# Biodiversity Net Gain Report

## Mill farm, The Green, Cumbria

### Survey date: 28th March 2025

Issued By:
Eco 360 Ltd
Hollinscroft House
Uttoxeter Road
Stoke-on-Trent
ST10 4LJ

Tel: 0330 133 8294
Email: info@eco-360.co.uk
www.eco-360.co.uk

# 1. Introduction

## 1.1 Report Rationale

This report has been prepared at the request of Mr. Mark Carroll (MVC Design Ltd). It relates to the proposed redevelopment works at Mill Farm, The Green, Millom, Cumbria, LA18 5HL (OS Grid Reference: SD 17861 84703). For this report, a biodiversity impact assessment calculation has been made. This document should be read in conjunction with the completed Excel spreadsheet. The report was written by Mr. John Roberts, BSc (Hons), Ecologist.

## 1.2 Site Description

The site is located behind Mill Farm and it consists of a neglected area of buildings and land with a variety of habitats on site. The local landscape is a hilly rural area containing plenty of grazing farmland with occasional woodland areas. The wider landscape shows that the site is between Duddon estuary and Black comb mountain situated in the Cumbrian lake district.

**Figure 1:** An aerial map showing the location of the land proposed for re-development (Yellow star) in relation to some of the local landscape.

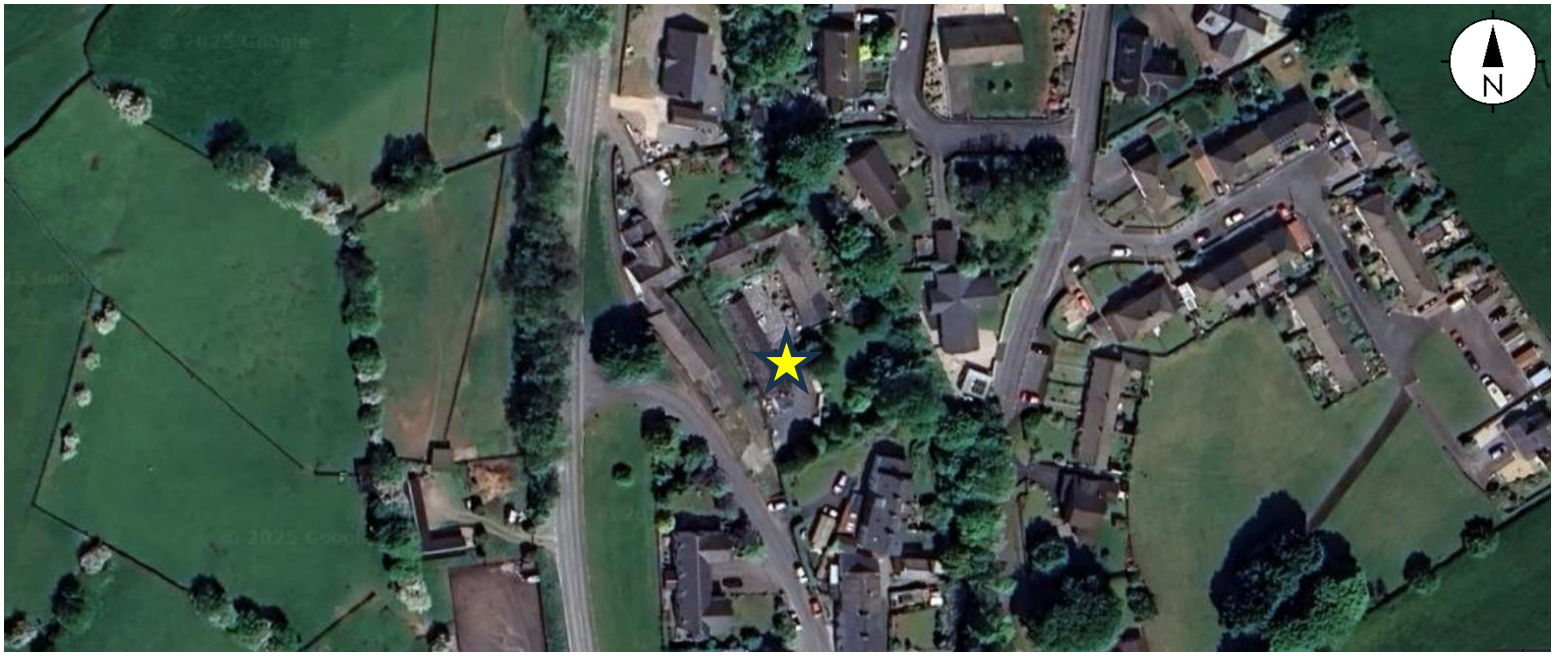


**Figure 2:** An aerial map showing the location of the land proposed for re-development (Yellow star) in relation to the wider landscape.

## 1.3 Proposals

The proposed development involves the conversion of the barns into two residential dwellings. This will involve the removal of some of the existing habitats on site. The proposed plans can be found in Appendix B.

## 1.4 Scope of Report

This report aims to:

- Establish the total number of baseline and lost habitat, hedgerow, and river units at the site of the proposed scheme.
- Establish the total number habitat, hedgerow, and river units that are to be created, retained and/or enhanced under landscape and ecological mitigation proposals at the proposed works site.
- Determine whether the proposed scheme will result in a net loss, no net loss, or a net gain for biodiversity.
- Make further recommendations to gain the required 10% minimum net gain for biodiversity.

## 1.5 Biodiversity Net Gain Relevant Policies

The appraisal has been compiled with reference to the following relevant nature conservation legislation, planning policy and the UK Biodiversity Framework from which the protection of sites, habitats and species is derived in England. These are:

- UK Biodiversity Action Plan (UKBAP)
- The Natural Environment and Rural Communities (NERC) Act 2006
- The UK Post-2010 Biodiversity Framework (2011-2020)
- Biodiversity 2020: A strategy for England's wildlife and ecosystem services
- The National Planning Policy Framework (NPPF) 2021
- Environmental Act 2021
- Local policy

A full explanation of these policies can be found within **Appendix D.**

## 2. Methodology

### Personnel

Field surveys have been undertaken by licensed ecologist/s, members of the Chartered Institute of Ecology & Environmental Management (CIEEM) and members of Eco 360 staff.

The Biodiversity Net Gain Assessment has been carried out in line with CIEEM Guidelines on Good practice principles for development (2016), CIEEM A Practical Guide (2019) and BS 8683:2021 - Process for designing and implementing biodiversity net gain.

### Survey of Baseline Habitats and Condition

Habitat typing and condition assessments are undertaken during a Preliminary Ecological Appraisals (PEA) or similar studies. The baseline also considers historic records for the site and local area via a desktop study desktop study (satellite imagery, previous ecological reports), as well as additional surveys to assess the presence/absence of species in certain situations. Conditions of habitats and hedgerows are assessed using the scoring systems provided in Technical Annex 1 of the Biodiversity Metric 4.0 Condition Assessment Sheet.

River assessments are carried out through a MoRPH5 Pro survey and River type survey. At least one MoRPH5 is undertaken per reach on site that will be directly or indirectly impacted with a further MorPH5 undertaken upstream to record a more “natural setting” if required. This date is then processed via Cartographer to give the condition of the rivers on site.

### Calculations of Baseline Habitats

Using Geographic Information Software (GIS), baseline habitats are measured in hectares (ha) using vector layer polygons. These measurements are then input into the DEFRA Statutory Biodiversity Metric Calculation Tool. Habitat condition and connectivity are then input into the calculator. The area of habitat retained is then entered into the calculation to give a final sum of baseline units and lost unit.

Each habitat has a base score of 1, this is then multiplied by the size of the habitat (ha). The habitat is then multiplied by its distinctiveness:

- Very low – 0
- Low – 2
- Medium – 4
- High – 6

The next multiplier is based on the condition of the habitat:

- N/A-other/agricultural – 0
- Poor – 1
- Fairly poor – 1.5
- Moderate – 2
- Fairly good – 2.5
- Good – 3

**Calculations of Post-development Habitats**

The calculation is informed by planning design, landscape plans, and proposed ecological mitigation. Plans are georeferenced into GIS and are similarly measured in hectares (ha) using vector layer polygons. These measurements are then converted into input into the DEFRA Statutory Biodiversity Metric Calculation Tool. A target condition will be assigned to each new habitat following the same scores as above. The calculator will generate a proposed time to hit this target condition and difficulty score.

# 3. Baseline Calculation and Proposal Impact

## 3.1 Baseline Habitats

The table below outlines the existing site status based on the most recent field survey.

Habitats

| Habitat Type (Broad) | Area ($m^2$) | Distinctiveness | Distinctiveness Score | Condition | Condition Score | Total Habitat Units | Baseline Units Retained | Baseline Units Enhanced | Area Habitat Lost | Units Lost |
|---|---|---|---|---|---|---|---|---|---|---|
| Developed Land; Sealed Surface | 348 | V.Low | 0 | N/A- Other | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Sparsely Vegetated Urban Land | 70 | Low | 2 | Moderate | 2 | 0.03 | 0.03 | 0.00 | 0.00 | 0.028 |
| Other Lowland Grassland | 100 | Medium | 4 | Moderate | 2 | 0.08 | 0.08 | 0.00 | 0.00 | 0.080 |
| Mixed Scrub | 15 | Medium | 4 | Moderate | 2 | 0.01 | 0.01 | 0.00 | 0.00 | 0.012 |
| Bramble Scrub | 36 | Medium | 4 | Condition assessment- N/A | 1 | 0.01 | 0.01 | 0.00 | 0.00 | 0.014 |

Linear Habitats

There are no baseline linear habitats.

## 3.2 Proposed Habitats

| Habitat Type | Area (ha) | Target Distinctiveness | Score | Target Condition | Score | Habitat Units Delivered |
|---|---|---|---|---|---|---|
| Developed land; sealed surface | 98.00 | V.Low | 0 | N/A - Other | 0 | 0.0000 |
| Vegetated garden | 123.00 | Low | 2 | Condition Assessment N/A | 1 | 0.0237 |

Linear Habitats

There are no proposed linear habitats.

## 3.3 Total Net Unit Change

The Net Unit change for the habitats on-site is calculated at **-0.1107 units**, which correlates to a **loss** of **82.37%** in habitat biodiversity.

This means the total deficit that must be addressed is approximately **0.12414 units**, either through on-site enhancements, off-site compensation, or statutory credits.

# 4. Recommendations

## 4.1 Total Net Unit Change

The development proposals currently do not meet the recommended 10% net gain in biodiversity units.

In order to meet the requirements of both national and local planning policy, the development is required to compensate for the loss of bramble scrub, mixed scrub and other baseline habitats and additionally provide a 10% biodiversity net gain.

Using the biodiversity metric, the current development proposal results in a net unit loss of **-0.01107 units**, which correlates to **a -82.37%** net change in habitat biodiversity. Additionally, the proposal doesn't meet the trading rules, as the loss of the vegetated garden is not compensated with habitats of equal or greater distinctiveness.

However, as the development comprises private residential garden land, a gain cannot be formally recognized under biodiversity net gain policy due to the inability to secure long-term management and monitoring. Private gardens are excluded from contributing to formal BNG compliance as long-term monitoring and management cannot be legally secured.

## 4.2 Recommendations

Due to a significant portion of the land on site being under private ownership, it is impossible to enforce management and monitoring of any potential recommended habitats. Therefore, no additional recommendations can be made. In addition to this, all new trees included within private gardens are recorded within the classification "urban vegetated garden" in accordance with the guidelines and have therefore not been recorded as their own habitat as retention over a thirty-year period cannot be guaranteed.

The client will be required to either find additional land for offsetting or purchase Statutory biodiversity credits through Natural England. Alternatively, the client may wish to consult a private third party habitat unit brokers for prices for biodiversity units sold in the off-site private market.

In order to achieve the DEFRA recommended minimum 10% net gain in biodiversity units, the development has the following options:

Option 1: Consult the private market to purchase off-site biodiversity units. This should ideally be within the same LPA area or National Character Area to maximise the points gained.

Option 2: Acquire additional land off-site to use for biodiversity offsetting and habitat creation. This should ideally be within the same LPA area or National Character Area to maximise the points gained. These sites may be required to be registered as a biodiversity gain site, and habitat creation/enhancements and management must be secured for at least 30 years via a suitable legal agreement such as a planning obligation (section 106) with an LPA or a conservation covenant agreement with a responsible body.

Option 3: As a last resort, the client may wish to purchase Statutory Biodiversity Credits from the government. The client will need to provide evidence that the other above options have been explored in order to purchase these credits.

## 5. References

Bickmore, C. J. (2002). Hedgerow Survey Handbook. London: DEFRA

Biodiversity 2020: A strategy for England's wildlife and ecosystem services (2011).

Blakesley, D. & Buckley, P. (2010). Woodland creation for wildlife and people in a changing climate.

Environment Act 2021, c. 30. Available at: https://www.legislation.gov.uk/ukpga/2021/30/contents (Accessed: 08 March 2024)

Defra (2007a) Securing a Healthy Natural Environment: an action plan for embedding an ecosystems approach. PB12853. Defra London.

Defra (2007b) An Introductory Guide to Valuing Ecosystems Services. PB12852. Defra London.

Defra (2024) The Statutory Biodiversity Metric User Guide. Defra. London.

Dietz, C., von Helversen, O. & Nill, D. (2009) Bats of Britain, Europe and Northwest Africa. London: A. C. Black.

Gunnell, K., Grant, G. and Williams, C. (2012) Landscape and urban design for bats and biodiversity. Bat Conservation Trust.

Institute of Ecology and Environmental Management, Professional Guidance Series.

Kirby, P. (2013). Habitat Management for Invertebrates. Exeter: Pelagic Publishing.

The natural choice: securing the value of nature (2011) (Natural Environment White Paper).

Treweek J. et al. (2009) Scoping study for the design and use of biodiversity offsets in an English Context.

Treweek J., Butcher B., and Temple H. (2010) Biodiversity offsets: possible methods for measuring biodiversity losses and gains for use in the UK. CIEEM In Practice.

## 6. Appendices

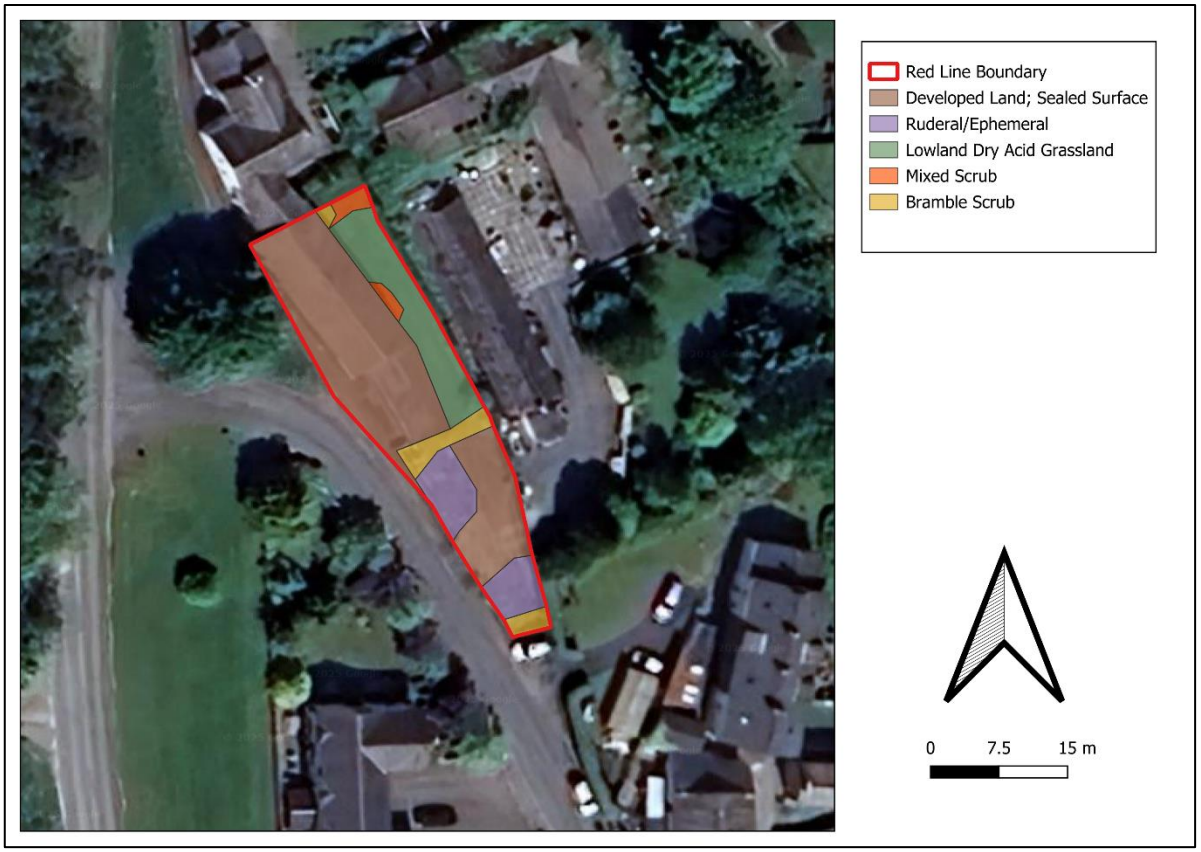
**Appendix A:** Baseline habitat map

**Appendix B:** Proposed Site Plan

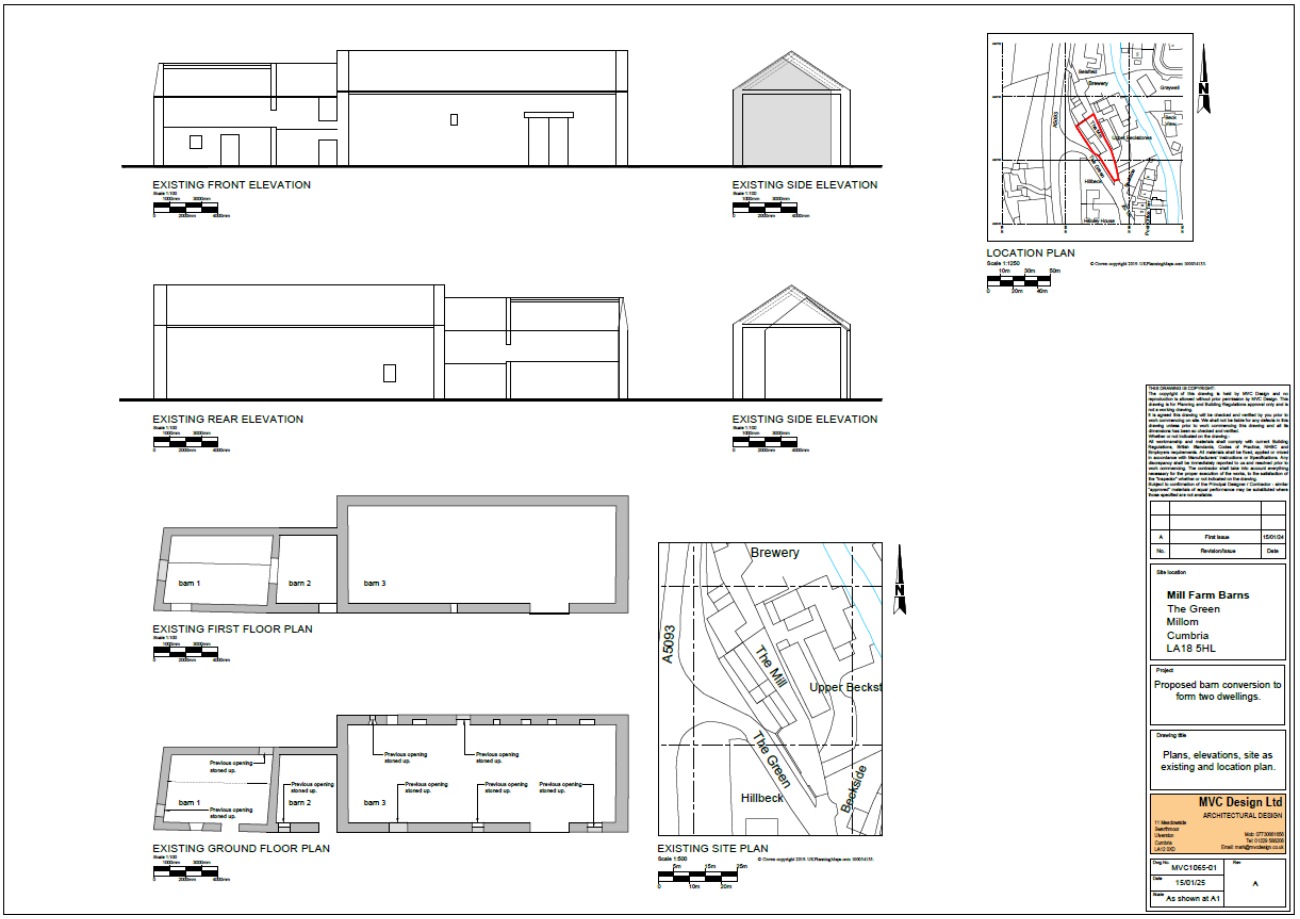
**Appendix C:** Proposed habitat map

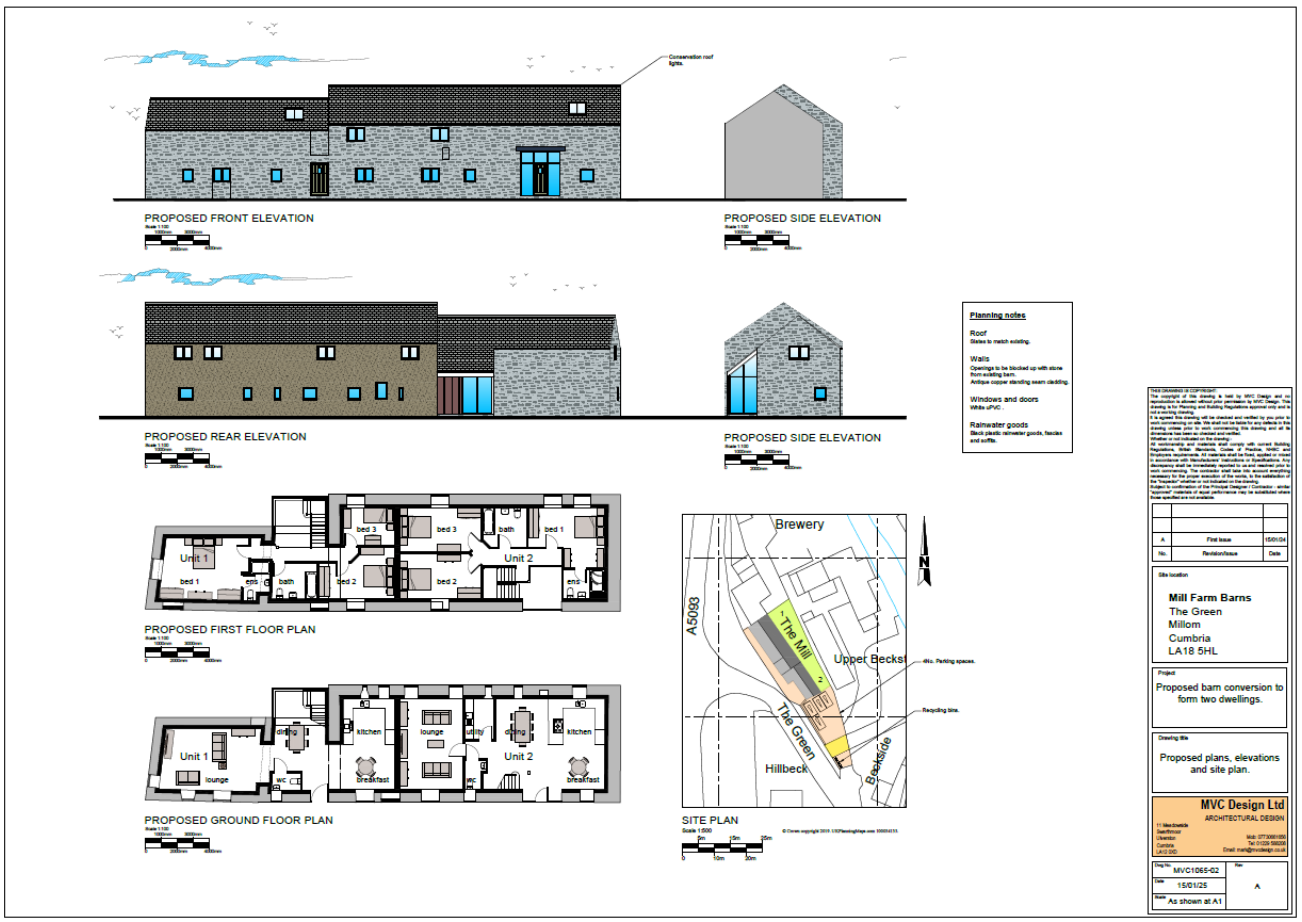
**Appendix D:** Biodiversity Net Gain Relevant Policies

**Appendix A:** Baseline habitat map

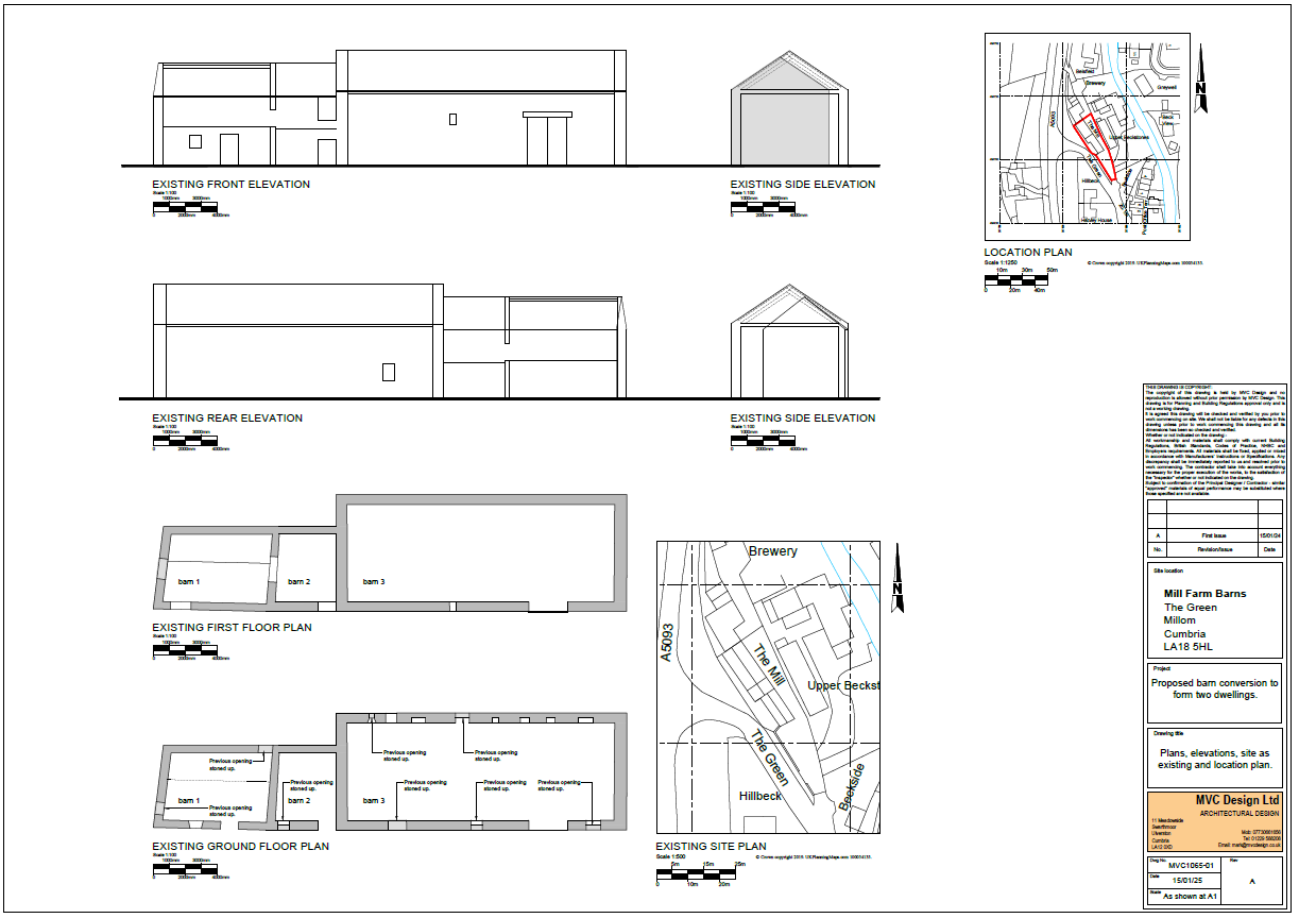


## **Appendix B:** Proposed Site Plans

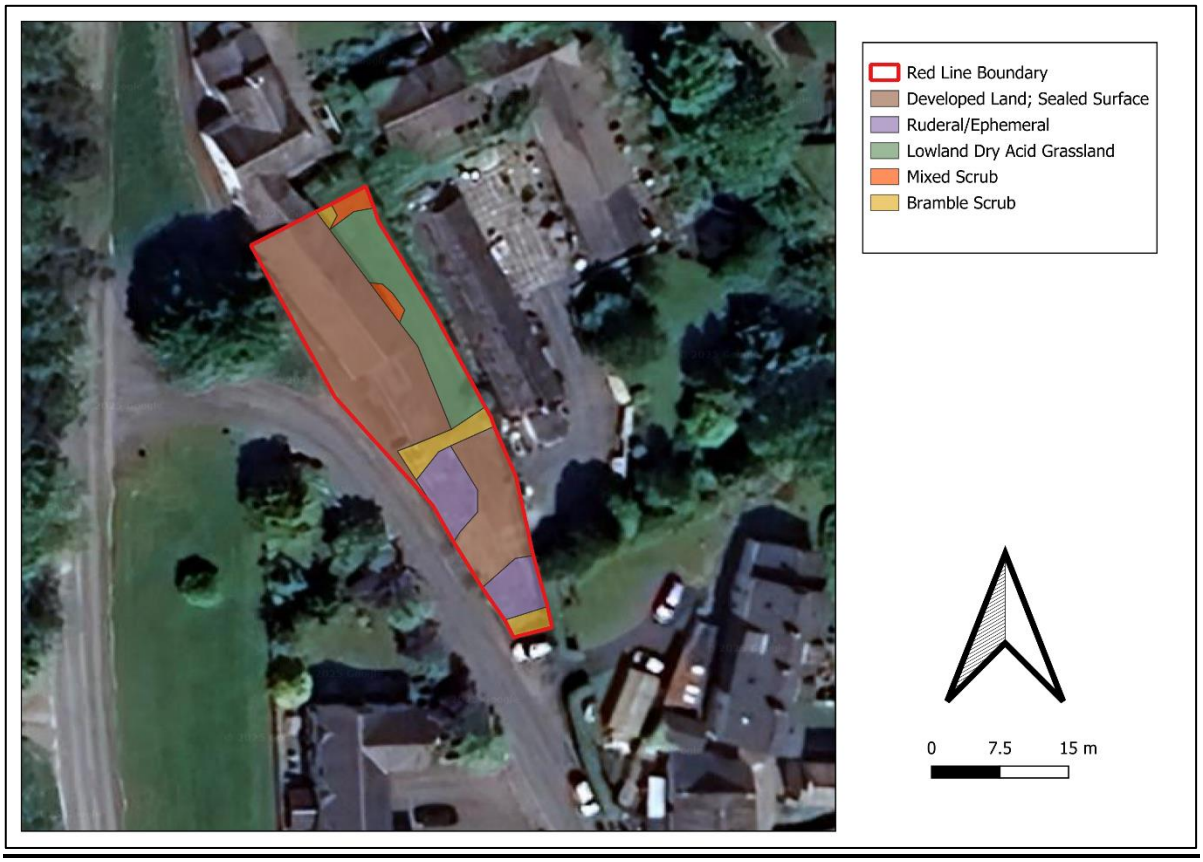



PROPOSED FRONT ELEVATION
PROPOSED SIDE ELEVATION
PROPOSED REAR ELEVATION
PROPOSED SIDE ELEVATION
Planning notes
Roof
Slates to match existing.
Walls
Openings to be blocked up with stone from existing barn.
Antique copper standing seam cladding.
Windows and doors
White uPVC .
Rainwater goods
Black plastic rainwater goods, fascias and soffits.
PROPOSED FIRST FLOOR PLAN
Unit 1
Unit 2
bed 1
bed 2
bed 3
bath
ens
PROPOSED GROUND FLOOR PLAN
kitchen
lounge
dining
wc
breakfast
SITE PLAN
Brewery
A5093
The Mill
Upper Beckst
The Green
Hillbeck
Beckside
N
Mill Farm Barns
The Green
Millom
Cumbria
LA18 5HL
Proposed barn conversion to form two dwellings.
Proposed plans, elevations and site plan.
MVC Design Ltd
ARCHITECTURAL DESIGN
MVC1065-02
15/01/25
As shown at A1
A
First issue
15/01/25

PROPOSED FRONT ELEVATION
PROPOSED SIDE ELEVATION
PROPOSED REAR ELEVATION
PROPOSED SIDE ELEVATION
Planning notes
Roof
Slates to match existing.
Walls
Openings to be blocked up with stone from existing barn.
Antique copper standing seam cladding.
Windows and doors
White uPVC .
Rainwater goods
Black plastic rainwater goods, fascias and soffits.
PROPOSED FIRST FLOOR PLAN
Unit 1
Unit 2
bed 1
bed 2
bed 3
bath
ens
PROPOSED GROUND FLOOR PLAN
kitchen
lounge
dining
wc
breakfast
SITE PLAN
Brewery
A5093
The Mill
Upper Beckst
The Green
Hillbeck
Beckside
N
Mill Farm Barns
The Green
Millom
Cumbria
LA18 5HL
Proposed barn conversion to form two dwellings.
Proposed plans, elevations and site plan.
MVC Design Ltd
ARCHITECTURAL DESIGN
MVC1065-02
15/01/25
As shown at A1
A
First issue
15/01/25


EXISTING FRONT ELEVATION
EXISTING SIDE ELEVATION
EXISTING REAR ELEVATION
EXISTING SIDE ELEVATION
barn 1
barn 2
barn 3
EXISTING FIRST FLOOR PLAN
EXISTING GROUND FLOOR PLAN
Brewery
A5093
The Mill
Upper Beckside
The Green
Hillbeck
Beckside
EXISTING SITE PLAN
LOCATION PLAN
Mill Farm Barns
The Green
Millom
Cumbria
LA18 5HL
Proposed barn conversion to form two dwellings.
Plans, elevations, site as existing and location plan.
MVC Design Ltd
ARCHITECTURAL DESIGN
MVC1065-01
15/01/25
As shown at A1

**Appendix C:** Proposed habitat map



**Appendix D:** Biodiversity Net Gain Relevant Policies

## Environmental Act 2021

Part 6 on nature and biodiversity covers all areas of biodiversity net gain across two core sections. This Act mandates that all planning meets a minimum of a 10% gain in biodiversity calculated using the appropriate Metric and that the newly created habitats are secured for at least 30 years.

## National Planning Policy Framework (NPPF)

While currently not a legal obligation, biodiversity and environmental net gains are mentioned in the revised National Planning Policy Framework (NPPF) within the following paragraphs (please refer to the NPPF for the full quotations):

Achieving sustainable development

Paragraph 8 Section C. "*an environmental objective – **to protect and enhance our natural,** built and historic **environment**; including making effective use of land, **improving biodiversity**, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy*."

Preparing and reviewing plans

Paragraph 32. "*Local plans and spatial development strategies should be informed throughout their preparation by a sustainability appraisal that meets the relevant legal requirements. This **should demonstrate how the plan** has addressed relevant economic, social and **environmental objectives** (including **opportunities for net gains**). Significant **adverse impacts on these objectives should be avoided** and, wherever possible, alternative options which reduce or eliminate such impacts should be pursued. Where significant adverse impacts are unavoidable, suitable mitigation measures should be proposed (or, where this is not possible, compensatory measures should be considered)*."

Identifying land for homes

Paragraph 73 section C. "*consider the opportunities presented by existing or planned investment in infrastructure, the area's economic potential and the scope for **net environmental gains***"

Transport infrastructure:

Paragraph 104. "*Transport issues should be considered from the earliest stages of plan-making and development proposals, so that:*
*d) the environmental impacts of traffic and transport infrastructure can be identified assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for **net environmental gains.***

Planning decisions:

Paragraph 119 "*Planning decisions and planning policy should a) encourage multiple benefits from both urban and rural land … and taking opportunities to **achieve net environmental gains - such as developments that would enable new habitat creation."***

Conserving and enhancing the natural environment

Paragraph 174 Section D. "***minimising impacts on and providing net gains for biodiversity****, including by establishing coherent ecological networks that are more resilient to current and future pressures*"

Habitats and biodiversity

Paragraph 179. "*To protect and enhance biodiversity and geodiversity, plans should:*

*a) Identify, map and* ***safeguard components of local wildlife-rich habitats*** *and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management,* ***enhancement, restoration or creation****;*

*and b) promote* ***the conservation, restoration and enhancement of priority habitats,*** *ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing* ***measurable net gains for biodiversity***."

Paragraph 180. "*When determining planning applications, local planning authorities should apply the following principles:*

*a) if* ***significant harm to biodiversity*** *resulting from a development* ***cannot be avoided*** *(through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then* ***planning permission should be refused;***

*b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;*

*c) development resulting in the* ***loss or deterioration of irreplaceable habitats*** *(such as ancient woodland and ancient or veteran trees)* ***should be refused,*** *unless there are wholly exceptional reasons and a suitable compensation strategy exists;*

*and d) development* ***whose primary objective is to conserve or enhance biodiversity should be supported;*** *while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can* ***secure measurable net gains for biodiversity*** *or enhance public access to nature where this is appropriate*."

## 7. Notice to Readers: Conditions of this Report

All reports are certified products and cannot be shown, copied, or distributed to third parties without the written permission of Eco 360. No liability is accepted for the contents of the report, other than to that of the client(s). If any part of this report is altered without the written permission of Eco 360, then the whole report becomes invalid.

Eco 360 agrees to supply ecological consulting services and advice of a preliminary or thorough nature as advised or commissioned. Upon commissioning Eco 360 to undertake the work, the client(s) grant access to the site upon the agreed date. If no site access is available upon this date, Eco 360 holds the right to charge the client(s) for lost staffing time and additional travel costs.

Eco 360 undertake all site surveys with reasonable skill, care, and diligence, within the terms of the contract that has been agreed with the client and abiding by the Eco 360 Terms and Conditions. The actions of the surveyors on site, and during the production of the report, were undertaken in accordance with the Code of Professional Conduct for the Chartered Institute of Ecology and Environmental Management.

The latest good practice guidelines put in place by Natural England or the relevant statutory conservation bodies have been followed by the surveyors on site. If those methodologies fail to identify a protected species during the survey efforts, no responsibility can be attributed to Eco 360. If any of these guidelines are adapted between the date(s) of the surveys being undertaken and the submission of this report, then Eco 360 takes no responsibility for this.

Should any equipment be damaged or lost on site at the fault of the client(s), then Eco 360 withholds the right to charge 100% above the current market value for that exact product or the nearest similar product.

The survey results purport the current status of the site and its potential for protected species utilisation at the time of surveying. It should not be viewed as a complete list of the possible flora and fauna species that could be using the site at different times of the year.

Eco 360 has been provided with full payment for this report and thus the product has been released to the client(s) for the purpose of their planning application. If any part of the report is lost or altered without the written permission of Eco 360, then the entire report becomes invalid. Due to the potential for continual change within the natural world, this report is valid for **2 years only** from the date of the last survey visit. If this report is submitted after the 2 year deadline, then a further updated inspection will be required to ascertain whether the site remains in the same condition as it was when initially inspected.

No reliance should be made on any such comments in relation to the structural integrity of the features located on the surveyed site. All information within the report is based solely on evidence that has been found on site during the service provided. No individual opinion or inference will be made other than that of the suitably qualified ecologist appointed to the project.