

Biodiversity Net Gain Report

For:	Yorkshire Land
Site:	Land Adjoining Smithy House, Bower Hill Road, Oxspring, Sheffield, S36 8WZ
Report Date:	15 th of December 2025
Report Reference:	SQ-3283

Surveying Ecologists:

Marie McAvan BSc (Hons) MSc



Client:	Yorkshire Land
Site Name:	Land Adjoining Smithy House, Bower Hill Road, Oxspring, Sheffield, S36 8WZ
Report:	Biodiversity Net Gain Assessment
Survey Date:	13 th of May 2025
Surveyed by:	Marie McAvan BSc (Hons) MSc John Davies BSc (Hons)

Issue:	Revision:	Stage:	Date:	Prepared by:	Approved by:
-	-	Draft	29/10/2025	Marie McAvan BSc (Hons) MSc – Estrada Ecology Ltd.	Natasha Estrada MRes, MCIEEM-Estrada Ecology Ltd
1	V1	Final	29/10/2025	Marie McAvan BSc (Hons) MSc – Estrada Ecology Ltd.	Natasha Estrada MRes, MCIEEM-Estrada Ecology Ltd
2	V2	Amendment	10/11/2025	Marie McAvan BSc (Hons) MSc – Estrada Ecology Ltd.	Natasha Estrada MRes, MCIEEM-Estrada Ecology Ltd
3	V3	Amendment	27/11/2025	Marie McAvan BSc (Hons) MSc – Estrada Ecology Ltd.	Natasha Estrada MRes, MCIEEM-Estrada Ecology Ltd
4	V4	Amendment	04/12/2025	Marie McAvan BSc (Hons) MSc – Estrada Ecology Ltd.	Natasha Estrada MRes, MCIEEM-Estrada Ecology Ltd
5	V5	Amendment	11/12/2025	Marie McAvan BSc (Hons) MSc – Estrada Ecology Ltd.	Natasha Estrada MRes, MCIEEM-Estrada Ecology Ltd



1 Executive Summary

- 1.1 For the proposed development scheme for the site, a net loss of -82.12% for area habitat units is calculated. Conversely, a net gain of 126.19% for linear habitat units is calculated. Furthermore, the Trading Summaries for area habitats have not been satisfied by the proposed development scheme.

2 Introduction

- 2.1 Biodiversity metric calculations were requested by the client to determine the extent of net loss, no net loss, or net gain for the proposed development plan for the site.
- 2.2 Biodiversity metric calculations were therefore undertaken for baseline and post-development habitats for the development site, using the Statutory Biodiversity Metric Calculation Tool developed by DEFRA. This assessment evaluates the impact of current development proposals on existing biodiversity value within the development site.

3 Baseline and Post Development Scheme Designs

- 3.1 Figure 1 presents the UK HABS habitat classification map for the site baseline as informed by a site visit on the 13th of May 2025 by assistant ecologist Marie McAvan BSc (Hons) MSc, accompanied by ecologist John Davies BSc (Hons).
- 3.2 Figure 2 presents a summary of Statutory Metric results for the current development proposal.
- 3.3 Appendix One presents the current proposed development scheme used within the Metric calculations.

Survey Information

Site boundary	(3,362.0m²)
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Proposed Landscaping

g4 - Modified grassland	(1,222.4m²)
B1 - Ruderal or ephemeral	(2,139.6m²)
h2a - Native hedgerow	(26.4m)
u1e - Built linear features, stone wall	(103.6m)
32 - Scattered tree	(4)
32 - Scattered tree, recently felled	(9)

PROJECT TITLE
LAND ADJOINING SMITHY HOUSE, OXSPRING

DRAWING TITLE
Figure 1. Baseline Site Plan

VER.	DATE	REMARKS	Drawn	Checked
1.0	14/05/25	Baseline	MP	MB

DRAWING NUMBER
EstradaEcology/SmithyHouseOxpring/Baseline

EstradaEcology

Scale
1:425

4 Methodology

- 4.1 The Environment Bill (2020) seeks to improve biodiversity through several means, including the introduction of a mandatory requirement for new developments to achieve a minimum of 10% biodiversity net gain, which will be managed as such for a minimum of 30 years after the development has been completed (Environment Bank, 2021). Key parts of the Environment Bill which relate to biodiversity net gain and its delivery are Part 6 Nature and Biodiversity and the supporting Schedule 14, particularly sections 9(3), 13(2), 14(2) and 15.
- 4.2 Development proposals submitted after 12th February 2024, with some exceptions, will be expected to achieve a minimum of 10% net gain in site biodiversity value under The Environment Act 2021 (Commencement No. 8 and Transitional Provisions) Regulations 2024. This development predates the mandatory 10% net gain requirement; however, no overall net loss has been requested regarding this development.
- 4.3 The Statutory Biodiversity Metric Tool was used to calculate biodiversity units for baseline and post-development units for the development site, to determine if the proposed development will be likely to achieve net loss, no net loss, or net gain of biodiversity units.
- Individual habitat areas / lengths were rounded to four decimal places, with the minimum mappable unit being 0.0001 hectares. The canopy areas of Individual trees were calculated using the Urban Tree Helper tool included within the metric calculator. Linear habitat features such as hedgerows and ditches are measured in kilometres, where present.
 - Habitat condition indicates the quality of the habitat, either existing or to be achieved, based on the habitat condition assessments using the Statutory Biodiversity Metric – Technical Annex 1: Condition Assessment Sheets and Methodology.
 - Habitats were assessed for their strategic significance at a landscape scale, using information from sources such as Local Plans, Biodiversity Action Plans, and Nature Recovery Areas to determine their significance within a specific landscape. If habitats weren't included within published reports, significance was determined by their contribution to habitat connectivity and green corridors.

- 4.4 Biodiversity unit calculations are based on the retention and / or enhancement of existing habitats within the proposed scheme design, as well as the creation of new habitats. Biodiversity units for hedgerow and watercourse habitats (linear) are calculated separately from area habitats within the metric.

5 Assumptions and Limitations

- 5.1 Habitat areas are rounded up or down to the nearest whole value, with a minimal mappable unit of 0.0001 hectares. However, the overall total of site habitat area and biodiversity units within the Statutory Metric are calculated and accurate to two decimal places.
- 5.2 Habitat areas used in the calculations are based on two-dimensional plans and so will not necessarily consider an increase in overall surface area as a result of slopes and banks.
- 5.3 The site baseline was assessed inside of the recognised growing season, April to September (inclusive), therefore the habitats are required to be condition assessed, as outlined in the Statutory Biodiversity Metric Guide. However, due to degradation of the grassland on site, a precautionary approach has been taken in assessing the condition score of grassland on site.

6 Biodiversity Net Gain

- 6.1 The total baseline for biodiversity units for the site was calculated at 4.18 area habitat units, and 0.06 linear (hedgerow) units present at the baseline. No watercourse units were present on the baseline. No irreplaceable habitats are present at the baseline.
- 6.2 The site post-development is calculated to have a total value of 0.75 area habitat units and 0.14 linear units with no watercourse units proposed.

Figure 2: Summary of DEFRA Metric Calculations Results.

FINAL RESULTS				
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	-3.43		
	Hedgerow units	0.08		
	Watercourse units	0.00		
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	-82.12%		
	Hedgerow units	126.19%		
	Watercourse units	0.00%		
Trading rules satisfied?	No - Check Trading Summaries ▲			
Unit Type	Target	Baseline Units	Units Required	Unit Deficit
Habitat units	10.00%	4.18	4.59	3.85
Hedgerow units	10.00%	0.06	0.07	0.00
Watercourse units	10.00%	0.00	0.00	0.00

7 Overall Development

- 7.1 Overall, the proposals for the current development scheme will result in a net loss of -3.43 habitat area units, representing a -82.12% net loss for this unit category. Conversely, the proposals will result in a net gain for linear habitats of 0.08 units, representing a 126.19% net gain.
- 7.2 In addition, the Trading Summaries have not been satisfied for this development proposal by the current scheme. Medium distinctiveness 'Rural Trees' of various sizes have been replaced with predominantly urban habitats. The trading summaries for linear habitats are satisfied.

8 Summary and Recommendations

- 8.1 The site under the current proposed development scheme is predicted to achieve -3.43 unit loss for area habitats which equates to a -82.12% net loss. For linear habitats, a 0.08 unit gain is calculated which equates to a 126.19% net gain for linear habitat units.
- 8.2 The proposed scheme is calculated to not achieve the target 10% net gain for the habitat types present on the baseline. In addition, the Trading Summaries for area habitats are not satisfied. To satisfy the trading

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summaries, a further 3.85 area habitat units are required, 1.72 units of these being medium distinctiveness 'Individual Tree' habitat units (or units of higher distinctiveness) required. The remaining units can be of any distinctiveness.

- 8.3 Given the site post development and the areas available for suitable planting, it is considered that fully compensating for these units on site will not be feasible as vegetated gardens cannot be used for additional plantings (DEFRA 2024).
- 8.4 It is considered that with the current proposed scheme, offsetting will be required to achieve the 10% net gain targets for this development. Offsetting can be achieved following agreement with the local planning authority (LPA). Suitable offsetting providers include but are not limited to the LPA, local Wildlife Trusts, or the Environment Bank, who should be consulted to discuss whether offsetting is achievable.
- 8.5 If offsetting is not achievable for the required units, a S106 agreement may be achievable following discussions with the LPA. The calculations in this report are based on target habitat conditions post development and post-management, taking future land use and public access into consideration.
- 8.6 It is recommended that an updated Biodiversity Net Gain report with updated calculations is completed should current development and landscaping proposals change in any way. An updated report will review habitat condition scores of habitats and will consider any changes in a final masterplan.

References

Environment Bank (2015) Biodiversity Impact Calculator – Guidance for Use. Environment Bank.

Environment Bank (2016) Biodiversity Accounting – An introduction. Environment Bank.

Environment Bank (2021) The Environment Bill and Biodiversity Net Gain Delivery. Available online at <https://www.environmentbank.com/blog/the-environment-bill-and-biodiversity-net-gain-delivery-what-planning-authorities-need-to-know/> (February 2024)

DEFRA (2024) The Statutory Biodiversity Metric User Guide

UK HABS (2023) The UK Habitat Classification: Habitat Definitions. Version 2.0



Appendix One: Proposed development plan – measured.

