationally designated site occurs within 10km of the Site. Denby Grange Colliery Ponds Special Area of Conservation (SAC) (also a Site of Special Scientific Interest (SSSI)) is located 6.8km east of the Site boundary.
- 5.3 No national or regionally important statutory sites occur within the Site or within 2km of the Site boundary.
- 5.4 Consultation with MAGIC Site check confirms that the Site falls within the 5-10km Impact Risk Zone (IRZ) for Denby Grange Colliery Ponds SSSI. However, the development does not fall within any of the categories that would otherwise require consultation with Natural England due to their potential impact, those being:
- **Air Pollution:** *Livestock & poultry units with a floorspace > 500m², slurry lagoons > 4000m².*
 - **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.*
- 5.5 No sites of local importance with a statutory designation were located within Site or within 1km of the Site boundary.
- 5.6 Denby Grange Colliery Ponds SAC would be considered of importance at an **International** level, whilst Denby Grange Colliery Ponds SSSI would be considered of importance at a **National** level.

Non-Statutory Designated Sites

- 5.7 No sites of local importance with non-statutory designation occur within the Site. One site of local importance with non-statutory designation was present within 1km of the Site boundary.

- 5.8 Lepton Great Wood Local Wildlife Site (LWS) is located 536m north of the Site boundary. This site would be considered important at a **Local** level.

Table 3: Statutory and Non-Statutory Designated Sites

Site Name	Designation	Proximity to Site (approximate)	Description
Denby Grange Colliery Ponds	SAC/SSSI	6.8km east	This waterbody in northeast England, created by coal-mining activity, has consistently yielded high counts of great crested newt <i>Triturus cristatus</i> in recent years. The pond is surrounded by wooded slopes, with adjacent anthropogenic habitat associated with the previous mining activities. A large new pond was created recently to help support the population, which was previously reliant on a single breeding site.
Lepton Great Wood	LWS	536m north	This is an ancient semi-natural woodland site, comprising mostly W10 and W16 NVC communities. It also meets the species-rich acid woodland criteria, as well as the native bluebell <i>Hyacinthoides non-scripta</i> cover criteria. It supports a range of common bird species such as nuthatch <i>Sitta europaea</i> and wren <i>Troglodytes troglodytes</i> , and potential evidence of water vole <i>Arvicola amphibius</i> has been found along the stream to the south.

Ancient Woodland and Trees

- 5.9 No ancient woodland occurs within the Site. Three parcels of ancient semi-natural woodland (ASNW) and one parcel of planted ancient woodland occur within 1km of the Site boundary. The closest is Lepton Great Wood ASNW, located 557m north. Ancient Woodland within 1km would be considered important at a **Local** level.
- 5.10 No ancient or veteran trees occur within 1km of the Site boundary.

Habitats of Principal Importance (HPI)

- 5.11 No HPIs occur within the Site. Thirty HPI parcels occur within 1km of the Site, being: twenty-two parcels of deciduous woodland, the closest located 409m southwest; five parcels of traditional orchard, the closest located 214m south; and three parcels of 'no main habitat but additional habitats present', the closest located 212m south. These would be considered of importance at a **Local** level.

Local Biodiversity Action Plan (LBAP)

- 5.12 The Kirklees Biodiversity Strategy⁴⁴ contains 16 Habitat Action Plans for:
- Semi-natural pasture;
 - Lowland and upland meadows;
 - Lowland dry acid grassland;

⁴⁴ <https://www.kirklees.gov.uk/beta/planning-policy/pdf/local-plan-strategy-and-policies.pdf>

- Blanket bog;
- Upland heathland;
- Upland flushes;
- Lowland heathland;
- Upland oak woodland;
- Lowland deciduous and other woodland;
- Upland mixed ashwoods;
- Wet woodland;
- Arable field margins;
- Hedgerows;
- Rivers, riverine corridors and associated habitats;
- Reedbeds; and
- Scrub and habitat mosaics on previously developed land.

5.13 There are also seven Species Action Plans for:

- Floating water plantain *Luronium natans*;
- Great crested newt *Triturus cristatus*;
- Marsh helleborine *Epipactis palustris*;
- Northern wood ant *Formica lugubris*;
- Twite *Carduelis flavirostris* subsp. *Bensonorum/pilipans*
- Water vole *Arvicola amphibius*; and
- White-clawed crayfish *Austropotamobius pallipes*.

West Yorkshire Habitat Network (WYHN)

- 5.14 The West Yorkshire Wildlife Habitat Network 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).
- 5.15 At the nearest point, the WYHN is located 322m northeast of the Site boundary. The WYHN is considered of importance at a **District** level.

Soil Type

- 5.16 The Site is located primarily within a parcel mapped as Soilscape 17; this is described as slowly permeable seasonally wet acid loamy and clayey soils. A small section in the west of the Site is located within a parcel mapped as Soilscape 6; this is described as freely

draining slightly acid loamy soils. This information was provided by LandIS⁴⁵ and broader details of the soil structure can be found below:

Table 4: Soil Type

Property	Soilscape 6	Soilscape 17
Drainage	Freely draining	Impeded drainage
Fertility	Low	Low
Landcover	Arable and grassland	Grassland with some arable and forestry
Habitats	Neutral and acid pastures and deciduous woodlands; acid communities such as bracken and gorse in the uplands	Seasonally wet pastures and woodlands
Carbon	Low	Medium

Protected / Notable Species Records

- 5.17 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 within 2km) of the survey area. The locations are shown on Figure 1.

Table 5: 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					
Common pipistrelle	<i>Pipistrellus pipistrellus</i>	Regs (Sch2), WCA (Sch5)	Roost: 9 Field Record: 26 Total: 35	Roost: 436m south (S) Field record: 309m southwest (SW)	Roost: 1m Field record: 100m
Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>	Regs (Sch2), NERC (SPI), WCA (Sch5)	Roost: 0 Field Record: 4 Total: 4	Roost: N/A Field record: 704m west (W)	Roost: N/A Field record: 1m
Nathusius' pipistrelle	<i>Pipistrellus nathusii</i>	Regs (Sch2), WCA (Sch5)	Roost: 0 Field Record: 1 Total: 1	Roost: N/A Field record: 1368m northwest (NW)	Roost: N/A Field record: 100m
Pipistrelle bat species	<i>Pipistrellus</i> spp.	Regs (Sch2), WCA (Sch5)	Roost: 2 Field Record: 0 Total: 2	Roost: 541m W Field record: N/A	Roost: 1m Field record: N/A

⁴⁵ <https://www.landis.org.uk/soilscales/>

Noctule bat	<i>Nyctalus noctula</i>	Regs (Sch2), NERC (SPI), WCA (Sch5)	Roost: 0 Field Record: 8 Total: 8	Roost: N/A Field record: 696m S	Roost: N/A Field record: 1m
Leisler's bat	<i>Nyctalus leisleri</i>	Regs (Sch2), WCA (Sch5)	Roost: 0 Field Record: 3 Total: 3	Roost: N/A Field Record: 761m NW	Roost: N/A Field record: 1m
Nyctalus bat species	<i>Nyctalus</i> spp.	Regs (Sch2), WCA (Sch5)	Roost: 0 Field Record: 1 Total: 1	Roost: N/A Field record: 427m S	Roost: N/A Field record: 1m
Whiskered Bat	<i>Myotis mystacinus</i>	Regs (Sch2), WCA (Sch5)	Roost: 1 Field Record: 0 Total: 1	Roost: 1258m W (maternity) Field record: N/A	Roost: 1m Field record: N/A
Brandt's Bat	<i>Myotis brandtii</i>	Regs (Sch2), WCA (Sch5)	Roost: 1 Field Record: - Total: 1	Roost: 1258m W (maternity) Field record: N/A	Roost: 1m Field record: N/A
Myotis bat species	<i>Myotis</i> spp.	Regs (Sch2), WCA (Sch5)	Roost: 0 Field Record: 3 Total: 3	Roost: N/A Field record: 1048m NW	Roost: N/A Field record: 100m
Brown long-eared bat	<i>Plecotus auritus</i>	Regs (Sch2), NERC (SPI), WCA (Sch5)	Roost: 5 Field Record: 3 Total: 8	Roost: 348m north (N) Field record: 1062m N	Roost: 1m Field record: 100m
Unidentified bat species	<i>Vespertilionidae</i>	Regs (Sch2), WCA (Sch5)	Roost: 7 Field Record: 0 Total: 7	Roost: 255m S Field record: N/A	Roost: 1m Field record: N/A
Other mammal species					
Water vole	<i>Arvicola amphibius</i>	WCA (Sch5), NERC (SPI), LBAP	1	901m NW	1m
Bird species					
Kestrel	<i>Falco tinnunculus</i>	BoCC (Amber)	1	765m S	100m
Mistle thrush	<i>Turdus viscivorus</i>	BoCC (Red)	1	765m S	100m
Song thrush	<i>Turdus philomelos</i>	BoCC (Amber)	2	972m NW	1m
Sparrowhawk	<i>Accipiter nisus</i>	BoCC (Amber)	1	943m NW	1m
Stock dove	<i>Columba oenas</i>	BoCC (Amber)	1	765m S	100m
Woodpigeon	<i>Columba palumbus</i>	BoCC (Amber)	5	947m NW	1m
Wren	<i>Troglodytes troglodytes</i>	BoCC (Amber)	6	765m S	100m

Other species					
Bluebell	<i>Hyacinthoides non-scripta</i>	WCA (Sch8)	3	820m S	100m
Signal crayfish	<i>Pacifastacus leniusculus</i>	WCA (Sch9)	1	982m NW	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. LBAP – Local BAP.

- 5.18 From the desk study data received from West Yorkshire Ecological Service (WYES), there are no records of badger *Meles meles* within 1km of the Site and the Site does not fall within an area of increased probability of badger activity.
- 5.19 A search of the MAGIC online resource revealed there were three European Protected Species Licences (EPSL) relating to bats within 2km of the Site boundary.
- c. 1.3km west (2019-42580-EPS-MIT for Brandt's bat, common pipistrelle and whiskered bat, 10/09/2019 to 30/11/2024);
 - c. 1.9km east (2020-47843-EPS-MIT for common pipistrelle, 20/07/2020 to 20/07/2028); and
 - c. 2km southwest (EPSM2012-5385 for brown long-eared and common pipistrelle, 01/02/2013 to 31/07/2014).
- 5.20 There are no EPSL's relating to GCN or records of GCN surveys from Natural England's Open Dataset⁴⁶ within 1km of the Site boundary.
- 5.21 The Site does not fall within an area of District Level Licensing (DLL).

HABITATS

- 5.22 The habitats recorded within the Site boundary during the habitat survey included:
- Poor semi-improved grassland;
 - Tall ruderal;
 - Scattered scrub; and
 - Broadleaved trees.
- 5.23 The location of the habitats recorded, and associated target notes are presented on Figure 2 and described below. The botanical species recorded in association with each habitat are listed in Appendix A.

Poor semi-improved grassland (g4; modified grassland)

- 5.24 The Site comprised four fields of horse-grazed, poor semi-improved grassland (Photographs 1 and 2). Species present included abundant cock's foot *Dactylis glomerata*

⁴⁶ <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>

and perennial rye-grass *Lolium perenne*; frequent creeping buttercup *Ranunculus repens*, false oat-grass *Arrhenatherum elatius*, red clover *Trifolium pratense*, ribwort plantain *Plantago lanceolata*, white clover *Trifolium repens* and Yorkshire fog *Holcus lanatus*; locally frequent broadleaved dock *Rumex obtusifolius*, common hogweed *Heracleum sphondylium*, creeping bent *Agrostis stolonifera*, and ragwort *Jacobaea vulgaris*; occasional dandelion *Taraxacum officinale* agg., meadow buttercup *Ranunculus acris*, and rough meadow-grass *Poa trivialis*; and rare autumn hawkbit *Scorzoneroides autumnalis*, broadleaved plantain *Plantago major*, common chicory *Cichorium intybus*, common sorrel *Rumex acetosa*, lesser knapweed *Centaurea nigra*, and a vetch species *Vicia* spp..

- 5.25 The grassland does not represent a Habitat of Principal Importance (HPI) or LBAP habitat. It had low floristic diversity within the sward and as such, this habitat is not considered to be an IEF and will not be subject to a detailed assessment.



Photograph 1: Poor semi-improved grassland field (17.07.2025)



Photograph 2: Poor semi-improved grassland field (17.07.2025)

Tall ruderal (g16; tall forbs)

- 5.26 Narrow strips of tall ruderal vegetation were present in the southeast field parcel, acting as a defunct field margin (TF2; Photograph 3). Species comprised dominant creeping thistle *Cirsium arvense*, with abundant nettle *Urtica dioica* and broadleaved dock.
- 5.27 A patch of tall ruderal vegetation was also present in the northeast of the Site, adjacent to a residential property (TF1; Photograph 4). Species comprised locally dominant stinking iris *Iris foetidissima*; and locally abundant rosebay willowherb *Chamaenerion angustifolium*, false oatgrass *Arrhenatherum elatius*, hairy willowherb *Epilobium hirsutum* and a *Geranium* species. Frequently noted were creeping thistle and bramble *Rubus fruticosus* agg., while nettle and field horsetail *Equisetum arvense* occurred occasionally. Rarely noted were broadleaved dock and meadow pea *Lathyrus pratensis*.
- 5.28 Given the limited size and low species diversity of this habitat it would not be an IEF in the context of this assessment.



Photograph 3: Tall ruderal vegetation (TF2) in the southeast of the Site (17.07.2025)



Photograph 4: Patch of tall ruderal vegetation (TF1) in the northeast of the Site (17.07.2025)

Broadleaved trees (203 – Mature trees, 33 – Line of trees)

- 5.29 Three treelines were present within the Site. Treeline TL1 ran along the eastern boundary adjacent to Paddock Road, treeline TL2 ran through the centre of the southeastern field parcel, and treeline TL3 ran along the western boundary in the south west corner of Site.
- 5.30 Additional individual broadleaved trees were recorded onsite along the field margins (Photographs 5 and 6). Species present included ash *Fraxinus excelsior*, sycamore *Acer pseudoplatanus*, hawthorn *Crataegus monogyna*, sessile oak *Quercus petraea*, elder *Sambucus nigra*, goat willow *Salix caprea*, and rowan *Sorbus aucuparia*.
- 5.31 These habitats have inherent value for wildlife as they provide nesting habitat for birds as well providing food and shelter for a number of invertebrate species. The trees would therefore be considered of value at a **Local** level.



Photograph 5: Broadleaved tree in the north of the Site (17.07.2025)



Photograph 6: Treeline TL1 along the eastern Site boundary (17.07.2025)

Scattered scrub

- 5.32 A short line of scattered hawthorn scrub was present in the south of the Site, acting as a defunct field margin (Photograph 7). Some small patches of scattered bramble scrub were also present along the field margin in the centre of the Site (Photograph 8), and some lines of scattered bramble scrub along the western Site boundary.
- 5.33 Given the limited size and low species diversity of this habitat it would not be an IEF in the context of this assessment.



Photograph 7: Line of scattered hawthorn scrub in the south of the Site (17.07.2025)



Photograph 8: Bramble scrub in the centre of the Site (17.07.2025)

Target Notes

5.34 Features recorded as target notes on Figure 2 include:

- TN1 & TN2 – Patches of hay bales on pallets (Photographs 9 and 10)



Photograph 9: TN1 – Hay bales on pallets (17.07.2025)



Photograph 10: TN2 – Hay bales on pallets (17.07.2025)

- TN3 – Large mounds of hay and rubbish (Photograph 11)
- TN4 – Piles of pallets, planks, bricks and other refuse (Photograph 12)



Photograph 11: TN3 – Mounds of hay and soil (17.07.2025)



Photograph 12: TN2 – Refuse piles (17.07.2025)

- TN5 – Cluster of temporary structures (Photographs 13 and 14)



Photograph 13: TN5 – Chicken coops / sheds
(17.07.2025)



Photograph 14: TN5 – Storage containers
(17.07.2025)

FAUNA

Badger

- 5.35 From the desk study there were no records of badger *Meles meles* within 1km of the Site.
- 5.36 No evidence of badger was identified within the Site, however the grassland, tall ruderal vegetation, scattered scrub and trees onsite may provide potential foraging, commuting, and sett-building habitat for badger.
- 5.37 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. As such, badgers would be considered an important ecological feature, but as they are not of conservation concern, no scale of geographical significance would be applied.

Bats

- 5.38 From the desk study, up to ten species of bat were recorded within 2km of the Site boundary. These comprised: common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, an unidentified pipistrelle species, noctule, Leisler's bat, an unidentified Nyctalus species, whiskered bat, Brandt's bat, an unidentified Myotis species, brown long-eared bat, and an unidentified bat species.
- 5.39 The closest record comprised a record of an unknown roost type of an unidentified bat species located 255m south of the Site, identified in January 2006.
- 5.40 There were three EPSL's for bats identified within 2km of the Site boundary, the closest located c. 1.3km west for Brandt's bat, common pipistrelle and whiskered bat.

Roosts – Trees

- 5.41 Nine onsite trees were considered to provide potential roosting features for bats. Full details and photographs are provided in Appendix B.
- 5.42 Trees T2, T4, T6, T7 and T9 were classified as 'PRF-I', whilst T1, T3, T5, and T8 were classified as PRF trees, but requiring further investigation (FAR) in order to classify PRF-I or PRF-M. All PRF/FAR trees have been retained and connective habitat maintained

within the proposals, and therefore further surveys to determine the presence/likely absence of bat roosts has not been undertaken.

- 5.43 Potential bat roost trees are considered an IEF, which in the absence of any further data are considered of value at between **Local and County** level.

Foraging / Commuting Habitat

- 5.44 The grassland, scrub, and scattered trees provide moderate suitability for foraging and commuting bats, providing flight lines which connect to the wider landscape, including a woodland and brook c.500m north of the Site. Bat activity surveys were designed to target onsite as well as boundary habitat utilisation and should activity across the Site be greater than expected then the overall survey effort would be increased.
- 5.45 Surveys are currently being undertaken, and results will be provided within a separate bat report. In the absence of any further data the Site is considered of value at between **Local and County** level for foraging and commuting bats.

Great Crested Newts (GCN)

- 5.46 From the desk study there were no records of GCN within 1km of the Site boundary. There were no EPSL's relating to GCN or records of pond surveys from Natural England's Open Dataset⁴⁷ within 1km of the Site boundary. The Site does not fall within an area of DLL.

Aquatic Habitat

- 5.47 There are no waterbodies present within the Site.
- 5.48 Six ponds, seven ditches and two watercourses (Beldon Brook and Dean Bottom Dike / Box Ings Dike) were identified within 500m of the Site boundary (Table 6

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>

Table 6: Waterbodies identified within 500m of the 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
P1	Large pond within wooded area in farmland.	Straight line distance: 288m northeast Connective distance: >340m	SE 20389 13673	Although there is some connectivity through field margins, Moor Lane and Linfit Lane act as barriers to dispersal. The distance to the pond via field margins is >340m. A maximum routine migratory range of GCN has been estimated at approximately 250m from a breeding pond (Franklin, 1993⁴⁸; Oldham and Nicholson, 1986⁴⁹; Jehle, 2000⁵⁰, Kovar et al., 2009⁵¹). Given the above, the optimal habitats immediately surrounding this pond, and that there are no suitable waterbodies to the south or west of the Site boundary that might encourage GCN computing / dispersal through the terrestrial habitat onsite, it is considered unlikely that GCN would commute to Site should they be present. No Likely Potential Constraint.
P2	Large pond adjacent to farm.	Straight line distance: 322m northeast Connective distance: >350m	SE 20279 13836	Although there is some connectivity through field margins, Moor Lane acts as a barrier to dispersal. The distance to the pond via field margins is >350m. A maximum routine migratory range of GCN has been estimated at approximately 250m from a breeding pond^{23,24,25,26}. Given the above, and that there are no suitable waterbodies to the south or west of the Site boundary that might encourage GCN computing / dispersal through the terrestrial habitat onsite, it is considered unlikely that GCN would commute to Site should they be present. No Likely Potential Constraint.

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, UK;

⁴⁹ Oldham, R.S. & Nicholson, M., 1986. Status and ecology of the warty newt *Triturus cristatus*. Report to the Nature Conservancy Council (Contract HF 3/05/123), Peterborough;

⁵⁰ Jehle, R., 2000. The terrestrial summer habitat of radio-tracked great crested newts (*Triturus cristatus*) and marbled newts (*T. marmoratus*). *Herpetological Journal*, 10, pp. 137-142; -378

⁵¹ Kovar R, Brabec M, Vita R & Bocek R (2009) Spring migration distances of some Central European amphibian species. *Amphibia-Reptilia* 30 (2009): 367

P3	Small pond on field edge.	Straight line distance: 421m northeast Connective distance: >450m	SE 20336 13866	Pond adjacent P2, as above. No Likely Potential Constraint.
P4	Pond within agricultural field.	Straight line distance: 414m north Connective distance: >440m	SE 20128 13925	Although there is some connectivity through field margins, Moor Lane acts as a barrier to dispersal. The distance to the pond via field margins is >440m. A maximum routine migratory range of GCN has been estimated at approximately 250m from a breeding pond ^{23,24,25,26} . Given the above, and that there are no suitable waterbodies to the south or west of the Site boundary that might encourage GCN computing / dispersal through the terrestrial habitat onsite, it is considered unlikely that GCN would commute to Site should they be present. No Likely Potential Constraint.
P5	Small pond adjacent to residential properties.	Straight line distance: 425m southwest Connective distance: N/A	SE 19592 12947	Significant residential development, including North Road / B6116, acts as a barrier to GCN dispersal. No Likely Potential Constraint.
P6	Pond within field of large farm estate.	Straight line distance: 399m east Connective distance: >490m	SE 20614 13273	Although there is some connectivity through field margins, Paddock Road acts as a barrier to dispersal. The distance to the pond via field margins is >490m. A maximum routine migratory range of GCN has been estimated at approximately 250m from a breeding pond ^{23,24,25,26} . Given the above, and that there are no suitable waterbodies to the west of the Site boundary that might encourage GCN computing / dispersal through the terrestrial habitat onsite, it is considered unlikely that GCN would commute to Site should they be present. No Likely Potential Constraint.
D1	Minor ditch connected to P1.	Straight line distance: 264m northeast Connective distance: >340m	SE 20394 13575	Ditch adjacent P1, see above. No Likely Potential Constraint.

D2	Minor ditch connecting ponds P2 and P4.	Straight line distance: 406m north Connective distance: >350m	SE 20141 13929	Ditch adjacent P2 and P4, see above. No Likely Potential Constraint.
D3	Minor offshoot ditch from Beldon Brook along a field margin.	Straight line distance: 435m north Connective distance: >435m	SE 19867 13917	Although there is some connectivity through field margins, Moor Lane acts as a barrier to dispersal. The distance to the pond via field margins is >435m. A maximum routine migratory range of GCN has been estimated at approximately 250m from a breeding pond ^{23,24,25,26} . Given the above, and that there are no suitable waterbodies to the west of the Site boundary that might encourage GCN commuting / dispersal through the terrestrial habitat onsite, it is considered unlikely that GCN would commute to Site should they be present. No Likely Potential Constraint.
D4	Minor ditch connecting P4 and Dean Bottom Dike.	Straight line distance: 427m southwest Connective distance: N/A	SE 19593 12926	Ditch adjacent to P5, see above. No Likely Potential Constraint.
D5	Minor ditch within wooded area adjacent to field and residential area.	Straight line distance: 465m south Connective distance: N/A	SE 19861 12750	Significant residential development acts as a barrier to GCN dispersal. No Likely Potential Constraint.
D6	Minor ditch adjacent to treeline between two fields.	Straight line distance: 462m east Connective distance: >470m	SE 20629 13445	Although there is some connectivity through field margins, Paddock Road and Burton Royd Lane act as barriers to dispersal. The distance to the ditch via field margins is >490m. A maximum routine migratory range of GCN has been estimated at approximately 250m from a breeding pond ^{23,24,25,26} . Given the above, and that there are no suitable waterbodies to the west of the Site boundary that might encourage GCN commuting / dispersal through the terrestrial habitat onsite, it is considered unlikely that GCN would commute to Site should they be present. No Likely Potential Constraint.

D7	Minor ditch adjacent to treeline between two fields.	Straight line distance: 476m northeast Connective distance: >570m	SE 20571 13701	Although there is some connectivity through field margins, Moor Lane, Burton Royd Lane, and Linfit Lane act as barriers to dispersal. The distance to the pond via field margins is >340m. A maximum routine migratory range of GCN has been estimated at approximately 250m from a breeding pond^{23,24,25,26}. Given the above, the optimal habitats immediately surrounding this pond, and that there are no suitable waterbodies to the south or west of the Site boundary that might encourage GCN commuting / dispersal through the terrestrial habitat onsite, it is considered unlikely that GCN would commute to Site should they be present. No Likely Potential Constraint.
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Terrestrial Habitat

- 5.49 At the time of survey, the grassland habitats onsite had been mown and there were horses grazing the field, providing a short sward, which is sub-optimal (at best) for GCN. From a review of Google Street View this habitat appears to be regularly managed in this way, creating unfavourable conditions to support GCN in their terrestrial phase.
- 5.50 Areas of tall ruderal vegetation, scattered scrub and hibernacula (such as refuse piles) provide some limited areas of shelter as well as foraging opportunities for GCN.

Summary

- 5.51 From the desk study there are no known records of GCN within 1km of the Site boundary.
- 5.52 Limited suitable terrestrial habitat was present within the Site including areas of tall ruderal vegetation, scattered scrub and hibernacula (such as refuse piles), although limited in extent. The grassland was considered suboptimal due to the grazed / short mown nature of this habitat.
- 5.53 There are no suitable waterbodies located onsite or within the routine migratory range of GCN. Without access to suitable aquatic habitat in the local area, GCN are unlikely to be present and therefore a potential constraint to development. Therefore, GCN are not considered to be an IEF in the context of this assessment.

Reptiles

- 5.54 From the desk study there were no records of reptiles within 1km of the Site boundary. No evidence of reptiles was observed during the survey.
- 5.55 At the time of survey, the grassland habitats onsite had been mown and there were horses grazing the field, providing a short sward. Consequently, the habitat lacked the ecotones required by reptiles. From a review of Google Street View this habitat appears to be regularly managed in this way, creating a sub-optimal habitat for reptiles. Although the Site lacks a suitable habitat mosaic for reptiles, field margins comprising treelines, scattered scrub and tall ruderal; as well as the presence of hibernacula within the centre of Site (such as refuse piles), provide some suitable areas of shelter as well as foraging opportunities for reptiles.
- 5.56 From the completed survey work between April – June 2026 no reptiles have been identified within the site. They are therefore considered to be absent and are not considered to be an IEF in the context of this assessment.

Birds

- 5.57 From the desk study there were seven different bird species recorded within 1km of the Site boundary, including BoCC Amber and Red species.
- 5.58 Incidental records of birds using the Site during the survey included European goldfinch *Carduelis carduelis* (including one juvenile), blackbird *Turdus merula*, and carrion crow *Corvus corone*. There was also a bird box located on a tree in the southeastern corner of the Site boundary.

- 5.59 At the time of survey, the grassland habitats onsite had been mown and there were horses grazing the field, providing a short sward. From a review of Google Street View this habitat appears to be regularly managed in this way, creating a sub-optimal (at best) habitat for ground nesting species. Scattered trees and scrub provide suitable foraging and nesting habitats for several bird species.
- 5.60 Breeding Bird Surveys were undertaken in 2026, and results will be provided within a separate report. In the absence of any further data the Site is considered of value at between **Local and County** level for breeding birds.

Other

- 5.61 There was one record of water vole *Arvicola amphibius* located 901m northwest, from Beldon Brook, within Lepton Great Wood. However, there is no suitable aquatic habitat for water vole onsite or adjacent to the Site, therefore water vole are not considered an IEF in the context of this assessment.
- 5.62 There was one record of signal crayfish *Pacifastacus leniusculus* recorded 982m northwest from Beldon Brook, within Lepton Great Wood. However, there is no suitable habitat for crayfish onsite or adjacent to the Site, therefore crayfish (native and/or non-native) are not considered an IEF in the context of this assessment.
- 5.63 There were no records of hedgehog *Erinaceus europaeus* within 1km of the Site boundary, however onsite habitats including tall ruderal vegetation, scattered scrub and trees provide suitable foraging and shelter habitat for this species. Hedgehog are a Species of Principle Importance (SPI) and would be considered of importance at a **Local** level.

Summary of Ecological Features & Further Assessment Requirements

- 5.64 The table below provides a summary of the ecological features, their importance, geographical significance and impacts based on the current Illustrative Masterplan (Pegasus Group, 11/06/2026, P25-1724-DE-002-F-002). For ecological features on which further assessment is required please see Table 7.

Table 7: Summary of Important Ecological Features Scoped into Further Assessment

Ecological Feature	Geographical Context
Denby Grange Colliery Ponds Special Area of Conservation (SAC)	International
Denby Grange Colliery Ponds Site of Special Scientific Interest (SSSI)	National
Lepton Great Wood Local Wildlife Site (LWS)	Local
Ancient Woodland	Local
Habitats of Principal Importance (HPI)	Local
West Yorkshire Habitat Network (WYHN)	District
Broadleaved trees	Local

Badger	N/A
Roosting bats	Local to County
Generalist bats	Local to County
Breeding birds	Local to County
Hedgehog	Local

6.0 **IMPACT ASSESSMENT**

PROPOSALS

- 6.1 Outline planning application for up to 160 residential units with associated gardens, infrastructure and greenspace provision.

DENBY GRANGE COLLIERY PONDS SPECIAL AREA OF CONSERVATION (SAC)

Potential Effect

- 6.2 Denby Grange Colliery SAC is located 6.8km east of the Site boundary. This international site is designated for its Great Crested Newt (GCN) population. 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 habitat or species that the SAC is designated for, thus there will be no loss of supporting habitats/qualifying species.
 - Given that the proposed development is several kilometres away, the qualifying species (GCN) are not expected to commute to the proposed development site.
 - Given that the proposed development is several kilometres away, impacts arising from increased road traffic are considered to be imperceptible from road traffic air pollution.
 - The development is located over 6km from the Site within an existing urban area, so there are not considered to be any impacts from the urban edge effect⁵².
 - The Site is located within the Colne and Holme Operational Catchment, while the SAC is located within the Calder Lower Operational Catchment. There are not considered to be any direct hydrological links between the Site and the SAC.
 - The SAC has some limited public access, however impacts related to increased visitors are unlikely due to the presence of managed footpaths. There are also numerous other recreational activities in the local area.

⁵² 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.

Mitigation

- 6.3 None required.

Residual Effect

- 6.4 The significance of residual effects is considered to be **Neutral**.

DENBY GRANGE COLLIERY PONDS SITE OF SPECIAL SCIENTIFIC INTEREST (SSSI)**Potential Effect**

- 6.5 Denby Grange Colliery SSSI is located 6.8km east of the Site boundary. This national site is designated for its Great Crested Newt (GCN) population.
- 6.6 The development site falls within the 5 – 10km Impact Risk Zone (IRZ) for Denby Grange Colliery SSSI. However, the development proposals do not fall within the categories that would otherwise require consultation with Natural England.
- 6.7 The development does not occur within the SSSI boundaries, thus there will be no direct loss of habitat; and the Site does not contain any habitats or species for which the SSSI is designated for, thus there will be no loss of supporting habitats. No construction phase impacts, such as direct (e.g. habitat loss or fragmentation) or indirect impacts (e.g. accidental damage and pollution events) expected upon the SSSI given the intervening distance between the Site and SSSI boundaries.
- 6.8 Given the residential nature of the proposals, potential impacts could occur during the operational phase of the development as a result of the increased recreational pressure and resulting habitat degradation. However, impacts related to increased visitors are unlikely due to the presence of managed footpaths. There are also numerous other recreational activities in the local area.

Mitigation

- 6.9 None required.

Residual Effect

- 6.10 The significance of residual effects is considered to be **Neutral**.

LEPTON GREAT WOOD LOCAL WILDLIFE SITE (LWS)**Potential Effect**

- 6.11 Lepton Great Wood LWS is located 536m north of the Site boundary. The LWS comprises ancient semi-natural woodland.
- 6.12 No construction phase impacts, such as direct (e.g. accidental damage resulting in habitat loss) or indirect impacts (e.g. pollution events) are expected upon the LWS given the intervening distance between the Site and LWS boundaries.

- 6.13 The LWS has public access, and there is a public footpath connecting directly to the LWS from Moor Lane, c.800m in length, estimated at approximately 10 minutes walking time. Post development, given the residential nature of the proposals and connectivity to the LWS, there could be a negative impact from increased recreational use, depending on the number of increased visitors.

Mitigation

- 6.14 The implementation of well-defined footpaths throughout the Site and the distribution of homeowner packs to inform new residents about the presence of offsite designated sites, their importance to wildlife and measures that can be taken to reduce negative impacts (e.g. users should stay on existing footpaths, keep dogs on leads, and clear up dog waste) would reduce operational impacts to a nugatory level.

Residual Effect

- 6.15 The significance of residual effects is considered to be **Neutral**.

ANCIENT WOODLAND

Potential Effect

- 6.16 Three parcels of ancient semi-natural woodland and one parcel of planted ancient woodland occur within 1km of the Site, the closest being Lepton Great Wood, located 557m north. Impacts and mitigation for Lepton Great Wood LWS are outlined above.

HABITATS OF PRINCIPAL IMPORTANCE (HPI)

Potential Effect

- 6.17 Thirty HPI parcels occur within 1km of the Site, the closest of which is 'no main habitat but additional habitats present' occurring 212m south of the Site, and traditional orchard adjacent this occurring 214m south of the Site. However, from a review of aerial imagery, this habitat is actually a residential development/garden habitats and therefore this mapping is considered inaccurate and as such no impacts are anticipated.
- 6.18 The next closest HPI is a parcel of deciduous woodland located 409m southwest of the Site. No construction phase impacts, such as direct (e.g. accidental damage resulting in habitat loss) or indirect impacts (e.g. pollution events) are expected upon the HPIs given the intervening distance between the Site and HPI boundaries. This HPI falls within Burton Dean Park, for which there are public footpaths within. Post development, given the residential nature of the proposals and connectivity to the HPI, there could be a negative impact from increased recreational use, depending on the number of increased visitors.

Mitigation

- 6.19 The implementation of well-defined footpaths throughout the Site and the distribution of homeowner packs to inform new residents about the presence of offsite designated sites, their importance to wildlife and measures that can be taken to reduce negative

impacts (e.g. users should stay on existing footpaths, keep dogs on leads, and clear up dog waste) would reduce operational impacts to a nugatory level.

Residual Effect

- 6.20 The significance of residual effects is considered to be **Neutral**.

WEST YORKSHIRE HABITAT NETWORK (WYHN)

Potential Effect

- 6.21 At the nearest point, the WYHN is located 322m northeast of the Site boundary. No construction phase impacts, such as direct (e.g. accidental damage resulting in habitat loss) or indirect impacts (e.g. pollution events) are expected upon the WYHN given the intervening distance between the Site and WYHN boundary. The WYHN at the nearest point is pond P2, which falls within a private farm/garden and therefore post development impacts (such as recreational use) are not anticipated. The nearest area of WYHN which is publicly accessible falls within Lepton Great Wood, for which impacts and mitigation for Lepton Great Wood LWS are outlined above.

BROADLEAVED TREES

Potential Effect

- 6.22 Three treelines and twenty-seven additional individual broadleaved trees are present within the Site.
- 6.23 Approximately 71m of TL2 will be lost to the proposals, whilst all of TL1 and TL2 will be retained; although two pedestrian access footpaths will cut through TL1 but without directly impacting the trees present. Seventeen scattered broadleaved trees will be lost, whilst ten will be retained.
- 6.24 Potential impacts could occur to retained habitats during the construction phase via accidental physical damage, dust or a pollution event. In severe cases this could lead to permanent loss of habitats.
- 6.25 Direct lighting of retained habitats during the construction and operational phase could lead to species avoidance of these habitats, such as foraging, roosting, or commuting bats.
- 6.26 Given the residential nature of the proposals, potential impacts could occur to retained habitats during the operational phase of the development as a result of the increased recreational pressure and resulting habitat degradation.

Mitigation

- 6.27 Retained habitats must be protected during construction from impacts arising from accidental habitat damage, a pollution event, dust deposition, noise pollution and lighting. Retained habitats should, where necessary be fenced off using appropriate fencing for the duration of development operations and habitats will be protected during

construction in accordance with BS5837 Trees in Relation to Construction⁵³, and relevant Root Protection Areas (RPAs). Pollution prevention measures will also need to be implemented in line with DEFRA guidance⁵⁴. The above must be outlined within a Construction Environmental Management Plan (CEMP).

- 6.28 During construction, any light used on Site will be directed to avoid any light spill to retained habitats. All external lighting outside of operational hours is to be used for safety and security reasons only. Additional measures to minimise light spill should be considered which are based on best practice guidance⁵⁵ include a combination of the following steps:
- Avoiding unnecessary lighting.
 - The use of low-intensity lighting (sodium lamps or similar), where possible.
 - The use of low level and / or hooded lamps to minimise light spill.
 - Minimising light spill with the use of directed lighting.
- 6.29 Lighting should be designed to prevent post development impacts from new development lighting. The lighting scheme should be designed in accordance with guidelines from BCT⁵⁶. It should be designed and positioned to reduce spill onto retained habitats and be downwardly directional, of 1 lux or less LED lamps and ideally set on motion sensors on short timers. The above must be outlined within a CEMP.
- 6.30 The implementation of well-defined footpaths and the distribution of homeowner packs to inform new residents about the presence of retained habitats, their importance to wildlife and measures that can be taken to reduce negative impacts (e.g. users should stay on existing footpaths, keep dogs on leads, and clear up dog waste) would reduce operational impacts.

Residual Effect

- 6.31 The loss of 71m of TL2, and of seventeen scattered broadleaved trees cannot be mitigated for as these features will be permanently lost. This will result in a **not significant adverse** effect at a **Local** level, prior to compensation/enhancement.

Compensation / Enhancement

- 6.32 The retained trees, treelines, and native hedgerow present within the redline will be subject to management for a minimum of 30-years to ensure that they maintain their current condition (Moderate / Good). This will be secured with any planning consent, with management and monitoring outlined in a Habitat Management and Monitoring Plan (HMMP).
- 6.33 New landscaping is proposed throughout the development, which will comprise the planting of at least 200 new native trees and new native species rich hedgerows. These

⁵³ The British Standards Institution (2012). BS5837:2012 Trees in relation to design, demolition and construction – Recommendations. BSI Standards Limited 2012

⁵⁴ <https://www.gov.uk/guidance/pollution-prevention-for-businesses>

⁵⁵ Bat Conservation Trust and the Institute of Lighting Professionals in 2023, 'Bats and Artificial Lighting At Night' Guidance Note GN08/23

⁵⁶ Bat Conservation Trust and the Institute of Lighting Professionals in 2023, 'Bats and Artificial Lighting At Night' Guidance Note GN08/23

will be managed and monitored in the long-term as per the retained habitat, which would result in a **not significant positive** effect at a **Local** level.

BADGER

Potential Effect

- 6.34 Although no evidence of badgers was identified at the time of survey, given the presence of suitable habitat for badgers onsite and immediately adjacent the Site boundary. Potential impacts during the construction phase could arise such as killing and/or injury of badgers, as well as the destruction or disturbance of setts, in the event that sett construction takes places in the intervening period. Both would result in a breach of the Badger Protection Act 1992.

Mitigation

- 6.35 To ensure compliance with the Protection of Badgers Act 1992, an updated badger survey should be conducted prior to the construction phase. If an active sett is identified within 30m of the work area, precautionary methods will be followed during any clearance near the setts and any setts to be impacted will be closed under licence.
- 6.36 Best practice measures should also be implemented during construction to prevent harm to badgers and other wildlife. This includes provision of an access ramp in any excavations left open 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. Should evidence of badgers be observed at any stage of works a suitably experienced ecologist should be contacted for further advice and to determine any requirement for a development licence to facilitate further works. The above must be outlined within a CEMP.

Residual Effect

- 6.37 With the implementation of the above mitigation, the residual effect on badgers will be **Neutral**.

ROOSTING BATS

Potential Effect

- 6.38 Nine trees offered bat roosting potential with the Site. All trees with bat roosting potential will be retained and no built development is to occur within the RPAs, therefore there will not be any direct impacts during the construction phase on roosting bats. Connectivity to wider habitats will also be retained where possible to prevent a potential severance of bat roost commuting routes.
- 6.39 However, indirect impacts may arise from accidental habitat damage, root compaction, a pollution event, dust deposition, noise pollution, and lighting. In severe cases this could lead to permanent habitat degradation, such as tree losses, and/or species avoidance of habitats.

- 6.40 Given the residential nature of the proposals, potential impacts could occur to the retained habitats during the operational phase of the development as a result of the increased recreational pressure and resulting habitat degradation.

Mitigation

- 6.41 The retained trees with bat roosting potential must be protected during construction from impacts arising from accidental habitat damage, a pollution event, dust deposition, noise pollution and lighting. Retained habitats should, where necessary be fenced off using appropriate fencing for the duration of development operations and habitats will be protected during construction in accordance with BS5837 Trees in Relation to Construction⁵⁷ and relevant Root Protection Areas (RPAs). Pollution prevention measures will also need to be implemented in line with DEFRA guidance⁵⁸. The above must be outlined within a CEMP.
- 6.42 During construction, any light used on Site will be directed to avoid any light spill to potential roost trees. All external lighting outside of operational hours is to be used for safety and security reasons only. Additional measures to minimise light spill should be considered which are based on best practice guidance⁵⁹ include a combination of the following steps:
- Avoiding unnecessary lighting.
 - The use of low-intensity lighting (sodium lamps or similar), where possible.
 - The use of low level and / or hooded lamps to minimise light spill.
 - Minimising light spill with the use of directed lighting.
- 6.43 Direct lighting of roost trees during the operational phase could also 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 BCT⁶⁰. It should be designed and positioned to reduce spill onto retained habitats and be downwardly directional, of 1 lux or less LED lamps and ideally set on motion sensors on short timers.
- 6.44 During construction no working should be undertaken at night on the site to avoid noise impacts.
- 6.45 The implementation of well-defined footpaths and the distribution of homeowner packs to inform new residents about the presence of retained habitats, their importance to wildlife and measures that can be taken to reduce negative impacts (e.g. users should stay on existing footpaths, keep dogs on leads, and clear up dog waste) would reduce operational impacts.

⁵⁷ The British Standards Institution (2012). BS5837:2012 Trees in relation to design, demolition and construction – Recommendations. BSI Standards Limited 2012

⁵⁸ <https://www.gov.uk/guidance/pollution-prevention-for-businesses>

⁵⁹ Bat Conservation Trust and the Institute of Lighting Professionals in 2023, 'Bats and Artificial Lighting At Night' Guidance Note GN08/23

⁶⁰ Bat Conservation Trust and the Institute of Lighting Professionals in 2023, 'Bats and Artificial Lighting At Night' Guidance Note GN08/23

Residual Effect

- 6.46 With the implementation of the above mitigation, the residual effect on roosting bats will be **Neutral**.

Compensation / Enhancement

- 6.47 Integrated bat boxes will be incorporated into the new buildings to provide additional roosting habitat for bat species.
- 6.48 Additional landscaping is proposed to enhance the existing green corridors throughout the Site and improve connectivity for roosting bats, comprising the planting of at least 200 native trees, multiple lengths of native species-rich hedgerows, as well as areas of other neutral grassland and native mixed scrub.
- 6.49 This would have a **not significant positive** effect at a **Local** scale.

GENERALIST BATS**Potential Effect**

- 6.50 Surveys are currently being undertaken, and results will be provided within a separate bat report, therefore the exact species assemblage and utilisation of habitats onsite is to be confirmed.
- 6.51 Many habitats of potential value for foraging and commuting bats within the Site will be retained, such as the entirety of treelines TL1 and TL3; approximately 34m of TL2; and ten scattered broadleaved trees. Some habitats of potential value, such as poor semi-improved grassland, approximately 71m length of TL2, and seventeen scattered broadleaved trees will be lost to facilitate the development.
- 6.52 Indirect impacts may arise from accidental habitat damage, root compaction, a pollution event, dust deposition, noise pollution, and lighting. In severe cases this could lead to permanent habitat degradation, such as tree losses, and/or species avoidance of habitats.
- 6.53 Given the residential nature of the proposals, potential impacts could occur to the retained habitats during the operational phase of the development as a result of the increased recreational pressure and resulting habitat degradation.

Mitigation

- 6.54 The loss of all the poor semi-improved grassland, approximately 71m of TL2, and seventeen scattered broadleaved trees cannot be mitigated for as these features will be permanently lost.
- 6.55 Retained habitats must be protected during construction from impacts arising from accidental habitat damage, a pollution event, dust deposition, noise pollution and lighting. Retained habitats should, where necessary be fenced off using appropriate fencing for the duration of development operations and habitats will be protected during construction in accordance with BS5837 Trees in Relation to Construction⁶¹, and relevant

⁶¹ The British Standards Institution (2012). BS5837:2012 Trees in relation to design, demolition and construction – Recommendations. BSI Standards Limited 2012

Root Protection Areas (RPAs). Pollution prevention measures will also need to be implemented in line with DEFRA guidance⁶². The above must be outlined within a Construction Environmental Management Plan (CEMP).

- 6.56 During construction, any light used on Site will be directed to avoid any light spill to retained habitats. All external lighting outside of operational hours is to be used for safety and security reasons only. Additional measures to minimise light spill should be considered which are based on best practice guidance⁶³ include a combination of the following steps:
- Avoiding unnecessary lighting.
 - The use of low-intensity lighting (sodium lamps or similar), where possible.
 - The use of low level and / or hooded lamps to minimise light spill.
 - Minimising light spill with the use of directed lighting.
- 6.57 Lighting should be designed to prevent post development impacts from new development lighting. The lighting scheme should be designed in accordance with guidelines from BCT⁶⁴. It should be designed and positioned to reduce spill onto retained habitats and be downwardly directional, of 1 lux or less LED lamps and ideally set on motion sensors on short timers. The above must be outlined within a CEMP.
- 6.58 The implementation of well-defined footpaths and the distribution of homeowner packs to inform new residents about the presence of retained habitats, their importance to wildlife and measures that can be taken to reduce negative impacts (e.g. users should stay on existing footpaths, keep dogs on leads, and clear up dog waste) could reduce operational impacts.

Residual Effect

- 6.59 Without bat survey data to determine the species assemblage onsite or utilisation of specific habitats, this may result in a **not significant or significant adverse** effect at a **Local to County** level, prior to compensation/enhancement.

Compensation / Enhancement

- 6.60 New landscaping is proposed throughout the development, which will comprise the planting of at least 200 broadleaved trees and species rich hedgerow planting of native species which bear fruit and nectar, which will increase the invertebrate population (the food source for UK bats). Additionally, the seeding of other neutral grassland and mixed scrub will further improve the available habitats for invertebrates. The landscaping is proposed in such a way to enhance the existing green corridors throughout the Site and improve connectivity for foraging and commuting bats.
- 6.61 Long-term management and maintenance of retained and created habitats within the Site will be outlined in a Habitat Management and Monitoring Plan (HMMP).

⁶² <https://www.gov.uk/guidance/pollution-prevention-for-businesses>

⁶³ Bat Conservation Trust and the Institute of Lighting Professionals in 2023, 'Bats and Artificial Lighting At Night' Guidance Note GN08/23

⁶⁴ Bat Conservation Trust and the Institute of Lighting Professionals in 2023, 'Bats and Artificial Lighting At Night' Guidance Note GN08/23

- 6.62 The above is expected to provide an enhanced habitat for foraging and commuting bats, expected to result in at least a **Neutral** effect.

BREEDING BIRDS

Potential Effect

- 6.63 Breeding Bird Surveys were undertaken in 2026, and results will be provided within a separate report, therefore the exact species assemblage and utilisation of habitats onsite is to be confirmed.
- 6.64 Many habitats of potential value for breeding birds within the Site will be retained, such as the entirety of treelines TL1 and TL3; approximately 34m of TL2; and ten scattered broadleaved trees. Some habitats of potential value, such as poor semi-improved grassland, approximately 71m length of TL2, and seventeen scattered broadleaved trees will be lost to facilitate the development.
- 6.65 All wild bird species are protected while nesting by the Wildlife and Countryside Act (WCA) 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 or being built or take / destroy an egg of a wild bird.
- 6.66 Indirect impacts may arise upon retained habitats from accidental habitat damage, root compaction, a pollution event, dust deposition, noise pollution, and lighting. In severe cases this could lead to permanent habitat degradation, such as tree losses, and/or species avoidance of habitats.
- 6.67 Given the residential nature of the proposals, potential impacts could occur to the retained habitats during the operational phase of the development as a result of the increased recreational pressure and resulting habitat degradation. It is also acknowledged that there could be an impact from human disturbance and/or dog walking, as well as an increase in cat predation.

Mitigation

- 6.68 The loss of all the poor semi-improved grassland, approximately 71m of TL2, and seventeen scattered broadleaved trees cannot be mitigated for as these features will be permanently lost.
- 6.69 To comply with relevant legislation, the removal of vegetation which may support nesting bird should take place outside of the bird nesting period (March to September, inclusive). This includes, but is not limited to the boundary hedgerows, gardens, and scrub in which breeding birds were all confirmed to utilise in the 2023 breeding bird season. Although no birds were confirmed breeding within the grassland habitats, or within treeline TL1, these habitats still provide suitable locations for nesting birds, and therefore precautionary working methods should be applied, and no works undertaken during the bird nest season. Should the removal be required during the bird nesting period, a nesting bird check must be carried out by an appropriately qualified ecologist.

- 6.70 Should any active nest be identified a minimum 5m buffer/exclusion zone will be applied around the nest site. Protection of ‘active’ nests is a statutory requirement under the WCA 1981 (as amended), as wild nesting birds, their nest, eggs, chicks, and fledglings are protected by law. It will be necessary to undertake further site visits to check the status of the nests. The buffer/exclusion zone will be maintained until it is confirmed that the nest is no longer active and/or any young have fledged.
- 6.71 Retained habitats must be protected during construction from impacts arising from accidental habitat damage, a pollution event, dust deposition, noise pollution and lighting. Retained habitats should, where necessary be fenced off using appropriate fencing for the duration of development operations and habitats will be protected during construction in accordance with BS5837 Trees in Relation to Construction⁶⁵, and relevant Root Protection Areas (RPAs). Pollution prevention measures will also need to be implemented in line with DEFRA guidance⁶⁶. The above must be outlined within a Construction Environmental Management Plan (CEMP).
- 6.72 During construction, any light used on Site will be directed to avoid any light spill to retained habitats. All external lighting outside of operational hours is to be used for safety and security reasons only. Additional measures to minimise light spill should be considered which are based on best practice guidance⁶⁷ include a combination of the following steps:
- Avoiding unnecessary lighting.
 - The use of low-intensity lighting (sodium lamps or similar), where possible.
 - The use of low level and / or hooded lamps to minimise light spill.
 - Minimising light spill with the use of directed lighting.
- 6.73 Lighting should be designed to prevent post development impacts from new development lighting. The lighting scheme should be designed in accordance with guidelines from BCT⁶⁸. It should be designed and positioned to reduce spill onto retained habitats and be downwardly directional, of 1 lux or less LED lamps and ideally set on motion sensors on short timers. The above must be outlined within a CEMP.
- 6.74 To reduce recreational pressure to both on-site and off-site habitats suitable for breeding birds, the implementation of well-defined footpaths through publicly accessible green spaces within the development will allow for activities such as dog walking, exercise, and recreation within scheme. The distribution of homeowner packs to inform new residents about the presence of retained habitats, their importance to wildlife and measures that can be taken to reduce negative impacts (e.g. advise that all cats wear bell-collars and are kept indoors at night, users should stay on existing footpaths, keep dogs on leads, and clear up dog waste) could reduce operational impacts.

⁶⁵ The British Standards Institution (2012). BS5837:2012 Trees in relation to design, demolition and construction – Recommendations. BSI Standards Limited 2012

⁶⁶ <https://www.gov.uk/guidance/pollution-prevention-for-businesses>

⁶⁷ Bat Conservation Trust and the Institute of Lighting Professionals in 2023, ‘Bats and Artificial Lighting At Night’ Guidance Note GN08/23

⁶⁸ Bat Conservation Trust and the Institute of Lighting Professionals in 2023, ‘Bats and Artificial Lighting At Night’ Guidance Note GN08/23

Residual Effect

- 6.75 Without bird survey data to determine the species assemblage onsite or utilisation of specific habitats, this may result in a **not significant or significant adverse** effect at a **Local to County** level, prior to compensation/enhancement.

Compensation / Enhancement

- 6.76 New landscaping is proposed throughout the development which will provide suitable nesting and foraging resources for the site's breeding bird assemblage. New suitable habitats will comprise broadleaved trees, native scrub, and native hedgerows. The implementation of native species which bear fruit and nectar will increase the invertebrate population, and therefore the food source for many birds. Additionally, the seeding of other neutral grassland will further improve the available habitats for foraging birds. The landscaping is proposed in such a way to enhance the existing green corridors throughout the Site and improve connectivity for birds.
- 6.77 A range of nest boxes should be installed within new dwellings and/or retained trees throughout the Site to increase habitat provision for the local bird population.
- 6.78 Long-term management and maintenance of retained and created habitats within the Site will be outlined in a Habitat Management and Monitoring Plan (HMMP).
- 6.79 The above is expected to provide an enhanced habitat for breeding birds, expected to result in at least a **Neutral** effect, unless ground nesting species are confirmed present, for which alternative suitable habitat cannot be provided and the residual effect would be as detailed above.

HEDGEHOG

Potential Effect

- 6.80 Vegetation removal of suitable habitats, such as tall ruderal vegetation and scattered scrub, has a risk of causing injury or death to this species.
- 6.81 During the operational phase, the development may prevent freedom of movement throughout the Site should boundary features not be suitable for wildlife movement.

Mitigation

- 6.82 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 woody vegetation to 150mm above ground level in the first instance with all cut vegetation removed by hand from the working area. 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.
- 6.83 Hedgehog gaps will also be incorporated into boundary treatments (where feasible) to maintain connectivity through the site for hedgehog.

Residual Effect

- 6.84 With the implementation of the above mitigation, the residential effect is considered to be **Neutral**.

Compensation / Enhancement

- 6.85 New landscaping is proposed throughout the development, which will comprise additional broadleaved tree, native scrub and species rich hedgerow planting of native species which bear fruit and nectar, which will increase the invertebrate population (the food source for hedgehogs) as well as providing suitable shelter for this species.
- 6.86 Log piles are also recommended within the areas of Public Open Space to provide foraging and shelter habitats for this species. This is expected to provide new suitable foraging and commuting habitat for hedgehogs. This would have a **not significant positive** effect at a **Local** scale.

Table 8: Assessment of Likely Significant Effects & Mitigation Measures

Important Ecological Feature (Geographical Context)	Potential Impact	Nature of Effect	Mitigation & Implementation	Residual Effect after Mitigation	Compensation & Enhancement	Significance of effect after Mitigation, Compensation & Enhancement
Denby Grange Colliery Ponds Special Area of Conservation (SAC)	None identified	N/A	N/A	Neutral	N/A	N/A
Denby Grange Colliery Site of Special Scientific Interest (SSSI)	None identified	N/A	N/A	Neutral	N/A	N/A
Lepton Great Wood LWS / Ancient Woodland	Minor recreational impacts	Damage to habitats due to increased footfall, urban edge effects, fly-tipping, and dog fouling	Implementation of well-defined footpaths within the development and distribution of homeowner packs with information	Neutral	N/A	N/A
HPI	Minor recreational impacts	Damage to habitats due to increased footfall, urban edge effects, fly-tipping, and dog fouling	Implementation of well-defined footpaths within the development and distribution of homeowner packs with information	Neutral	N/A	N/A
WYHN	None identified	N/A	N/A	Neutral	N/A	N/A

Retained habitats: Broadleaved trees	Loss of 71m of Treeline TL2 and 17 x broadleaved trees to facilitate development	Permanent loss	N/A	Not significant adverse effect at a Local level	Retained habitats will be maintained in the long-term to ensure they maintain their current condition, set out in a HMMP. New landscaping will include additional broadleaved trees and new native species rich hedgerows.	Not significant positive effect at a Local level
	Accidental damage to retained habitats	Temporary reduction in value, and potentially a permanent effect leading to habitat loss	Construction Environmental Management Plan (CEMP) to outline habitat protection measures	Neutral	N/A	N/A
	Direct lighting	Avoidance of habitats by crepuscular / nocturnal species	Implementation of a sensitive lighting design in accordance with BCT guidance	Neutral	N/A	N/A
	Recreational impacts	Damage to habitats due to increased footfall, urban edge effects, fly-tipping, and dog fouling	Implementation of well-defined footpaths within the development and distribution of homeowner packs with information	Neutral	N/A	N/A

Badger (N/A)	If any setts are created prior to construction, site works could lead to the killing / injury of badgers and/or disturbance / destruction of their setts.	Breach of legislation.	Updated badger survey carried out prior to works commencing to ensure compliance with the Badger Protection Act 1992. If any setts are identified within 30m of the working area, these would be buffered from impacts until they can be closed under licence. Pre commencement badger check as a condition.	N/A	N/A	N/A
Roosting bats	Accidental damage	Temporary reduction in value, and potentially a permanent effect leading to habitat loss, which could be a breach of legislation if a bat roost is present	CEMP to outline habitat protection measures	Neutral	Installation of bat boxes to provide additional roosting opportunities	Not significant positive effect at a Local level
	Direct lighting	Avoidance of habitats by crepuscular / nocturnal species	Implementation of a sensitive lighting design in accordance with BCT guidance	Neutral	N/A	N/A
	Noise disturbance	Avoidance of habitats by crepuscular / nocturnal species	No works undertaken at night	Neutral	N/A	N/A

	Recreational impacts	Damage to habitats due to increased footfall, urban edge effects, fly-tipping, and dog fouling	Implementation of well-defined footpaths within the development and distribution of homeowner packs with information	Neutral	N/A	N/A
Generalist bats	Loss of 71m of Treeline TL2 and 17 x broadleaved trees to facilitate development	Permanent loss of potential foraging and commuting habitats	N/A	Not significant or significant adverse effect at a Local to County level	Retained habitats will be maintained in the long-term to ensure they maintain their current condition, set out in a HMMP. New landscaping will include additional broadleaved trees and new native species rich hedgerows.	Not significant positive effect at a Local level
	Accidental damage	Temporary reduction in value, and potentially a permanent effect leading to habitat loss, which could be a breach of legislation if a bat roost is present	CEMP to outline habitat protection measures	Neutral	Installation of bat boxes to provide additional roosting opportunities	Not significant positive effect at a Local level
	Direct lighting	Avoidance of habitats by crepuscular / nocturnal species	Implementation of a sensitive lighting design in accordance with BCT guidance	Neutral	N/A	N/A
	Noise disturbance	Avoidance of habitats by crepuscular / nocturnal species	No works undertaken at night	Neutral	N/A	N/A

	Recreational impacts	Damage to habitats due to increased footfall, urban edge effects, fly-tipping, and dog fouling	Implementation of well-defined footpaths within the development and distribution of homeowner packs with information	Neutral	N/A	N/A
Breeding birds	Loss of all poor semi-improved grassland, 71m of Treeline TL2 and 17 x broadleaved trees to facilitate development	Permanent loss of potential nesting and foraging habitat, potential species displacement from the site	N/A	Not significant or significant adverse effect at a Local to County level	Retained habitats will be maintained in the long-term to ensure they maintain their current condition, set out in a HMMP. New landscaping will include additional broadleaved trees, native scrub and new native species rich hedgerows which will provide improved foraging and nesting opportunities. In addition, nest boxes should be installed within new dwellings and/or retained trees.	Anticipated to result in a Neutral effect, unless ground nesting species are confirmed present.
	Vegetation clearance	Risk of killing or injury of nesting birds, which would be a Breach of legislation	Vegetation clearance will be carried out outside the nesting bird season (March September inclusive) or vegetation will be checked by an ecologist and any nesting birds allowed to fledge prior to removal.	Neutral	N/A	N/A

	Accidental damage	Temporary reduction in value, and potentially a permanent effect leading to habitat loss, which could be a breach of legislation if a bat roost is present	CEMP to outline habitat protection measures	Neutral	N/A	N/A
	Direct lighting	Avoidance of habitats by birds	Implementation of a sensitive lighting design in accordance with BCT guidance	Neutral	N/A	N/A
	Recreational impacts	Damage to habitats due to increased footfall, urban edge effects, fly-tipping, and dog fouling	Implementation of well-defined footpaths within the development and distribution of homeowner packs with information	Neutral	N/A	N/A
Hedgehog	Vegetation clearance	Potential for accidental injury and/or killing of individuals	CEMP to outline precautionary working methods	Neutral	New landscape planting to include broadleaved trees, native scrub, and native hedgerows which will increase the invertebrate population, thus improving foraging opportunities, as well as providing additional shelter. Log piles are recommended.	Not significant positive effect at a Local level
	Prevention of freedom of movement throughout the site	Species displacement from the site	Hedgehog gaps to be incorporated into boundary treatments	Neutral	N/A	N/A

7.0 **RESIDUAL EFFECTS**

- 7.1 The mitigation measures are provided within Table 8 above. Subject to the results of bat activity and breeding bird surveys, following the implementation of the above mitigation **no significant** negative residual effects are envisaged.

8.0 **CUMULATIVE EFFECTS**

Kirklees Council's website was reviewed for planning permissions / developments within the last 5 years that may have a cumulative effect when considered with this proposal. The vast majority of applications with Kirkburton were for small scale works, primarily homeowner works such as tree works and extensions. No cumulative effects are anticipated from these developments.

STORTHERS HALL STUDENT VILLAGE

- 8.1 Outline planning permission (2023/93667) for the demolition of existing buildings and erection of a residential development (up to 261 dwellings). Ecological reporting included a Preliminary Ecological Appraisal in 2023⁶⁹ which reported no significant effects anticipated upon any designated sites, habitats or species as a result of the proposals, and therefore no cumulative effects are anticipated.

9.0 **MONITORING**

- 9.1 Monitoring is recommended to ensure that effective mitigation is maintained during construction and operation. This could include quarterly checks during construction and throughout habitat establishment and management. Some stages of the site clearance will require supervision by a suitably qualified ecologist, such as pre-commencement surveys for badgers and nesting bird checks if clearance is undertaken during bird breeding season).

10.0 **BIODIVERSITY ENHANCEMENTS**

- 10.1 In accordance with NPPF (2024), The Environment Act 2021, and Policy LP30: Biodiversity & Geodiversity of the Kirklees Local Plan (adopted February 2019), the development should incorporate features to encourage biodiversity, and retain and where possible enhance existing features of nature conservation value within the site.
- 10.2 The Impact Assessment 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.

⁶⁹ Enzygo, November 2023. Storthes Hall Student Village, Kirkburton, Preliminary Ecological Appraisal, Rev C.

-
- 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.
 - Log piles to act as refugia for a range of species.
 - Any formal lawn areas should where possible be seeded with a species rich flowering lawn mix such as EL1 – Flowering Lawn Mix, Emorsgate Seeds.

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

Common Name	Scientific Name	DAFOR
Poor semi-improved grassland		
Autumn hawkbit	<i>Scorzoneroide autumnalis</i>	R
Broadleaved dock	<i>Rumex obtusifolius</i>	R - LF
Broadleaved plantain	<i>Plantago major</i>	R
Cock's foot	<i>Dactylis glomerata</i>	A
Common chicory	<i>Cichorium intybus</i>	R
Common hogweed	<i>Heracleum sphondylium</i>	R - LF
Common sorrel	<i>Rumex acetosa</i>	R
Creeping bent	<i>Agrostis stolonifera</i>	R - LF
Creeping buttercup	<i>Ranunculus repens</i>	F
Dandelion	<i>Taraxacum officinale</i> agg.	O
False oat-grass	<i>Arrhenatherum elatius</i>	F
Lesser knapweed	<i>Centaurea nigra</i>	R
Meadow buttercup	<i>Ranunculus acris</i>	O
Perennial rye-grass	<i>Lolium perenne</i>	A
Ragwort	<i>Jacobaea vulgaris</i>	O - LF
Red clover	<i>Trifolium pratense</i>	F
Ribwort plantain	<i>Plantago lanceolata</i>	F
Rough meadow-grass	<i>Poa trivialis</i>	O
Vetch species	<i>Vicia</i> sp.	R
White clover	<i>Trifolium repens</i>	F
Yorkshire fog	<i>Holcus lanatus</i>	F
Tall ruderal		
Bramble	<i>Rubus fruticosus</i> agg.	R - LF
Broadleaved dock	<i>Rumex obtusifolius</i>	R
Common nettle	<i>Urtica dioica</i>	O
Creeping thistle	<i>Cirsium arvense</i>	F - D
False oatgrass	<i>Arrhenatherum elatius</i>	R - LA
Field horsetail	<i>Equisetum arvense</i>	O
Geranium species	<i>Geranium</i> sp.	R
Hairy willowherb	<i>Epilobium hirsutum</i>	R - LA
Meadow pea	<i>Lathyrus pratensis</i>	R
Rosebay willowherb	<i>Chamaenerion angustifolium</i>	R - LA
Stinking iris	<i>Iris foetidissima</i>	R - LD
Trees and scattered scrub		
Ash	<i>Fraxinus excelsior</i>	A
Bramble	<i>Rubus fruticosus</i> agg.	O
Dog rose	<i>Rosa canina</i>	R
Elder	<i>Sambucus nigra</i>	R
Goat willow	<i>Salix caprea</i>	R
Hawthorn	<i>Crataegus monogyna</i>	A
Rowan	<i>Sorbus aucuparia</i>	R
Sessile oak	<i>Quercus petraea</i>	O
Sycamore	<i>Acer pseudoplatanus</i>	A

APPENDIX B: GROUND BAT TREE ASSESMENT

Tree Reference (Figure 2)	Species	PRF's	Bat Roosting Potential	Photographs
T1	Sycamore	N: 2 x knot holes and multiple broken limbs c. 4-6m.	PRF – FAR	 

Tree Reference (Figure 2)	Species	PRF's	Bat Roosting Potential	Photographs
T2	Sessile oak	N: 1 x broken limb c. 3m.	PRF-I	

Tree Reference (Figure 2)	Species	PRF's	Bat Roosting Potential	Photographs
T3	Ash	N: 2 x knot holes c. 5m. S: large trunk wound (lightning?) from c. 1-6m.	PRF – FAR	

Tree Reference (Figure 2)	Species	PRF's	Bat Roosting Potential	Photographs
T4	Hawthorn	Dense ivy cover	PRF-I	

Tree Reference (Figure 2)	Species	PRF's	Bat Roosting Potential	Photographs
T5	Sessile oak	SW: 1 x broken limb, c. 3m. S: 1 x tear-out (and potentially a compression fork?) in trunk c. 3m.	PRF – FAR	

Tree Reference (Figure 2)	Species	PRF's	Bat Roosting Potential	Photographs
T6	Sycamore	Dense ivy cover	PRF-I	

Tree Reference (Figure 2)	Species	PRF's	Bat Roosting Potential	Photographs
T7	Ash	W: 1 x broken limb c. 3m. SW: 1 x broken limb c. 4m.	PRF-I	

Tree Reference (Figure 2)	Species	PRF's	Bat Roosting Potential	Photographs
T8	Unknown - dead	W: Wound in trunk (lightning?) and hazard beam on limb c. 6m.	PRF – FAR	

Tree Reference (Figure 2)	Species	PRF's	Bat Roosting Potential	Photographs
T9	Sycamore	Dense ivy cover	PRF-I	



Telephone: 01133 372185

Unit 9, The Tangent Business Hub, Weighbridge Road, Shirebrook,
Mansfield, Derbyshire, NG20 8RX
Telephone: 01623 749709

Key

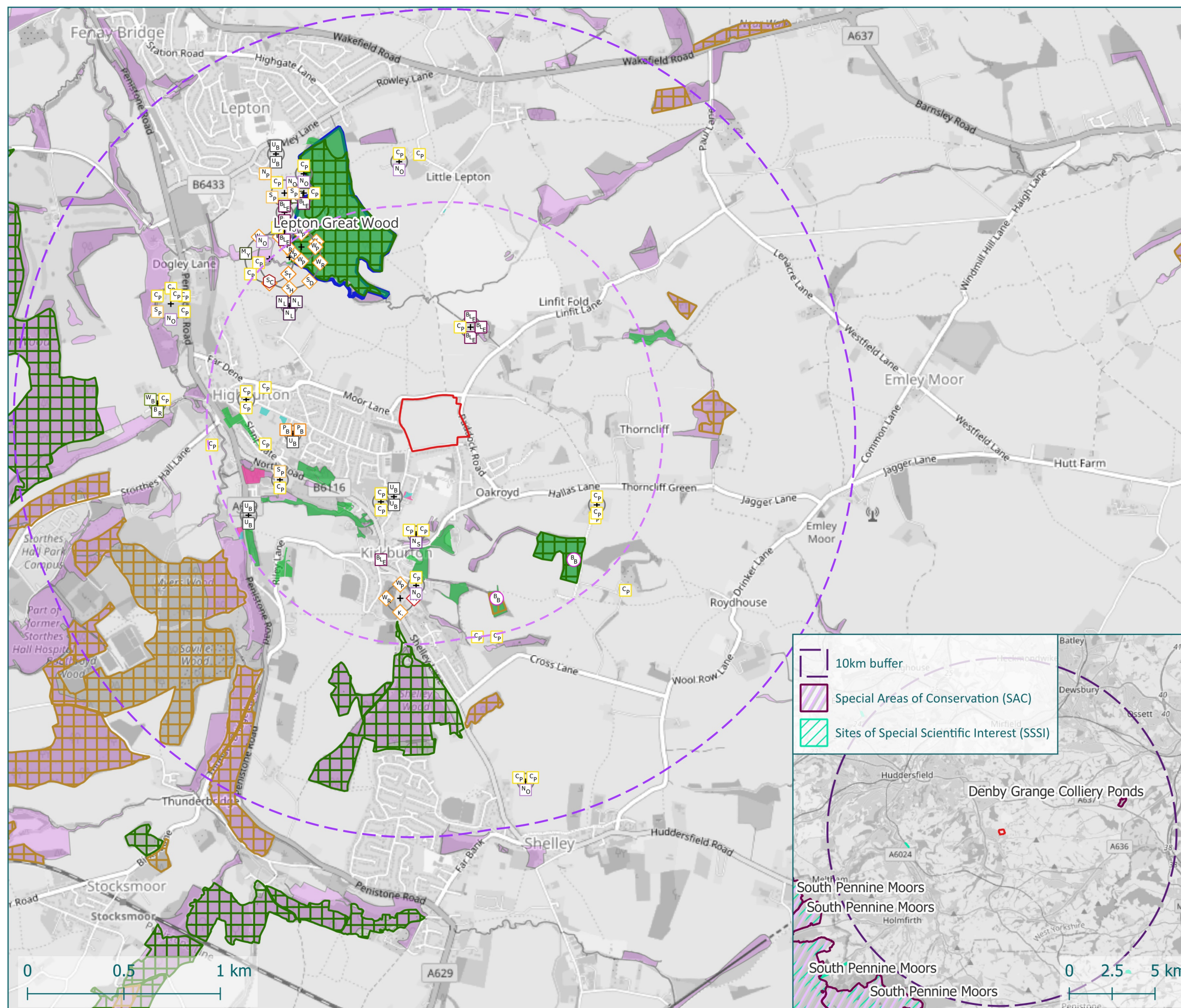
-
- Site Boundary
 1km buffer
 2km buffer
 Local wildlife sites
 Ancient Semi-Natural Woodland
 Planted Ancient Woodland Sites
 West Yorkshire Wildlife Habitat Network

Habitat of Principal Importance (HPIs) within 1km

- Deciduous woodland
- Traditional orchard
- No main habitat but additional habitats present

Protected and Notable Species

- | | | | |
|---|----------------------------|---|--------------------------|
|  | Common pipistrelle bat |  | Unidentified bat species |
|  | Soprano pipistrelle bat |  | European water vole |
|  | Nathusius' pipistrelle bat |  | Mistle thrush |
|  | Pipistrelle bat species |  | Kestrel |
|  | Noctule bat |  | Stock dove |
|  | Leisler's bat |  | Song thrush |
|  | Nyctalus bat species |  | Woodpigeon |
|  | Whiskered bat |  | Sparrowhawk |
|  | Brandt's bat |  | Wren |
|  | Myotis bat species |  | Bluebell |
|  | Brown long-eared bat |  | Signal Crayfish |



Client: Persimmon Homes

Project: Land off Paddock Road, Kirkburton

Title: **Figure 1 - Site Location & Desk Study Results Plan**

Plan Reference: FE589 01

Project Reference: FE589

Report Reference: **EcIA01**

Author: DH

Date: 27/8/2026

Scale: 1:20,000

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Paddock Road, Kirkburton\QGIS\1_Plans\FE589_Desk Study Plan.qgs

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Telephone: 01133 372185

Unit 9, The Tangent Business Hub, Weighbridge Road, Shirebrook, Mansfield, Derbyshire, NG20 8RX

Telephone: 01623 749709

Key

Site Boundary

Habitats

SI Poor semi-improved grassland

Other tall herb and fern - ruderal

Broadleaved trees

Scrub - scattered line

Dry stone wall

Fence

Broadleaved tree (NONE)

Broadleaved tree (FAR)

Broadleaved tree (PRF-I)

Scrub - scattered

Target note

TN1: Hay bales on pallets

TN2: Hay bales on pallets

TN3: Large soil / hay mounds

TN4: Refuse piles

TN5: Cluster of storage containers / sheds



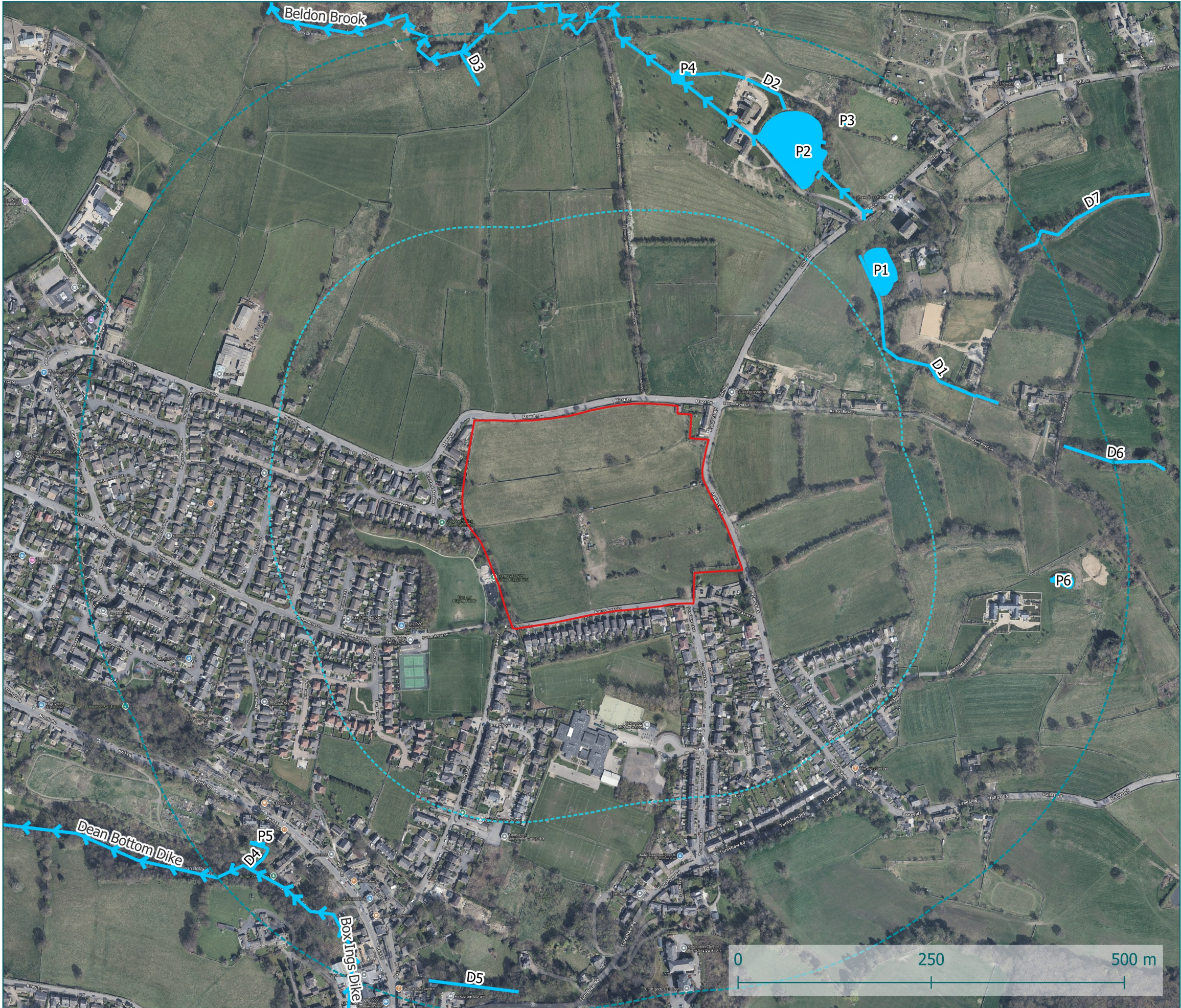
Client: Persimmon Homes
Project: Land off Paddock Road, Kirkburton
Title: Figure 2 - Phase 1 Habitat Plan

Plan Reference: FE589_02
Project Reference: FE589
Report Reference: EcIA01

Author: DH/EP
Date: 27/8/2026
Scale: 1:1,500



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Unit 9, The Tangent Business Hub, Weighbridge Road, Shirebrook, Mansfield, Derbyshire, NG20 8RX

Telephone: 01623 749709

Key

- Site Boundary
- 250m buffer
- 500m buffer
- Waterbody
- Watercourse
- Ditch

Client: Persimmon Homes
Project: Land off Paddock Road, Kirkburton
Title: Figure 3 - Waterbody Plan

Plan Reference: FE589_03
Project Reference: FE589
Report Reference: EcIA01

Author: DH
Date: 27/8/2026
Scale: 1:5,000



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Telephone: 01133 372185

Unit 9, The Tangent Business Hub, Weighbridge Road, Shirebrook, Mansfield, Derbyshire, NG20 8RX

Telephone: 01623 749709

Key

-  Site Boundary
-  Reptile refugia locations



Client:	Persimmon Homes	Plan Reference:	FE589_04	Author:	HJ / EP
Project:	Land off Paddock Road, Kirkburton	Project Reference:	FE589	Date:	27/8/2026
Title:	Figure 4 - Reptile Survey Refugia Plan	Report Reference:	EcIA01	Scale:	1:1,500

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