

Biodiversity Net Gain Report

Land at Woodcotes
Sandon
Hertfordshire
SG9 0QZ

October 2025



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Date of Report

October 2025

Declaration

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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.

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Executive Summary

This report has been prepared by ELMAW Consulting Ltd and relates to a small site at Woodcotes, Hertfordshire (the site is referred throughout this report as the application site).

The application site measures approximately 0.65ha and is located at grid reference TL327355 and at postcode SG9 0QZ. It comprises areas of developed land sealed surface, artificial unvegetated unsealed surface, with small areas of vegetated garden, modified grassland, ruderal vegetation, bramble scrub, blackthorn scrub and several individual trees.

It is proposed to construct three new dwellings within the site, with associated gardens, parking areas and access.

This report uses the Statutory Biodiversity Metric. A drawing of the proposed site layout has been provided by Sworders – and this has been used in the compilation of this report:

- BNG Analysis – Proposed Areas – Sworders – Ref: 220230-PL-00-007 - September 2025

The habitats within the proposed redeveloped site include the partial retention of the developed land, sealed surface, some lengths of native hedgerow and non-native ornamental hedgerow, all the existing blackthorn scrub, all the existing vegetated garden and all the individual trees. As part of the proposals for the site a new traditional orchard will be planted (a national and Hertfordshire Biodiversity Action Plan Habitat).

The baseline habitats of the application site have been calculated to be worth 3.40 Habitat Units (HUs) and the proposed habitat creation within the newly redeveloped site (including the retained habitats) has been calculated to be worth 3.83HUs, representing an increase of +0.43HUs or a biodiversity net gain of +12.71%.

The hedgerows within the application site have been calculated to be worth 0.48 Hedgerow Units (HRUs) and the planting of proposed new native hedgerows, measuring approximately 185m, within the newly redeveloped site

has been calculated to be worth 0.67 Hedgerow Units (HRUs), representing an increase of +0.19 HRUs or a biodiversity net gain of +40.22% in HRUs.

The Statutory Biodiversity Metric Trading Rules are satisfied.

1.0 Introduction

1.1 Background

- 1.1.1 The National Planning Policy Framework (NPPF) 2024 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 Statutory Biodiversity Metric (February 2024).
- 1.1.4 In 2025, Sworders, on behalf of the applicant Gerri Jani, commissioned ELMAW Consulting to undertake a Biodiversity Net Gain survey and calculations for the application site.

1.2 Proposed Development

It is proposed to construct three new dwellings within the application site with associated gardens, soft landscaping, parking areas and access and a new traditional orchard.

1.3 Objectives

- 1.3.1 The objectives of this report are to report the results of the completion of the Statutory Biodiversity Metric spreadsheet, to determine the Biodiversity Net Gain/Loss for the proposed redevelopment 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 Jasmine Stephenson, Assistant Ecologist with ELMAW Consulting, on the 3rd of July 2025.

2.0 Methodology

2.1 The Statutory Biodiversity Metric

- 2.1.1 The quantitative assessment uses 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, within Statutory Biodiversity Metric and these are tabulated below:

Distinctiveness	Score	Criteria
Very high	8	<i>"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."</i>
High	6	<i>"Priority Habitats as defined in Section 41 of the NERC Act requiring conservation actions. Remaining Priority Habitats not in very high distinctiveness band & other Red List habitats."</i>

Medium	4	"Semi-natural habitats not classed as a Priority Habitat but with significant wildlife benefit eg mixed scrub. One Priority Habitat (arable field margins)."
Low	2	"Habitat of low biodiversity value eg temporary grass and clover ley. Agricultural and Urban land of lower biodiversity value."
Very low	0	"Little or no biodiversity value eg hard-standing or sealed surface."

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. 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 Metric calculation tool, providing both habitat and linear assessments (if present).

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 3rd July 2025.
- 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 *BNG Analysis Proposed Areas* drawing provided by Sworders 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 Statutory Biodiversity Metric and Biodiversity Net Gain. It does not cover any assessment of the impacts of the redevelopment 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 available at the time of reporting. 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:

- Developed land, sealed surface
- Artificial unvegetated unsealed surface
- Modified grassland
- Ruderal or ephemeral
- Bramble scrub
- Vegetated garden
- Blackthorn scrub
- Individual tree - urban

Hedgerow Units

3.1.2 There are two hedgerows within the application site, identified as:

- Non-native and ornamental hedgerow
- Native hedgerow

3.2 Irreplaceable Habitats

3.2.1 There are no irreplaceable habitats present within the application site at this time.

3.3 Baseline Units

Site Habitat Baseline Units:

UKHab Category	Area (ha)	Habitat Units	Habitat Units Lost
Developed land, sealed surface	0.174	0.00	0.00
Artificial unvegetated unsealed surface	0.081	0.00	0.00
Modified grassland	0.034	0.07	0.07
Ruderal or ephemeral	0.044	0.09	0.09
Bramble scrub	0.054	0.22	0.22
Vegetated garden	0.26	0.52	0.00
Blackthorn scrub	0.001	0.00	0.00
Totals	0.65	0.90	0.37
Individual trees - urban	0.218	2.51	0.00
Totals		3.40	0.37

Site Habitat Baseline Units Retained

UKHab Category	Area (ha) retained	Habitat Units retained
Developed land, sealed surface	0.03	0.00
Artificial unvegetated unsealed surface	0.062	0.00
Vegetated garden	0.26	0.52
Individual trees - urban	0.2181	2.51
Blackthorn scrub	0.001	0.00
Totals	0.57	3.03

Site Hedgerow Baseline Units:

Hedge No.	Hedgerow Type	Length (km)	Hedgerow Condition	Hedgerow Units	Hedgerow Units to be retained
1	Non-native/ ornamental hedgerow	0.067	Poor	0.07	0.03
2	Native hedgerow	0.068	Good	0.41	0.28
Totals		0.14		0.48	0.31

4.0 Post-development Metric Results

4.1 Habitats on Site

- 4.1.1 Drawing *BNG Analysis Proposed Areas* dated September 2025, produced by Sworders was used to calculate the post-development Biodiversity Units.

Post-development Area Units (not including retained habitat areas)

UKHab Category	Habitat Area (ha)	Habitat Units
Developed land, sealed surface	0.1	0.00
Artificial unvegetated, unsealed surface	0.031	0.00
Vegetated garden	0.039	0.08
Other neutral grassland (wildflower planting)	0.021	0.18
Traditional orchard	0.11	0.55
Total (area excludes individual trees)	0.30	0.80

Post-development Hedgerow Units

UKHab Category	Hedgerow length (km)	Hedgerow Units
Native hedgerow	0.185	0.36
Total	0.185	0.36

Post-development Distinctiveness and Condition of Habitats

UKHab Category	Distinctiveness	Condition
Developed land, sealed surface	Very Low	N/A – other
Artificial unvegetated, unsealed surface	Very Low	N/A – other
Vegetated garden	Low	Condition assessment N/A
Other neutral grassland	Medium	Good
Traditional orchard	High	Poor

5.0 Statutory Biodiversity Metric Results Summary

- 5.1.1 The results of the Statutory Biodiversity Metric calculations 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 (ha)	Habitat Units delivered	Unit difference between baseline & post-development (including retained habitats)	% difference between baseline & post-development (including retained habitats)
Developed land, sealed surface	0.1	0.00	+0.43	+12.71%
Artificial unvegetated, unsealed surface	0.031	0.00		
Vegetated garden	0.039	0.08		
Other neutral grassland	0.021	0.18		
Traditional orchard	0.11	0.55		

5.3 Summary of Hedgerow Units Post-Development

UKHab Category	Hedgerow Length (km)	Habitat Units delivered	Unit difference between baseline & post-development (including retained hedgerow)	% difference between baseline & post-development (including retained hedgerow)
Native hedgerow	0.185	0.36	+0.19	+40.22%

5.4 Trading Results

- 5.4.1 The Statutory Biodiversity Metric Trading Rules Have been satisfied.

6.0 Conclusions

- 6.1.1 The results of the Statutory Biodiversity Metric calculations have revealed that the habitat baseline of the application site is valued at 3.40 Habitat Units and 0.48 Hedgerow Units. The post-development habitats of the site are valued at 3.83 Habitat Units and 0.67 Hedgerow Units. This results in a Biodiversity Net Gain of +0.43 Habitat Units (or +12.71%) and a Biodiversity Net Gain of +0.19 Hedgerow Units (or +40.22%).
- 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.
- 6.1.3 The Trading Rules have been satisfied.

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

8.1 Baseline Habitat Map



9.0 Appendix 2

9.1 Statutory Biodiversity Metric - Headline Results

On-site baseline	Habitat units	3.40		
	Hedgerow units	0.48		
	Watercourse units	0.00		
On-site post-intervention (Including habitat retention, creation & enhancement)	Habitat units	3.83		
	Hedgerow units	0.67		
	Watercourse units	0.00		
On-site net change (units & percentage)	Habitat units	0.43		
	Hedgerow units	0.19		
	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	0.43		
	Hedgerow units	0.19		
	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	0.43		
	Hedgerow units	0.19		
	Watercourse units	0.00		
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	12.71%		
	Hedgerow units	40.22%		
	Watercourse units	0.00%		
Trading rules satisfied?	Yes ✓			
Unit Type	Target	Baseline Units	Units Required	Unit Deficit
Habitat units	10.00%	3.40	3.74	0.00
Hedgerow units	10.00%	0.48	0.52	0.00
Watercourse units	10.00%	0.00	0.00	0.00