



Biodiversity Net Gain Assessment

Westfield House, High Hill Road, High Peak, Derbyshire SK22 1BA

Jayne Brookman

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Industry Guidelines and Standards

This report has been written with due consideration to:

- British Standard 42020 (2013). Biodiversity – Code of Practice for Planning and Development.
- British Standard 8683:2021 (2021). Process for Designing and Implementing Biodiversity Net Gain.
- Chartered Institute of Ecology and Environmental Management (2017). Guidelines for Preliminary Ecological Appraisal. 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2017). Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2020). Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management, Construction Industry Research and Information Association & Institute of Environmental Management and Assessment (2019). Biodiversity Net Gain – Good Practice Principles for Development.

Proportionality

The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary and material to the application in question. Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate.

The desk studies and field surveys undertaken to provide a Preliminary Ecological Appraisal (PEA) might in some cases be all that is necessary.

(BS 42020, 2013)

Executive Summary

Arbtech Consulting Limited was instructed by Jayne Brookman to undertake a Biodiversity Net Gain (BNG) Assessment at Westfield House, Derbyshire SK22 1BA (hereafter referred to as “the site”). The assessment was required to inform a planning application for the construction of a care home (hereafter referred to as “the proposed development”).

The baseline habitat value of the site is **0.71 units**, comprising 0.71 units of other neutral grassland. In order to achieve a 10% biodiversity net gain, a minimum area-based habitat unit score of 0.78 units will be required (baseline unit score of 0.71 + 10% of this value).

Given the size of the redline boundary, there is limited scope to provide recommendations for enhancement. The proposed plans could be altered to increase the size of the redline boundary or reduce the size of the horse exercise arena to allow for areas for enhancement. If such changes are made the following could be implemented:

- The planting of mixed scrub.
- The planting of native tree species.
- The enhancement of retained areas of other neutral grassland.

Further details are provided within section 4.1 of this report.

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1.0 Introduction and Context

1.1 Background

Arbtech Consulting Limited was instructed by Jayne Brookman to undertake a Biodiversity Net Gain (BNG) Assessment at Westfield House, Derbyshire SK22 1BA (hereafter referred to as “the site”). The assessment was required to inform a planning application for the extension of the main building and the removal of outbuildings on site (hereafter referred to as “the proposed development”). A plan showing the proposed development is provided in Appendix 1.

This report should be read in conjunction with the following documents:

- Defra Statutory Biodiversity Metric
- Preliminary Ecological Appraisal for the same site (Arbtech Consulting Limited, 2024).

1.2 Site Location, Geology and Landscape Context

The survey site is centred on National Grid Reference: SK 00873 86824 and has an area of approximately ~0.089ha. The site solely comprises an area of grassland in High Peak, Derbyshire. The underlying geology of the site is sandstone (Rough Rock) with superficial deposits of alluvium including clay, silt, sand, and gravel, overlain by slowly permeable seasonally wet acid loamy and clayey soils of low fertility. Typical habitats of this soil type include seasonally wet pastures and woodlands.

1.3 BNG Informative

BNG is a specific, measurable outcome of project activities that deliver demonstrable and quantifiable benefits to biodiversity compared to the baseline situation. In order to achieve BNG, a project must be able to demonstrate that it has followed all 10 of the Principles of Biodiversity Net Gain (as outlined in the British Standard 8683:2021 Process for Designing and Implementing Biodiversity Net Gain).

The legalised Environment Act (2021) requires developments in England to demonstrate a measurable net gain in biodiversity and sets a target of a minimum of 10% BNG for all developments. It also stipulates that a management plan with a minimum 30-year term, should be adopted to ensure biodiversity net gain can be delivered. The requirement for biodiversity net gain is also enshrined within the National Planning Policy Framework (NPPF, 2023). The DEFRA Statutory Biodiversity Metric is the widely accepted tool used to calculate BNG. It enables the calculation of habitat value pre- and post-development in order to determine the overall change in biodiversity value as a result of the proposed development. The Biodiversity Metric has separate BNG assessments for areas of habitat, hedgerows and watercourses. The biodiversity value of a site should be maximised. However, it may not always be possible to achieve a 10% biodiversity net gain within a site and therefore the Statutory Biodiversity Metric can

also account for offsite habitat creation, where land is available. Alternatively, developers can seek to provide an agreed financial contribution to an appropriate third party (such as the Local Authority, the UK Government or another landowner) to deliver the required biodiversity net gain elsewhere on their behalf.

2.0 Methodology

2.1 Baseline Biodiversity Value

The baseline BNG Calculation was informed by the Preliminary Ecological Appraisal (Arbtech Consulting Limited, 2024). A baseline habitat plan is provided in Appendix 3.

Habitat Classification

The PEA classified the habitats on site according to The UK Habitat Classification Habitat Definitions Version 2.0 (The UK Habitat Classification Working Group, July 2023).

Habitat Area/Length

The area or length of each habitat was calculated using QGIS software. In calculating the area or length of each habitat, habitats which occur as two or more isolated parcels across the site were combined, where they were deemed to be of a similar composition and condition. Distinctions were made between habitats to be retained (i.e. left as found in baseline), enhanced (i.e. improved condition) or lost (i.e. destroyed by proposed development).

Habitat Condition

Habitat condition was assessed using the relevant condition assessment sheets found in the Statutory Biodiversity Metric User Guide (Natural England, 2023).

Strategic Significance

Strategic significance was assigned for each habitat based upon a review of the following:

- Ecological value
- Function within the landscape
- Any site or habitat allocations under the High Peak Borough Council

2.2 Limitations

The Preliminary Ecological Appraisal was undertaken outside of the optimal period for botanical species identification and habitat classification, however due to the low value habitats to be impacted and minimal impacts to any habitats of value (on site woodland), this is considered to be a minor limitation.

3.0 Results

3.1 Baseline Habitats

Table 1 details the baseline habitats present within the site along with their area/length, condition and strategic significance. A full condition assessment for each habitat (where relevant) is provided in Appendix 5a.

Table 1: Baseline Biodiversity Value

Type	Habitat	Area / Length	Description	Condition Assessment	Strategic Significance
Area-Based	g3c	0.089ha	As described in the PEA for the same site (Arbtech, 2024)	Good condition	Low Strategic Significance
	Other Neutral grassland			Passes 3 of 5 criteria including essential criterion A. Assessed using the 'Grassland Mid/High' habitat condition assessment sheet.	

3.2 Change in Biodiversity Value of the Site

Full details are provided in the Defra Statutory Biodiversity Metric. The headline results are presented in Appendix 6.

Area Based Habitat Units

The baseline habitat value of the site is **0.71 units**, comprising 0.71 units of other neutral grassland.

4.0 Recommendations to Deliver BNG

4.1 Discussion

In order to achieve a 10% biodiversity net gain, a minimum area-based habitat unit score of 0.78 will be required (baseline unit score of 0.71 + 10%).

Given the proposed development is anticipated to involve the removal of the other neutral grassland in its entirety, for enhancements to be viable the following recommendations could be implemented:

- Alterations to the size of the horse exercise arena to allow areas designated for enhancement.
- Increasing the size of the redline boundary or contained within areas offsite within the area of site ownership to allow areas designated for enhancement.

Should there be areas designated for enhancements the following could be implemented:

- Areas of mixed scrub planting.
 - Designating an area of 0.006ha for mixed scrub planting in line with the UK Habs definition of mixed scrub:

“Dense scrub comprising a mixture of native species without a single species dominant.”
 - Recommended species composition should comprise of blackthorn, hazel, gorse, hawthorn, willow and juniper.
- Native tree planting.
 - It is strongly encouraged that any tree species planted be of native origin.
 - Trees planted on site will require protection from damage caused by human activity, including poor management and vandalism.
 - Trees should be planted in areas with enough space for the canopy growth to reach a minimum of 75% of its expected area, relative to the age, height and species of the tree. Additionally, these trees will not be subject to regular pruning.
- Enhancing areas of other neutral grassland within the area of site ownership from “moderate” to “good” condition. For other neutral grassland habitat parcels to achieve a condition score of “good”, 5 or more of the below listed criteria, including 2 essential criterions, must be accomplished:
 - The grassland is a good representation of the habitat type it has been identified as, based on its UKHab description (**essential criterion**).
 - There are at least 10 vascular plants per m² present, including forbs characteristic of the habitat type (**essential criterion**).
 - The grassland will have a varied sward height, with at least 20% measuring <7cm and at least 20% measuring >7cm. This provides resource opportunities for wildlife.
 - Bare ground should comprise between 1-5% of the total area of grassland, including localised areas such as rabbit warrens.
 - Cover of bracken must be <20%, and cover of scrub <5%

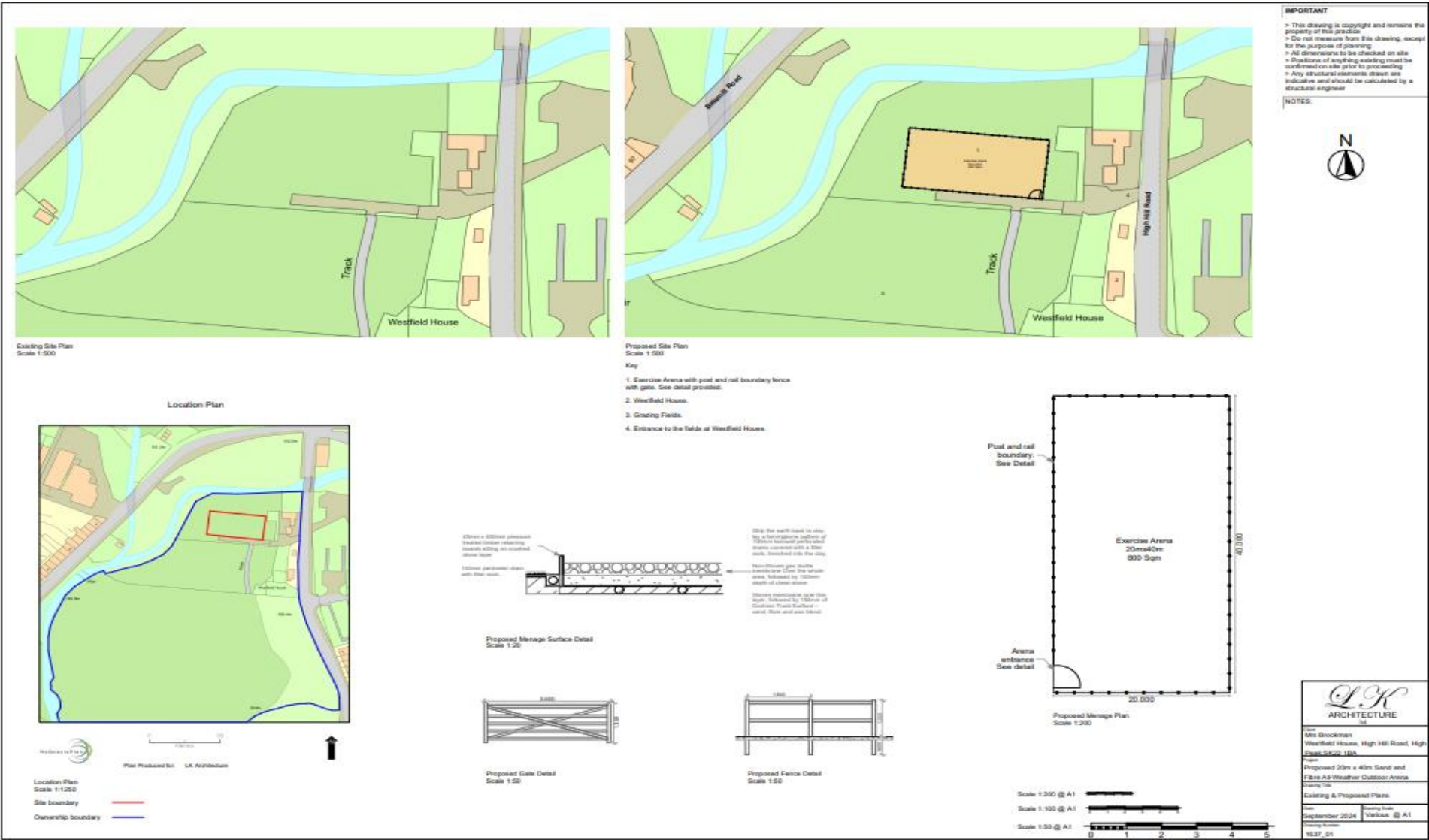
- Physical damage and sub-optimal condition of species must account for <5% of the total area.
- This area would need to be fenced off to prevent degradation via footfall and grazing.

Should these alterations be incorporated this BNG Assessment will need to be updated to accurately reflect the change in biodiversity value of the site pre- and post-development.

5.0 Bibliography

- British Standard 8683:2021 (2021). Process for Designing and Implementing Biodiversity Net Gain.
- High Peak Borough Council Local Plan (Adopted April 2016):
<https://www.highpeak.gov.uk/article/646/The-Adopted-Local-Plan-2016>
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- Natural England (2023). The Statutory Biodiversity Metric Technical Annex 2 – Technical Information (JP039).
- The UK Habitat Classification Habitat Definitions Version 2.0 (The UK Habitat Classification Working Group, July 2023).

Appendix 1: Proposed Development Plan



Appendix 2: Site Location Plan



Appendix 3: Baseline Habitat Plan



Appendix 4: Habitat Condition Assessment Sheets – Baseline

Other Neutral Grassland; assessed using 'Grasslands Medium/High/Very High Distinctiveness' habitat type condition sheet:

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	The grassland is a good representation of the habitat type it has been identified as, based on its UKHab description - the appearance and composition of the vegetation closely matches the characteristics of the specific grassland habitat type. Indicator species listed by UKHab for the specific grassland habitat type are consistently present. Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.	Y	Species composition consistent with UKHab description.
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	N	Sward height is homogenously short via grazing,
C	Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens ¹ .	N	Cover of bare ground exceeds 5%.
D	Cover of bracken <i>Pteridium aquilinum</i> is less than 20% and cover of scrub (including bramble <i>Rubus fruticosus</i> agg.) is less than 5%.	Y	No bracken or scrub present.
E	Combined cover of species indicative of sub-optimal condition ² and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species ³ (as listed on Schedule 9 of WCA ⁴) are present, this criterion is automatically failed.	Y	No invasive species were identified within the red line boundary but were noted within the area of site ownership.
Essential criterion for Good condition achieved (for non-acid grassland) (Yes or No)		Y	
Number of criteria passed		3	
Condition Assessment Result		Condition Assessment Score	Score Achieved x/✓
Non-acid grassland Types (Result out of 6 criteria)			
Passes 5 or 6 criteria, including essential criterion A and additional criterion F.		Good (3)	
Passes 3 - 5 criteria, including essential criterion A.		Moderate (2)	✓
Passes 2 or fewer criteria; OR Passes 3 or 4 criteria excluding criterion A and F.		Poor (1)	

Appendix 5: Headline BNG Results

The Defra Statutory Biodiversity Metric is provided as a separate excel spreadsheet.

Westfield House, High Hill Road, High Peak,	Return to results menu	
Headline Results		
Scroll down for final results ⚠		
On-site baseline	Habitat units	0.71
	Hedgerow units	0.00
	Watercourse units	0.00