FIELDOLOGY WORKS LTD
RURAL GRANTS AND ECOLOGY EXPERTS

BIODIVERSITY NET GAIN REPORT

197 Ribchester Road, Clayton-le-Dale BB1 9EE

REPORT CONTROL SHEET

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1. INTRODUCTION

1.1. SCOPE & PURPOSE

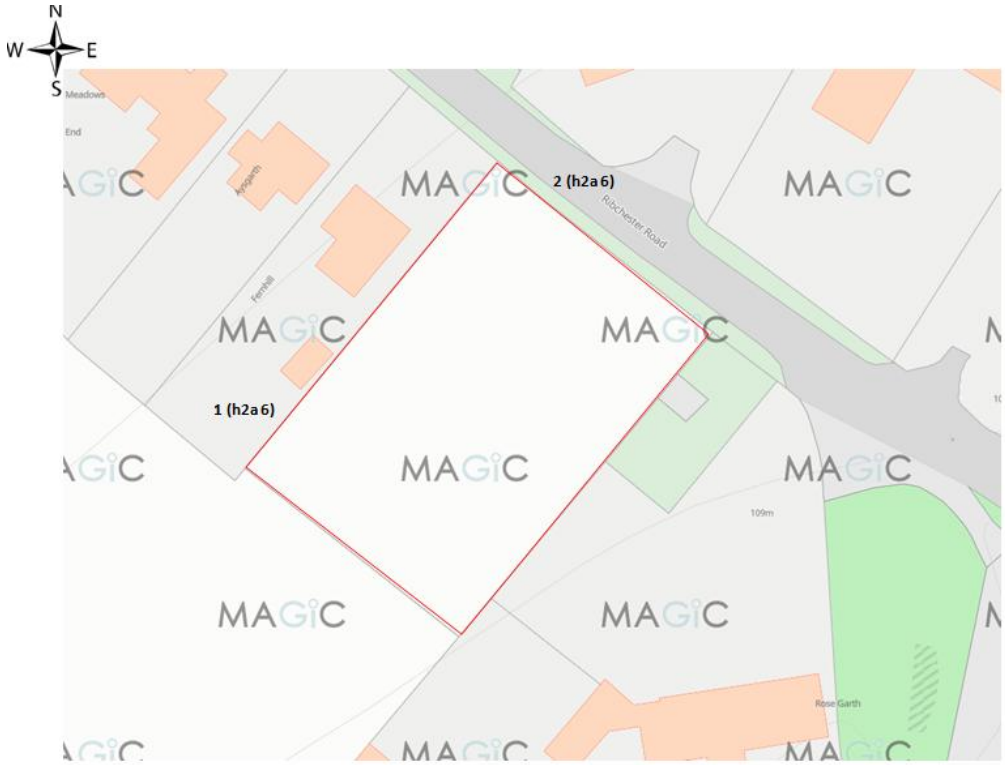
1.1.1. Fieldology Works Ltd was commissioned by Mr A Lloyd-Haydock to prepare a Biodiversity Net Gain (BNG) Assessment for 197 Ribchester Road, Clayton-le-Dale BB1 9EE.

1.1.2. The author of this report is Julie Wickington BSc (Hons), MA (Hons) at Fieldology Works Ltd. Julie is highly experienced at managing schemes and has produced many ecological reports to inform planning management plans.

1.1.3. This report has been written broadly following the Biodiversity Net Gain Report and Audit Templates (CIEEM, 2021).

1.2. LOCATION

1.2.1. Please refer to Figure 1.1 for the site location.



1.3. OBJECTIVES

1.3.1. The report has been produced to document the methods, results and conclusions of a BNG Assessment undertaken based on the proposed development for the site to fulfil the following:

- Ensure that the mitigation hierarchy has been applied;
- Identify the baseline habitats present and provide a condition assessment;
- Identify the post development habitats on site, assess the possible target condition and provide an indication of the likely importance of those habitats;
- Calculate the overall change in biodiversity score from pre- post development;
- Provide design recommendations to maximise potential net gain achievable; and,
- Provide an indication of likely outcomes and indicative cost as required.

1.4. PLANNING CONTEXT

1.4.1. Paragraph 174(d) of the revised National Planning Policy Framework (2021) states that "Planning policies, and decisions should contribute to and enhance the natural and local environment by… minimising impacts on and providing net gains for biodiversity…"

1.4.2. The Government 25-year Environment Plan states that the government will "embed environmental net gain principle for development."

2. METHODS

2.1. EXISTING HABITAT (BASELINE)

2.1.1. A site walkover and condition assessment of the site was undertaken by Julie, at Fieldology Works Ltd on 9th February 2026. The On-site Baseline Plan (Ref: ALH001) illustrates the habitats to be incorporated into the proposal.

2.1.2. The methods were based on the standard methodology as detailed by UK HAB Methodology to assess the habitats present.

2.2. PLANNING LAYOUT (POST-DEVELOPMENT)

2.2.1. The On-Site Creation and Enhancement Plan (Ref: ALH002 illustrates the habitats to be incorporated within the site.

2.3. THE STATUTORY BIODIVERSITY METRIC

2.3.1. The BNG calculation was undertaken utilising The Statutory Biodiversity Metric Calculation Tool (2024) (full calculation available in Appendix). The calculation was performed by a technically competent and experienced ecologist as detailed in British Standard BS8683 – Suitably qualified person –definition in BS8683:2020.

2.3.2. The Biodiversity Metric uses habitat features as a proxy measure for capturing the value and importance of nature. The metric takes into account the size, ecological condition, location and proximity to nearby 'connecting' features. The metric enables assessments to be made of the present and forecast future biodiversity value of a site.

2.3.3. To minimise the impacts of this proposed development and to produce a 10% net gain, the mandatory mitigation hierarchy has been adopted. This sequence is as follows:

- On-Site units - Delivered through habitat creation/enhancement via landscaping/green infrastructure.
- Off-site units - Delivered off-site through habitat creation/enhancement, including via habitat banks, with public and private landowners.
- Statutory Credits - Delivered through large-scale habitat projects delivering high-value habitats which can also provide long-term nature-based solutions.

This development can provide the biodiversity net gain On-Site.

2.4. HABITAT SCORING

2.4.1. The Biodiversity Statutory Metric supplies reference documents and user guides in which to accurately evaluate and assess the different habitats on site. The methodology for the baseline and post development calculations are demonstrated in the following sections.

2.4.2. Baseline Units - To assess the quality of a habitat and therefore calculate the units scored the Biodiversity Statutory Metric utilises three scoring factors as detailed below.

2.4.3. Condition - The condition of a habitat is assessed utilising the Condition Sheets provided for each habitat type. These list positive indicators for each habitat and indicate how many of these indicators need to be present to meet certain thresholds of condition. These condition sheets can be found in the Biodiversity Metric 4.0 habitat condition assessment sheets with instructions tool Technical (Natural England Joint Publication, 2021).

2.4.4. Distinctiveness - The distinctiveness of each habitat (area and linear) is automatically assigned by the tool, based upon national records of the occurrence and rarity of each habitat (Biodiversity Statutory Metric).

2.4.5. Strategic Significance - The idea of strategic significance works at a landscape scale. It gives additional unit value to habitats that are in preferred locations for biodiversity and other environmental objectives. Strategic significance utilises published local plans and objectives to identify local priorities for targeting biodiversity and nature improvement, such Nature Recovery Areas, local biodiversity plans, National Character Area objectives and green infrastructure strategies. Upon review of the statutory and non-statutory designations using (Magic Maps) (Accessed 28.08.25), the site has been considered as "Area/compensation not in local strategy/ no local strategy/Formerly Identified in Local Strategy" see Appendix for 500m Buffer Zone).

2.4.6. Post Development Units - Additional factors are implemented when assessing post development habitats.

- Difficulty of Creation/Enhancement;
- Temporal Risk "Time to target condition"; and,
- Spatial Risk (when offsite mitigation is necessary)

2.5. LIMITATIONS OF ASSESSMENT

2.5.1. Whilst every effort has been made to provide a comprehensive description of the site, no investigation could ensure the complete characterisation and prediction of the natural environment. The conclusions and recommendations detailed in this report are based upon the site redline and blueline boundaries (as appropriate) and the development proposals as outlined by the client at the time of writing. Should there be any changes to the site redline boundary or development proposals at a later stage, this assessment should be reviewed to determine whether any amendments or additional survey work is required.

2.5.2. Habitat areas (predevelopment) have been measured using online mapping, and therefore will not be completely accurate.

2.5.3. The Site Layout Plan used for post development areas is indicative in nature and does not constitute a detailed landscape plan.

3. BASELINE CONDITIONS

3.1. CONDITION ASSESSMENT

3.1.1. The following section summarises the condition assessment based on the condition sheets present within the Statutory Biodiversity Metric.

MODIFIED GRASSLAND

Approximately 0.1725 ha of the site is Modified Grassland (g4, 10 (scattered scrub), 16 (tall forbs), 519 (abandoned). Species present across the parcels: Common Couch (Elymus repens), Frequent Perennial Rye Grass (Lolium perenne). Occasional - White Clover (Trifolium repens), Common Nettle (Urtica dioica) and Broad Leaved Dock (Rumex obtusifolius). Should Broadleaved Dock become frequent/abundant this could be categorised as injurious. The grassland is unmown and abandoned, this is fenced off former improved permanent grassland, with Common Nettle and Broad-Leaved Dock abundant illustrating nutrient rich soils. Along the northern and eastern boundaries there are areas of scattered bramble (10).

The sward is all one height due to no active management and there are areas of bramble present along the northern and eastern boundaries. The grassland is in poor condition.

3.1.2. INDIVIDUAL TREES – RURAL TREES

At the time of survey there are two self-set trees Hawthorn (Crataegus monogyna), growing along eastern boundary near stone wall, these are in moderate condition.

OTHER NATIVE HEDGEROWS

3.1.3 1 - h2a6, 517 Other native hedgerow with recent management is present to the western boundary of the (g4) modified grassland sward. The Hedgerow components include adundant Hawthorn (Crataegus monogyna), rare Elder (Sambucus nigra) and Blackthorn (Prunus Spinosa) . Basal vegetation includes scattered Bramble (Rubus fruticosus agg.), Common nettle (Urtica dioica) and Ivy (Hedera helix). This hedgerow is in moderate condition.

2- h2a6, 517, 801 Other native hedgerow, against a road verge and with recent management is present to the northern boundary of the (g4) modified grassland sward. This hedgerow will be impacted (and partly lost) by the proposed development due to proposed two access trackways.

Hedgerow components include adundant Hawthorn (Crataegus monogyna), Frequent Holly (Ilex aquifolium) rare Elder (Sambucus nigra) and Blackthorn (Prunus Spinosa) . Basal vegetation includes scattered Bramble (Rubus fruticosus agg.), Common nettle (Urtica dioica) and adundand Ivy (Hedera helix). This hedgerow is in good condition.

SUMMARY

3.1.3. Table 3.1 summarises the baseline habitats, condition assessment and area size.

Table 3.1 Habitat Type and Condition Assessment (pre-development)

HABITAT TYPE	CONDITION ASSESSMENT	AREA SIZE (HA)
Modified Grassland	Poor	0.1725 ha
Individual Rural Trees	Moderate	0.0081 ha
Other Native Hedgerow	Moderate/Good	0.10 km

3.2. RETAINED AND ENHANCED HABITATS

3.2.1. A total 0.09 km of Other Native Hedgerow will be retained and 0.0235 ha of Modified Grassland will be enhanced.

3.3. LOST HABITATS

3.3.1. 0.0081 ha of individual trees, 0.149 ha of modified grassland and 0.01km of other native hedgerow are proposed to be lost to this project proposal, .

3.4. PRE- DEVELOPMENT HABITAT BASELINE

3.4.1. Please refer to Table 3.4 summarising the Habitat Baseline for the calculation, demonstrating habitats to be retained, enhanced and/or lost.

Table 3.2 Habitat Baseline

	On site baseline	Retained	Enhanced	Lost
Habitat (Area) Units	0.380	0.0	0.05	0.33
Hedgerow Units	0.58	0.51	0	0.01

4. HABITAT CREATION

4.1. INTRODUCTION

Please refer to the On-Site Habitat Creation and Enhancement Plan (ALH002) for full details of the proposed development and habitats.

The following sections detail the condition assessments that the habitats will be required to meet to achieve their target condition. This can be achieved through the production of a Habitat Management and Monitoring Plan with a commitment to maintain the BNG for at least 30 years. The proposed on-site enhancements are not classed as 'significant on-site enhancements' and it is deemed that a legal agreement is not required for this proposal. However, the LPS may have require a legal agreement for wider planning policy reasons.

URBAN TREES (201)

A total of 12 new Urban Trees are proposed to be planted within the scheme. These could comprise Rowan (Sorbus aucuparia), Silver Birch (Betula Pendula) and Cherry (Prunus sp). They will target a "Moderate" habitat condition by seeking to meet the following condition criteria:

- The tree is mature (or more than 50% within the block are mature).
- There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.
- Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.
- More than 20% of the tree canopy area is oversailing vegetation beneath.

MODIFIED GRASSLAND

A total of 0.0235 Ha of modified grasslands are to be enhanced within the scheme. They will target a "Moderate" habitat condition by seeking to meet a combination of the following condition criteria:

- The parcel represents a good example of its habitat type, dominated by a few fast growing grasses ((Rye-grasses (Lolium Spp), Timothy (Phleum pratense), Cock's-foot (Dactylis glomerata), rested Dog's Tail (Cynosurus cristatus) and Yorkshire Fog (Holcus lanatus)) and, typically 9 or more vascular plant species present per m sq. The nine species will typically exclude: Creeping thistle (Cirsium arvense), Spear Thistle (Cirsium vulgare), Curled Dock (Rumex crispus), Broad-leaved dock (Rumex obtusifolius), Creeping Buttercup (Ranunculus repens), Greater plantain (Plantago major) white clover (Trifolium repens) and Cow Parsley (Anthriscus sylvestris).
- Sward height is varied (at least 20% of the sward is less than 7cm and at least 20% is more than 7 cm) creating microclimates that provide opportunities for insects, birds and small mammals to live and breed.
- Grass over greater than 75%, cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens.
- Cover of bracken (Pteridium aquilinum) and scrub is less than 20% and cover of scrub (including bramble (Rubus fruticosus agg.) is less than 5%.
- There is an absence of invasive non-native plant species.

NATIVE HEDGEROW (h2a)

A Native hedgerow will be planted to at the southern boundary of the Site (0.035 Km), meeting a 'moderate' criteria, by a combination of the following:

The average height of woody growth estimated from base of stem to the top of the shoots, is >1.5m average along the hedgerow length, excluding any bank beneath the hedgerow, any gaps or isolated trees.

- The average width of woody growth estimated at the widest point of the canopy and, is >1.5m average along the hedgerow length, excluding gaps and isolated trees.
- Gaps in the hedge base, between ground and base of canopy <0.5 m for >90% of length. Gaps in the hedge canopy continuity make up <10% of total length; and no canopy gaps >5 m.
- >1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: Measured from outer edge of hedgerow; and is present on one side of the hedgerow (at least).
- Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground.

- >90% of the hedgerow and undisturbed ground is free of invasive non-native plant species (including those listed on Schedule 9 of WCA3) and recently introduced species.
- >90% of the hedgerow or undisturbed ground is free of damage caused by human activities.

4.3 URBAN

New agricultural development and artificial unsealed unvegetated surface proposed is approx. (0.044 ha) and 0.105 ha are vegetated garden .

5. SUMMARY

5.1. Metric

This report and the DEFRA Statutory Biodiversity Metric submitted have demonstrated that the proposed habitat creation create a net gain of biodiversity within the site of +14.48% in habitat units and an increase in Hedgerow Units of 11.43%. The trading rules have been satisfied.

Figure 5.1 On site net % changed

FINAL RESULTS		
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	*Area habitat units*	0.05
	Hedgerow units	0.07
	Watercourse units	0.00
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	*Area habitat units*	14.48%
	Hedgerow units	11.43%
	Watercourse units	0.00%
Trading rules satisfied?	Yes ✓	

5.2 NEXT STEPS

To achieve the BNG within the proposed development. It is recommended that the following steps are undertaken to maintain the enhancement and creation of these habitats.

5.2.1 HABITAT MANAGEMENT PLAN

An adequate management plan is to be written and initiated to benefit the Site, comprising the following methods:

TREE – MANAGEMENT PRINCIPLES

1. Prevention of overgrazing from deer and livestock will usually be necessary and other management interventions may be required over time to ensure species diversity.
2. If tree guards are used when planting trees, they should be removed when they split and before they start to disintegrate. Used tree guards should be removed from the site to protect local wildlife and disposed of responsibly (ideally by recycling).
3. Weeding around a tree may be necessary to ensure the survival of planted trees. If doing so, 'natural' methods for suppressing weeds (e.g. using mulch, such as bark chips or straw bales) should be used in preference to the application of chemical-based products, which can be detrimental to wildlife.

6. BIBLIOGRAPHY

- CIEEM (2021) Biodiversity Net Gain Report and Audit Templates.
- DEFRA (2024) The Biodiversity Metric 4: Auditing and Accounting for Biodiversity: Metric
- DEFRA (2024) The Biodiversity Metric 4: Auditing and Accounting for Biodiversity. Condition Assessment Sheets (Excel Format)
- Biodiversity Net Gain - Strategic Significance (arcgis.com)

7. APPENDICES

File references for attachments

Statutory_Biodiversity_Metric_Condition_Assessments-_Feb24 ALH

Statutory_Biodiversity_Metric_Condition_Assessments-_Feb24 ALH

The_Statutory_Biodiversity_Metric_Calculation_Tool_-_Macro_disabled_tool_ALH.xlsx

On Site Baseline Ref ALH001

On Site Creation & Enhancement Ref ALH002

Magic Maps 500m Buffer Zone.

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BACK COVER SHEET