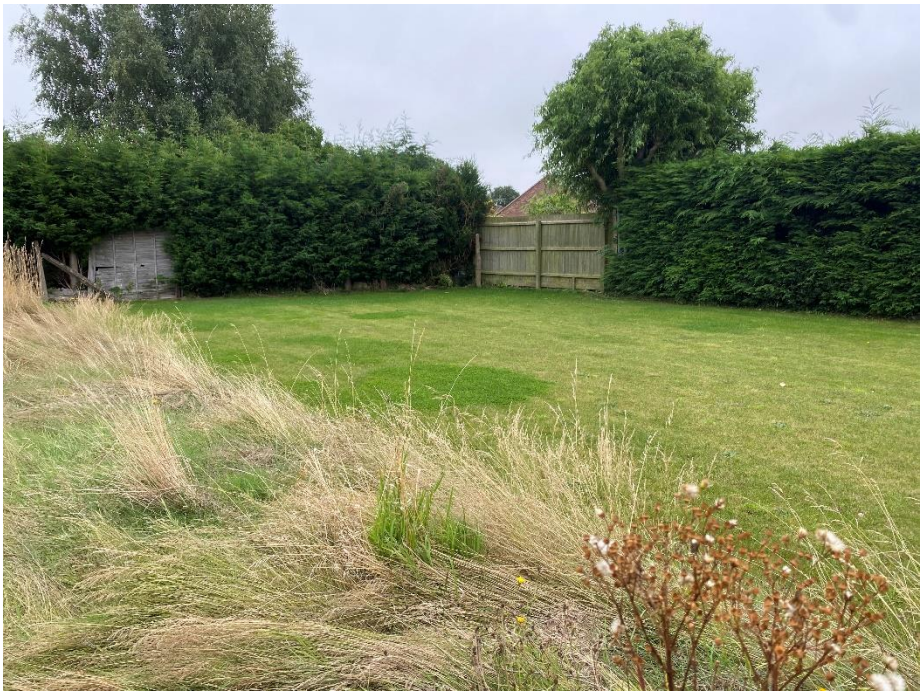
BIODIVERSITY NET GAIN ASSESSMENT
24 BROAD LANE, MOULTON, LINCOLNSHIRE

November 2024



Issued to:

CDM Design

On behalf of Mr Kurt Woods

Woodola Group Ltd

HS Ecology
The Old School House
Chapel Road
Tumby Woodside
Boston
PE22 7SP

BIODIVERSITY NET GAIN ASSESSMENT
24 BROAD LANE, MOULTON, LINCOLNSHIRE

Report issued to: CDM Design – of behalf of Mr Kurt Woods – Woodola Group Ltd

Report title: Biodiversity Net Gain Assessment, 24 Broad Lane, Moulton, Lincolnshire

Revision: Final

Original issue date: November 2024

Amended: N/A

Issued by: Helen Scarborough **Date**: 14th November 2024

BIODIVERSITY NET GAIN ASSESSMENT
24 BROAD LANE, MOULTON, LINCOLNSHIRE

Contents

BIODIVERSITY NET GAIN ASSESSMENT
24 BROAD LANE, MOULTON, LINCOLNSHIRE

1 INTRODUCTION

HS Ecology has been commissioned by CDM Design on behalf of Mr Kurt Woods of Woodola Group Ltd to undertake a Biodiversity Assessment of an area of garden at 24 Broad Lane, Moulton in Lincolnshire. The work is required in connection with plans to develop the site with residential dwellings (bungalows).

The site was surveyed and assessed on the 5th September 2024 by Helen Scarborough (FISC level 4).

2 METHODS

2.1 Location and grid reference

The survey site comprises an area of garden off Broad Lane, Moulton in Lincolnshire - central grid reference TF 305238.

2.2 Assessment and walkover

An update walkover of the site was undertaken in September 2024; the site area was defined and the site boundaries were mapped. All habitats within the site and on the boundaries were identified, measured and classified in accordance with The UK Habitat Classification V2. The condition of each of the habitats was assessed in accordance with The Statutory Biodiversity Metric. The areas of the site were calculated using the Multi-Agency Geographic Information for the Countryside (MAGIC) website, or using information supplied by the client.

Condition assessments were undertaken and condition assessment sheets are provided as an appendix.

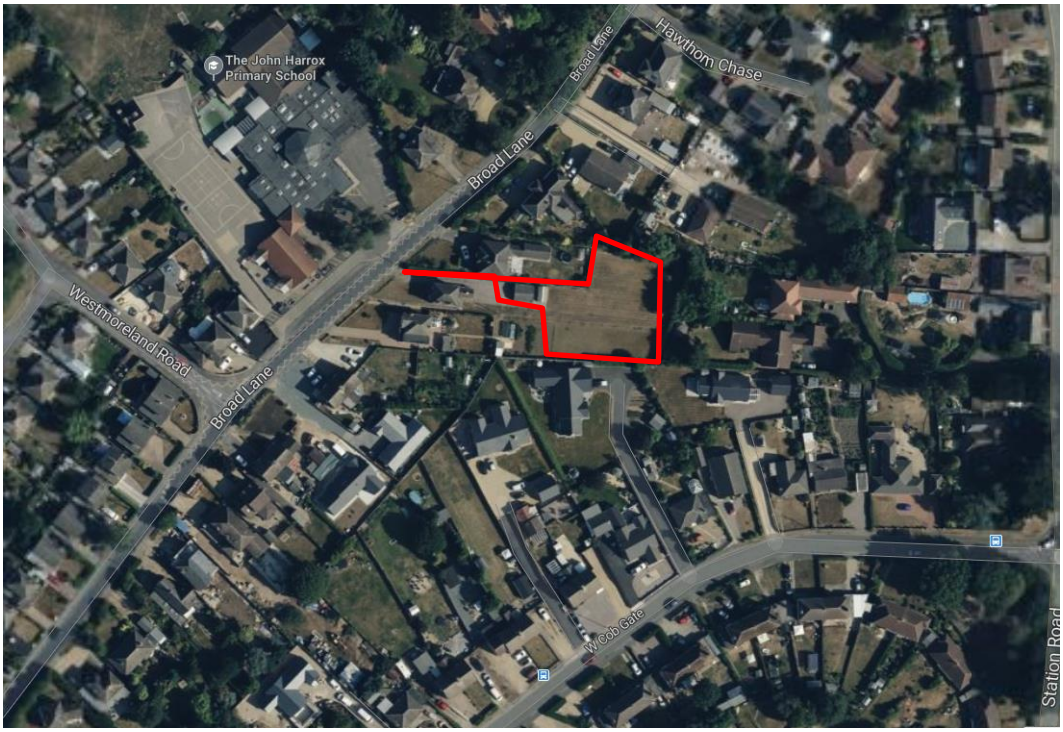


Figure 1: Aerial view of the site (outlined in red) courtesy of Google Maps 2024

3 RESULTS

3.1 Baseline Assessment – habitats

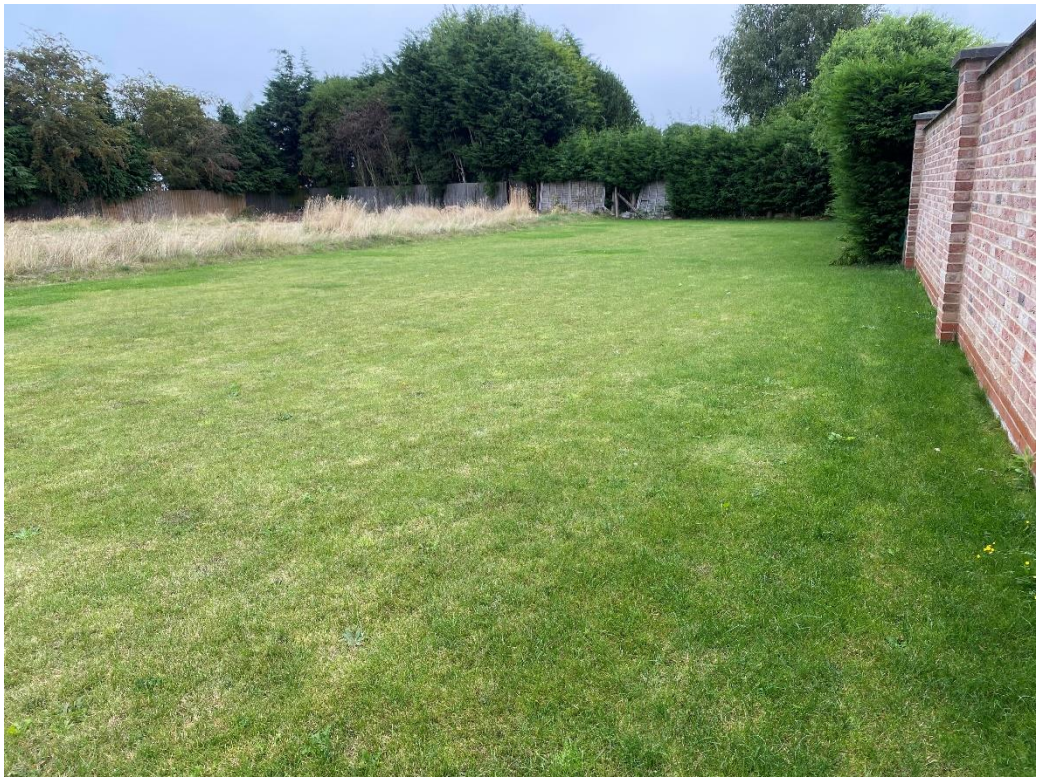
Area habitats

The total area of the site is 1484m² which comprises the following:

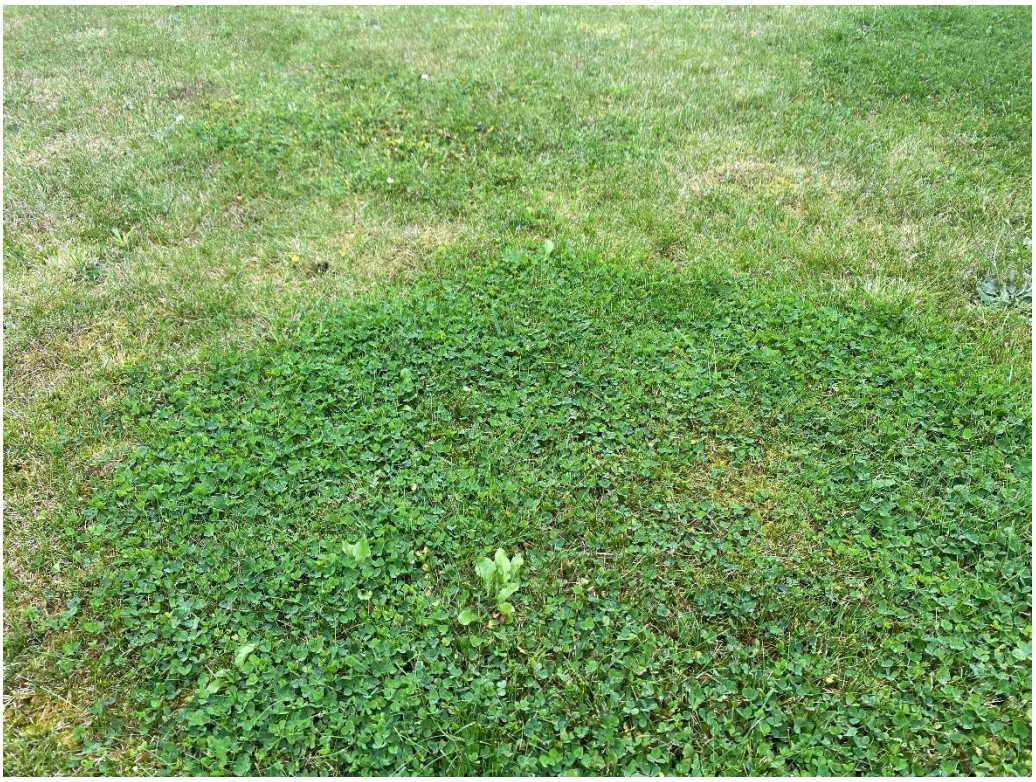
1. Modified grassland (g4 with secondary codes 106 and 108) – 440m²

The area of the garden to the south comprised closely mown modified grassland dominated by perennial rye-grass (*Lolium perenne*) – this accounted for 75% of the sward. Also recorded was white clover (*Trifolium repens*), dandelion (*Taraxacum agg*), creeping buttercup (*Ranunculus repens*) and self-heal (*Prunella vulgaris*). A very small amount of common cat's-ear (*Hypochaeris radicata*), autumnal hawkbit (*Leontodon autumnalis*) and fox-and-cub (*Pilosella aurantiaca*) was also found within the sward. There are no areas of bare ground, no scrub and no bracken recorded. The sward is uniform.

.



Photograph 1: Modified grassland – southern portion of the garden



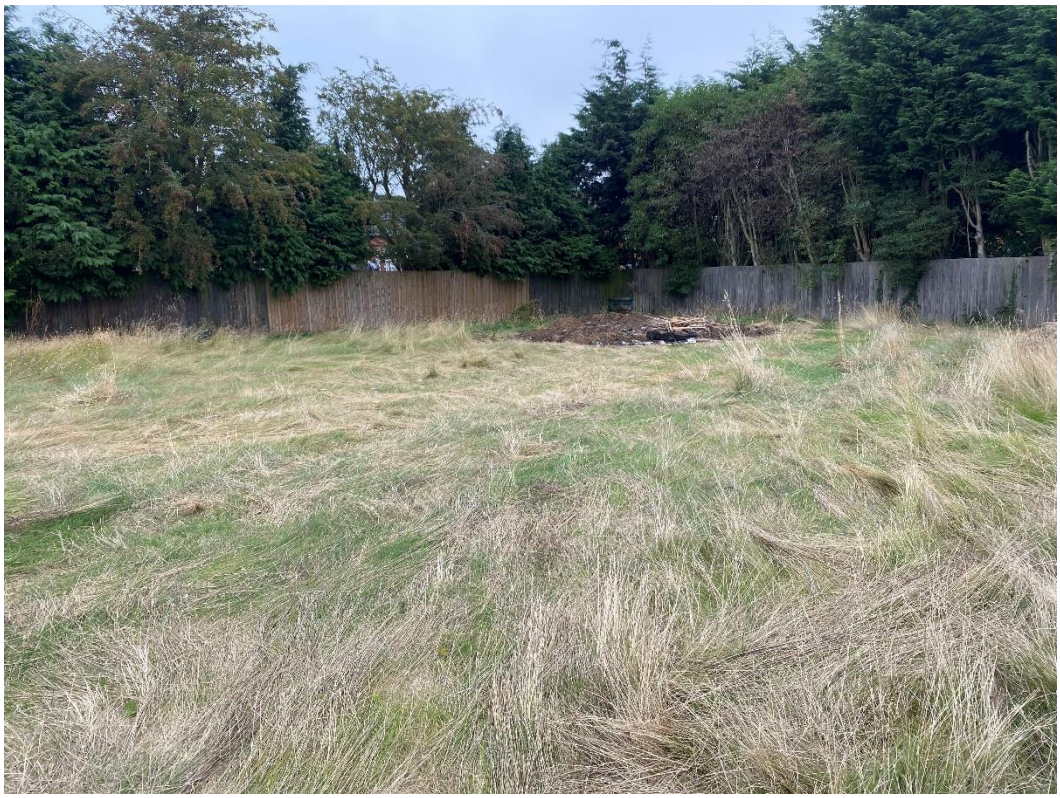
Photograph 2: Closer view of the modified grassland sward

The biodiversity units for this habitat are 0.176.

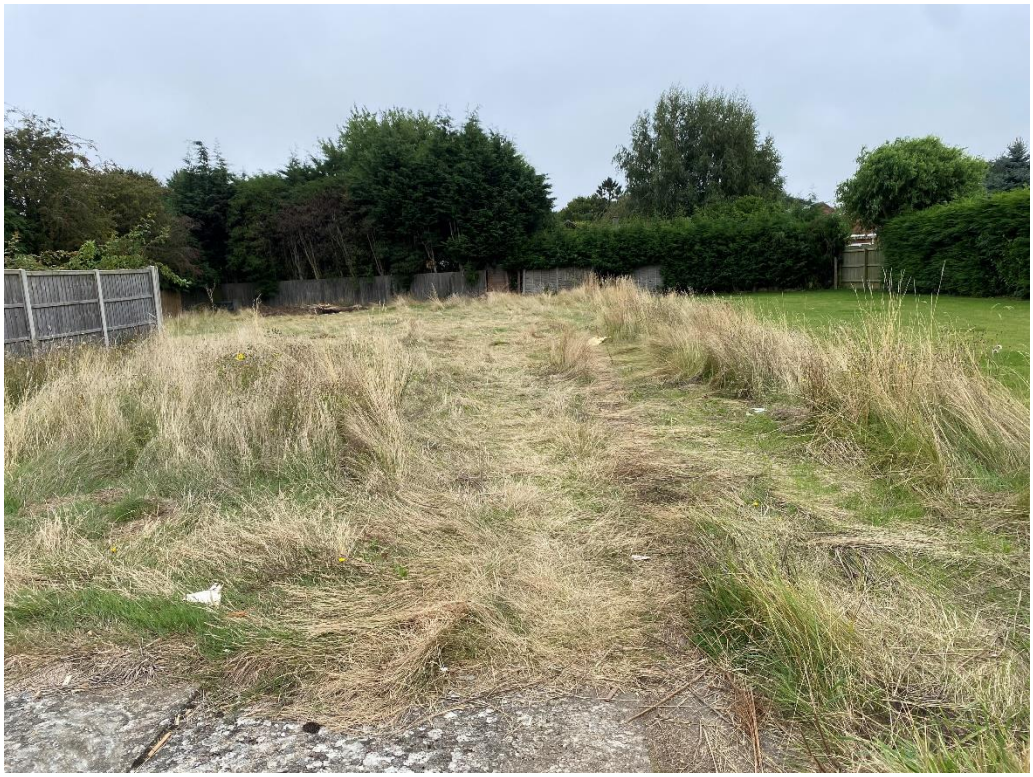
2. Other neutral grassland (g3c with secondary codes 16 and 128) – 658m²

The northern section of the grassland comprises unmanaged, tall tussocky neutral grassland dominated by a range of grasses and herbs (herbs equating to approximately 20% of the sward). The species recorded were red fescue (*Festuca rubra*), cock's-foot (*Dactylis glomerata*), false oat grass (*Arrhenatherum elatius*), Yorkshire-fog (*Holcus lanatus*), common cat's-ear (*Hypochaeris radicata*), creeping bent (*Agrostis stolonifera*), dandelion (*Taraxacum agg*), crested dog's-tail (*Cynosurus cristatus*), rough meadow grass (*Poa trivialis*), creeping cinquefoil (*Potentilla reptans*), self-heal (*Prunella vulgaris*), common knapweed (*Centuarea nigra*), common mouse-ear (*Cerastium fontanum*), nipplewort (*Lapsana communis*), ragwort (*Jacobaea vulgaris*), spear thistle (*Cirsium vulgare*) and field bindweed *(Convolvulus arvensis*). There is a small amount of bramble scrub (<5%), one small bare/disturbed area where a tree was removed, no bracken and no invasive species present.

.



Photograph 3: View of the other neutral grassland area

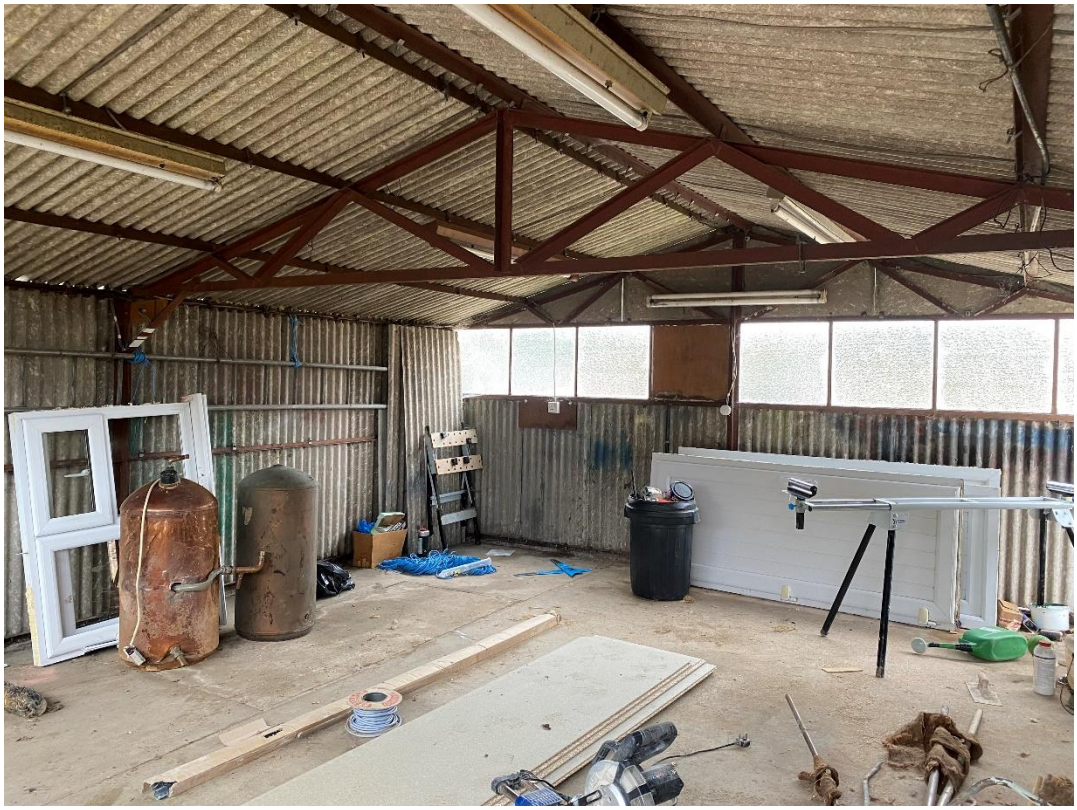


Photograph 4: Further view of the other neutral grassland area

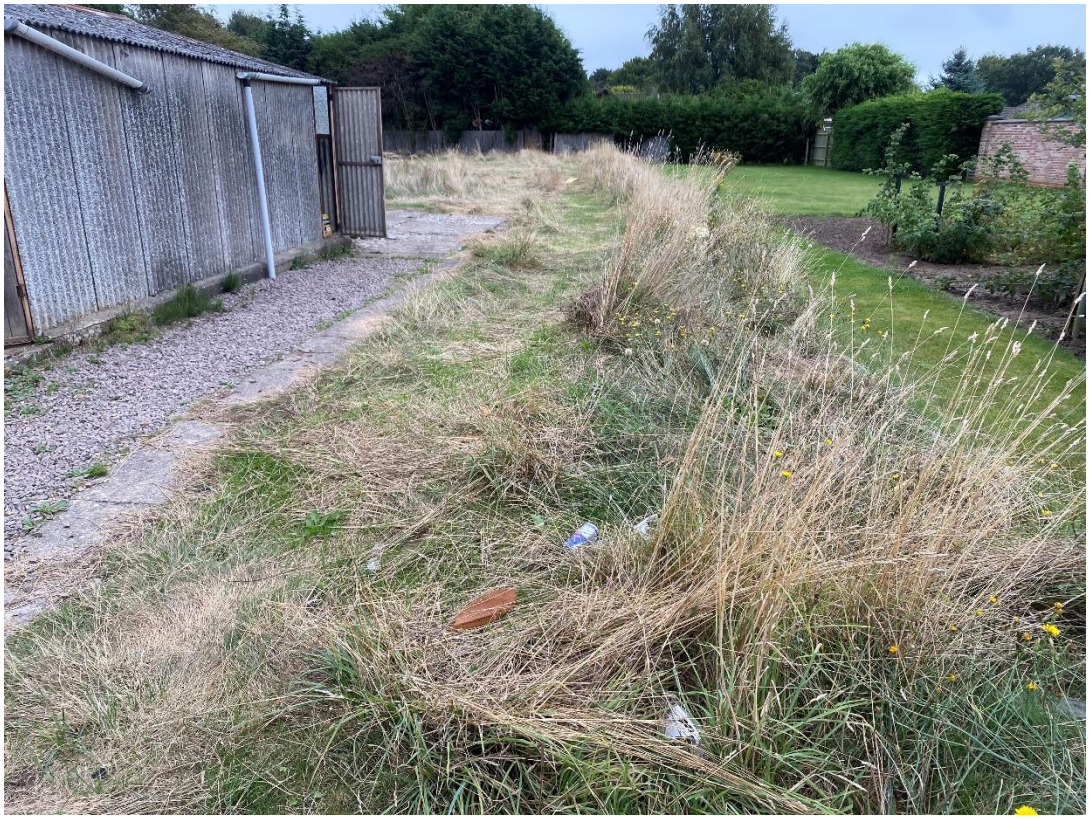
The biodiversity units for this habitat are 0.526.

3. Developed land, sealed surface and building (u1b and u1b5) – 386m²

The area between the grassland (former gardens) and 24 Broad Lane is occupied by hard standing/gravel paths and a corrugated cement fibre sheet garage. The garage was inspected for the presence of bats and assessed as having negligible potential to support roosting bats. The paths and gravel area support a small number of ruderal species such as spurge species (*Euphorbia spp*), willowherb species (*Epilobium spp*) and annual meadow grass (*Poa annua*). The vegetation cover is <10%.



Photograph 5: Internal view of the garage



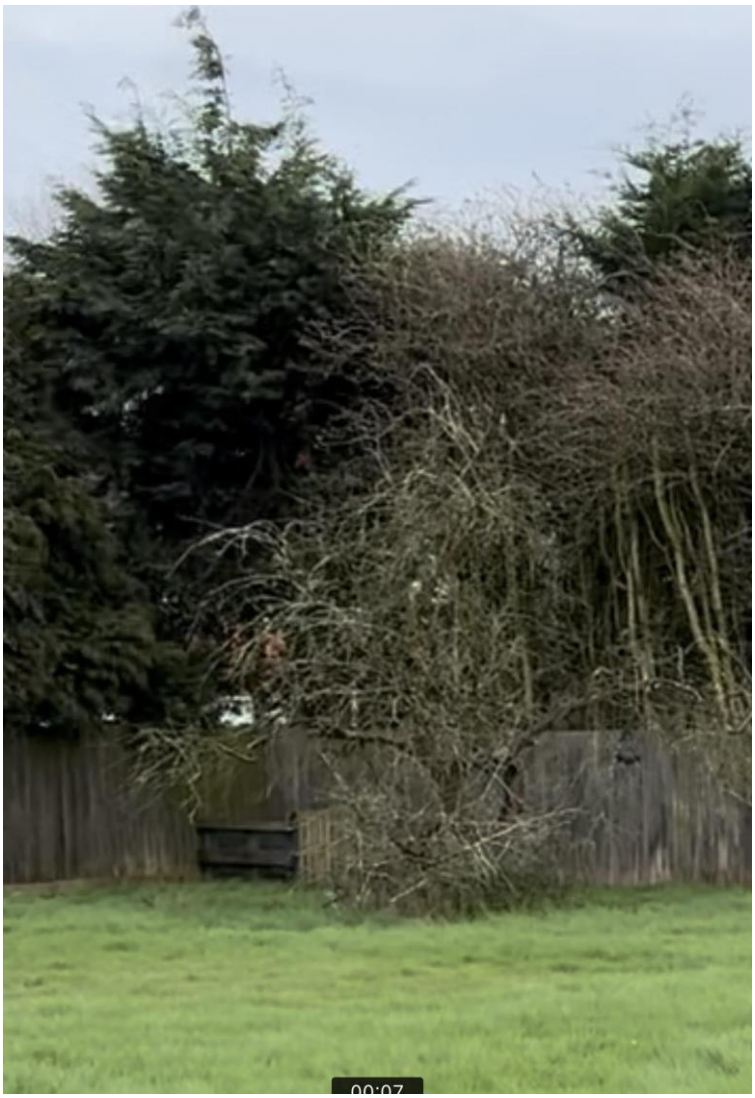
Photograph 6: Garage and grassland areas

There are 0 biodiversity units associated with these habitats.

.

4. Urban tree – 40.69m² (when inputted into the metric as a small tree)

Pre survey there was a small tree (approximately 5 metres tall) located in the north-east corner. It was removed (outside of the nesting season) in early 2024. It was described as a small fruit tree. A photograph was obtained and the size of the tree inputted into the metric is based on this photograph.



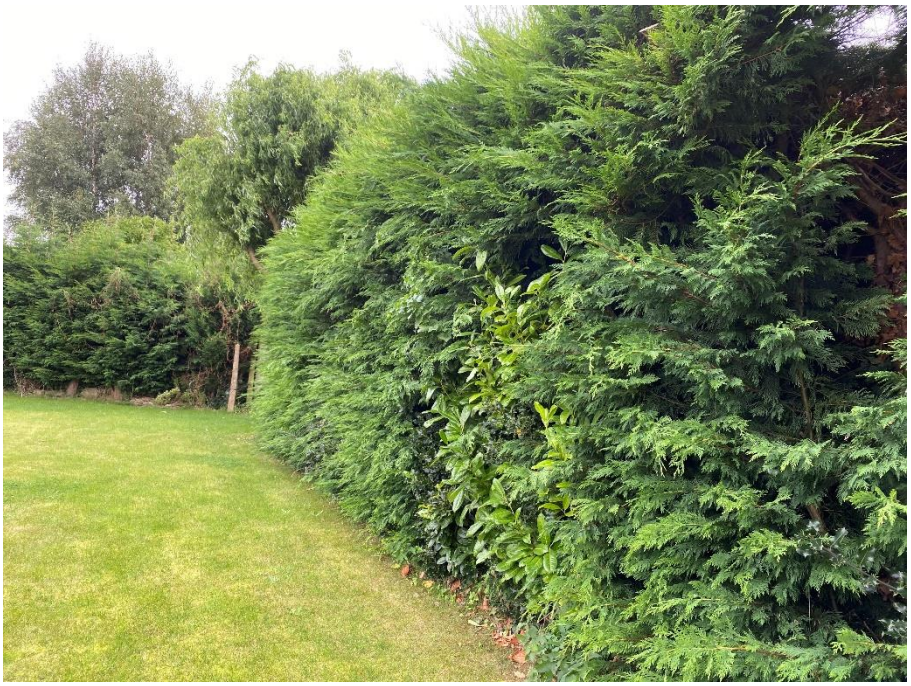
Photograph 7: Tree in north-east corner (photograph supplied by client)

This equates to 0.0374 biodiversity units.

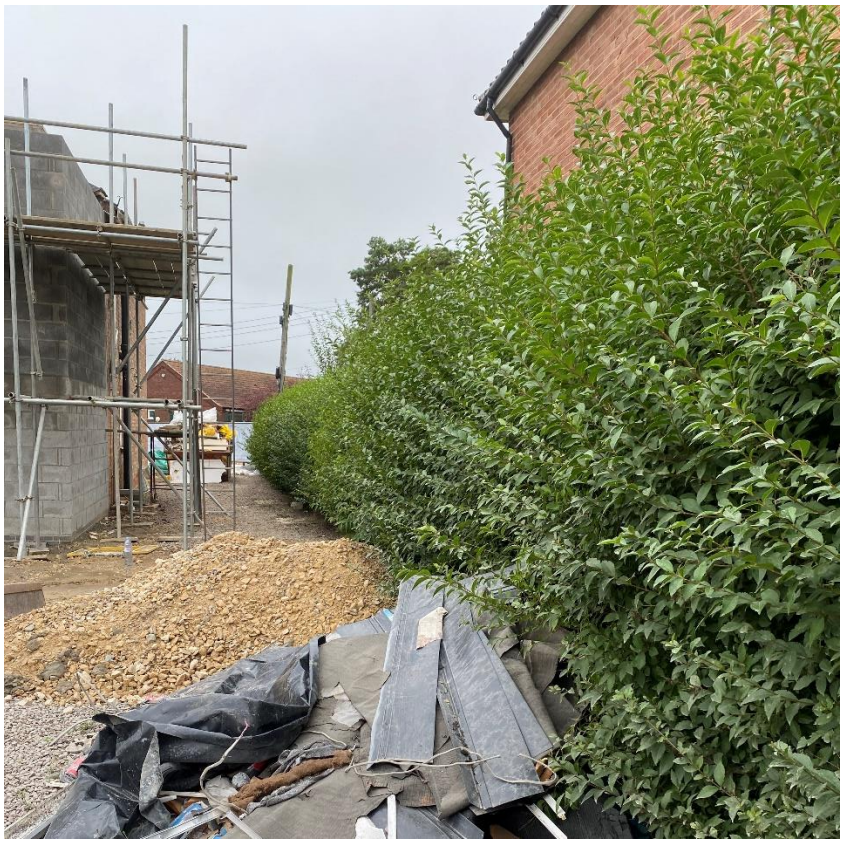
Linear terrestrial habitats

There are linear habitats bounding the site; they comprise a line of *Cypress* species with some cherry laurel, a privet garden hedgerow and fences associated with the hedgerows. None of

these bounding habitats will be impacted by the development proposals and the red line boundary will fall inside of these boundary features.



Photograph 8: Hedgerow and fence which forms the northern and eastern boundary



Photograph 9: Privet hedgerow

3.2 Post development habitats

Area habitats

The total area of the site is 1484m² which will comprise the following:

1. Residential dwellings (bungalows) – 303m²

The biodiversity units for these habitats equate to 0.

2. Hard standing/paths around and associated with the bungalows - 432m²

The biodiversity units for these habitats equate to 0.

3. Vegetated gardens – to be turfed - 678m²

The biodiversity units for these habitats equate to 0.1309.

4. Green roofs – to be biodiverse green roofs - 39m²

The biodiversity units for these habitats equate to 0.0220.

5. Low level planters (part of the landscaping) – to be planted with lavender varieties - 27m²

The biodiversity units for these habitats equate to 0.0052.

6. Eight newly planted native trees – to comprise native fruit trees (cherry, apple, pear and plum) – 325.56m² (when inputted into the Metric)

The biodiversity units for these habitats equate to 0.0995.

3.3 Summary tables

Table 1 – pre development habitats

Habitat parcel	Area (m²)	Biodiversity unit value
Modified grassland	440	0.176

Other neutral grassland	658	0.526
Building and hard standing	386	0
Tree	40.69	0.0374
Total units – 0. 7398		

Table 2 – post development habitats

Habitat parcel	**Area (m²)**	**Biodiversity unit value**
Developed land (bungalows)	303	0
Vegetated garden	678	0.1309
Access road, paths, hardstanding around dwellings	432	0
Green roofs	39	0.0220
Planters	27	0.0052
Trees	325.56	0.0995
Total units – 0.2576		

This equates to a loss of 0.4823 habitat biodiversity units (minus 65.19%) – in order to satisfy the BNG requirements of 10% uplift, an additional 0.5563 units will be required post development.

The proposal to achieve the required 10% uplift and meet the trading rules, is to purchase units off site (possibly via The Environment Bank or similar). The mechanism by which this will be achieved will be finalised post planning.

3.4 Management, monitoring and post development gain

Following the granting of planning permission, the arrangements for post development gain must be finalised with the aim of achieving a 10% gain. In addition, a 30-year management and monitoring plan will be required, to fulfil the following requirements;

• To detail how the proposed habitat parcels on site will be created, enhanced and managed to achieve their target conditions;

• To provide details of timescales for each habitat parcel on site to reach target condition; • To

ensure that all habitat parcels are monitored regularly by a suitably qualified person over the 30-year minimum period, with a report to be produced after each monitoring visit and sent to the LPA to detail the progress being made;

• To specify that the management regime be adaptive, according to progress being made towards the target conditions for each habitat parcel. Any subsequent changes to the management regime must have prior approval by the LPA;

• To specify the company or individual(s) responsible for the ongoing management of the site;

• To provide a management schedule;

• To ensure the predicted biodiversity net gain is achieved.

4 REFERENCES

Baker, J. et al (2019) Biodiversity Net Gain. Good Practice principles for Development, A Practical guide. CIRIA, London. JNCC (1990).

Handbook for Phase 1 Habitat Survey – a technique for environmental audit. Field manual. 5 th ed. Peterborough, JNCC.

Panks, S. et. al. (2021). The Biodiversity Metric: Auditing and accounting for biodiversity – Technical Supplement. Natural England.

UK Habitat Classification Working Group (2023). UK Habitat Classification – Habitat Definitions V2.0 at http://ecountability.co.uk/ukhabworkinggroup-ukhab

APPENDIX 1

CONDITION SHEETS

Condition Sheet: GRASSLAND Habitat Type (low distinctiveness)			
UK Habitat Classification (UKHab) Habitat Type			
Grassland - Modified grassland			
On-site or off-site, site name and location	Broad Lane, Moulton	Survey date and Surveyor name	5/9/24 HS
Limitations (if applicable)		Survey reference (if relating to a wider survey)	
Grid reference		Habitat parcel reference	
Habitat Description			
Broad Lane, Moulton G4 grassland in garden.			
ukhab – UK Habitat Classification			

	Condition Assessment Criteria	Criterion passed (Yes or No)	Notes (such as justification)
A	There are 6-8 vascular plant species per m^2 present, including at least 2 forbs (these may include those listed in Footnote 1). **Note - this criterion is essential for achieving Moderate or Good condition.** Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m^2 (excluding those listed in Footnote 1), please review the full UKHab description to assess whether the grassland should instead be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high, or very high distinctiveness, please use the relevant condition sheet.	No	Average 4-5 sp/m^2
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 vertebrates and invertebrates to live and breed.	No	
C	Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble *Rubus fruticosus* agg. may be present). Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	Yes	
D	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	Yes	
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens)[2].	Yes	
F	Cover of bracken *Pteridium aquilinum* is less than 20%.	Yes	
G	There is an absence of invasive non-native plant species[3] (as listed on Schedule 9 of WCA[4]).	Yes	
	Essential criterion achieved (Yes or No)		No
	Number of criteria passed		5

Condition Assessment Result (out of 7 criteria)	Condition Assessment Score	Score Achieved ×/✓	
Passes 6 or 7 criteria including passing essential criterion A	Good (3)		Poor

Condition Sheet: GRASSLAND Habitat Type (medium, high and very high distinctiveness)

UK Habitat Classification (UKHab) Habitat Types

Grassland - Lowland calcareous grassland
Grassland - Lowland dry acid grassland
Grassland - Lowland meadows
Grassland - Other lowland acid grassland
Grassland - Other neutral grassland
Grassland - Tall herb communities (H6430) [Not to be confused with the Tall forbs secondary code – see UKHab guidance for details.]
Grassland - Upland acid grassland
Grassland - Upland calcareous grassland
Grassland - Upland hay meadows
Sparsely vegetated land - Calaminarian grassland

On-site or off-site, site name and location	Moulton, Broad Lane	**Survey date and Surveyor name**	5/9/24 HS
Limitations (if applicable)		**Survey reference (if relating to a wider survey)**	
Grid reference		**Habitat parcel reference**	

Habitat Description

G3c - garden

ukhab – UK Habitat Classification

	Condition Assessment Criteria	Criterion passed (Yes or No)	Notes (such as justification)
A	The parcel represents a good example of its habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type (and relative to Footnote 3 suboptimal species which may be listed in the UKHab description).[1] **Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.**	Yes	6sp/m²
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.	Yes	
C	Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens[2].	~~No~~ Yes	1-2% Area where tree removed
D	Cover of bracken *Pteridium aquilinum* is less than 20% and cover of scrub (including bramble *Rubus fruticosus* agg.) is less than 5%.	Yes	No bracken
E	Combined cover of species indicative of suboptimal condition[3] 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[4] (as listed on Schedule 9 of WCA[5]) are present, this criterion is automatically failed.	No	Some ragwort + Spear thistle

Additional Criterion - must be assessed for all non-acid grassland types			
F	There are 10 or more vascular plant species per m^2 present, including forbs that are characteristic of the habitat type (species referenced in Footnote 3 and 5 cannot contribute towards this count). **Note - this criterion is essential for achieving Good condition for non-acid grassland types only.**	NO	< 10 sp/m²
	Essential criterion for Good condition achieved (for non-acid grassland) (Yes or No)		
	Number of criteria passed		

Condition Assessment Result	Condition Assessment Score	Score Achieved ×/✓	
Acid grassland types (Result out of 5 criteria)			
Passes 5 criteria	Good (3)		
Passes 3 or 4 criteria	Moderate (2)		
Passes 2 or fewer criteria	Poor (1)		
Non-acid grassland types (Result out of 6 criteria)			Moderate
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)	Yes	
Passes 2 or fewer criteria; OR Passes 3 or 4 criteria excluding criterion A and F.	Poor (1)		

Suggested enhancement interventions to improve condition score

Notes

Footnote 1 - Professional judgement should be used alongside the UKHab description.

Footnote 2 – For example, this could include small, scattered areas of bare ground allowing for plant colonisation, or localised patches not exceeding 5% cover.

Footnote 3 - Species indicative of suboptimal condition for this habitat type include: creeping thistle *Cirsium arvense*, spear thistle *Cirsium vulgare*, curled dock *Rumex crispus*, broad-leaved dock *Rumex obtusifolius*, common nettle *Urtica dioica*, creeping buttercup *Ranunculus repens*, greater plantain *Plantago major*, white clover *Trifolium repens* and cow parsley *Anthriscus sylvestris*. There may be additional relevant species local to the region and or site.

Footnote 4 – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, by applying professional judgement.

Footnote 5 – Wildlife and Countryside Act 1981 (as amended).

APPENDIX 2
HABITAT MAPS

Figure 1 – Pre development habitats

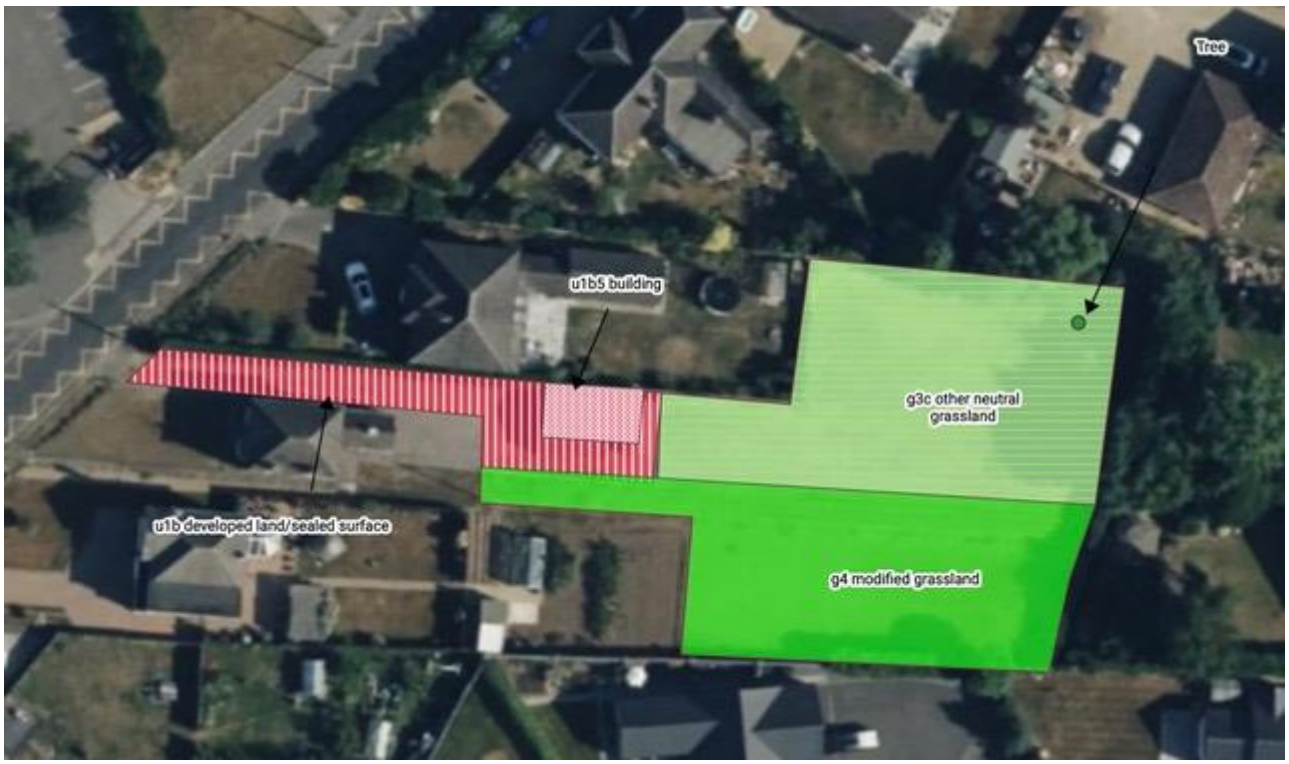


Figure 2 – Post development habitats