BIODIVERSITY NET GAIN ASSESSMENT

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

SEPTEMBER 2026

Biodiversity Net Gain Assessment

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

A report for

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A report by

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EXECUTIVE SUMMARY

PENNINE ecological Glossop Ltd were commissioned to undertake a Preliminary Ecological Appraisal (PEA) (Pennine Ecological, 2026) and Biodiversity Net Gain Assessment of land at Greenhouse Road and Wellhouse Lane, Mirfield.

The assessment is required to support the submission of a planning application that will see the construction of residential dwellings and gardens with an access road. The assessment follows the completion of a habitat survey undertaken by PENNINE ecological in April 2026.

The assessment includes the use of Natural England's/Defra's Statutory Biodiversity Metric Calculation Tool (version 1.0.4 published in July 2025) to determine whether the proposals would result in a biodiversity net gain or loss. The assessment was completed using standard methodologies and there was no deviation from the recognised guidance.

The habitats recorded on site during the field survey comprised the following;

- Very Low; Developed land; sealed surface
- Low; Bare ground, modified grassland, and ruderal.
- Medium; Individual trees.

The hedgerows recorded on site during the field survey comprised the following;

- Very Low; Non-native and ornamental hedgerow

The habitat retention, enhancement and creation proposals (where applicable) for the development would result in an overall biodiversity net loss of –1.09 habitat units, equivalent to –56.59% loss and a net loss of –0.02 hedgerow units, equivalent to -100%. The results of which are included within Table 1 below.

No other habitats were recorded on site.

The Habitat Trading Rules have not been satisfied.

Table 0.1: BNG Metric Results

	Habitat Units	Habitat Units % Change	Watercourse Units	Watercourse Units % Change	Hedgerow Units	Hedgerow Units % Change
On-site Baseline	1.92	-	0.00	-	0.02	-
On-site Post-intervention	0.83	-	0.00	-	0.00	-
On-site Net Change	-1.09	-56.59	0.00	0.00	-0.02	-100%
Trading Rules Satisfied	No					

In order for the proposal to achieve 10% net gain, 1.28 habitat units. Hedgerows have achieved a larger than 10% net gain.

The applicant proposes to deliver the remaining net gains through purchasing off-site habitat units from a habitat bank.

1. INTRODUCTION

1.1 BACKGROUND

PENNINE ecological Glossop Ltd were commissioned to undertake a Preliminary Ecological Appraisal (PEA) (Pennine Ecological, 2026) and Biodiversity Net Gain Assessment of land at Greenhouse Road and Wellhouse Lane, Mirfield.

The assessment is required to support the submission of a planning application that will see the construction of residential dwellings and gardens with an access road. The assessment follows the completion of a habitat survey undertaken by PENNINE ecological in March 2026.

The assessment has been undertaken to determine whether or not the development demonstrates an overall net gain or loss of biodiversity, in line with the current National Planning Policy Framework, 2021.

1.2 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.

1.3 PURPOSE OF THIS REPORT AND BNG BACKGROUND

As of 12th February 2024 Biodiversity Net Gain (BNG) became mandatory (unless exempt) under Schedule 7A of the Town and Country Planning Act 1990 (as inserted by Schedule 14 of the Environment Act 2021). Developers must deliver a BNG of 10% unless otherwise agreed with the relevant Local Authority.

The PEA identified the requirement for a BNG assessment at this site due to the anticipated loss of a low distinctiveness habitat (modified grassland). The BNG assessment has been undertaken to determine whether or not the proposal demonstrates an overall net gain or loss of biodiversity, in line with the current National Planning Policy Framework, 2026.

Through site selection and layout, applicants should avoid or reduce any negative impact on biodiversity. They must deliver at least 10% BNG (unless agreed otherwise with the Local Authority), as measured by the statutory biodiversity metric. There are three ways an applicant can achieve BNG.

1. They can create biodiversity on-site (within the red line boundary of a proposal site).

2. If the applicant cannot achieve all of their BNG on-site, they can deliver through a mixture of on-site and off-site. Applicants can either make off-site biodiversity gains on their own land outside the proposal site, or buy off-site biodiversity units on the market.

3. If the applicant cannot achieve on or off-site BNG, they must buy statutory biodiversity credits from the government. This should be a last resort. The government will use the revenue to invest in habitat creation in England.

2. METHODOLOGY

2.1 UK HABITAT CLASSIFICATION BASELINE SURVEY

For a BNG assessment to be completed a UK Habitat Classification (UKHabs) Survey (UKHab Ltd, 2022) has to be undertaken of the site's baseline habitats (refer to PENNINE ecological, 2026). The UKHab classification survey, condition and BNG assessment was undertaken on the 10th March 2026 by Stuart Macpherson who is an Associate member of the Chartered Institute of Ecology and Environmental Management (ACIEEM) who is a competent botanist with over 15 years' experience in the land management and ecology sectors.

2.2 BIODIVERSITY METRIC CALCULATOR TOOL

All habitats recorded within the footprint of the site during the field survey were included in the Biodiversity Metric Calculation Tool (version 1.0.4 published in July 2025). The statutory (official) biodiversity metric is a way of measuring biodiversity value for the purposes of BNG. It measures all types of habitat, including:

- grassland
- hedgerows
- lakes
- woodland
- watercourses such as rivers and streams

For BNG, biodiversity is measured in standardised biodiversity units. The metric measures the biodiversity value of habitats by calculating the number of biodiversity units. It calculates:

- how many units a habitat contains before development takes place.
- how many units are needed to replace the units of habitat lost and to achieve 10% BNG (unless agreed otherwise the Local Authority), through the creation or enhancement of habitat .

The formula takes different factors into account, including the habitat's:

- size
- quality
- location
- type

For created or enhanced habitats, the formula also takes account of:

- difficulty of creation or enhancement
- the time it takes a habitat to reach its target condition

- distance from the habitat loss

The statutory (official) biodiversity metric calculation tool must be used in order to demonstrate that the ecologist/assigned person has calculated the number of biodiversity units for existing habitat or habitat enhancements in accordance with the metric. This enables an assessment of the baseline condition, expected habitat losses arising from the development and proposed on-site habitat mitigation following construction.

This metric calculation has been undertaken following the standard methodology (Natural England, 2023) and in accordance with CIEEM good practice guidelines (CIEEM, 2019).

2.3 SURVEYOR EXPERIENCE

The surveys and assessments have been 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 survey, and evaluation.

Stuart's key skills include the following:

- Completing 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 Ecologist on bat mitigation licences. Formerly an accredited agent from 2016 and an active bat carer.
- Licensed barn owl surveyor (CL29/0477) and active/committee member of Cheshire Barn Owl Group.
- 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 including being an accredited agent on mitigation licences.
- Riparian corridor and mammal surveys for numerous flood alleviation schemes across north west England.
- Ecological Evaluation and Impact Assessments in association with large scale infrastructure projects.

2.4 LIMITATIONS

The survey was undertaken in March 2026 which is outside of the optimal botanical survey season. However, the habitats on site were readily identifiable so the timing of the survey is not deemed to be a constraint.

There are considered to be no limitations with this report.

3. BIODIVERSITY NET GAIN ASSESSMENT RESULTS

The following section details the baseline habitats, along with habitats to be created, enhanced and retained within the site (where applicable).

3.1 ON-SITE HABITAT BASELINE RESULTS

The habitats recorded on site were of the following distinctiveness';

- Very Low; Beveloped land; sealed surface
- Low; Bare ground, modified grassland, and ruderal.
- Medium; Individual trees.

In total, the baseline habitats surveyed have a total habitat value of 1.92 habitat units

The habitats and their respective areas, distinctiveness, condition etc. are included in Table 3.1 below.

Table 3-1: Summary of the baseline habitats.

Broad Habitat	Habitat Type	Habitat Area (ha)	Distinctiveness	Condition	Total Habitat Units (Ecological Baseline)	Area Retained – ha / units	Area Enhanced – ha / units	Habitat Area (ha) Lost	Units Lost (before mitigation)
Grassland	Modified grassland	0.209	Low	Poor	0.42			0.21	0.42
Grassland	Modified grassland	0.4223	Low	Poor	0.84			0.42	0.84
Sparsely vegetated land	Ruderal	0.0087	Low	Poor	0.02			0.01	0.02
Urban	Bare ground	0.0093	Low	Poor	0.02			0.01	0.02
Urban	Developed land; sealed surface	0.0047	V.Low	N/A - Other	0.00	-	-	0.00	0.00
Individual trees	Urban tree	0.0489	Medium	Good	0.59	-	-	0.05	0.59
Individual trees	Urban tree	0.0041	Medium	Moderate	0.03			0.00	0.03
TOTAL	-	0.65*	-	-	1.92	-	-	0.71	1.92

**excludes individual trees*

3.2 ON-SITE HABITAT CREATION RESULTS

The habitats to be created on site (Table 3.2) are of the following distinctiveness':

- Very low; Developed land; sealed surface.
- Low; Vegetated garden

- Medium; Other woodland; broadleaved.

The total number of habitat units delivered is 0.83.

The habitats and their respective areas, distinctiveness, condition etc. are included in Table 3.2 below.

Table 3-2: Summary of the on-site habitat creation.

Broad Habitat	Habitat	Habitat Area (ha)	Distinctiveness	Condition	Habitat Units Delivered	Comments
Urban	Developed land; sealed surface	0.114	V.Low	N/A - Other	0.00	Site 1 developed area.
Urban	Vegetated garden	0.049	Low	Condition Assessment N/A	0.09	Site 1 garden area.
Woodland and forest	Other woodland; broadleaved	0.046	Medium	Poor	0.15	Site 1 - area to be undeveloped and used as part of habitat creation.
Urban	Developed land; sealed surface	0.25	V.Low	N/A - Other	0.00	Site 2 developed area.
Urban	Vegetated garden	0.142	Low	Condition Assessment N/A	0.27	Site 2 garden area.
Woodland and forest	Other woodland; broadleaved	0.053	Medium	Poor	0.18	Site 2 - area to be undeveloped and used as part of habitat creation.
TOTAL	-	0.65*	-	-	0.83	-

**excludes individual trees*

3.3 ON-SITE HABITAT ENHANCEMENT RESULTS

No habitats on site are to be enhanced.

3.4 ON-SITE HEDGEROW BASELINE RESULTS

The hedgerows recorded on site (Table 3.3) are of the following distinctiveness':

- Very Low; Non-native and ornamental hedgerow

In total , the number of baseline hedgerow units is 0.07.

The habitats and their respective areas, distinctiveness, condition etc. are included in Table 3.3 below.

Table 3-3: Summary of the on-site hedgerow baseline.

Habitat Type	Length (Km)	Distinctiveness	Condition	Total Hedgerow Units (Ecological Baseline)	Length Retained – km / units	Length Enhanced – km / units	Length (Km) lost	Units Lost (before mitigation)
Non-native and ornamental hedgerow	0.017	V.Low	Poor	0.02	-	-	0.02	0.02
TOTAL	0.017	-	-	0.02	-	-	0.02	0.02

3.5 ON-SITE HEDGEROOW CREATION RESULTS

The hedgerows to be created on site (Table 3.4) are of the following distinctiveness':

- Low; Native hedgerow.

In total, the number of hedgerow units to be created is 0.1, equivalent to 467.65%

Table 3.1: Summary of the on-site hedgerows to be created.

Habitat Type	Distinctiveness	Condition	Length Created (km)	Units Created
Native hedgerow	Low	Poor	0.05	0.1
TOTAL	-	-	0.05	0.1

3.6 ON-SITE WATERCOURSE BASELINE RESULTS

No watercourses recorded on site.

4. CONCLUSION AND HEADLINE BNG ASSESSMENT RESULTS

4.1 CONCLUSION AND BNG ASSESSMENT RESULTS

The following section summarises the Biodiversity Net Gain assessment results.

Baseline habitats and hedgerows of very low, low, and medium distinctiveness were assessed as being present within the site in March 2026. The habitats to be 'created' are of very low (developed land; sealed surface) and low (vegetated garden) distinctiveness.

The habitat retention, enhancement and creation proposals (where applicable) for the development would result in an overall biodiversity net loss of –1.09 habitat units, equivalent to –56.59% loss and a net loss of –0.02 hedgerow units, equivalent to -100%.The results of which are included within Table 4.1 below.

No other habitats were recorded on site.

The Habitat Trading Rules have not been satisfied.

Table 4.1: BNG Metric Results

	Habitat Units	Habitat Units % Change	Watercourse Units	Watercourse Units % Change	Hedgerow Units	Hedgerow Units % Change
On-site Baseline	1.92	-	0.00	-	0.02	-
On-site Post-intervention	0.83	-	0.00	-	0.00	-
On-site Net Change	-1.09	-56.59	0.00	0.00	-0.02	-100%
Trading Rules Satisfied	No					

5. BNG PROPOSALS

In order for the proposal to achieve 10% net gain, 1.28 habitat units. Hedgerows have achieved a larger than 10% net gain.

The applicant proposes to deliver the remaining net gains through purchasing off-site habitat units from a habitat bank.

5.1 POTENTIAL OFF-SITE LOCATIONS

A review of https://www.futurehomes.org.uk/biodiversityunitfindermap has been undertaken to identify potential nearby receptor sites.

Note – Future homes has not verified the accuracy of any of this information. The locations in the map are approximate only. Therefore, this information should be used as a guide only, to assist in finding a habitat bank.

Note - if the habitat bank is located outside of the Local Planning Authority (LPA) or National Character Area (NCA) of the site, then a spatial risk multiplier[1] is applied to the habitat unit deficit.

The site is within the Local Authority of Kirlees Metropolitan Council and National Character Area 37; Yorkshire Southern Pennine Fringe.

The following habitat banks have been identified:

(i) Habitat Bank Option 1 (Habitat Units Available)

Organisation: BioMark (via Future Homes link).

Site ID: A472

Address: Unknown.

Local Planning Authority (LPA): Kirklees

[1] Refer to Page 35 of the Statutory Metric User Guide for details on Spatial Risk Multipliers - https://assets.publishing.service.gv.uk/media/669e45fba3c2a28abb50d426/The_Statutory_Biodiversity_Metric_-_User_Guide__23.07.24_.pdf

National Character Area (NCA): 38 Nottinghamshire, Derbyshire and Yorkshire Coalfield

This site is within the same LPA but not NCA.

(ii) Habitat Bank Option 2

Organisation: Environment Bank

Site ID: A118

Address: Unknown.

Local Planning Authority (LPA): Sheffield City Council

National Character Area (NCA): 37 Yorkshire Southern Pennine Fringe

This site is within a neighbouring LPA but the same NCA.

REFERENCES

CIEEM (2019). Biodiversity net gain. Good practice principles for development; a practical guide. CIRIA publications

Natural England, 2025. Biodiversity Metric Calculation Tool (version 1.0.4 published in July 2025).

Pennine Ecological, 2026. Preliminary Ecological Appraisal Land at Greenside Road / Wellhouse Lane, Mirfield, WF14 0AU.

The UK Habitat Classification (2022) System (https://ukhab.org/)

Appendix A - Figures

Figure 1: Baseline Habitats Map (refer to Pennine Ecological, 2026 for Target Note descriptions which provides further info on habitat composition).

