



BIODIVERSITY NET GAIN ASSESSMENT

**LAND AT HIGHER STANDEN FARM
CLITHEROE
LANCASHIRE**

AUGUST 2026

Biodiversity Net Gain Assessment

Land at Higher Standen Farm
Clitheroe
Lancashire

A report for

Applethwaite Ltd

A report by

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EXECUTIVE SUMMARY

PENNINE Ecological were commissioned in October 2025 by Applethwaite Ltd to undertake a Biodiversity Net Gain (BNG) assessment of land at Higher Standen Farm, Clitheroe.

The assessment is required to support the submission of a planning application that will see the construction of a residential estate including housing, driveways and associated vegetated gardens. The proposals also include the enhancement of an area of grassland, tree plants and the creation of a Sustainable Drainage System (SuDS).

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 encountered on site during the field surveys comprised the following;

- Low; Modified grassland, Tall forbs
- Medium; Urban tree, Other woodland; mixed

The habitat retention, enhancement and creation proposals (where applicable) for the development would result in an overall biodiversity net loss of -0.38 habitat units, equivalent to -5.9% and a net gain of 0.5 hedgerow units. The results of which are included within Table 1 below.

The Habitat Trading Rules have not been satisfied.

Table 1: BNG Metric Results

**BNG calculator cannot calculate percentage increase as there is zero baseline.*

	Habitat Units	Habitat Units % Change	Hedgerow Units	Hedgerow Units % Change
On-site Baseline	6.47	-	0.00	-
On-site Post-intervention	6.09	-	0.5	-
On-site Net Change	-0.38	-5.9%	0.5	N/A*
Trading Rules Satisfied	No			

1. INTRODUCTION

1.1 BACKGROUND

PENNINE Ecological were commissioned in October 2025 by Applethwaite Ltd to undertake a Biodiversity Net Gain (BNG) assessment of land at Higher Standen Farm, Clitheroe (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 residential estate including housing, driveways and associated vegetated gardens. The proposals also include the enhancement of an area of grassland. The assessment follows the completion of two habitat surveys undertaken by PENNINE ecological in October 2024 and October 2025.

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

The site is located at the south-west end of Higher Standen Drive, Clitheroe, Lancashire, BB7 1FT.

The central Ordnance Survey National Grid Reference is SD 7467 4068.

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.

1. They can create biodiversity on-site (within the red line boundary of a development site).
2. 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.
3. 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.

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 Appendix A, Figure 1). The UKHab classification surveys and condition assessments were undertaken by Ian Ryding in October 2023 and again by Stuart Macpherson in October 2025. The BNG assessment was undertaken by Luke Pilling who is a Qualifying member of the Chartered Institute of Ecology and Environmental Management (CIEEM). All survey and BNG results were reviewed by Stuart Macpherson who is an associate member of CIEEM with over 14 years' experience in ecological survey and evaluation (refer to section 2.3 for experience).

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 STRATEGIC SIGNIFICANCE

The Lancashire County Council Local Habitat Map¹ was reviewed to determine the strategic significance of habitats within the site. The strategic significance for each habitat parcel on site was determined using the guidance table below.

¹ <https://experience.arcgis.com/experience/92a5cd8951b84c65b9cd842f5ffc2333>

Table 7 Strategic significance categories applied to post-development interventions where a LNRS has been published.

Category	Score	Description
High (Formally identified in local strategy)	1.15	This category can only be applied to post development interventions when: - the location of the habitat parcel has been mapped in the Local Habitat Map⁴ as an area where a potential measure has been proposed to help deliver the priorities of that LNRS; and - the proposed intervention is consistent⁵ with the mapped potential measure in the LNRS for the habitat parcel You should record that you have applied the published LNRS in your gain plan.
Medium (Location ecologically desirable but not in local strategy)	1.10	This category cannot be applied.
Low (Area / compensation not in local strategy)	1	Where the definitions for high strategic significance are not met. Even if your project is in an area mapped with a potential measure, if the proposed intervention is not consistent with a potential measure proposed by the LNRS for that location, you should record strategic significance as low.

2.4 SURVEYOR EXPERIENCE

The BNG assessment has been undertaken by Luke Pilling who is a Qualifying Member of CIEEM. Luke's key skills include;

- Experience of writing technical reports including Preliminary Ecological Appraisals and Biodiversity Net Gain reports.
- Experienced bat surveyor of three years undertaking Preliminary Roost Assessments and dusk emergence surveys.
- Experience in Ecological Clerk of Works.
- Experienced in a wide range of ecological surveys including great crested newts, reptiles, badger, and riparian mammals.

The survey on 4th October 2024 was undertaken by Ian Ryding. Ian Ryding has over 37 years' experience in ecological survey and evaluation. Key skills include the following;

- Extended Phase 1 Habitat Survey/Preliminary Ecological Appraisal and National Vegetation Classification Survey.
- Highly proficient field botanist, including some difficult plant groups.
- Mammal surveys including surveys for badger, water vole, otter, brown hare and preliminary bat roost assessment.
- Breeding and wintering bird survey. NPTC qualified tree climber (Units 206 and 306 Tree climbing and Aerial Rescue).
- Expert witness delivering proof of evidence in respect of nesting birds at public inquiry in 2018 and 2020. Breeding and wintering bird surveyor on a range of habitats including coastal, farmland and moorland habitats.
- Extensive experience in great crested newt (GCN) survey, evaluation, licensing and mitigation. Natural England Class Licence WML-CL08 held.
- Ecological Evaluation and Impact Assessments in association with large scale commercial development and civil engineering.

The survey on 20th October 2025 was undertaken by Stuart Macpherson. Stuart is an associate member of the Chartered Institute of Ecology and Environmental Management (MCIEEM) and has over 14 years' experience in ecological survey and evaluation. Stuarts key skills include;

- 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 project.

2.5 LIMITATIONS

The field surveys were undertaken on 04/10/2024 and 20/10/2025 which is outside the optimal botanical survey season, however, all habitats on site were easily identifiable.

There are considered to be no limitations with this report.

3. BIODIVERSITY NET GAIN ASSESSMENT RESULTS

3.1 ON-SITE HABITAT BASELINE RESULTS

The habitats recorded on site were of the following distinctiveness;

- Low; Modified grassland, Tall forbs
- Medium; Urban tree, Other woodland; mixed

In total, the baseline habitats surveyed have a total habitat value of 6.47 habitat units

As there is a Local Nature Recovery Strategy (LNRS) established for Lancashire County the baseline strategic significance is low (area / compensation not in local strategy).

The site does not fall within an identified opportunity. Furthermore, the interventions are not consistent with potential measure proposed by the LNRS. The habitat creation strategic significance is therefore low.

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

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Table 3-1: 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)
Grassland	Modified grassland	1.87	Low	Poor	3.72	0.00	0.00	1.87	3.74
Sparsely vegetated land	Tall forbs	0.0782	Low	Moderate	0.31	0.00	0.00	0.08	0.31
Individual trees	Urban tree	0.0163	Medium	Good	0.20	0.00	0.00	0.02	0.20
Woodland and forest	Other woodland; mixed	0.1208	Medium	Moderate	0.97	0.1208	0.00	0.00	0.00
Grassland	Modified grassland	0.3633	Low	Poor	0.65	0.00	0.3633 / 0.73	0.00	0.00
Grassland	Modified grassland	0.1318	Low	Poor	0.26	0.00	0.00	0.13	0.26
Grassland	Modified grassland	0.1341	Low	Poor	0.27	0.00	0.1341 / 0.27	0.00	0.00
Total		2.65			6.38	0.12 / 0.97	0.5 / 0.99	2.1	4.51

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; Modified grassland, Introduced shrub, Sustainable drainage system, Vegetated garden
- Medium; Urban tree

The total number of habitat units delivered is 2.04.

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
Grassland	Modified grassland	0.003	Low	Moderate	0.01
Urban	Introduced shrub	0.0008	Low	Condition Assessment N/A	0.00
Urban	Sustainable drainage system	0.1318	Low	Moderate	0.32
Urban	Vegetated garden	0.6913	Low	Condition Assessment N/A	1.33
Individual trees	Urban tree	0.1344	Medium	Poor	0.38
Urban	Developed land; sealed surface	1.2547	Very low	N/A - Other	0.00
Total		2.07			2.04

3.3 ON-SITE HABITAT ENHANCEMENT RESULTS

The habitats to be enhanced on site (Table 3.3) are of the following distinctiveness’:

- Low; Modified grassland to be enhanced to Other neutral grassland (Medium distinctiveness)

The total number of habitat units delivered is 3.08.

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

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Table 3-3: Summary of the On-Site Habitat Enhancement and Habitat Value

Broad Habitat	Habitat	Habitat Area (ha)	Distinctiveness	Condition	Habitat Units Delivered
Grassland	Modified grassland – Other neutral grassland	0.3633	Low - Medium	Moderate	2.25
Grassland	Modified grassland – Other neutral grassland	0.1341	Low - Medium	Moderate	0.83
Total		0.5			3.08

3.4 ON-SITE HEDGEROW BASELINE RESULTS

No hedgerows recorded on site.

3.5 ON-SITE HEDGEROW CREATION RESULTS

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

- Very low; Non-native and ornamental hedgerow
- Low; Native hedgerow

The total number of habitat units delivered is 0.5.

The habitats and their respective areas, distinctiveness, condition etc. are included in Table 3.4 below.

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Table 3-4: Summary of the On-Site Hedgerow Creation and Hedge Value

Habitat type	Length (km)	Distinctiveness	Condition	Hedge Units Delivered
Native hedgerow	0.129	Low	Moderate	0.43
Non-native and ornamental hedgerow	0.067	Low	Poor	0.06
Total	0.22			0.5

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 of low and medium distinctiveness were assessed as being present within the site in October 2024 and 2025. The habitats to be ‘created’ are of very low (developed land; sealed surface, non-native and ornamental hedgerow), low (modified grassland, introduced shrub, sustainable drainage system, vegetated garden, native hedgerow), and medium (urban tree) distinctiveness. The habitats to be ‘enhanced’ are of low to medium distinctiveness (modified grassland to be enhanced to other neutral grassland).

The habitat retention, enhancement and creation proposals (where applicable) for the development would result in an overall biodiversity net loss of -0.38 habitat units, equivalent to -5.9% and a net gain of 0.5 hedgerow units. The results of which are included within Table 4.1 below.

No other habitats were recorded on site.

The Habitat Trading Rules have also not been satisfied.

Table 4-1: BNG Metric Results

	Habitat Units	Habitat Units % Change	Hedgerow Units	Hedgerow Units % Change
On-site Baseline	6.47	-	0.00	-
On-site Post-intervention	6.09	-	0.5	-
On-site Net Change	-0.38	-5.9%	0.5	N/A*
Trading Rules Satisfied	No			

5. BNG PROPOSALS

In order for the proposal to achieve 10% net gain, 1.03 habitat units are required.

The remaining net gains would be achieved through purchasing off-site habitat units from a habitat bank. Locations of available habitat banks are provided below.

However, the client also has land available that they are considering using for compensation, but this is to be decided at a later date.

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 proposal site, then a spatial risk multiplier² is applied to the habitat unit deficit.

(i) Habitat Bank Option 1 (Available)

Organisation: Carter Jonas.

Site ID: A378

Address: Portfield Road, Whalley, Clitheroe, BB7 9DL, UK

Local Planning Authority (LPA): Ribble Valley Borough Council

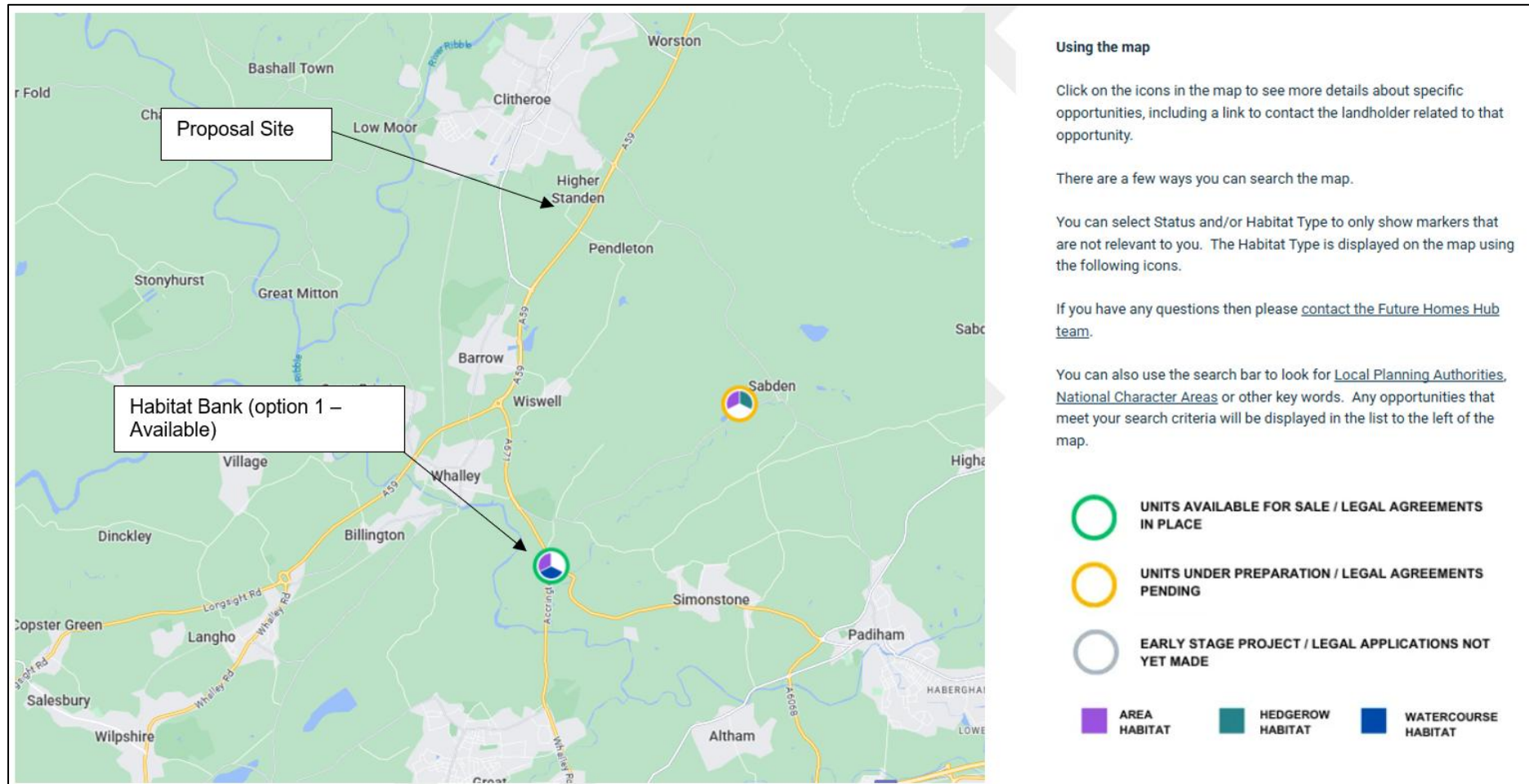
National Character Area (NCA): North West England; 35 Lancashire Valleys

This habitat bank is within the same LPA as the proposal site.

² 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

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Figure 5.1: Screenshot taken from Future Homes interactive map



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).

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

Online Resources

Lancashire County Council (LCC) Local Nature Recovery Strategy – Local Habitat Map

<https://experience.arcgis.com/experience/92a5cd8951b84c65b9cd842f5ffc2333/page/Habitat-Map>

Appendix A - Figures

Figure 1: Baseline Habitats Map

