



**envirotech**

**Ecological Consultants  
Environmental and Rural Chartered Surveyors**

## **Biodiversity Net Gain**

**Poor Parts Barn, Bolton By Bowland, BB7 4LU**



Tel: 015395 61894  
Email: [info@envtech.co.uk](mailto:info@envtech.co.uk)  
Web: [www.envtech.co.uk](http://www.envtech.co.uk)  
Envirotech NW Ltd

The Stables, Back Lane, Hale, Milnthorpe, Cumbria. LA7 7BL  
Directors: A. Gardner BSc (Hons), MSc, MRICS, Dip NDEA  
H. Gardner BSc (Hons), MSc, CEnv, MRICS  
Registered in England and Wales. Company Registration Number 5028111

## ACCURACY OF REPORT

This report has been compiled based on the methodology as detailed and the professional experience of the surveyor. Whilst the report reflects the situation found as accurately as possible, all of the protected species this survey covers are wild and can move freely from site to site. Their presence or absence detailed in this report does not entirely preclude the possibility of a different past, current or future use of the site surveyed.

We would ask all clients acting upon the contents of this report to show due diligence when undertaking work on their site and/or in their interaction with protected species. If protected species are found during a work programme, and continuing the work programme could result in their disturbance, injury or death, either directly or indirectly an offence may be committed.

If in doubt, stop work and seek further professional advice.

## Quality and Environmental Assurance

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Author	Bradley Foster	Date	08/07/2025
Checked by	Andrew Gardner	Date	13/07/2025
Report Version	1		
Field data entered	<input checked="" type="checkbox"/>		
Report Reference	9865		

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## Planning Portal Questions

Please provide the date the onsite pre-development biodiversity value was calculated (this should be either the date of the application, or an earlier proposed date)	<b>27/06/2025</b>	
If an earlier date, to the date of the planning application, has been used, please provide details why this date has been used.	<b>Site conditions have not changed between date of assessment and planning submission</b>	
When was the version of the biodiversity metric published?	<b>23.7.24</b>	
Please provide the pre-development biodiversity value of onsite habitats on the date of calculation	<b>0.14</b>	<b>Habitat Units</b>
	<b>0.11</b>	<b>Hedgerow Units</b>
	<b>-</b>	<b>Watercourse Units</b>
Please provide the reference or supporting document/plan names for the:  i. Biodiversity metric calculation ii. Onsite irreplaceable habitats (if applicable) iii. Onsite habitats existing on the date of the application for planning permission (if applicable)	<b>Statutory Biodiversity Metric- Poor Parts Barn, Bolton By Bowland</b>	
	<b>N/A</b>	
	<b>Biodiversity Net Gain- Bolton By Bowland</b>	
Do you believe that, if the development is granted permission, the general Biodiversity Gain Condition (as set out in Paragraph 13 of Schedule 7A of the Town and Country Planning Act 1990 (as amended)) would apply?	<b>Yes</b>	
Has there been any loss (or degradation) of any onsite habitat(s), resulting from activities carried out before the date of the onsite pre-development biodiversity value was calculated. Either:  - On or after 30 January 2020 which were not in accordance with a planning permission; or - On or after 25 August 2023 which were in accordance with a planning permission?	<b>No</b>	
Does the development site have irreplaceable habitats (corresponding to the descriptions in column 1 of [Schedule to the Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations (2023)]) which are:  i. On land to which the application relates; and	<b>No</b>	

ii. Exist on the date of the application for planning permission (or an earlier agreed date)	
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## INTRODUCTION

### ***Purpose of this Report***

Envirotech were requested to carry out a biodiversity assessment of Poor Parts Barn, Bolton By Bowland. The aim was for an ecologist with botanical expertise to carry out a site visit to map the habitat types present at the site in order to establish the biodiversity baseline.

It is proposed a stone barn is converted, with associated parking and landscaping.

Each habitat type was mapped using the standard habitat mapping convention using UK Habitat Classification V2 (Butcher et al., 2023) for the purposes of using the Defra metric.

Using the findings of the baseline surveys, pre-construction ecology was measured against proposed habitat changes arising from future ecological enhancements based on an Illustrative Site Plan (post-construction) provided by the client.

This report presents the results of this desk-based study to assess net change in biodiversity 'units' in connection with the removal of habitats for the proposed development at the site.

### ***Ecological Context***

The site is 0.075ha, comprising a vacant stone barn within an open silage field.

Figure 1a shows the site location, grid reference SD 79676 50120.

Figure 1b shows an aerial view of the site.



 Red Line Boundary

Figure 1a  
Site Location





**Figure 1b- Aerial view of the site (looking west)**

## ***Policy context***

The primary aims of Biodiversity Net Gain are to secure a measurable improvement in habitat for biodiversity, to minimise biodiversity losses and to help to restore ecological networks whilst streamlining development processes.

The National Planning Policy Framework (NPPF) makes provisions for the delivery of biodiversity net gain. Additionally, there is a 10% net gain requirement in the Environment Bill.

## **METHODS**

### ***Introduction***

The statutory biodiversity metric is designed to quantify biodiversity to inform and improve planning, design, land management and decision-making (Natural England, 2024).

This study has been carried out as a desk-based exercise, using the results of field surveys carried out at the site by Envirotech and an Illustrative Site Plan provided by the client.

### ***Biodiversity Assessment Methods***

To calculate biodiversity units for the site and assess any changes arising from the proposed development this study uses methods set out in the latest Statutory Biodiversity Metric user guide (Natural England, 2024).

The biodiversity metric uses three core measurements:

- Habitat area
- Length of linear terrestrial habitats
- Length of linear aquatic habitats.

Consequently, a site can have three biodiversity unit values, which are assessed using the same metric, but cannot be summed together.

Habitat area is multiplied by several factors that indicate its quality: distinctiveness, condition, strategic location and connectivity, and this gives its biodiversity unit value. This can be used for existing and future created habitats. In addition, when habitats are to be enhanced or newly-created, the risk of failure is accounted for by applying multipliers for risk factors (difficulty, time to target condition, and off-site risk).

### **Habitat Distinctiveness**

Habitats are classified using the UK habitat classification V2 system (Butcher et al., 2023).

The metric pre-assigns each habitat type to a distinctiveness band according to its distinguishing features, i.e. species richness, rarity (at local, regional, national and international scales), and the degree to which it supports species rarely found in other habitats. On rare occasions, the habitat distinctiveness of a habitat can be altered up or down from the preassigned value. Any

alterations must then be fully explained using evidence relevant to the site, e.g. an increase in distinctiveness because of rare flora or fauna or a decrease in distinctiveness because of significant damage to the habitat.

### **Habitat Condition**

Habitat condition measures the varying quality of similar habitats against what is perceived to be their optimal state. The statutory biodiversity metric technical supplement (Natural England, 2023) contains condition sheets for all habitats to which the metric can apply. The condition sheets contain a habitat description, contextual information to aid the assessment, and the assessment criteria. The criteria describe what components need to be present for a habitat to be in good, moderate or poor condition.

### **Strategic Location**

Strategic location - sometimes called 'strategic significance' - works at a landscape scale, allowing additional value to be added to habitats in 'priority' or 'biodiversity target areas'. They include statutory and non-statutory sites and other areas with biodiversity value or potential, and they are mainly identified from local plans and objectives. If a habitat is within such a target area, a multiplier is applied to increase its value.

### **Difficulty of Creation and Restoration**

The risks associated with creating new or enhancing existing habitats, are known as difficulty factors; for example, where habitats fail to establish owing to natural changes in local conditions, incorrect management or for unknown reasons. The statutory biodiversity metric contains default values for each habitat based on the average difficulty of creating or enhancing a habitat. Occasionally, under exceptional circumstances, these can be modified, but any deviation from the default value must be fully justified.

### **Time to Target Condition**

There is often a lag between a habitat being removed and the new compensation habitats achieving their target condition. This gives reduced biodiversity value for a time. The statutory biodiversity metric preassigns the time to target condition based on good practice and typical conditions, and assigns a multiplier based on the number of years required to achieve it.

Using bespoke techniques under unique conditions, or creating compensation habitats prior to impacts taking place, the time to target condition can be adjusted. Any changes must again be fully justified.

### **Off-site Risk**

Sometimes it is not possible to compensate adequately for loss of biodiversity within the site boundary, so off-site compensation is required. If the off-site compensation is a significant distance from the development site, then there will be a local loss of biodiversity and a multiplier is applied to any off-site compensation.

# BIODIVERSITY ASSESSMENT

## Baseline:

The sites baseline BNG value was calculated using the Statutory BNG metric and UKHabs v2 methodology. This is shown in Figure 2 below.

The baseline value for the site is as at 27.06.2025. This is the date that our assessment was undertaken. We consider there will have been no substantive changes to habitat condition at the time of the planning application being made.

We are not aware of any habitat features which have been purposefully degraded after 30<sup>th</sup> January 2020.

We consider planning permission, if granted, would be subject to the biodiversity gain condition

The type, area and distinctiveness values are shown on Table 1.



Habitat Parcel	Habitat	Irreplaceable Habitat	Area (ha)	Distinctiveness	Notes
1	Modified grassland	No	0.0475	Low	Fertilised and re-seeded silage field around the barn comprising Perennial Ryegrass ( <i>Lolium perenne</i> ), Rough-stalked Meadow Grass ( <i>Poa trivialis</i> ), Annual Meadow Grass ( <i>Poa annua</i> ), Mouse ear ( <i>Cerastium fontanum</i> ), Chickweed ( <i>Stellaria media</i> ), Dock ( <i>Rumex obtusifolius</i> ) and Nettle ( <i>Urtica dioica</i> ). Grassland to the south and west of the barn is heavily encroached and rutted, comprising bare ground with Pineapple Mayweed ( <i>Matricaria matricarioides</i> ), Shepherd's Purse ( <i>Capsella bursa-pastoris</i> ), Plantain ( <i>Plantago major</i> ) and Knotgrass ( <i>Polygonum aviculare</i> ).
2	Other neutral grassland	No	0.0119	Medium	Verge of rougher grassland with Perennial Ryegrass, Crested Dog's-Tail ( <i>Cynosurus cristatus</i> ), Yorkshire Fog ( <i>Holcus lanatus</i> ), Meadow foxtail ( <i>Alopecurus pratensis</i> ), Soft Rush ( <i>Juncus effusus</i> ), Common Sorrel ( <i>Rumex acetosa</i> ), Meadowsweet ( <i>Filipendula ulmaria</i> ), Creeping Buttercup ( <i>Ranunculus repens</i> ) and White Clover ( <i>Trifolium repens</i> ). There is some encroachment by species from the wider silage field, as well as Hawthorn ( <i>Crataegus monogyna</i> ) and Blackthorn ( <i>Prunus spinosa</i> ) shrubs from the adjacent hedgerow.
3	Developed land; sealed surface	No	0.0082	V.Low	Stone field barn.
4	Artificial unvegetated, unsealed surface	No	0.0079	V.Low	Hardcore track.

**Table 1a- Habitat, Area and Distinctiveness Values**

Habitat Parcel	Hedgerow	Irreplaceable Habitat	Length (km)	Distinctiveness	Notes
5	Native Hedgerow	No	0.027	V.Low	Hedgerow with Hawthorn, Blackthorn and Rose ( <i>Rosa canina</i> or <i>arvensis</i> ).

**Table 1b- Hedgerow, Length and Distinctiveness Values**

**Avoidance:** the first step of the mitigation hierarchy comprises measures taken to avoid creating impacts from the outset, such as careful spatial placement of infrastructure, or timing construction sensitively to avoid or disturbance. Examples include the placement of roads outside of rare habitats or key species' breeding grounds, or timing of seismic operations when aggregations of whales are not present. Avoidance is often the easiest, cheapest and most effective way of reducing potential negative impacts, but it requires biodiversity to be considered in the early stages of a project.

There are no irreplaceable habitats on the site.

There are no Very High distinctiveness habitats on the site.

There are no High distinctiveness habitats on the site.

There is a single medium distinctiveness habitat onsite- this being other neutral grassland.

There are two low distinctiveness habitats onsite- these comprising modified grassland and native hedgerow.

Development is largely to Low and Very low distinctiveness habitats.

**Minimisation:** these are measures taken to reduce the duration, intensity and/or extent of impacts that cannot be completely avoided. Effective minimisation can eliminate some negative impacts, such as measures to reduce noise and pollution, designing powerlines to reduce the likelihood of bird electrocutions, or building wildlife crossings on roads.

Only low distinctiveness habitat (modified grassland) will be lost as a result of development. Build out of the scheme will be quickly as possible with landscaping prioritised in order that new habitats are created within two years of loss of baseline habitats.

**Rehabilitation/restoration:** The aim of this step is to improve degraded or removed ecosystems following exposure to impacts that cannot be completely avoided or minimised. Restoration tries to return an area to the original ecosystem that was present before impacts, whereas rehabilitation only aims to restore basic ecological functions and/or ecosystem services - such as through planting trees to stabilise bare soil. Rehabilitation and restoration are frequently needed towards the end of a project's life cycle but may be possible in some areas during operation.

Other neutral grassland and modified grassland are to be enhanced to traditional orchard.

The existing native hedgerow is to be enhanced from moderate to good condition.

Collectively, avoidance, minimisation and rehabilitation/restoration serve to reduce, as far as possible, the residual impacts that a project has on biodiversity. Typically, however, even after their effective application, additional steps will be required to achieve no overall negative impact or a net gain for biodiversity.

**Offset:** offsetting aims to compensate for any residual, adverse impacts after full implementation of the previous three steps of the mitigation hierarchy. Biodiversity offsets are of two main types: 'restoration offsets' which aim to rehabilitate or restore degraded habitat, and 'averted loss offsets' which aim to reduce or stop biodiversity loss in areas where this is predicted. Offsets are

often complex and expensive, so attention to earlier steps in the mitigation hierarchy is usually preferable.

Following avoidance, minimisation and rehabilitation/restoration, onsite BNG can be achieved post-development. Purchase of offsite biodiversity units is not considered necessary at this time.

The UK Habs V2 habitat survey has been used to identify relevant habitat, hedgerow and watercourse units.

These habitats have been input into the statutory biodiversity metric calculator and indicate a total of 0.14 habitat units and 0.11 hedgerow units. The results of the calculations are presented in the full biodiversity assessment calculation in the Excel document 'Statutory Biodiversity Metric- Poor Parts Barn, Bolton By Bowland'.

The condition assessments for each of the habitat and hedgerow types are presented in Appendix A. No deviations have been made from the default methods for baseline habitats assessment.

## ***Post-development Habitat Creation and Enhancement***

The Illustrative Site Plan has been used to identify that 0.0119ha of other neutral grassland and 0.0128ha of modified grassland adjacent the core development area will be enhanced to traditional orchard through the planting of Apple, Plum, Cherry and Damson trees. At least five trees should be planted in a staggered arrangement and appropriately tubed so as to deter grazing animals. Trees will be underplanted with native bulbs including Snowdrops (*Galanthus Sp.*) and Bluebell (*Hyacinthoides non-scripta*), in addition to a native shade tolerant wildflower mixture appropriate to BS7M 80/20.

Grassland should be cut a maximum of three times a year, being left uncut between May and late-August/September. Cut risings should be left in-situ for at least two days (allowing clippings to self-seed) and then removed from the site in order to reduce soil fertility, with grass kept short over Autumn and Winter. It may also be advantageous to sow semi-parasitic wildflowers such as Yellow Rattle (*Rhinanthus minor*) in this area. Seed can be broadcast onto heavily scarified soil towards the end of summer (and no later than November) once the grass is short and clippings have been removed. Yellow Rattle substantially weakens the growth of vigorous grasses, encouraging better growth of wildflowers and a more diverse sward.

The existing hedgerow adjacent the site will be enhanced from moderate to good condition via the gapping up of canopy breaks and overseeding with a shade-tolerant hedgerow mix (or similar).

These figures have been put in to the Statutory Biodiversity Metric and would comprise a total of 0.16 habitat units and 0.16 hedgerow units.

There are no changes to default values for post development habitats.

Details of the assumptions made to achieve the proposed conditions are found in Appendix B.

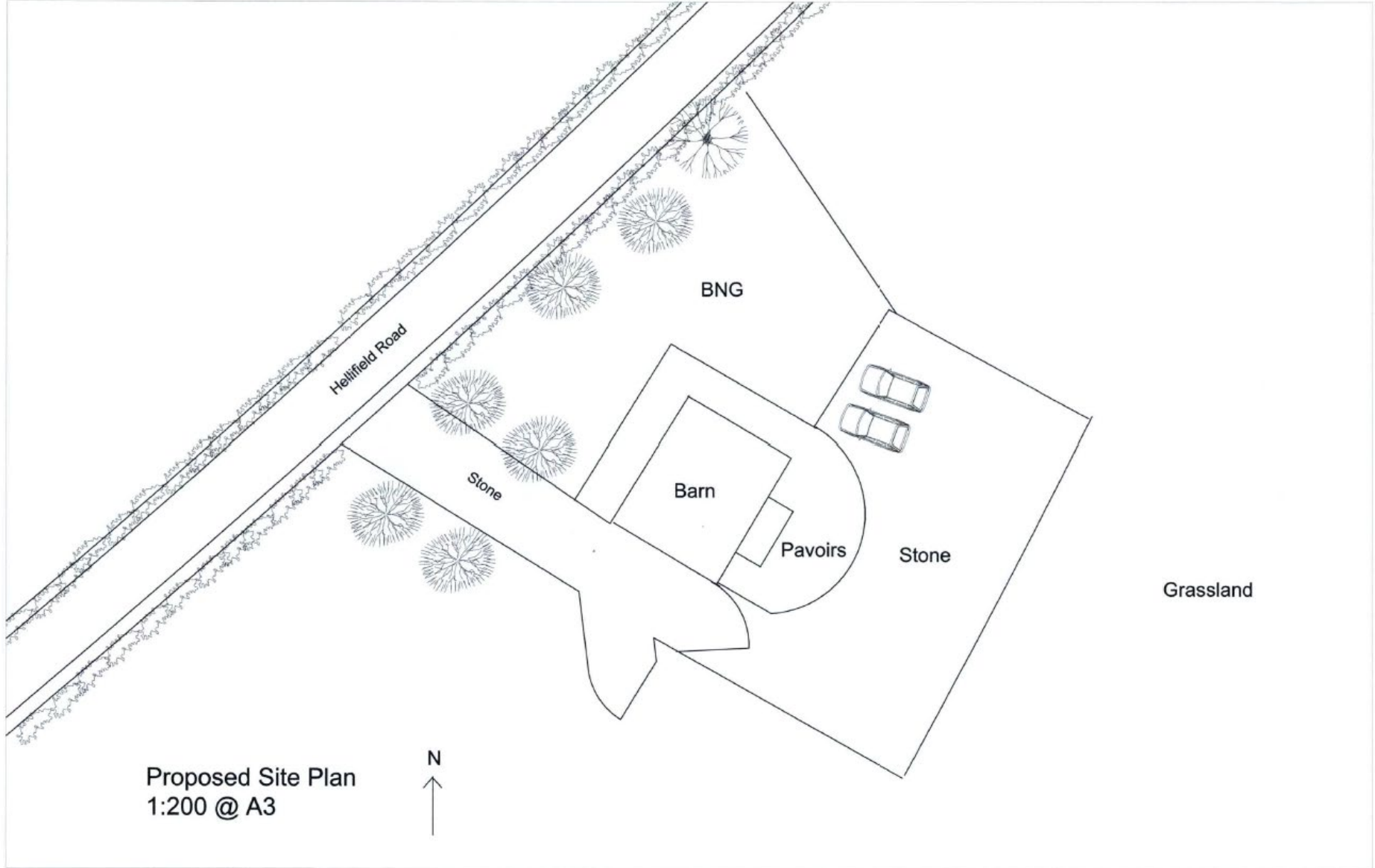
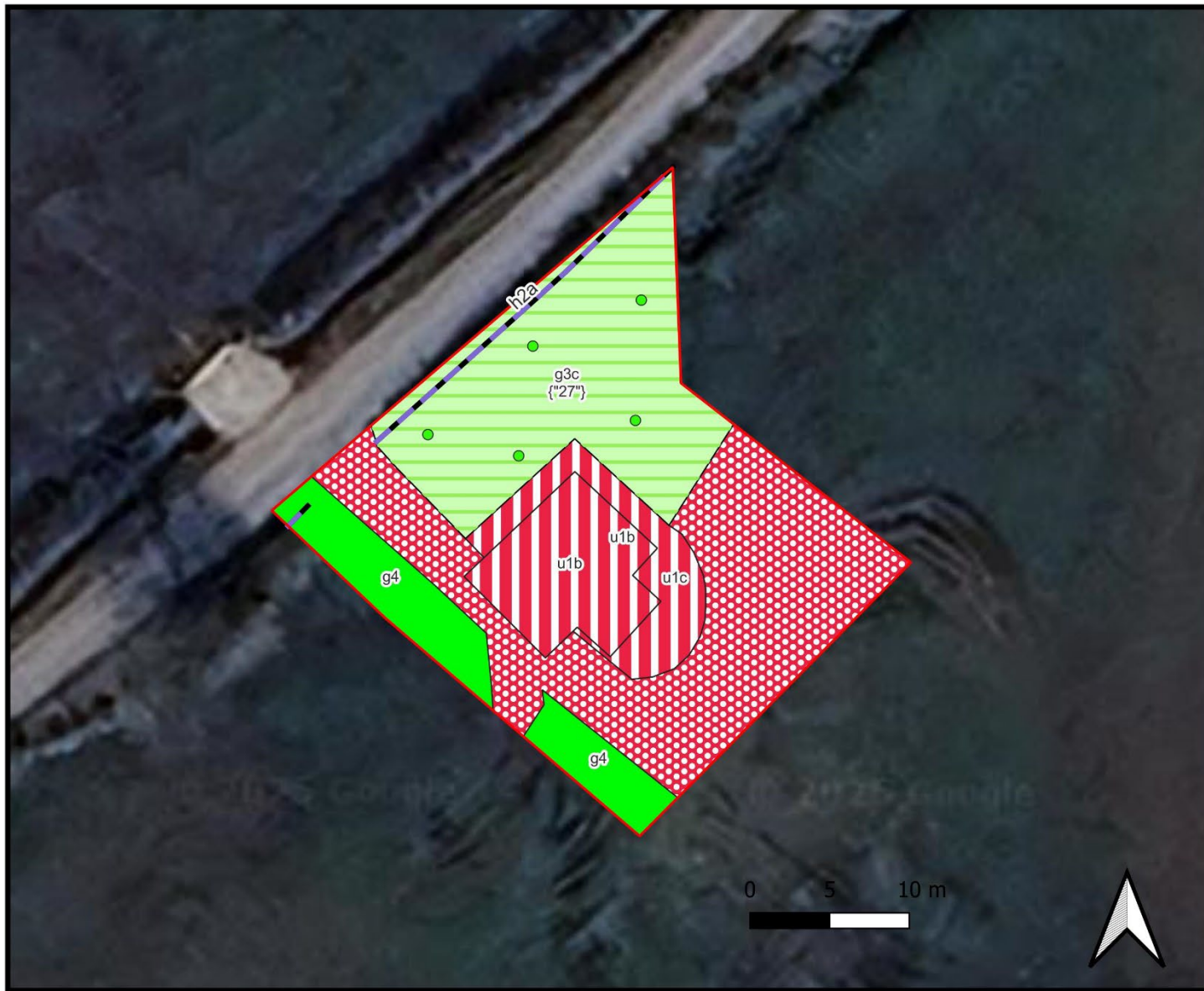


Figure 3- Indicative site plan



-  Red Line Boundary
-  Rural Tree
-  h2a Native Hedgerow
-  g3c Other Neutral Grassland
-  g4 Modified Grassland
-  u1b Developed Land Sealed surface
-  u1c Artificial Unvegetated Unsealed Surface

Figure 4  
 Post-development UK  
 Habitats Survey  
 Map



## Change in Biodiversity Value

Under the current proposals set out in the Illustrative Site Plan there will be a GAIN of 0.02 habitat units (+15.38%) and a GAIN of 0.05 Hedgerow units (+46.56%). This is shown in Table 2.

**Table 2. Change in Biodiversity Units Calculation**

On-site baseline	Habitat units	0.14
	Hedgerow units	0.11
	Watercourse units	0.00
On-site post-intervention (Including habitat retention, creation & enhancement)	Habitat units	0.16
	Hedgerow units	0.16
	Watercourse units	0.00
On-site net change (units & percentage)	Habitat units	0.02
	Hedgerow units	0.05
	Watercourse units	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
	Hedgerow units	0.00
	Watercourse units	0.00
Combined net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	0.02
	Hedgerow units	0.05
	Watercourse units	0.00
Spatial risk multiplier (SRM) deductions	Habitat units	0.00
	Hedgerow units	0.00
	Watercourse units	0.00
<b>FINAL RESULTS</b>		
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	0.02
	Hedgerow units	0.05
	Watercourse units	0.00
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	15.38%
	Hedgerow units	46.56%
	Watercourse units	0.00%
Trading rules satisfied?	Yes ✓	

## REFERENCES

Butcher, B., Carey, P., Edmonds, R., Norton, L. and Treweek, J. (2023), UK Habitat Classification - Habitat Definitions V2.01 at <http://ukhab.org>

Natural England 2023. Natural England The Statutory Biodiversity Metric User Guide (draft)

## IMAGES



A length of native hedgerow comprising Hawthorn, Blackthorn and Rose lines the north of the site



There are occasional canopy breaks to either end



The front of the barn



Verge of other neutral grassland  
between the barn and hedgerow

## APPENDIX A – BASELINE DETAILED CONDITION ASSESSMENTS

This appendix presents the assessment of the post-development habitats against the condition sheets in the statutory biodiversity metric technical supplement published by Natural England, 2023. Any deviations from the published guidance is explained and justified.

UK Hab	Condition Sheet	Other Habitat Criteria Score									Total Score	Condition Assessment	Notes
		C1	C2	C3	C4	C5	C6	C7	C8	C9			
Modified Grassland	GRASSLAND: Low distinctiveness	F	F	P	P	P	P	P			5	Poor	Grassland fails C1 and can therefore only be considered poor-quality.
Other neutral grassland	GRASSLAND: Medium-Very High distinctiveness	F	F	P	F	P	F				2	Poor	Rougher field verge between the rear of the barn and the adjacent hedgerow.
Developed Land; Sealed Surface	Not assessed										-	-	Stone field barn.
Artificial Unvegetated; unsealed surface	Not assessed										-	-	Hardcore access track.
<b>Key:</b> P – Criteria passed F – Criteria failed													
<b>Appendix Table A1: Condition Assessment for Area Habitats</b>													

UK Hab	Hedgerow Criteria Score										Condition Assessment	Notes
	A1	A2	B1	B2	C1	C2	D1	D2	E1*	E2*		
Native Hedgerow	F	P	P	F	P	F	P	F			Moderate	27m length of native hedgerow adjacent the field barn.
<b>Key:</b> P – Criteria passed F – Criteria failed * - Application to Hedgerows with trees only												
<b>Appendix Table A2: Hedgerow Condition Assessment</b>												

## APPENDIX B – POST DEVELOPMENT DETAILED CONDITION ASSESSMENTS

This appendix presents the assessment of the post-development habitats against the condition sheets in the statutory biodiversity metric technical supplement published by Natural England, 2023. Any deviations from the published guidance is explained and justified.

UK Hab	Condition Sheet	Other Habitat Criteria Score									Total Score	Condition Assessment	Notes
		C1	C2	C3	C4	C5	C6	C7	C8	C9			
Orchard	Orchard	F	F	P	P	F	P	P	P		5	Moderate	Area of traditional orchard established to the rear of the barn. At least five fruit trees to be planted within this area. Trees unlikely to reach an ancient or veteran status within 30 years and therefore the orchard is likely to fail C1 and C2.
Developed Land; Sealed Surface	Not assessed										-	-	Pavours surrounding the barn.
Artificial Unsealed; Unvegetated Surface	Not assessed										-	-	Stone parking area.
<b>Key:</b> P – Criteria passed F – Criteria failed													
<b>Appendix Table B1: Condition Assessment for Area Habitats</b>													

UK Hab	Hedgerow Criteria Score										Condition Assessment	Notes
	A1	A2	B1	B2	C1	C2	D1	D2	E1*	E2*		
Native Hedgerow	P	P	P	P	P	F	P	F			Good	Existing hedgerow enhanced from moderate to good condition via planting up of gaps and sympathetic management.
<b>Key:</b> P – Criteria passed F – Criteria failed * - Application to Hedgerows with trees only												
<b>Appendix Table B2: Hedgerow Condition Assessment</b>												