

Preliminary Ecological Appraisal

Survey site:

Land adjacent to 7 Quarryfields, Mirfield WF14 0NT

Client:

Hamza Azad

Survey date:

04/08/2026

Project:

This report is prepared to inform a planning application with Kirklees Council. Construction of detached four bedroom dwelling.

On the assumption that site conditions and habitats remain unchanged, the results of this assessment will remain valid for 18 months from the date of this survey i.e. until February 2028, in accordance with CIEEM guidance in the lifespan of Ecological Reports and Surveys. This survey and report should be updated if a planning application has not been submitted within this timeframe.

EXECUTIVE SUMMARY

The following is work you will need to commission to obtain planning permission and to comply with legislation. Further information, along with opportunities for biodiversity enhancement, are outlined in the proceeding sections of this report.

Table 1: Summary of key findings arising from this survey.

Key Findings
- A low impact lighting strategy will be adopted for the site during and post-development, which will be designed to incorporate the measures laid out in the latest (2023) bat lighting guide Guidance Note 8 Bats and Artificial Lighting¹. - Various precautionary working methods have been recommended which have been fully detailed within the fauna section of this report.

1. INTRODUCTION

The aim of the PEA was to obtain data on existing ecological conditions, and to conduct a preliminary assessment of the likely significance of ecological impacts on the proposed development.

No previous ecology reports have been produced for this site by Arbtech Consulting Ltd or, to the author’s knowledge, by any other consultancy.

Methodology

PEA survey methodology and legislation can be found in the Arbtech Supplement: [PEA Methodology and Legislation - 2025](#).

Survey Details

The site survey was undertaken on 04/08/2026 by Anneke Greenman MSc BSc (Hons), Consultant Ecologist with three years of experience.

Table 2: The weather conditions during the survey.

Temperature (°C)	Humidity (%)	Cloud Cover (%)	Wind (km/h)	Rain
26.3	56.0	100	23.7	Light rain

Survey Limitations

It should be noted that whilst every effort has been made to describe the baseline conditions within the survey area, and evaluate these features, this report does not provide a complete characterisation of the site. This assessment provides a preliminary view of the likelihood of protected species being present. This is based on suitability of the habitats on the site and in the wider landscape, the ecology and biology of species as currently understood.

A biological records data search has not been undertaken. However, given the location of the site, the nature of the habitats present and the assessed suitability of the site for protected or notable species, it is not anticipated that the purchase of biological records data will add any significant weight or alter the conclusions and recommendations outlined in this report.

2. SITE LOCATION AND LANDSCAPE CONTEXT

2.1 Summary of Survey Findings

Site Location & Context

The site is centred at National Grid reference SE 20567 21499 and has an area of approximately 0.05ha.

Priority Habitats

There are three priority habitats within 2km of the site. These comprise open mosaic habitats on previously developed land, deciduous woodland and traditional orchard. The closest priority habitat comprises open mosaic habitats on previously developed land, located 335m W from the site.

The site is well connected to nearby habitats, with grassland present to the north of the site.

Designated Sites

Statutory Designations within 2km

There is one statutory designation within 2km of the site, as detailed below:

Table 3: The statutory designated sites within 2km of the site boundary.

Designation	Distance from Site
Sunny Bank Ponds Local Nature Reserve (LNR)	580m W

SSSI Risk Zone

The site does fall within the impact risk zone for Denby Grange Colliery Ponds SSSI however, the proposed development type is not listed as possible high risk with regard to this designation.

Non-Designated Sites

The presence of non-statutory designated sites within 2km of the site cannot be established without data from the local records centre. Whilst some habitats in the wider landscape may host designations, the immediate environs of the site do not host habitats likely to be of designable quality.

2.2 Foreseen Impacts

No direct impacts to any designated sites will occur as a result of the proposed development, due to the small scale and low overall impact of the development from such sites (where known), alongside additional factors such as distance in combination with connectivity disrupting barriers.

2.3 Recommendations

No recommendations.

3. ONSITE HABITATS

This section may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.

3.1 Summary of Survey Findings

Developed land; sealed surface (u1b)

Sections of hard-standing surface are present in the form of former building foundations along the eastern side of the site.

In accordance with the Statutory Biodiversity Metric, this habitat is not subject to a condition assessment.

Modified grassland (g4)

The site is covered with grassland comprised of a low variety of common grassland species. The sward height was approximately 7cm at the time of the survey. The species composition is poor, with less than 8 vascular plant species present per m², including Perennial Rye-grass, White Clover, and Creeping Buttercup. Along the western side of the site, the grassland was dominated with Prickly Sow - thistle.

Species present within this habitat include perennial rye-grass (*Lolium perenne*), white clover (*Trifolium repens*), creeping buttercup (*Ranunculus repens*), perennial sunflower (*Helianthus x laetiflorus*), prickly sow-thistle (*Sonchus asper*) and broad-leaved dock (*Rumex obtusifolius*).

In accordance with the Statutory Biodiversity Metric Condition Assessment Sheets, the modified grassland was assessed to have a poor condition value.

3.2 Foreseen Impacts

Loss of modified grassland on site will occur as a result of the proposed development.

3.3 Recommendations

The proposed development is unlikely to trigger the requirement for a Biodiversity Net Gain (BNG) assessment, as it falls under one of the exemptions with less than 0.2ha of area being impacted and no priority habitat present.

4. INVASIVE SPECIES

This section may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.

4.1 Summary of Survey Findings

No non-native invasive or otherwise problematic plants were recorded on site or are considered likely to be on site, but, given seasonal limitations and the sites wider context, may be visible at other times of year.

4.2 Foreseen Impacts

None.

4.3 Recommendations

No further surveys but remain vigilant.

5. FAUNA: BATS

This section may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.

5.1 Summary of Survey Findings

EPSL data and local records

A search of the magic.gov.uk database for granted EPSLs within a 2km radius of the site has been completed. Displaced bats from licensed sites <2km away from the survey site will find alternative habitat either within the mitigation measures implemented as part of the licence or will relocate to other known roosts sites in close proximity to the licensed site. There is 1 EPSL within a 2km radius of the site, as detailed below:

Table 4: EPSL survey returns for bats within a 2km radius.

EPSL Reference	Bat Species Affected	Distance from Site <i>(EPSL records are accurate to 100m)</i>	Impacts Allowed by Licence
2014-4800-EPS-MIT	Common Pipistrelle	1.3km southwest	Damage of a resting place

The site is not within the zone of influence of a bat-designated SAC.

Foraging and commuting habitat

Habitats recorded on site are assessed to have limited value for commuting or foraging bats, in the form of modified grassland.

Roosting habitat

There are no buildings or trees on the site to provide suitable roosting habitat.

5.2 Foreseen Impacts

Roosting habitat [Buildings]

There are no buildings on site, therefore no impacts are foreseen.

Roosting habitat [Trees]

There are no trees on site, therefore no impacts are foreseen.

Foraging and commuting habitat

The proposed development will not result in the removal of any habitats which could be used by foraging or commuting bats. However, the proposed development will include the use of lighting which could spill on to bat roosting, foraging or commuting habitat and deter bats from using these areas.

Artificial lighting

The proposed development may lead to an increase in the amount of current lighting of surrounding habitats or the retained building without mitigation. This may disturb commuting bats.

5.3 Recommendations

Roosting habitat [Buildings]

None.

Roosting habitat [Trees]

None.

Foraging and commuting habitat

No further surveys are required.

Artificial lighting

A low impact lighting strategy will be adopted for the site during post-development which outlines the areas of the site that will be retained as dark corridors. Parameters can be found on the Bat Conservation Trust website: <https://www.bats.org.uk/news/2023/08/bats-and-artificial-lighting-at-night-ilp-guidance-note-update-released>

Suggested biodiversity enhancements

The installation of two bat boxes at the site will provide additional roosting habitat for bats.

The bat boxes will be incorporated into the fabric of the new dwelling. Suitable bat boxes include Habibat Bat Box, Ibstock Enclosed Bat Box or similar alternative brand.

Bat boxes should be positioned 3-5m above ground level facing in a south or south-westerly direction with a clear flight path to and from the entrance, away from artificial light.

6. FAUNA: BIRDS

This section may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.

6.1 Summary of Survey Findings

Buildings

There are no buildings on site.

Trees and vegetation

No suitable habitat present on site for nesting birds.

Due to the small size of the site and the extent and type of the habitats recorded, the site is not considered suitable to support a significant assemblage of protected and/or notable birds.

Barn Owls

The site does not appear to provide any suitable nesting sites for barn owls.

6.2 Foreseen Impacts

Buildings / trees

No impacts are anticipated on nesting birds as a result of the proposed development.

Trees and vegetation

None foreseen.

Barn Owls

None foreseen.

6.3 Recommendations

Buildings / trees

None.

Precautions should be taken with machinery and noise levels when working close to any retained habitats so as not to disturb any nearby nesting birds during construction works.

Trees and vegetation

No additional surveys required.

Barn Owls

No further barn owl surveys required.

Suggested biodiversity enhancements

The installation of a minimum of two bird boxes on the new building - integrated bird boxes favourable where possible, will provide additional nesting habitat for birds e.g. Schwegler No 17 Swift Nest Box (buildings), Schwegler 1SP Sparrow Terrace (buildings), or a similar alternative brand.

Swift and sparrow boxes should be positioned at the eaves of a building and can be incorporated into the fabric of the building during construction.

7. FAUNA: REPTILES

This section may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.

7.1 Summary of Survey Findings

EPSL data and local records

A review of the MAGIC database returned no granted EPSL records for protected reptiles within 2km of the site.

Habitat suitability

There is no suitable habitat present on site for reptiles due to a lack of habitats such as scrub and rank grassland which would offer refuge for these species. Further, the site is surrounded by urban development (i.e. roads and buildings) which is considered sub-optimal for reptile migration and therefore reptiles are considered unlikely to migrate from any nearby suitable habitats to the development site. However, some suitable habitat to the north of the site is present.

Wider landscape

The adjacent sections of grassland to the north of the site may represent important resources for local reptile populations. These adjacent habitats some foraging and commuting opportunities for reptiles and are well connected to further suitable habitat in the wider landscape. The presence of reptiles utilising these adjacent habitats cannot be discounted.

7.2 Foreseen Impacts

Modified grassland will be removed during construction. The loss of such habitats could result in a reduction in reptile habitat and could result in the fragmentation of the local landscape. Furthermore, site clearance could result in the death or injury of reptiles, if present.

7.3 Recommendations

A precautionary working method will be implemented for widespread reptiles during construction, including the following measures:

- Vegetation will be maintained at a short sward (5cm) to discourage reptiles. OR Grassland will be subject to a two-stage cut (if sward is >10cm) prior to removal in a directional manner, the first cut at 10cm and the second to ground level and maintained as a short sward (5cm) or bare ground throughout construction.
- Removal of any root systems / refugia will be undertaken outside the reptile hibernation season (November – February).
- Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape.
- Best practice pollution prevention measures will be implemented to minimise impacts to nearby habitats.
- Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations.
- If any reptiles are found in the working area these should be allowed to disperse of their own accord or, if at immediate risk, should be moved by hand to a sheltered, vegetated area away from disturbance.
- In the unlikely event that a reptile is identified, works must cease and advice must be sought from a suitably qualified ecologist.

8. FAUNA: AMPHIBIANS

This section may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.

8.1 Summary of Survey Findings

EPSL and survey data

A review of the MAGIC database returned no granted EPSL records for amphibians within 2km of the site.

Aquatic habitat suitability (including ponds within 500m)

Great crested newts (GCN) exist in metapopulations and are known to utilise ponds and their connecting terrestrial habitat during their life cycle; great crested newts are typically found within terrestrial habitats up to 500m from breeding ponds (Langton et al. 2001).

No ponds are present on site or have been identified within 500m of the site.

Terrestrial habitat suitability

The site provides limited suitable terrestrial habitat for amphibians given the lack of optimal habitat (i.e. scrub, rank grassland). The areas of hard standing and amenity grass offer sub-optimal habitat for terrestrial amphibians. Further, there is limited suitable terrestrial habitat across the wider landscape reducing the likelihood of amphibians being present on site and across the surrounding areas.

8.2 Foreseen Impacts

Given the lack of suitably connected breeding ponds within 500m of the site, the presence of GCN on-site is considered unlikely and therefore impacts to amphibians as a result of the proposed development are deemed to be acceptably low.

8.3 Recommendations

Owing to the nature of the proposed development and the low potential for impacts to great crested newts, further surveys are considered to be disproportionate. A precautionary working method will be implemented for common amphibians during construction, including the following measures:

- A staged approach will be adopted for vegetation clearance, whereby the vegetation will be strimmed to 15cm and left overnight to allow any amphibians to disperse. The vegetation can then be cleared to ground level and must be maintained at this level for the duration of construction to deter amphibians from the working area.

- Any rubble piles will be dismantled by hand outside the amphibian hibernation window and debris and brash will be stored on pallets or removed from the site to prevent amphibians from utilising these areas.
- Best practice pollution prevention measures will be implemented to minimise impacts to nearby aquatic habitats that amphibians could use.
- Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations.
- If any common amphibians are found in the working area these should be allowed to disperse of their own accord or, if at immediate risk, should be moved by hand to a sheltered, vegetated area away from disturbance.
- In the unlikely event that a great crested newt is identified, works must cease and advice must be sought from a suitably qualified ecologist.

9. FAUNA: RIPARIAN ANIMALS

This section may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.

9.1 Summary of Survey Findings

A search of the magic.gov.uk database for granted EPSLs within a 2km radius of the site has been completed for riparian animals (otters and water voles). No EPSLs relating to riparian animals are present within a 2km radius of the site.

Habitat suitability

There are no water courses on or connected to the site. There are also no riparian habitats present on site or within an influencing distance.

9.2 Foreseen Impacts

No impacts are anticipated on riparian animals as a result of the proposed development.

9.3 Recommendations

No further surveys for riparian animals required.

10. FAUNA: HAZEL DORMOUSE

This section may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.

10.1 Summary of Survey Findings

EPSL data and local records

A search of the magic.gov.uk database for granted EPSLs within a 2km radius of the site has been completed for hazel dormouse. No EPSLs relating to hazel dormouse are present within a 2km radius of the site.

Habitat suitability

The site lies outside of the known current range for hazel dormice and there are no suitable habitats within the development area. As such it is considered likely that hazel dormice are absent from site.

10.2 Foreseen Impacts

No impacts are anticipated on hazel dormice as a result of the proposed development.

10.3 Recommendations

No further hazel dormouse surveys required.

11. FAUNA: BADGERS

This section may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.

11.1 Summary of Survey Findings

No badger setts were noted on site or within a 30m radius of the site. Further, no evidence of foraging badgers was noted within the development area. However, the site was considered suitable for badger foraging habitat.

11.2 Foreseen Impacts

No works will be undertaken within 30m of a badger sett. Modified grassland will be removed during construction. The loss of such habitats is likely to be inconsequential to local badger populations owing to their low value and the presence of more extensive habitat locally. However, construction activities could result in the death or injury of badgers, if present.

11.3 Recommendations

Owing to the nature of the proposed development and the low potential for impacts to badgers, further badger surveys are considered to be disproportionate. A precautionary working method will be implemented during construction, including the following measures:

- Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape.
- The use of night-time lighting will be avoided, or sensitive lighting design will be implemented to avoid light spill on to retained habitats which badgers could use.
- Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations.

12. FAUNA: INVERTEBRATES

This section may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.

12.1 Summary of Survey Findings

The habitats present on-site, including modified grassland, likely provide common invertebrates with opportunities to forage and shelter. The site contains no further notable habitats which may provide niches for specialised or protected invertebrates.

12.2 Foreseen Impacts

None foreseen.

12.3 Recommendations

No further surveys.

13. FAUNA: OTHER NOTABLE SPECIES

This section may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.

13.1 Summary of Survey Findings

Hedgehogs

The ruderal herb onsite provides limited foraging and commuting opportunities for hedgehogs, with vegetated garden habitat nearby.

13.2 Foreseen Impacts

Hedgehogs

Modified grassland will be removed during construction. The loss of such habitats is likely to be inconsequential to local hedgehog populations owing to their low value and the presence of more extensive habitat locally. However, construction activities could result in the death or injury of hedgehogs, if present.

13.3 Recommendations

Hedgehogs

Similar to the badgers, a precautionary working method will be implemented during construction, including the following measures:

- Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape.

- The use of night-time lighting will be avoided, or sensitive lighting design will be implemented to avoid light spill on to retained habitats which hedgehogs could use.
- Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations.

If any hedgehogs are found in the working area these should be allowed to disperse of their own accord or, if at immediate risk, should be moved by hand to a sheltered, vegetated area away from disturbance.

13.4 Suggested Biodiversity Enhancements

Hedgehogs

The following habitat creation and enhancement opportunities could be incorporated into the proposed development which would be beneficial for hedgehogs:

- Planting fruit bearing trees and species-rich grassland to increase foraging opportunities.
- Creation of brash piles or installation of hedgehog houses in shady areas.
- Installation of gaps under boundary fencing to enable hedgehogs to move freely through the site.

APPENDIX 1: SURVEY/HABITAT MAP



APPENDIX 2: LOCATION MAP



APPENDIX 3: PROPOSED PLAN



APPENDIX 4: HABITAT IMAGES



Developed land; sealed surface



Modified grassland

APPENDIX 5: BASELINE CONDITION SCORE TABLES

Modified grassland (g4) condition assessment.

	Criteria Description	Criteria Passed?
A	There are 6-8 vascular plant species per m2 present, including at least 2 forbs (these may include Creeping thistle <i>Cirsium arvense</i> , spear thistle <i>Cirsium vulgare</i> , curled dock <i>Rumex crispus</i> , broad-leaved dock <i>Rumex obtusifolius</i> , common nettle <i>Urtica dioica</i> , creeping buttercup <i>Ranunculus repens</i> , greater plantain <i>Plantago major</i> , white clover <i>Trifolium repens</i> and cow parsley <i>Anthriscus sylvestris</i>). Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m2 (excluding those listed in the previous sentence), please review the full UKHab description to assess whether the grassland should instead be classified as a higher distinctiveness grassland.	N
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.	Y
C	Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble <i>Rubus fruticosus</i> agg. may be present). Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	Y
D	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	Y
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens). For example, this could include small, scattered areas of bare ground allowing establishment of new species, or localised patches where not exceeding 10% cover.	Y
F	Cover of bracken <i>Pteridium aquilinum</i> is less than 20%.	Y
G	There is an absence of invasive non-native plant species (as listed on Schedule 9 of WCA).	Y
		Total 6/7
	Condition poor due to passing 6 of 7 criteria. Essential criteria (A) not met; condition capped at poor.	

LIMITATION AND COPYRIGHT

Arbtech Consulting Limited has prepared this report for the sole use of the above-named client or their agents in accordance with our General Terms and Conditions, under which our services are performed. It is expressly stated that no other warranty, expressed or implied, is made as to the professional advice included in this report or any other services provided by us. This report may not be relied upon by any other party without the prior and express written agreement of Arbtech Consulting Limited. The conclusions and recommendations contained in this report are based upon information provided by third parties. Information obtained from third parties has not been independently verified by Arbtech Consulting Limited.

© This report is the copyright of Arbtech Consulting Limited. Any unauthorised reproduction or usage by any person other than the addressee is strictly prohibited.

VERSION CONTROL

Status	Issue	Name	Date
Draft	0.1	Anneke Greenman MSc BSc (Hons), Consultant Ecologist	11/08/26
Final	1.0	Anneke Greenman MSc BSc (Hons), Consultant Ecologist	11/08/26