PRELIMINARY ECOLOGICAL APPRAISAL

LAND AT GREENSIDE ROAD / WELLHOUSE LANE
MIRFIELD
HUDDERSFIELD
WF14 0AU

SEPTEMBER 2026

Preliminary Ecological Appraisal

Land at Greenside Road / Wellhouse Lane
Mirfield
Huddersfield
WF14 0AU

A report for

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1. INTRODUCTION

1.1 INTRODUCTION

PENNINE ecological Glossop Ltd were commissioned by Moravian Union Incorporated to undertake a Preliminary Ecological Appraisal (PEA) and Biodiversity Net Gain Assessment (Pennine Ecological, 2026) of land at Greenhouse Road and Wellhouse Lane, Mirfield. There are two red line boundaries to the application; Site 1 and Site 2 as is shown in Figure 1.1 below.

Site 1 measures approximately 0.21 hectares with Site 2 approx. 0.45ha.



Figure 1-1: Red line boundary subject to survey.

1.2 REASON FOR SURVEY

The assessment is required to support the submission of a planning application that will see the construction of residential dwellings and gardens.

1.3 REPORT STRUCTURE

The study includes the following elements:

- A desk-based search of freely available online ecological information (e.g., Defra's MAGIC mapping tool, Google Earth, Ordnance Survey mapping etc.).
- A UK Habitat Classification field survey.
- Survey of the site to support protected and/or notable species (where applicable) including but not limited to:
    - Badger.
    - All bird species, including Schedule 1 listed species of the Wildlife and Countryside Act 1981 (as amended) (e.g., barn owl, hobby, kingfisher, etc.) and those listed in Birds of Conservation Concern 5 etc. (Stanbury *et al.,* 2021).
    - A Preliminary Roost Assessment for bats (European Protected Species) on all buildings, trees, culverts etc. found within the site (if present).
    - All other European Protected Species excluding bats e.g., great crested newt (GCN), otter, dormice, etc.).
    - Where relevant, other protected species (e.g., water vole, common toad, brown hare, hedgehog, reptiles, etc.) listed in the Wildlife and Countryside Act 1981 (as amended) and Section 41 of the Natural Environment and Rural Communities Act (NERC) 2006 (DEFRA, 2006).

This report also provides a full evaluation of the ecological significance of the desk based and field survey results and if required, recommendations for further survey and/or precautions when and where appropriate.

With the addition of 'site' value, the site evaluation will be considered within CIEEM's (2018) geographical context which is as follows;

- International and European
- National
- Regional
- Metropolitan, County, vice-county or other local authority-wide area
- River Basin District
- Estuarine system/Coastal cell
- Local and
- Site.

1.4 SITE LOCATION

There are two red line boundaries to the application; Site 1 is located to the east of Greenside Road with its approximate central grid reference being SE 20634 21115. Site 2 is adjacent to Wellhouse Lane with its approximate central grid reference being SE 20717 21057.

Both sites are located on the north eastern extent of Mirfield. The wider landscape to the west is generally dominated by urban habitats; housing, schools, shops, recreation grounds etc. where as to the east improved grassland fields presumed to be used for livestock grazing dominate.

Huddersfield is 7.5km to the south west and Dewsbury, 3.8km to the east. At its nearest point, the river Calder is 1.35km to the south west.

2. METHODOLOGY

2.1 SURVEY METHODOLOGY

The methodologies relating field surveys undertaken in March 2026 and desk-based searches in April and September 2026 are outlined below.

2.1.1 Desk Based Study

(a) Local Records Centre Data Request

A full data search from the local records centre was not deemed proportionate given the low ecological value of the habitats on site as well as the site proposals being localised and whose impacts aren't to extend beyond the site boundaries.

(b) MAGIC

The Multi Agency Geographical Information Centre www.magic.gov.uk was referred to in respect of the following;

(i) Statutory designated sites e.g., Sites of Special Scientific Interest (SSSIs), Special Protection Areas (SPAs), Special Areas of Conservation (SACs) etc. within 2km of the site boundary;

(ii) Habitats of Principal Importance listed in Section 41 of the NERC Act (2006) within 500m of the site boundary;

(iii) GCN licence returns within 500m of the site; and

(iv) Granted European Protected Species Licences (EPSL) within 500m of the site.

The latest access to MAGIC was on the 15th of September 2026.

2.1.2 UK Habitat Classification Survey

A UK Habitat Classification (UKHabs) 2.0 survey (UKHab Ltd, 2023) of the habitats within the red line boundary was undertaken on the 10th of March 2026. Weather conditions were suitable for surveying with a temperature of 12°C, calm, part cloud with no precipitation.

The site's habitats were fully mapped and where required was done so with reference to Stace (1997). Higher vascular plant species (where present) were recorded and given abundance values according to the standard DAFOR scale where: D is dominant, A is abundant, F is frequent, O is occasional, and R is rare. Where

appropriate the abundance values can be prefixed by the letter L (locally) or V (very), to provide more subtle biogeographical data.

2.1.3 Protected and/or Notable Species Surveys

(a) Badger Survey

A badger survey was undertaken to identify evidence of badger utilising the site. Surveys were undertaken in accordance with '*Surveying Badgers',* Harris *et al*., (1989) and '*Badger*', Roper (2010).

(b) Preliminary Bat Roost Assessment Survey

A daytime survey was conducted in accordance with the methodology outlined in Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn) Collins, J. Bat Conservation Trust (2023).

During the survey the surrounding habitat was evaluated in relation to bats as very often roost selection is closely correlated with the surrounding habitat.

(c) Bird Survey

The site was assessed for its potential to support breeding birds. This included identifying any evidence of current or historic nesting within the site (i.e. within buildings, trees, scrub, hedgerows etc.).

(d) Scoping of Other Protected and Notable Species

Consideration was given to other protected and notable species potentially present within the site. The following species / species groups have been scoped out for further assessment, with reasoning provided below:

- Invertebrates – Both red line boundaries comprised modified grassland; Site 1 being closely and regularly mown and Site 2, grazed by horses. There were mature trees and small areas of tall ruderal habitat within the site. It is highly unlikely given the low ecological value habitats present, that protected and/or notable species of invertebrates would be present to warrant further surveys. The site is considered highly unlikely to support notable invertebrate assemblages.
- Riparian Mammals – There are no watercourses on or within the locality of the site. It is highly unlikely riparian mammals are present close to either site.
- Reptiles – As for invertebrates the site is dominated by modified grassland which is sub-optimal habitat for reptiles. The site is considered highly unlikely to support reptiles.
- Other notable mammals – Whilst it is accepted that species such as hedgehog may potentially be present locally, the site is not considered capable of

supporting significant populations of any notable mammal species. No observations were recorded during the survey. Standard precautionary working measures would suffice.

2.2 SURVEYOR EXPERIENCE

The field survey and report were undertaken by Stuart Macpherson, who is an Associate Member of the Chartered Institute of Ecology and Environmental Management (MCIEEM) and has over 15 years' experience in land management, ecological consultancy, ecological survey and evaluation.

Key skills include the following:

- Extended Phase 1 Habitat Survey / UKHabs Survey on both small planning applications and Nationally Significant Infrastructure Projects (NSIPs).
- Licensed bat surveyor (2021-10079-CL18-BAT) and Named Ecologists on bat mitigation licences.
- Licensed barn owl surveyor (CL29/0477).
- Licensed great crested newt surveyor (2015-16213-CLS-CLS).
- NPTC qualified tree climber (Units 206 and 306 Tree climbing and Aerial Rescue).
- Proficient field botanist.
- Breeding and wintering bird surveyor on a range of habitats including coastal, farmland and moorland habitats.
- Mammal surveys including badger.
- Riparian corridor and mammal surveys.
- Ecological Evaluation and Impact Assessments in association with large scale infrastructure projects.

2.3 SURVEY CONSTRAINTS

The survey was undertaken outside the optimal botanical survey season, which is generally April to September. However, the habitats present—modified grassland, tall ruderal vegetation and individual trees—were readily identifiable. Survey timing is therefore not considered a significant constraint on the findings or recommendations.

3. RESULTS

3.1 RESULTS SUMMARY

- There are two statutory designated sites within 2km of the site's red line boundary.
- Both Site's 1 and 2 are dominated by modified grassland. Site 1 is solely mown grassland with three medium sized trees. Site 2 is grazed by horses with a single elder and small areas of bare ground tall ruderal habitat. Site 2 had a leylandii hedgerow along its western boundary. No other habitats were recorded on either site.
- No evidence of current or historic bird nesting was recorded on site.
- No evidence or sightings of other protected and/or notable species were recorded within the site.

3.2 DESK BASED STUDY

A summary of the desk study records are provided below.

(a) Local Record Centre Data

A request to the local records centre was not undertaken as described earlier within this report in section 2.1.1.

(b) MAGIC

(i) Statutory Designated Sites

There are two statutory designated sites within 2km of the site's red line boundary, these are listed below with approx. distances and directions from the scheme. An outline summary of why the site is designated is also provided.

- Sunny Bank Ponds LNR; approx. 780m north west.
- Lower Spen Wildlife Area LNR; approx. 1.8m east.

<u>Sunny Bank Ponds LNR</u>

Taken from Natural England's Designated Sites View webpage (https://designatedsites.naturalengland.org.uk/SiteLNRDetail.aspx?SiteCode=L1082940), the site is described as follows;

The reserve is divided into two distinct areas, a mini parkland area with mature trees and a short circular path, and the two sunken man-made pits that make up the wetland area. The pond area is home to a large population of smooth newts, frogs and toads. Other wildlife attracted to the pond include many species of garden birds, foxes, deer, pipistrelle bats and other small mammals, all of which use the pond as a feeding area.

Lower Spen Wildlife Area LNR

Taken from Natural England's Designated Sites View webpage (https://designatedsites.naturalengland.org.uk/SiteLNRDetail.aspx?SiteCode=L1083120), the site is described as follows;

Woodland, scrubland, meadow, wetland. The meadows contain flowers that attract butterflies and bees. Woodland areas provide shelter and nest sites for birds. The water quality in the River Spen is improving, and it supports a wide range of wildlife on the shallow stony bed and well-vegetated river banks.

(ii) SSSI Impact Risk Zones

The SSSI Impact Risk Zones has been reviewed and no further consultation with Natural England is required.

(iii) Habitats of Principal Importance listed in Section 41 of the NERC Act (2006)

There are no Priority Habitats within 500m of the site.

(iv) GCN Licence Returns

There are no GCN Licence Returns within 500m of the site's red line boundary.

(v) Granted European Protected Species Licenses

There are no granted European Protected Species Licences within 500m of the site's red line boundary.

3.3 HABITATS SURVEY

3.3.1 UK Habitat Classification Survey

(a) Habitats Recorded

The following habitats were recorded within the survey area (refer to Figure 1 – UKHabs Plan in Appendix A):

Urban Habitats

- u1b Developed land – sealed surface.

- u1 Secondary code 510 Bare ground.

Grassland

- g4 Modified grassland.
- g Secondary code 81 Ruderal
- g Secondary code 200 Tree

Hedgerows

- h2b Non-native and ornamental hedgerow.

(b) Site Summary

Site 1 is dominated by mown modified grassland and bordered by stone walls. Three sycamore trees were recorded within the plot. The surrounding area comprises residential properties to the north, west and south, with Wellhouse Moravian Church to the east.

Site 2 is also dominated by modified grassland, which was closely grazed by horses. A small wooden garden shed, likely used for storing horse feed and tack, was recorded in the north-central part of the field. A leylandii hedgerow runs along the western boundary, and the field is enclosed by wooden post-and-rail fencing. Wellhouse Moravian Church graveyard and a neighbouring garden lie to the north, residential properties and Wellhouse Lane lie to the east and west, and Gilder Hall playing fields lie to the south.

3.3.2 Target Notes

The following describes key features and/or habitats recorded during the field survey. A list of the Target Notes (TN) is provided below, with further information provided thereafter. Refer to Figure 1 – UKHabs Plan in Appendix A for TN locations.

- Target Note 1 – Modified grassland.
- Target Note 2 – Tall ruderal habitat.
- Target Note 3 – Trees
- Target Note 4 – Non-native and ornamental hedgerow.
- Target Note 4 – Bare ground.

(i) Target Note 1 – Modified grassland.

Modified grassland dominated both sites with perennial rye grass dominating both sites. Site 1 was mown with a sward height at the time of survey being approx. 7cm. Reviewing aerial imagery, it is clear the grass; land is regularly mown. As Site 2 was closely grazed it was difficult to determine whether other grass species were present, however creeping buttercup was occasionally recorded.

(ii) Target Note 2 – Tall ruderal habitat.

Small areas of grazed tall ruderal habitat were recorded within Site 2. Species recorded included broad-leaved dock (A), nettle (LD), cleaver sp. (O), and bramble (O).

(iii) Target Note 3 – Trees

Three medium sized trees were recorded in Site 1; a lime and two sycamores. All were healthy, showing no signs of regular maintenance. All were of negligible suitability to support roosting bats. They may provide suitable nesting habitat for larger birds such as woodpigeon or magpie.

A small elder tree was recorded within the centre of Site 2 – it was of negligible suitability to support roosting bats and may provide suitable nesting habitat for smaller birds.

(iv) Target Note 4 – Non-native and ornamental hedgerow.

A leylandii hedgerow was recorded along Site 2's western boundary measuring approx. 17m.

(iv) Target Note 5 – Bare ground.

An area of bare ground centred around grid reference SE 20728 21104 which had formed from horses feeding around a bale of hay.

3.4 PROTECTED SPECIES

3.4.1 Badger

(i) Setts

The survey found no setts within the site.

(ii) Foraging Signs and Pathways

No sign of badger activity was found within the site. Therefore, it can be concluded that the species is not using this area for foraging or commuting.

(iii) Boundary Search

All of the boundaries of the site were walked and examined for potential runs, pathways, and latrines. The search found no evidence to suggest badger activity along any of the site boundaries.

The absence of any activity signs indicates that badgers are not entering the site. The absence of latrines indicates a lack of territorial activity in the near vicinity of the site.

3.4.2 Bats

(i) Preliminary Roost Assessment

No buildings or trees were recorded within the site boundary that comprised features for roosting bats.

(ii) Bat Habitat Suitability

Both sites were dominated by modified grassland which is generally poor foraging habitat for bats. Additionally, there are only four trees on site, all of which were of negligible suitability to support roosting bats. It's likely that commonly occurring bats use the site for foraging but overall, it lacks the habitats and structure that would be considered to be of any value to bats. This being considered the habitats associated with the site is considered to be of 'low' suitability for bats.

3.4.3 Birds

No evidence of bird nesting was recorded during the survey. The four trees on site and the leylandii hedgerow may provide suitable nesting habitat for commonly occurring bird species.

Bird activity within the site and locally was moderate with the following bird species heard or seen within or adjacent to the site. Where applicable, bird species are coloured coded based on their UK conservation status[1]:

Wren, dunnock, chaffinch, goldfinch, blackbird, great tit and blue tit.

Overall, the habitat associated with the site is considered to be of low suitability for birds.

[1] Birds of Conservation Concern 5 (2021) – Red, amber, green status.

4. ECOLOGICAL EVALUATION

The following section discusses the significance of the survey findings. It should be noted that this part of the evaluation relates to habitats and species and includes reference to the following statutory/non-statutory instruments.

- The Wildlife and Countryside Act 1981 (and later amendments), with particular reference to protected species listed in Schedules 1, 5 and 8 of the above act.
- Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019.
- Section 41 Habitats of Principal Importance in England as listed in the Natural Environment and Rural Communities (NERC) Act 2006.
- Reference to any relevant Red Data List/Book species and Nationally Scarce species not covered by the above or any other lists / schedules of species rarity or importance.

The evaluation is based on the commissioned surveys and desk study only.

The following statements are relevant in respect of the above.

4.1 DESK STUDY

4.1.1 Local Records Centre Data

A request to the local records centre was not undertaken as described earlier within this report in section 2.1.1.

4.1.2 MAGIC

(i) Statutory Designated Sites

There are two Local Nature Reserves within 2km of the site's red line boundary, these are Sunny Bank Ponds LNR; approx. 780m north west and the Lower Spen Wildlife Area LNR; approx. 1.8m east.

The SSSI Impact Risk Zones was also reviewed and as the development is for the construction of more than 10 units, the further consultation with Natural England is required.

(ii) Habitats of Principal Importance listed in Section 41 of the NERC Act 2006

There are no Priority Habitats within 500m of the site.

(iii) GCN Licence Returns

There are no GCN Licence Returns within 500m of the site's red line boundary.

(iv) Granted European Protected Species Licenses

There are no granted European Protected Species Licences within 500m of the site's red line boundary.

4.2 HABITATS

The existing habitats on site are of low to medium distinctiveness (in accordance with the BNG metric calculation tool). The site comprised habitats of limited ecological value. The loss of habitats as a result of the proposals are evaluated at site value only.

4.3 PROTECTED SPECIES

4.3.1 Badger

No evidence of badger activity was found within the site or the wider area during the survey.

It is concluded that badger are absent on site and locally.

4.3.2 Bats

No buildings or trees were recorded on site that would potentially support roosting bats.

Based on the size of the site and habitats present within the site, the value of the site for bats does not exceed 'site' ecological value.

Due to the scale and nature of the proposals, impacts to bats are not anticipated to extend beyond the land directly affected by the proposals.

4.3.3 Birds

No evidence of current or historic bird nesting was recorded on site.

Based on the sites size and habitats present, the value of the site for breeding birds does not exceed 'site' ecological value.

Due to the scale and nature of the proposals, impacts are not anticipated to extend beyond the land directly affected by the proposals.

5. RECOMMENDATIONS

The following section outlines any mitigation or precautions required in respect of the survey findings.

5.1 DESK STUDY

5.1.1 Statutory Designated Sites

No further assessments or precautions are required.

5.2 HABITATS

Appropriate habitat enhancement and creation measures will be required to compensate the loss of any habitat which is of low distinctiveness or higher. The compensation measures will need to ensure there is a measurable 10% net gain overall.

There are impacts to low and medium distinctiveness habitats included in the proposals. It is recommended that this is demonstrated through a Biodiversity Net Gain (BNG) assessment which will include the completion of The Statutory Metric Calculator.

5.3 PROTECTED SPECIES

5.3.1 Badger

There are no requirements for any further surveys or assessment.

5.3.2 Bats

There are no requirements for any further surveys or assessment.

In order to maintain the lighting levels as best as possible the following is recommended. In all cases illumination of peripheral boundary areas should be avoided. Where lighting is required, this must be low level, low intensity and directed downwards away from boundaries. The following principles will apply;

- Where and if lighting is required, this will be directed internally within the site avoiding spillage towards boundary habitats.
- The use of low powered sodium lights or similar will be used and these will be fitted with cowls / covers that prevent lateral light spillage towards boundary habitats.
- Wherever possible and only if required low level (1-1.5m high) bollard lighting will be used.

- If required lights will be fitted with timer controls that minimise the duration of lighting.

Lighting requirements will follow guidance provided by the Bat Conservation Trust; links are provided below.

- Bat Conservation Trust's Artificial Lighting Guidance. Webpage link https://www.bats.org.uk/our-work/buildings-planning-and-development/lighting
- Bat Conservation Trust and Institute of Lighting Professionals Guidance Note 08/23: Bats and Artificial Lighting in the UK. Webpage link https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/

Additionally, it is recommended that to demonstrate an overall biodiversity net gain from the application, it is recommended that integrated bat boxes are included within the design of the properties to be built. An example of an integrated bat box is the Habibat Bat Box (Figure 5.1). This is a solid box made of insulating concrete with internal roosting space. The box blends seamlessly into brick-built properties and may be incorporated into the fabric of buildings.

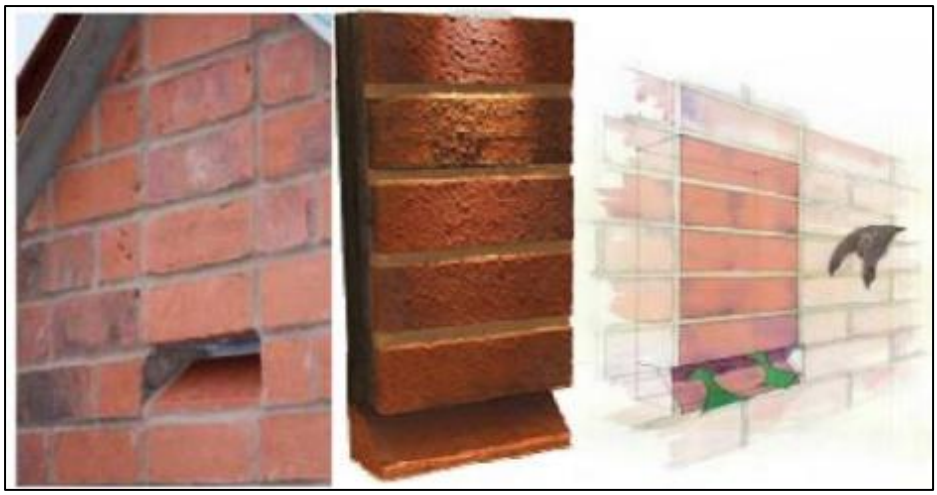


Figure 5.1: Habitat Bat Box.

5.3.3 Birds

No strategic bird surveys are required.

Any removal of suitable nesting habitat (i.e. individual trees) should take place outside of the breeding season, i.e., between September 1st and February 28th. Following the removal, any piles of brash should be removed from the site, failure to do so could provide potential nest sites if left in situ until the following breeding season.

If the vegetation removal is envisaged during the breeding season, prior to removal, checks should be made immediately prior to any clearance by a suitably experienced

ecologist to establish any nesting or breeding activity. Should it be identified that birds are nesting or breeding then works should be paused until the young have naturally fledged the nest.

The proposals should also consider the inclusion of integrated bird boxes within the properties design. Numerous types are available for a variety of species. Examples include Swift Blocks, Sparrow Boxes and swallow/house martin nest cups all of which can be seamlessly integrated within the brick/stone work of a property.

REFERENCES

Buglife (2015) Good planning practice for invertebrates: information sheets on surveys and mitigation

CIEEM (2017) Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.

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

Department for Environment, Food and Rural Affairs (2024). The Statutory Biodiversity Metric User Guide Date: July 2024

Google Earth. Accessed various dates. Latest access September 2026.

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

Joint Nature Conservancy Council - DEFRA (2006) Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 – Habitats and Species of Principal Importance in England. DEFRA/Natural England - https://jncc.gov.uk/our-work/uk-bap-priority-habitats/ Latest access September 2026.

Natural England – MAGIC. http://www.natureonthemap.naturalengland.org.uk/MagicMap.aspx. Latest access September 2026.

Roper, T. J, (2010) Badger. New Naturalist Library – Collins.

Shawyer, C. R. 2011. Barn Owl Tyto alba Survey Methodology and Techniques for use in Ecological Assessment: Developing Best Practice in Survey and Reporting. IEEM, Winchester.

Stace, C., 1997. New Flora of the British Isles (Second edition). Cambridge University Press.

UKHab Ltd (2023). UK Habitat Classification Version 2.0 (at https://www.ukhab.org)

Appendix A - Figures

Figure 1: UKHabs Baseline Map (Pennine Ecological, April 2026).



Appendix B – Photographs 10th of March 2026



Photograph 1: Site 1.



Photograph 2: Site 1.



Photograph 3: Site 1.



Photograph 4: Site 2.



Photograph 5: Site 2.



Photograph 6: Site 2.



Photograph 7: Site 2.



Photograph 8: Site 2.