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RURAL GRANTS AND ECOLOGY EXPERTS

BIODIVERSITY NET GAIN REPORT

Burn House Farm, Back Lane, Newton-in-Bowland
Clitheroe BB7 3EE

REPORT CONTROL SHEET

Project Name: *Burn House Farm, Back Lane, Newton-in-Bowland, Clitheroe BB7 3EE, BNG Assessment*

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CONTENTS

1. INTRODUCTION

1.1. SCOPE & PURPOSE

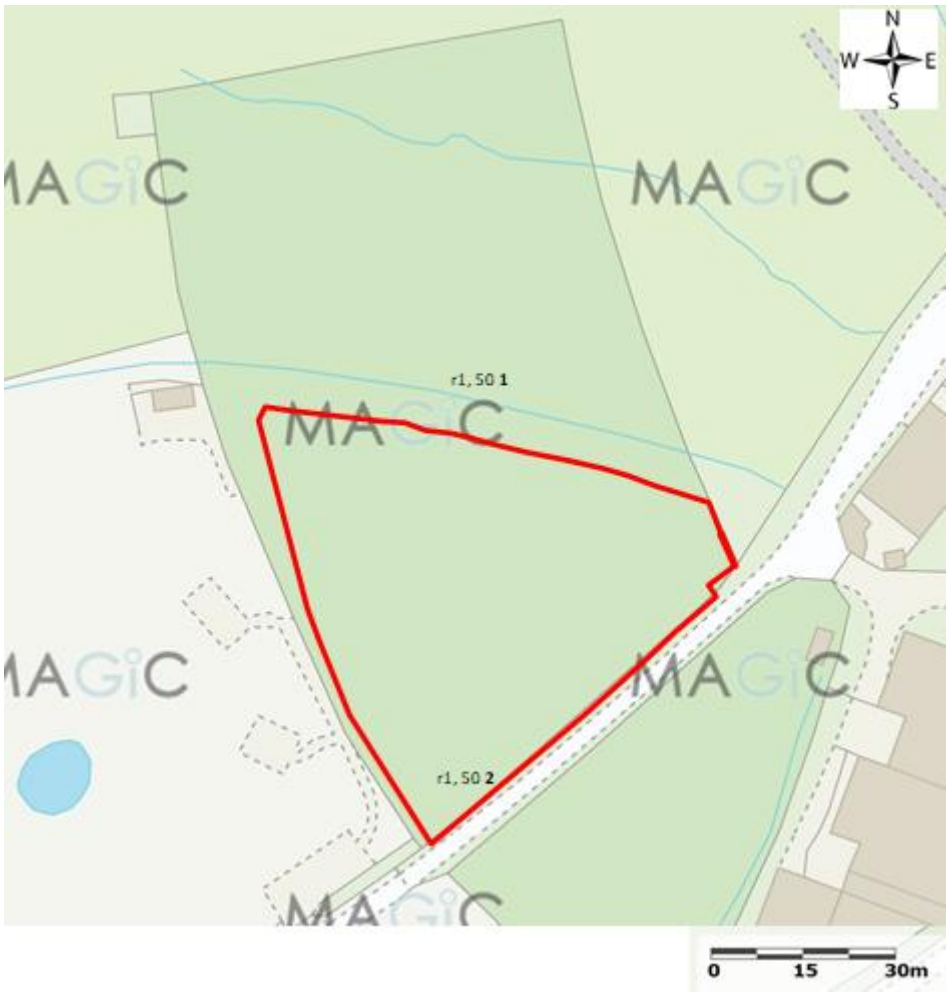
Fieldology Works Ltd was commissioned by Mr S Hartley to prepare a Biodiversity Net Gain (BNG) Assessment for Burn House Farm, Back Lane, Newton-in-Bowland, Clitheroe BB7 3EE

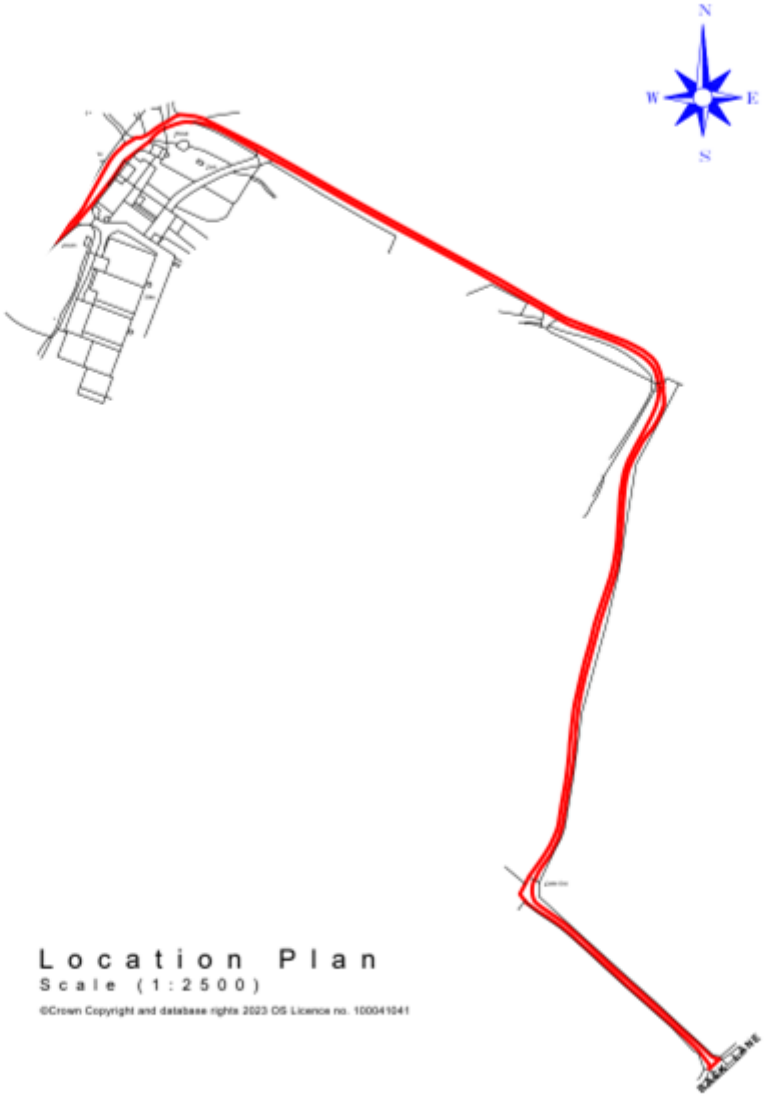
The author of this report is Julie Wickington BSc (Hons), MA (Hons) at Fieldology Works Ltd. Julie is highly experienced at managing schemes and has produced many ecological reports to inform planning management plans.

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 1.1a and b for the site location. Note that the Red line also includes the existing access pathway, this will be retained.

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Location Plan
Scale (1:2500)
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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 and Gemma Coar, at Fieldology Works Ltd on 6th October 2025. The On-site Baseline Plan (Ref: SH001) 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: SH002 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 and Lancashire County Council, LNRS) (Accessed 20.10.25), the site has been considered as "

Area/compensation not in local strategy/ no local strategy " see Appendix for Magic Maps 500m Buffer Zone). Note that site is designated as in an Area of Outstanding Natural Beauty.

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) – *Off-site mitigation is proposed and at this stage it is assumed that 'Compensation inside LPA boundary or NCA of impact site' and, that no spatial penalty will apply.*

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.

3.2. DITCH – DITCH r1 50 – 1 DESCRIBED FOR CONTEXT ONLY

A total of 0.052 km of man-made culverted ditch is present adjacent to the application site.

r1, 50 Habitat Parcel 1 is positioned to the northern Site boundary: Habitat Parcel 1 supports steeply sloping banks, with bank gradient becoming more gradual towards the eastern extent. Banks are lined with old and intermediate trees; at ground level Gramineae spp. are dominant, with occasional Bryophyte spp. and Fern sp. (Polypodiopsida sp.). As Habitat Parcel 1 reaches the plot of (g1) Acid grassland to the east, its banks become dominated by Rush spp. (Juncus spp.).

r1,50 Habitat Parcel 2 is positioned to the south, outside the red-line boundary, but within proximity of proposed development: Habitat Parcel 2 supports shallow sloping banks along its entire length. It is flanked by young trees (self-set and planted) Alder (Alnus glutinosa), Hawthorn (Crataegus monogyna), Hazel (Corylus avellana) and Oak (Quercus robur) to the north-western periphery, and by stock fencing to the south-eastern periphery. Banks are colonised with dominant Hard rush (Juncus inflexus) and Soft-rush (Juncus effusus). Occasional Gramineae spp., Bryophyte spp., Creeping buttercup (Ranunculus repens) and Common sorrel sp. (Rumex acetosa) are also colonised along the banksides. Notably, Habitat Parcel 2 becomes culverted at the (w1h6) Woodland entrance.

Both Habitat Parcels support a dense coverage of leaf/pine needle organic matter upon their banks, and within the water itself. Water is however, clear and there are no signs of pollution and/or eutrophication.

Ditch r1,50 - 2 is in poor condition, passing 5 criteria.

3.3 OTHER MIXED WOODLAND

w1h6 - Other woodland; mainly Conifer (Pinophyta sp.), with understorey 12, 14, 503 scattered Bracken (Pteridium aquilinum), scattered Rushes (Juncus spp.) and wet.

The woodland is an artificial plantation, likely stood for several decades. Throughout, the woodland plot is wet and tree specimens are subject to squirrel damage.

Tree specimens include large, dominant Sitka spruce (Picea sitchensis), abundant Conifer sp. (Pinophyta sp.) and occasional Sycamore (Acer pseudoplatanus). Frequent intermediate tree specimens include Hawthorn (Crataegus monogyna), Hazel (Corylus avellana) and Oak (Quercus robur). Young self-set trees are further colonised, to include Alder (Alnus glutinosa), Silver birch (Betula pendula), Hazel (Corylus avellana), Hawthorn (Crataegus monogyna), Elderberry (Sambucus nigra), Willow sp. (Salix sp.), Rowan (Sorbus aucuparia) and Oak (Quercus robur).

The woodland plot supports poorly developed ground flora due to dense canopy cover. Areas of open space support a ground layer of abundant Bramble (Rubus fruticosus agg.) and Bracken (Pteridium aquilinum). Open areas also support occasional scattered Rushes (Juncus spp.), alongside areas of acid grassland to include: Tufted hair grass (Deschampsia cespitosa), Common sorrel (Rumex acetosa), Fern sp. (Polypodiopsida sp.), Foxglove (Digitalis purpurea), Chickweed (Stellaria media), Bryophyte spp. and abundant leaf/pine needle organic matter.

Standing dead wood Hawthorn (Crataegus monogyna) is present centrally within an exposed/open area, and fallen deadwood is scattered throughout.

Anthropogenic disturbance is evident. Abundant spread of Bracken (Pteridium aquilinum) within open areas is also indicative of soil nutrient enrichment.

Notably, only 3 no. trees are proposed for removal during development: 2 no. Silver birch (Betula pendula) and 1 no. Rowan (Sorbus aucuparia) – all very small, self-set specimens. Sections of Bramble (Rubus fruticosus agg.) understorey will also be removed to permit development.

WOODLAND CONDITION ASSESSMENT CRITERIA

A: Age distribution of trees - Large specimens including dominant Sitka spruce (Picea sitchensis), abundant Conifer sp. (Pinophyta sp.) and occasional Sycamore (Acer pseudoplatanus) are present. Intermediate specimens including frequent Hawthorn (Crataegus monogyna), Hazel (Corylus avellana) and Oak (Quercus robur) are also established. Young self-set trees are further colonised, to include Alder (Alnus glutinosa), Silver birch (Betula pendula), Hazel (Corylus avellana), Hawthorn (Crataegus monogyna), Elderberry (Sambucus nigra), Willow sp. (Salix sp.), Rowan (Sorbus aucuparia) and Oak (Quercus robur). Collectively, such specimens account for age distribution of trees (Score: 3).

B: Wild, domestic and feral herbivore damage - Although access for larger fauna is restricted by boundary stock fencing, some tree specimens are subject to squirrel damage - this is evident via bark stripping (Score: 2).

C: Invasive plant species - No invasive species (as listed in Table 1 of the EWBG Survey Method) are present within the woodland plot (Score: 3).

D: Number of native tree species - As per Table 2 of the EWBG Survey Method, at least five native tree or shrub species are colonised across the Habitat Parcel. Naturalised species Sycamore (Acer pseudoplatanus) is also occasional (Score 3).

E: Cover of native tree and shrub species - <50% of canopy trees and understory shrubs are native, due to spread and dominance of non-native dominant Sitka spruce (Picea sitchensis), abundant Conifer sp. (Pinophyta sp.) and occasional archaeophyte Sycamore (Acer pseudoplatanus) (Score 1).

F: Open space within woodland - Where open space is present, Bramble (Rubus fruticosus agg.) and Bracken (Pteridium aquilinum) are abundant in spread. Occasional scattered Rushes (Juncus spp.) are also colonised, alongside areas of acid grassland to include: Tufted hair grass (Deschampsia cespitosa), Common sorrel (Rumex acetosa), Fern sp. (Polypodiopsida sp.), Foxglove (Digitalis purpurea), Chickweed (Stellaria media), Bryophyte spp. and abundant leaf/pine needle organic matter. With reference to Indicator 6 in the EWBG Survey Method, such areas are "temporary open space in which trees can be expected to regenerate" over time (Score 2).

G: Woodland regeneration - Young, self-set trees include Alder (Alnus glutinosa), Silver birch (Betula pendula), Hazel (Corylus avellana), Hawthorn (Crataegus monogyna), Elderberry (Sambucus nigra), Willow sp. (Salix sp.), Rowan (Sorbus aucuparia) and Oak (Quercus robur). All

such specimens are of similar growth stage and Diameter at Breast Height (DBH). There is thus an absence of classes (Score 1).

H: Tree health - Standing dead wood Hawthorn (Crataegus monogyna) is present centrally within an exposed/open area of the woodland plot (Score 2).

I: Vegetation and ground flora - No recognisable woodland NVC community is colonised at ground level - the plot supports poorly developed ground flora due to dense canopy cover. Areas of open space support a ground layer of abundant Bramble (Rubus fruticosus agg.) and Bracken (Pteridium aquilinum). Open areas also support occasional scattered Rushes (Juncus spp.), alongside areas of acid grassland to include: Tufted hair grass (Deschampsia cespitosa), Common sorrel (Rumex acetosa), Fern sp. (Polypodiopsida sp.), Foxglove (Digitalis purpurea), Chickweed (Stellaria media), Bryophyte spp. and abundant leaf/pine needle organic matter (Score 1).

J: Woodland vertical structure - No vertical structural complexity was recorded: Only one storey of vertical woody growth is present, comprising old specimens of dominant Sitka spruce (Picea sitchensis), abundant Conifer sp. (Pinophyta sp.) and occasional Sycamore (Acer pseudoplatanus). Open/exposed zones support either intermediate or young (self-set) specimens including: Alder (Alnus glutinosa), Silver birch (Betula pendula), Hazel (Corylus avellana), Hawthorn (Crataegus monogyna), Elderberry (Sambucus nigra), Willow sp. (Salix sp.), Rowan (Sorbus aucuparia) and Oak (Quercus robur) (Score 1).

K: Veteran trees - No veteran trees are present within the woodland plot - no trees support veteran features/attributes as listed in Indicator 12 of the EWBG Survey Method (Score 1).

L: Amount of deadwood - Some fallen dead wood is present at ground level, to include logs, dead branches and stumps. Standing dead wood Hawthorn (Crataegus monogyna) is also present centrally within an exposed/open area of the woodland plot. Though, collectively, deadwood attributes to less than 25% coverage within all survey plots (Score 1).

M: Woodland disturbance - Anthropogenic disturbance is present in the woodland. Abundant spread of Bracken (Pteridium aquilinum) within open areas is also indicative of soil nutrient enrichment (Score 1).

The woodlands condition is assessed as ‘Poor’, with a result of 22 points.

URBAN LAND

3.1.3 Approximately 0.0985 ha of the Site is an existing access track (Developed Surface), this will remain in the proposed scheme.

SUMMARY

3.2.1. 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)
Woodland and Forest	Poor	0.3219 ha
Urban developed land	N/A	0.0985 Ha
Culvert	N/A	0.012 km
Ditch	Poor	0.06 km

3.3. RETAINED AND ENHANCED HABITATS

3.3.1. A total area of 0.021 km of culvert and 0.0985 km of development land will be retained

Approximately 0.06km of ditch habitat will be enhanced along with 0.2704 ha of Other Mixed Woodland.

3.4. LOST HABITATS

3.4.1. 0.0515 ha of Other Woodland will be lost to this potential project.

3.5. PRE- DEVELOPMENT HABITAT BASELINE

3.5.1. 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	1.29	0.00	1.08	0.21
Water C (length) units	0.26	0.02	0.24	0.0

4. HABITAT CREATION

4.1. INTRODUCTION

Please refer to the On-Site Habitat Creation and Enhancement Plan (SH002) 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.

4..2 OTHER WOODLAND

The Other Woodland will be enhanced from 'Poor' to 'Moderate' condition to meet the moderate condition it is proposed that the management of the woodland focuses on these interventions:

G: Woodland regeneration - Young, self-set trees include Alder (Alnus glutinosa), Silver birch (Betula pendula), Hazel (Corylus avellana), Hawthorn (Crataegus monogyna), Elderberry (Sambucus nigra), Willow sp. (Salix sp.), Rowan (Sorbus aucuparia) and Oak (Quercus robur). All such specimens are of similar growth stage and Diameter at Breast Height (DBH). There is thus an absence of classes (Score 1). The retention of open glades for natural woodland regeneration and the introduction of new shrub planting will diversify the woodlands age class. Enhanced Score 2.

L: Amount of deadwood - Some fallen dead wood is present at ground level, to include logs, dead branches and stumps. Standing dead wood Hawthorn (Crataegus monogyna) is also present centrally within an exposed/open area of the woodland plot. Though, collectively, deadwood attributes to less than 25% coverage within all survey plots (Score 1). It is proposed to place dead woodland in 50% of all survey plots. Enhanced Score 3.

M: Woodland disturbance - Anthropogenic disturbance is present in the woodland. Abundant spread of Bracken (Pteridium aquilinum) within open areas is also indicative of soil nutrient enrichment (Score 1). It is proposed to keep to less than a hectare the total of nutrient enrichment across the woodland area and or less than 20% of the woodland area has damaged ground. Enhanced Score 2.

The woodlands condition is enhanced with a potential of 27 points.

4.3 DITCH r1 50 – 2

To enhance the Ditch condition from 'poor' to 'moderate', it is proposed to focus on 2 of the ditch criteria:

B: A range of emergent, submerged and floating-leaved plants are present. As a guide >10 species of emergent, floating or submerged plants present in a 20 m ditch length. By plug planting.

G: Less than 10% of the ditch is heavily shaded – delivered by ensuring that understorey planting is limited to <10% of the ditch riparian zone.

4.4 URBAN

The proposed access and holiday chalets will be approximately 0.0515 Ha.

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 +42.83% in habitat units, an increase in Hedgerow Units of 0% and an increase of watercourse units of 81.20%. 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*	0.55
	Hedgerow units	0.00
	Watercourse units	0.21
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	*Area habitat units*	42.83%
	Hedgerow units	0.00%
	Watercourse units	81.20%
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 condition of the retained 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: Woodland and Ditch management.

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 SH

The_Statutory_Biodiversity_Metric_Calculation_Tool_-_Macro_disabled_tool_SHxlsx

On Site Baseline Ref SH001

On Site Creation & Enhancement Ref SH002

Magic Maps 500m Buffer Zone.

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