



Biodiversity Net Gain Report

**Land north of Lodge Cottage
Ashwell Road
Newnham
Baldock
SG7 5JX**

July 2024



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Declaration

This report has been produced endeavouring to follow the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct and ecological information has been provided in accordance with British Standards BS 42020 2013-Biodiversity-Code of practice for planning and development.

Whilst every effort has been taken to ensure this report accurately identifies potential ecological constraints to development or the likely presence or absence of species and the spatial and temporal use of the site by such species, it must only be viewed as a snap shot in time and reflects the ecological status of the site at the time of survey.

No liability can be assumed for ecological changes that may or may not occur on the surveyed site after the production of this report. The author of this report must be consulted as to the current applicability of the report if there are any seasonal delays in the use of this report.

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Quality Assurance

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Executive Summary

This report has been prepared by ELMAW Consulting Ltd and relates to a site known as land to the north of Lodge Cottage, Ashwell Road, in Newnham, Baldock, Hertfordshire (referred throughout this report as the application site).

The application site measures approximately 0.09ha and is located at grid reference TL246375 and at postcode SG7 5JX. It comprises an existing garden shed, ruderal/ephemeral vegetation and a vegetated garden. There are also very small areas of artificial, unsealed surface, a non-native ornamental hedgerow and two trees. To the north-west of the application site are paddocks and to the north-east, and south-west are the mature gardens of the other properties along the Ashwell Road, Newnham. The Ashwell Road runs along the south-eastern application site boundary.

It is proposed to redevelop the application site with a new residential dwelling, a new detached garage and associated hard and soft landscaping.

This report uses the Small Sites Metric (The Statutory Biodiversity Metric). Drawings of the proposed site layout have been provided by Colin Eades & Amy Moss and those used in the compilation of this report are listed below:

- *Proposed BNG Information* – Colin Eades & Amy Moss – Ref: AB 07A - July 2024

The habitats within the proposed redeveloped site include other neutral grassland (wildflower planting), vegetated gardens, a new native hedgerow, the retained ornamental hedgerow and new individual trees, including fruit trees planted over the wildflower grassland (creating a mini-orchard), to aid pollination. In addition, a total of 12 new trees will be planted within the newly redeveloped site.

The baseline habitats of the application site have been calculated to be worth 0.3581 Habitat Units (HUs) and the proposed habitat creation within the newly redeveloped site has been calculated to be worth 0.397 HUs, representing an increase of +0.0389 HUs or a biodiversity net gain of +10.86%.

The application site's baseline non-native ornamental hedgerow (which is to be retained) has been calculated to be worth 0.0250 Hedgerow Units (HRUs)

and this, along with the proposed new native hedgerow planting within the newly developed site have been calculated to be worth 0.3631 HRUs, representing a huge increase of +0.3381 HRUs or a biodiversity net gain of +1,352.32%.

1.0 Introduction

1.1 Background

- 1.1.1 The National Planning Policy Framework (NPPF) December 2023 places an emphasis on achieving net gain in all developments. The Environment Act 2021 states under Schedule 14 that provision is to be made *'for biodiversity gain to be a condition of planning permission in England.'*
- 1.1.2 Biodiversity Net Gain (BNG) is an approach to development. It ensures that habitats for wildlife are left in a measurably better state than they were before the development. In England, BNG became mandatory in February 2024, under Schedule 7A of the Town and Country Planning Act 1990 (as inserted by Schedule 14 of the Environment Act 2021).
- 1.1.3 Developers must deliver a BNG of 10%. This means a development will result in more or better quality natural habitat than there was before development. The BNG calculator that has been used in this assessment is the Small Sites Metric (The Statutory Biodiversity Metric).
- 1.1.4 In February 2024, Amy Moss Architectural Assistant, on behalf of the applicant, commissioned ELMAW Consulting to undertake a Biodiversity Net Gain survey and calculations for the application site.

1.2 Proposed Development

- 1.2.1 The proposals include the redevelopment of the very small application site with a new residential dwelling, new detached garage and associated soft and hard landscaping.

1.3 Objectives

- 1.3.1 The objectives of this report are to report the results of the completion of the Small Sites Metric (The Statutory Biodiversity Metric) spreadsheet, to determine the Biodiversity Net Gain/Loss for the proposed development and if necessary, make recommendations for increasing net gain in order to comply with national guidelines.

1.4 Suitably Qualified Ecologist

1.4.1 Best practice guidelines require that this report be completed by a Suitably Qualified Ecologist (SQE). BS42020:2013 defines a SQE as someone who:

- Holds a degree (or equivalent qualification, eg N/SVQ level 5) in an ecology related subject
- Has been a practicing ecologist with a minimum of 3 years relevant experience within the last five years
- Clearly demonstrates a practical understanding of factors affecting ecology in relation to construction and the built environment, including acting in an advisory capacity to provide recommendations for ecological protection, enhancement and mitigation measures
- Is bound by a professional code of conduct
- Is subject to peer review
- Is not acting or advising outside their professional competencies

1.4.2 This report, the surveys and condition assessments have been completed by Keith Seaman BSc, DipHE, CertHE, CBiol, MRSB, MCIEEM who meets the criteria for an SQE. Mr Seaman holds a Bachelor of Science Degree in Environmental Studies; Agri-Ecosystem Management, a Diploma of Higher Education in Ecology and a Certificate of Higher Education in Ecology and Conservation. His professional qualifications include membership of the Royal Society of Biology (RSB) registered as a Chartered Biologist and professional grade membership of The Chartered Institute of Ecology and Environmental Management (CIEEM). Keith Seaman also holds Natural England Survey, Research and Development licenses for all species of bat, badger (*Meles meles*), great crested newt (*Triturus cristatus*), otter (*Lutra lutra*), barn owl (*Tyto alba*) and dormouse (*Muscardinus avellanarius*).

1.4.3 Keith Seaman has been an academically qualified Ecologist since 1995 and a professionally qualified Ecologist since 2004 and since then has gained considerable experience working in both the public and private sectors carrying out Ecological Impact Assessments, protected species appraisals, developing mitigation strategies and undertaking Statutory Biodiversity Metric Assessments.

1.5 Ecological Context

1.5.1 A survey of the site to map the baseline habitats using the UKHab classification was undertaken by Mr Keith Seaman, Principal Ecologist with ELMAW

Consulting, assisted by Jasmine Stephenson, Assistant Ecologist with ELMAW Consulting.

2.0 Methodology

2.1 Small Sites Metric (The Statutory Biodiversity Metric)

- 2.1.1 The quantitative assessment uses the Small Sites Metric (The Statutory Biodiversity Metric) to provide a transparent and replicable numeric value of biodiversity before and after development. The values take a number of habitat attributes into consideration, these are tabulated below. These habitat attributes are either pre-populated by the Metric parameters or determined by information available on the pre-development baseline habitats or the post-development predicted habitats and professional judgement.

Habitats Attributes	Pre-populated Status
Area or length	Determined by available information and professional judgement
Distinctiveness	Determined by metric parameters
Condition	Determined by metric parameters
Strategic significance	Determined by available information and professional judgement
Time to target condition	Determined by metric parameters
Difficulty to create/restore	Determined by metric parameters

- 2.1.2 The pre-development baseline habitat value is compared with the predicted post-development habitat value to assess gain or loss using biodiversity units, giving a numeric value of biodiversity net gain likely to be achieved by the development.

Habitat Distinctiveness

- 2.1.3 Habitat distinctiveness is allocated as one of five possible bands, these bands are automated within Statutory Biodiversity Metric and these are tabulated below:

Distinctiveness	Score	Criteria
Very high	8	"Priority habitats as defined in Section 41 of the Natural Environment and Rural Communities (NERC) Act that are highly threatened, internationally scarce and require conservation action.' Small amount of remaining habitat with a high proportion unprotected by designation. Endangered or Critical European Red List habitats."
High	6	"Priority Habitats as defined in Section 41 of the NERC Act requiring conservation actions."

		<i>Remaining Priority Habitats not in very high distinctiveness band & other Red List habitats."</i>
Medium	4	<i>"Semi-natural habitats not classed as a Priority Habitat but with significant wildlife benefit eg mixed scrub. One Priority Habitat (arable field margins)."</i>
Low	2	<i>"Habitat of low biodiversity value eg temporary grass and clover ley. Agricultural and Urban land of lower biodiversity value."</i>
Very low	0	<i>"Little or no biodiversity value eg hard-standing or sealed surface."</i>

Habitat Condition

- 2.1.4 Habitat condition is allocated as one of five possible bands – *Poor, Moderate, Good, Condition Assessment N/A or N/A - other*. The condition criteria are specific to each habitat type and are automatically allocated by the Small Sites Metric. Some habitats do not have a condition score option (N/A – other), as are default low-scoring habitats (eg developed land, sealed surface).

2.2 Drawing and Measuring

- 2.2.1 Baseline habitat areas have been calculated using GIS software. Measurements taken from GIS have then been input into the Small Sites Metric calculation tool, providing both habitat and linear assessments.

2.3 Baseline Conditions

- 2.3.1 The baseline condition of the application site was established from data collected during a site visit carried out on the 31st of May 2024.
- 2.3.2 The habitat survey was conducted using UKHab Ltd (2023). *UK Habitat Classification Version 2.0*.

2.4 Post-Development Units

- 2.4.1 The predicted post-development biodiversity units were calculated based on figures provided from the proposal maps/drawings provided by Colin Eades and Amy Moss and are calculated in a similar way to the baseline units.
- 2.4.2 In addition to area, condition and distinctiveness of the proposed habitats risk factors are taken into account by the Metric. These include time taken for

created or enhanced habitats to reach target condition (Time to Target) and how difficult it is to create or enhance any given habitat (Difficulty of Creation).

2.5 ***Limitations***

- 2.5.1 This report deals solely with the Small Sites Metric (The Statutory Biodiversity Metric) and Biodiversity Net Gain. It does not cover any assessment of the impacts of the development on protected and notably important species and habitats or designated sites.
- 2.5.2 This report details the results based on the latest version of the proposed site plan and should this layout change for whatever reason in the future then the Biodiversity Net Gain results will need to be re-assessed.

3.0 Baseline Metric Results

3.1 Habitats on Site

Habitat (Area) Units

3.1.1 The existing habitats on the application site have been identified as:

- Ruderal/ephemeral
- Vegetated garden
- Artificial unvegetated, unsealed surface
- Developed land, sealed surface
- Individual trees - urban

Hedgerow Units

3.1.2 The existing hedgerows on the application site have been identified as:

- Non-native ornamental hedgerow

3.2 Irreplaceable Habitats

3.2.1 There are no irreplaceable habitats present on the application site.

3.3 Baseline Units

Site Habitat Baseline Units:

UKHab Category	Area (m ²)	Habitat Units	Habitat Units Lost
Ruderal/ephemeral	530	0.21	0.212
Vegetated garden*	356	0.07	0.030
Artificial unvegetated, unsealed surface	28	0.00	0.000
Developed land, sealed surface	29	0.00	0.000
Individual tree – urban*	81.39	0.0749	0.000
Total	943	0.3581	0.2424

*204m² Vegetated garden and all existing trees are to be retained.

Site Hedgerow Baseline Units:

Hedge No.	Hedgerow Type	Length (m)	Habitat Condition	Habitat Units
1	Non-native ornamental hedgerow*	25	Automatically allocated poor	0.0250
Total		25		0.0250

*Non-native ornamental hedgerow 1 is to be retained.

4.0 Post-development Metric Results

4.1 Habitats on Site

- 4.1.1 Drawing *Proposed BNG Information* dated July 2024, produced by Colin Eades & Amy Moss was used to calculate the post-development Biodiversity Units.

Post-development Area Units

UKHab Category	Habitat Area (m ²)	Habitat Units
Developed land, sealed surface	302	0.000
Other neutral grassland	100	0.0669
Vegetated garden	337	0.0650
Individual tree - urban	488.33	0.1493
Total (area excludes individual trees)	739	0.2813

Post-development Linear Units

UKHab Category	Hedgerow length (m)	Hedgerow Units
Native hedgerow	101	0.3381
Total	101	0.3381

Post-development Condition and Distinctiveness of Habitats

UKHab Category	Distinctiveness	Condition	Condition Justification
Developed land, sealed surface	Very low	N/A - other	Automatically allocated
Other neutral grassland	Medium	Moderate	Automatically allocated
Vegetated garden	Low	Condition Assessment N/A	Automatically allocated
Individual tree - urban	Medium	Moderate	Automatically allocated

5.0 Small Sites Metric (The Statutory Biodiversity Metric) Results Summary

5.1.1 Results of the Metric are tabulated below. A full copy of the Metric in Excel format will be supplied separately, for detailed reference, if required.

5.2 Summary of Habitat Units Post-Development

UKHab Category	Habitat Area (m ²)	Habitat Units delivered	Unit difference between baseline & post-development (including retained habitats)	% difference between baseline & post-development (including retained habitats)
Developed land, sealed surface	302	0.000	+0.0389	+10.86%
Other neutral grassland	100	0.0669		
Vegetated garden	337	0.0650		
Individual tree - urban	488.33	0.1493		

5.3 Summary of Hedgerow Units Post-Development

UKHab Category	Hedgerow Length (m)	Habitat Units delivered	Unit difference between baseline & post-development (including retained hedgerow)	% difference between baseline & post-development (including retained hedgerow)
Native hedgerow	101	0.3381	+0.3381	1,352.32%

5.4 Trading Results

5.4.1 As confirmed in the supporting Metric, trading rules are satisfied with regard to the relevant new habitat types delivered (in comparison to those that are lost) through the proposed habitat creation.

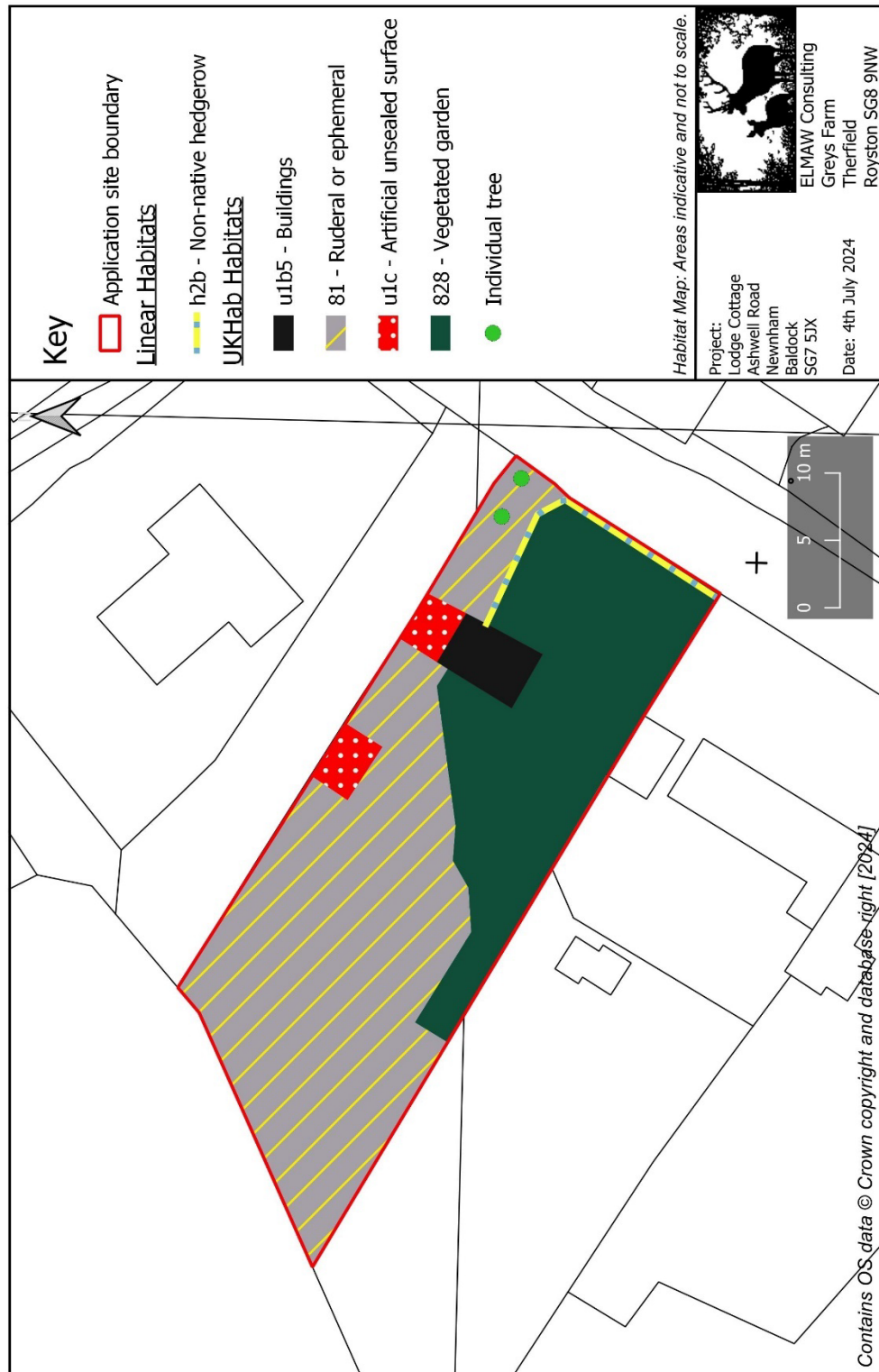
6.0 Conclusions

- 6.1.1 The results of the Small Sites Metric (The Statutory Biodiversity Metric) calculations have revealed that the habitat baseline of the application site is valued at 0.3581 Habitat Units and 0.0250 Hedgerow Units. The post-development habitats of the site are valued at 0.3970 Habitat Units and 0.3631 Hedgerow Units. This results in a Biodiversity Net Gain of +0.0389 Habitat Units (or +10.86%) and a Biodiversity Net Gain of +0.3381 Hedgerow Units (or +1,352.32%).
- 6.1.2 This assessment demonstrates that the requisite biodiversity net gain in both habitats and hedgerows will be achieved on-site as a result of the proposed redevelopment.

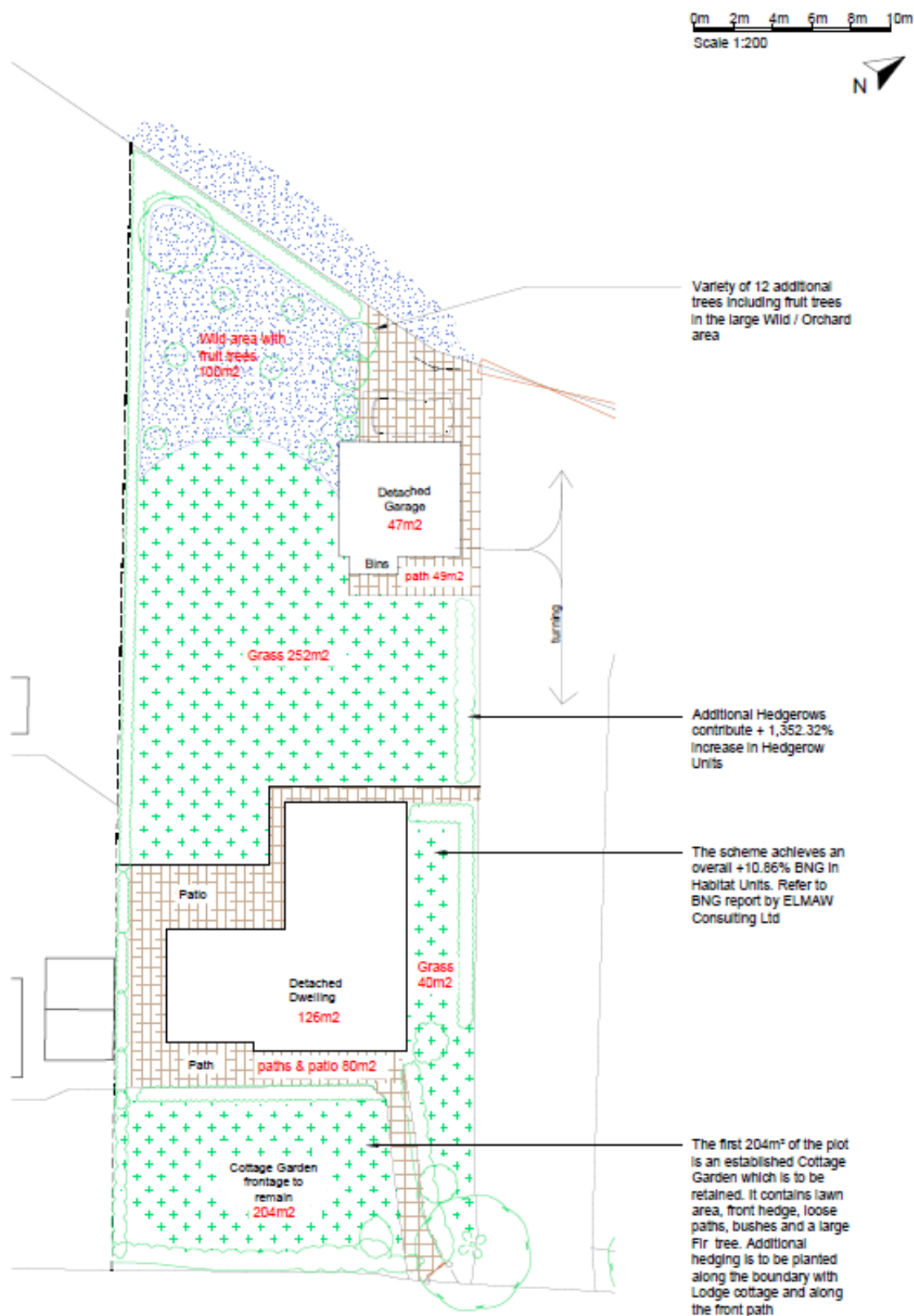
7.0 References

- Ref 1 Defra The Statutory Biodiversity Metric User Guide February 2024
- Ref 2 Natural England, 2023 - Statutory Biodiversity Metric calculation tool
- Ref 3 Natural England, 2023 – Statutory Biodiversity Metric Condition Assessments
- Ref 4 UKHab Ltd (2023) *UK Habitat Classification Version 2.0* (at <https://www.ukhab.org>)

8.0 Appendix 1 – Baseline Habitat Map



9.0 Appendix 2 – Habitat Creation



10.0 Appendix 3 – Small Sites Metric – Headline Results

Site Name		Lodge Cottage, Newnham, Baldock	
Sheet Name		Headline Results	
Headline Results			
Headline		BNG Targets Met ✓	
Trading Rules		Trading Rules Satisfied ✓	
Next steps		Check for input errors/rule breaks present in the metric ⚠	
Baseline Units	Habitat units	0.3581	
	Hedgerow units	0.0250	
	Watercourse units	Zero Units Baseline	
Post-development Units	Habitat units	0.3970	
	Hedgerow units	0.3631	
	Watercourse units	0.0000	
Total net unit change	Habitat units	0.0389 ✓	
	Hedgerow units	0.3381 ✓	
	Watercourse units	0.0000	
Total net % change	Habitat units	10.86% ✓	
	Hedgerow units	1352.32% ✓	
	Watercourse units	% target not appropriate	
Habitats units required to meet target		0.0000	
Hedgerow units required to meet target		0.0000	
Watercourse units required to meet target		0.0000	