



BIODIVERSITY NET GAIN ASSESSMENT

**LAND AT 44/46 CHAPEL BROW
CHARLESWORTH
GLOSSOP
DERBYSHIRE
SK13 5HQ**

JANUARY 2026

Preliminary Ecological Appraisal

Land at 44/46 Chapel Brow
Charlesworth
Glossop
Derbyshire
SK13 5HQ

A report for

Paul Duffy

A report by

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EXECUTIVE SUMMARY

PENNINE ecological Glossop Ltd were commissioned by Paul Duffy in January 2026 to undertake an ecological walkover and Biodiversity Net Gain Assessment of land at 44/46 Chapel Brow, Charlesworth, Glossop, Derbyshire, SK13 5HQ (hereafter referred to as 'the site').

The assessment is required to support the submission of a planning application that will see the construction of a two storey residential dwelling with associated parking and soft landscaping.

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 and hedgerows recorded during on site during the field survey comprised the following habitats;

Habitats

- g3c6 Lolium- Cynosurus neutral grassland
- h3d Bramble scrub
- u1c Artificial unvegetated – unsealed surface.
- u1 Urban (Secondary code 81 ruderal)

Hedgerows

- h2b Non-native and ornamental hedgerow

The habitat retention, enhancement and creation proposals (where applicable) for the development would result in a habitat loss of 0.16 habitat units, equivalent to -72.38%. The non-native ornamental hedgerow on site is to be retained thus no units are lost but a net gain has not been achieved.

The Habitat Trading Rules have not been satisfied.

In order for the proposal to achieve 10% net gain, 0.18 habitat units are required

The results of which are included within Table 1.

Table 1: BNG Metric Results

	Habitat Units	Habitat Units % Change	Watercourse Units	Watercourse Units % Change	Hedgerow Units	Hedgerow Units % Change
On-site Baseline	0.22	-	0.00	-	0.02	-
On-site Post-intervention	0.06	-	0.00	-	0.02	-
On-site Net Change	-0.16	-72.38	0.00	0.00	0.00	0.00%
Trading Rules Satisfied	No					

1. INTRODUCTION

1.1 BACKGROUND

PENNINE ecological Glossop Ltd were commissioned by Paul Duffy in January 2026 to undertake an ecological walkover and Biodiversity Net Gain Assessment of land at 44/46 Chapel Brow, Charlesworth, Glossop, Derbyshire, SK13 5HQ (hereafter referred to as 'the site', also refer to Figure 1 for site's red line boundary).



Figure 1: Site location plan and approximate red line boundary subject to survey as part of this study (image taken from Google Earth, 2024).

Site location plan and approximate red line boundary subject to survey as part of this study (image taken from Google Earth, 2024).

The assessment is required to support the submission of a planning application that will see the construction of a two storey residential dwelling with associated parking and soft landscaping (Figure 2).

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.

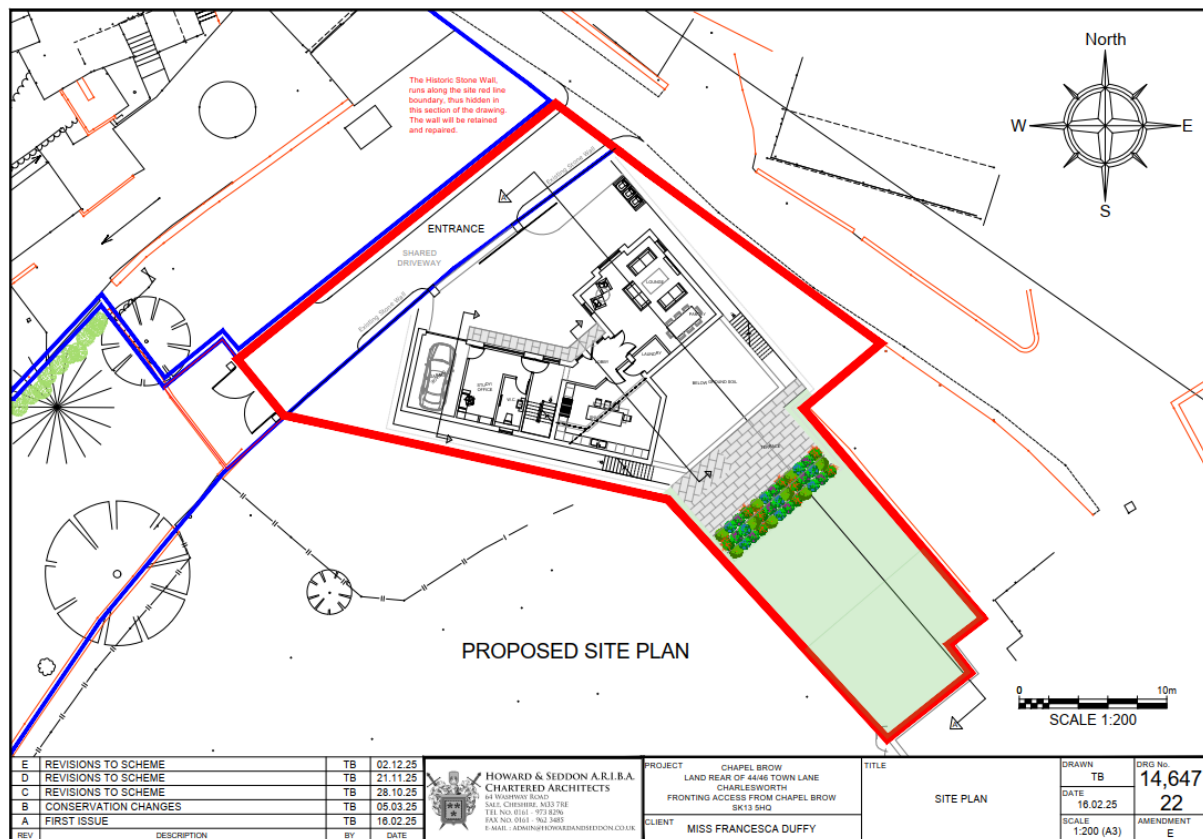


Figure 2: Site proposals (02.12.25).

1.2 SITE LOCATION

The site is approximately 300m east of the centre Charlesworth, Derbyshire (the centre is taken from the war memorial on the junction of Marple Road and Town Lane) (Figure 3). Located 25m south east of 44 – 48 Town Lane, adjacent to the minor road of Chapel Brow, the site is in a broadly rural location with pastoral grasslands immediately south of the site. The site is adjacent to neighbouring residential properties to the north, east and west.

The sites central National Grid Reference is NGR: SK 00943 92882.

1.3 PURPOSE OF THIS REPORT AND BNG BACKGROUND

This document provides the results of the BNG assessment which includes Natural England's/Defra's Statutory Biodiversity Metric Calculation Tool (version 1.0.4 published in July 2025) to determine whether the proposals on-site would result in an overall net gain or net loss; this result can be expressed in habitat units and/or a percentage. A habitat will contain a number of biodiversity units, depending on the following: size, quality, location, and type. Biodiversity units can be lost through development or generated through work to create and/or enhance habitats.

As can be read in <https://www.gov.uk/guidance/understanding-biodiversity-net-gain> the purpose of Biodiversity Net Gain is “a way of creating and improving natural habitats. BNG makes sure development has a measurably positive impact (‘net gain’) on biodiversity, compared to what was there before development.”

Through site selection and layout, developers 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 a developer can achieve BNG.

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

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

If developers 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.

As of 12th February 2024 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.

Additionally, the report 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.).
- Survey and evaluation of the site to support protected and/or notable species including but not limited to:
 - Badger.
 - Birds, including Schedule 1 listed species of the Wildlife and Countryside Act 1981 (as amended) (e.g., barn owl, hobby, kingfisher, etc.), those included within Section 41 of the Natural Environment and Rural Communities Act (NERC) 2006 (DEFRA, 2006), Birds of Conservation Concern 5 etc. (Stanbury *et al.*, 2021).
 - European Protected Species (e.g., all bat species, great crested newt, 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).

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, 2025), this was completed on the 13th of January 2026. The UKHab classification survey, condition and BNG assessment was 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.

2.2 DESK BASED SEARCHES

(a) Defra's MAGIC Mapping Tool

The Multi Agency Geographical Information Centre (MAGIC) (www.magic.gov.uk) created by Defra was used to identify the following features of ecological interest (MAGIC was last accessed on the 23rd January 2026).

- Statutory designated sites (e.g., Local Nature Reserves (LNR), Special Protection Areas (SPA), Sites of Special Scientific Interest (SSSI)), Special

Areas of Conservation (SAC) etc. within 2km of the site (includes associated SSSI Impact Risk Zones).

- Granted European Protected Species Licence Applications within 1km.
- Great Crested Newt (GCN) Class Survey Licence Returns within 500m.

2.3 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).

2.4 LIMITATIONS

The survey was undertaken on 13th of January 2026 in optimal weather conditions. Whilst outside of the optimal botanical survey season, it is accepted that certain plant species may have been missed, however, the habitats on site were easily identifiable. Therefore, the timing of the survey is not seen as a significant constraint to the results presented within this report.

3. UK HABITAT CLASSIFICATION SURVEY RESULTS

The site comprised the following habitats;

- Artificial unvegetated, unsealed surface
- Bramble scrub
- Other neutral grassland
- Ruderal/Ephemeral

The artificial unvegetated unsealed surface measured approximately 248m² and was as a result of the ongoing construction in relation to the approved planning application reference number HPK/2022/0536. An access track had been created from Chapel Brow in to the 44/46 Chapel Brow to enable the construction of the new property as well vehicular access, material storage etc.

Fifty-eight meters squared of bramble scrub was recorded was recorded on the north facing bank in amongst a larger area of ruderal habitat (303m²). Species recorded within the ruderal were; herb Robert, willowherb sp., fern sp., creeping thistle, Yorkshire fog, nettle, foxglove, comfrey, creeping bent, cow parsley, cleaver, dandelion, and creeping buttercup.

The area of neutral grassland (198 m²) comprised rye grass, fescue sp., creeping buttercup, common sorrel, clover sp., thistle and an unidentified species of moss.

4. DESK BASED SEARCH RESULTS

The results of the desk-based searches are outlined below.

4.1 DESK-BASED SEARCHES

(a) Statutory Designated Sites

There are no statutory protected sites within 2km of the site. With regards the SSSI Impact Risk Zones (IRZ), the site is within the IRZ of the Dark Peak SSSI. However, due to the relatively small scale with only localised impacts anticipated from the proposals, it is the opinion of PENNINE Ecological that consultation with Natural England is not required.

(b) Protected and/or Notable Species

(i) Granted European Protected Species Licence Applications

There are no Granted European Protected Species Licences within 1km of the site's red line boundary.

(ii) Great Crested Newt Class Survey Licence Returns

There are no great crested newt licence returns within 500m of the site's red line boundary.

5. BIODIVERSITY NET GAIN ASSESSMENT RESULTS

5.1 ON-SITE HABITAT BASELINE RESULTS

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

- Very low; Artificial unvegetated – unsealed surface.
- Low; Ruderal.
- Medium; Bramble scrub and other neutral grassland.

In total, the baseline habitats surveyed have a total habitat value of 0.3 habitat units

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

Table 5-1: Summary of the Baseline Habitats and Habitat Value

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)
Urban	Artificial unvegetated, unsealed surface	0.0301	V.Low	N/A - Other	0.00	-	-	0.03	0.00
Heathland and shrub	Bramble scrub	0.0058	Medium	Condition Assessment N/A	0.02	-	-	0.01	0.02
Grassland	Other neutral	0.0198	Low	Poor	0.16	-	-	0.02	0.16
Sparsely vegetated land	Ruderal/Ephemeral	0.0303	Low	Moderate	0.12	-	-	0.03	0.12
TOTAL		0.08	-	-	0.3	-	-	0.09	0.3

5.2 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.

The total number of habitat units delivered is 0.06.

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 and Habitat Value

Broad Habitat	Habitat	Habitat Area (ha)	Distinctiveness	Condition	Habitat Units Delivered
Urban	Developed land; sealed surface	0.054	Very low	N/A - Other	0.00
Urban	Vegetated garden.	0.032	Low	Condition Assessment N/A	0.06
TOTAL		0.09	-	-	0.06

5.3 ON-SITE HABITAT ENHANCEMENT RESULTS

No habitats on site are to be enhanced.

5.4 ON-SITE HEDGEROW BASELINE RESULTS

The hedgerows recorded on site were of the following distinctiveness’;

- Very low; Non-native and ornamental hedgerow.

In total, the baseline habitats surveyed have a total habitat value of 0.3 habitat units

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

Table 3.3: Summary of on-site hedgerow baseline results.

Hedgerow 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	0.022	V.Low	Poor	0.02	0.022 / 0.02	-	-	-
TOTAL	0.02	-	-	0.02	0.02 / 0.02	-	-	-

5.5 ON-SITE HEDGEROW CREATION RESULTS

No hedgerows to be created on site.

5.6 ON-SITE WATERCOURSE BASELINE RESULTS

No watercourses recorded on site.

6. CONCLUSION AND HEADLINE BNG ASSESSMENT RESULTS

6.1 CONCLUSION AND BNG ASSESSMENT RESULTS

The following section summarises the Biodiversity Net Gain assessment results.

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

The habitat retention, enhancement and creation proposals (where applicable) for the development would result in a habitat loss of 0.16 habitat units, equivalent to -72.38%. The non-native ornamental hedgerow on site is to be retained thus no units are lost but a net gain has not been achieved.

The Habitat Trading Rules have not been satisfied.

The results of which are included within Table 4.1.

Table 4.1: BNG Metric Results

	Habitat Units	Habitat Units % Change	Watercourse Units	Watercourse Units % Change	Hedgerow Units	Hedgerow Units % Change
On-site Baseline	0.22	-	0.00	-	0.02	-
On-site Post-intervention	0.06	-	0.00	-	0.02	-
On-site Net Change	-0.16	-72.38	0.00	0.00	0.00	0.00%
Trading Rules Satisfied	No					

7. BNG PROPOSALS

In order for the proposal to achieve 10% net gain, 0.18 habitat units are required.

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

7.1 POTENTIAL OFF-SITE LOCATIONS

The site is located within National Character Area: 54 - Manchester Pennine Fringe.

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 multiplier¹ is applied to the habitat unit deficit.

The following habitat banks have been identified:

(i) Habitat Bank Option 1 (Units Available)

The following Habitat Bank is within the same LPA and NCA.

Organisation: Refer to <https://www.futurehomes.org.uk/biodiversityunitfindermap>

Site ID: A097

Address: Refer to <https://www.futurehomes.org.uk/biodiversityunitfindermap>

Local Planning Authority (LPA): Rochdale

National Character Area (NCA): 54 - Manchester Pennine Fringe

¹ Refer to Page 35 of the Statutory Metric User Guide for details on Spatial Risk Multipliers - https://assets.publishing.service.gov.uk/media/669e45fba3c2a28abb50d426/The_Statutory_Biodiversity_Metric_-_User_Guide_23.07.24_.pdf

(ii) Habitat Bank Option 2 (Units Available)

The following Habitat Bank is within a neighbouring LPA / NCA.

Organisation: Legacy Habitat Banks Ltd.

Site ID: A286

Address: Chisworth, Glossop, SK13 5SB.

Local Planning Authority (LPA): High Peak

National Character Area (NCA): 51 - Dark Peak

(iii) Habitat Bank Option 3 (Units Available)

The following Habitat Bank is within a neighbouring LPA / NCA.

Organisation: Environment Bank

Site ID: A278

Address: Haugh, Rochdale, OL16 3SZ

Local Planning Authority (LPA): Oldham Metropolitan Borough Council

National Character Area (NCA): Southern Pennines

REFERENCES

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

Natural England (2023). Biodiversity Metric Calculation Tool (version 1.0.4 published in July 2025).

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

Appendix A - Figures

Figure 1: Baseline Habitats Map – January 2026



Figure 2: Site Proposals.

