Biodiversity Net Gain Baseline & Feasibility Report

Site:	Barn at Lower Hudlee Farm, Longridge Rd Hurst Green Lancashire
Client:	Mr A Holt Bailey Hall Cottage, Longridge Rd, Hurst Green Nr Preston Lancs BB7 9QW
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SUMMARY

A Baseline Biodiversity Net Gain calculation was required to inform a report to meet National Planning Policy Framework (NPPF, Para 158, 159 and 180) Statutory Biodiversity Net Gain requirements and Local Planning Authority Core Strategy.

The proposed development site baseline condition is of low ecological value, with predominantly unvegetated unsealed surface (Gravel driveway and cobbled hardstanding) and a small area of species poor modified grass on site. The Statutory BNG Metric tool was used to calculate the baseline habitats, and the potential gains from the proposed landscape design.

A site visit was carried out on 16th November 2024 by Carol Edmondson, an ecologist of 12 years' habitat survey and restoration experience.

The site has a minimal amount of "green space", and is a self-build project, with the owners planning to occupy the converted building as their main residence.

This should automatically exempt the building project from BNG requirements.

Should this not be accepted by RVBC the following BNG baseline calculation should be used.

Some areas of the entrance track had the ground vegetation cleared to reveal the original gravel track beneath. To calculate the correct habitat units of the baseline, the habitat for this area was taken from 2020 Google Earth images, and the adjacent habitat which had not been cleared.

The total baseline habitat units is 0.04, and by creating species rich verges and an area behind the barn using an appropriate seed mix this can be increased to 0.05 giving a Biodiversity Net Gain of 15.85%.

The potential Biodiversity Net Gains have been calculated from the A.L.H Design Services drawing ref: 0738/93 Drawing No. 5 using the DEFRA Statutory Biodiversity Net Gain Metric released 23 July 2024.

The headline results are included at Appendix 1, the baseline habitats map at Appendix 2, Site drawings are at Appendix 3 and site photographs are included at Appendix 4.

1. INTRODUCTION

1.1 Background

Ark Ecology were commissioned by A.L.H Design Services on behalf of their client Mr A Holt to carry out a baseline Biodiversity Net Gain baseline survey of the site at the barn located at Lower Hudlee Farm, Longridge Road Hurst Green BB7 9QW, to meet current National Planning Policy Framework and Local Planning Authority requirements to support a planning application to convert the barn into a single residential dwelling.

1.2 Aim of the Report

The assessment takes into consideration the local and national planning policy and strategy relevant to the site, the baseline ecological condition of the site, and the proposed development plans and the enhancement plan, and aims to meet the requirements of The National Planning Policy Framework (2023) and standards set in the CIEEM/CIRIA *Biodiversity Net Gain. Good Practice Principles for development a practical guide.*

2. METHODOLOGY

2.1 Desk and Field study methods

Desk and Field Study Methods

Habitats are described using the UK Habitat Classification System methods and codes (converted from JNCC Phase 1 codes where necessary), and condition assessed according to the Statutory Biodiversity Net Gain Metric - Auditing and Accounting for Biodiversity Condition Assessment Sheets.

Areas were measured using Google Earth, QGIS, the clients' drawings and plans, and ground-truthed by on-site physical measurements.

Surveys and assessment were carried out by C Edmondson MSc MRSB, consultant ecologist with 12yrs field survey experience and Natural England Class 2 bat licence holder.

Site survey method and habitat classification follows guidance of UK Habitat Classification Documents V2.01. Habitat Condition Assessment was carried out using the methods and guidelines set out in The Statutory Metric User Guide (DEFRA, 2024). The data collected during the survey have been used to inform this report.

The potential Biodiversity Net Gains have been calculated from the A.L.H Design Services drawing ref: 0738/93 Drawing No. 5 using the DEFRA Statutory Biodiversity Net Gain Metric released 23 July 2024.

BNG Statutory Metric Tree Helper was used to calculate the unit value of any single trees present on the site.

2.2 Approach to BNG

BNG Principles: BNG is achieved through 10 principles, the first of which is the Mitigation Hierarchy. This Hierarchy will be followed at each stage of the development.

The DEFRA Statutory Biodiversity Net Gain Metric aims to:

- Assess the biodiversity unit value of the area of land.
- Demonstrate biodiversity net gains or losses in a consistent way.
- Measure and account for direct impacts on biodiversity.
- Compare proposals for the site - such as creating or enhancing habitat on-site or off-site.

The metric assesses existing habitats and planned new habitats created by a development or land change.

BNG GOOD PRACTICE PRINCIPLES FOR DEVELOPMENT

BNG is achieved through 10 principles, the first of which is the Mitigation Hierarchy. This Hierarchy will be followed at each stage of the development.

Principle 1: Mitigation Hierarchy

1: Avoid Biodiversity Loss e.g. Finding alternative sites, changing development plans etc

2: Minimise any loss

3: Mitigate for any loss

4: Compensate

Principle 2: Avoid losing biodiversity that cannot be offset by gains elsewhere:

Avoid impacts on irreplaceable biodiversity – these impacts cannot be offset to achieve No Net Loss or Net Gain.

- No Priority Habitats or Irreplaceable habitats are present on site.
- Trading Rules for irreplaceable habitats will not apply.

Principle 3: Be Inclusive and Equitable

Engage stakeholders early, and involve them in designing, implementing, monitoring and evaluating the approach to Biodiversity Net Gain. Achieve net gain in partnership with stakeholders where possible and share the benefits fairly among stakeholders.

- Further stakeholders could be engaged at the design stage.

Principle 4: Address Risk

- This is addressed within the metric and methodology set out within a Habitat Management and Monitoring Plan (HMMP) where necessary.

Principle 5: Make a measurable Net Gain Achievement

- This will be achieved through the landscape plan and Biodiversity Enhancement Plan.

Principle 6: Achieve the best outcomes for biodiversity.

- Retaining areas of habitat where possible, creating and enhancing habitats to a better condition or distinctiveness through the proposals

Principle 7: Be additional

- This proposal aims to achieve a greater BNG than the required 10%

Principle 8: Create a net gain legacy

- To be achieved through the “Next steps”:

Principle 9: Optimise sustainability & prioritise biodiversity

- By implementing the landscaping plan this development will improve the sustainability of the site.

Principle 10: Be transparent

- Communicate all Biodiversity Net Gain activities in a transparent and timely manner, sharing the learning with all stakeholders.

2.3 Limitations

There were no specific limitations to the field survey or this report.

3 BASELINE SITE CONDITIONS AND METRIC CALCULATIONS

Site Description

The area covered by the site consists of an old barn building, sparsely vegetated land of hardcore on the current driveway to the property, with a grass verge to either side. There was a strip of mown/grazed grass (sp. poor) to the north and south, with both stock fencing and stone walls forming the boundary & retained within the project. An original cobbled area formed a small parking area to the west of the barn. No trees were present within the red line boundary. Part of the access track has been excavated to the hardcore original track underneath, to make vehicle access into the site possible. To assess the habitat, the condition of the track was taken as that in January 2020 as per DEFRA guidance. This appears to be partially vegetated (Fig.1 below), and in the same condition/habitat as per the site visit.

Important Ecological Features:

- There were no Priority Habitats or protected species recorded on site.

Fig.1 Google Earth Image from 2020, showing the partially vegetated access track.

3.1 Baseline Metric Calculations

Using the Statutory Metric BNG Calculation tool, the development shows a baseline habitat unit total of 0.04 units (Headline results at Appendix.1) and is made up of the habitats listed at table 1.

A full site Habitat Baseline Plan is included at Appendix 2.

***Table 1**. Habitats at baseline calculation*

Ref	Habitat Type	UKHab code	Area (hectares)	Habitat units (hu)
1	Sparsely vegetated land, Ruderal/Ephemeral	u1f	0.0153	.03
2	Artificial unvegetated, unsealed surface	u1b	0.0042	0
3	Developed land; sealed surface	u1b	0.0069	0
4	Modified grassland	g4	0.0056	.01

3.2 Proposed Design & Potential Net Gain

The potential Biodiversity Net Gains have been calculated from the A.L.H Design Services drawing ref: 0738/93 Drawing No. 5 using the DEFRA Statutory Biodiversity Net Gain Metric released 23 July 2024.

The headline results are included at Appendix 1, the baseline habitats map at Appendix 2, Site drawings are at Appendix 3 and site photographs are included at Appendix 4.

***Table 2**. Proposed habitats*

Ref	Habitat Type	UKHab code	Area (hectares)	Habitat units (hu)
New1	Developed land; sealed surface	u1b	0.0195	0
New2	Vegetated Garden	u1	0.0074	.015
New3	Other Neutral Grassland, moderate condition	g3c	0.0051	.035

The current proposals show the outcome of the calculation with a net gain of 15.85%.

This will be achieved by:

- Creating an area of 51m^2 of wildflower sown grassland, managed by cutting once a year only (full guidance will be included in the BNG management plan). These areas will be as verges to the driveway, and the area to the north of the barn, adjacent to the public footpath. This will create a pollinator friendly amenity space, an improvement on the species poor modified grass currently on the site. This will increase the condition score of the habitat to moderate, giving a total increase in units of 0.01, equivalent to 15.85%.

Assumptions made when calculating the BNG:

- The existing grassland will be lost during the building process, due to the renovation process and presence of increased traffic and materials storage, hence the new habitat is created, rather than enhanced.

The summary of the results is shown at Appendix 1.

The full Statutory Metric is to be submitted together with this report.

References

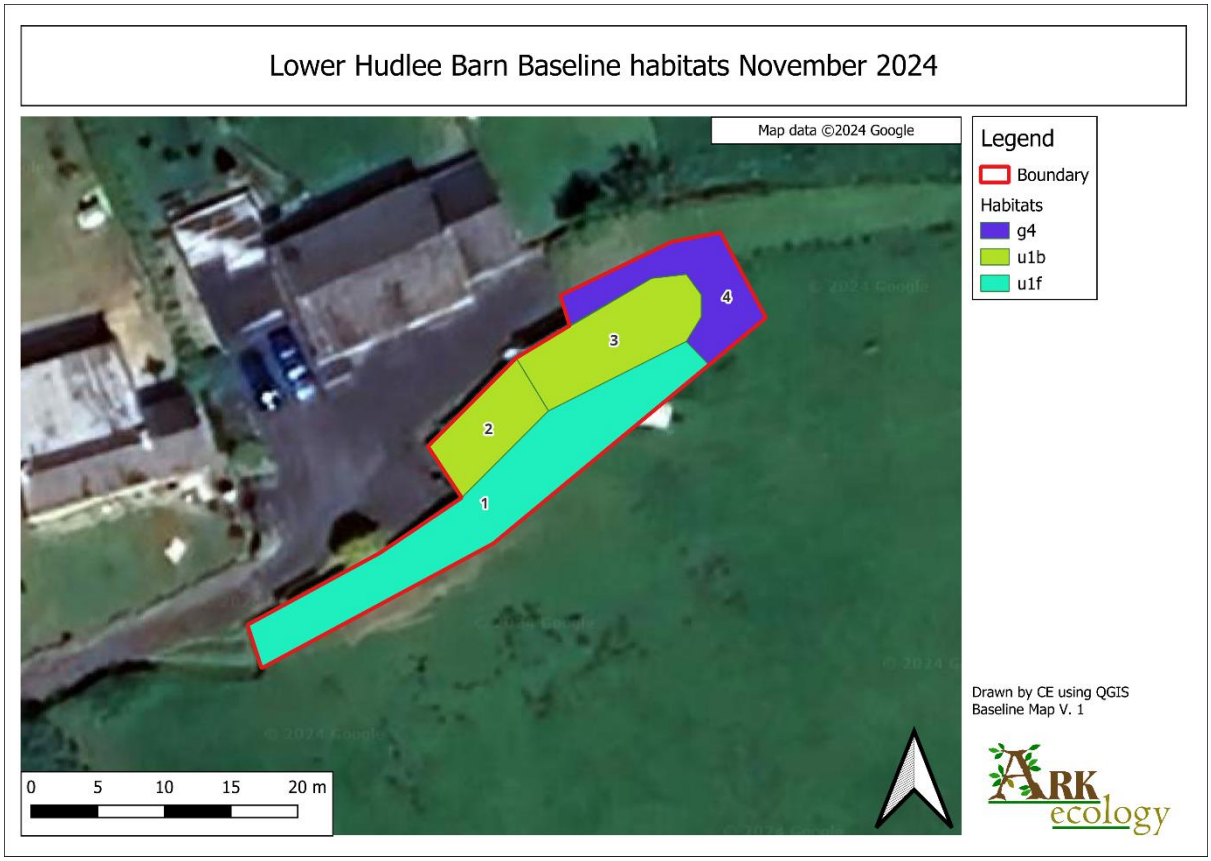
- CIEEM (2021). Biodiversity Net Gain Report and Audit Templates Chartered Institute of Ecology and Environmental Management, Winchester, UK.
- CIEEM (2016) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester. http://www.cieem.net/data/files/Publications/EcIA_Guidelines_Terrestrial_Freshwater_and_Coastal_Jan_2016.pdf
- CIEEM (2013) Guidelines for Preliminary Ecological Appraisal Institute of Ecology and Environmental Management http://www.cieem.net/data/files/Resource_Library/Technical_Guidance_Series/GPEA/GPEA_April_2013.pdf
- DEFRA Statutory Biodiversity Metric User Guide, 2024 https://assets.publishing.service.gov.uk/media/65c60e0514b83c000ca715f3/The_Statutory_Biodiversity_Metric_-_User_Guide_.pdf
- National Planning Policy Framework, 2023 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1005759/NPPF_July_2021.pdf

Appendix 1: Headline results

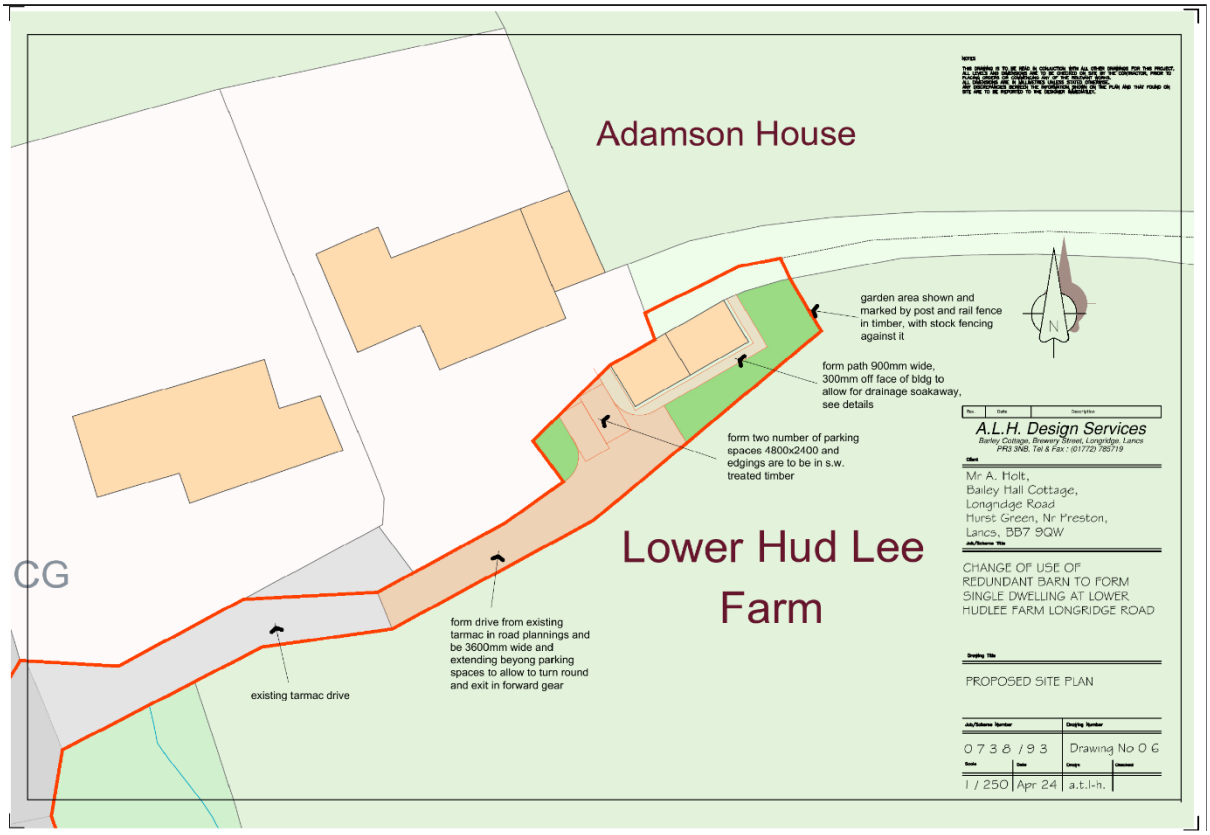
Lower Hudlee Barn				
Headline Results	Return to results menu			
Scroll down for final results ⚠				
On-site baseline		*Habitat units*	0.04	
		Hedgerow units	0.00	
		Watercourse units	0.00	
On-site post-intervention (Including habitat retention, creation & enhancement)		*Habitat units*	0.05	
		Hedgerow units	0.00	
		Watercourse units	0.00	
On-site net change (units & percentage)		*Habitat units*	0.01	15.85%
		Hedgerow units	0.00	0.00%
		Watercourse units	0.00	0.00%
Off-site baseline		*Habitat units*	0.00	
		Hedgerow units	0.00	
		Watercourse units	0.00	
Off-site post-intervention (Including habitat retention, creation & enhancement)		*Habitat units*	0.00	
		Hedgerow units	0.00	
		Watercourse units	0.00	
Off-site net change (units & percentage)		*Habitat units*	0.00	0.00%
		Hedgerow units	0.00	0.00%
		Watercourse units	0.00	0.00%
Combined net unit change (Including all on-site & off-site habitat retention, creation & enhancement)		*Habitat units*	0.01	
		Hedgerow units	0.00	
		Watercourse units	0.00	
Spatial risk multiplier (SRM) deductions		*Habitat units*	0.00	
		Hedgerow units	0.00	
		Watercourse units	0.00	
FINAL RESULTS				
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)		*Habitat units*	0.01	
		Hedgerow units	0.00	
		Watercourse units	0.00	
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)		*Habitat units*	15.85%	
		Hedgerow units	0.00%	
		Watercourse units	0.00%	
Trading rules satisfied?		Yes ✓		

Unit Type	Target	Baseline Units	Units Required	Unit Deficit	
Habitat units	10.00%	0.04	0.05	0.00	No additional area habitat units required to meet target ✓
Hedgerow units	10.00%	0.00	0.00	0.00	No additional hedgerow units required to meet target ✓
Watercourse units	10.00%	0.00	0.00	0.00	No additional watercourse units required to meet target ✓

Appendix 2: Baseline habitats map



Appendix 3: Proposed Site plan



Appendix 4: Site photos

	Photo 1: Driveway into the barn
	Photo 2: Area of modified grassland (species poor)
	Photo 3: Unvegetated, unsealed surface adjacent to the barn