

Biodiversity Net Gain Report

For:	Amber Major
Site:	Land off Knightsbridge Road, Messingham, DN17 3RA
Report Date:	8 th August 2024
Report Reference:	SQ-2036



Client:	Amber Major
Site Name:	Land off Knightsbridge Road, Messingham, DN17 3RA
Report:	Biodiversity Net Gain Assessment
Survey Date:	04 th May 2024
Surveyed by:	Fern Harrison BSc (hons), MSc

Issue:	Revision:	Stage:	Date:	Prepared by:	Approved by:
1	-	Draft for review	4 th May 2024	Fern Harrison BSc (hons) MSc, Estrada Ecology Ltd	Sam Toon BSc (hons), Estrada Ecology Ltd
2	-	FINAL	7 th June 2024	John Davies BSc (hons), Estrada Ecology Ltd	Natasha Estrada BSc (hons), MRes, MCIEEM, Estrada Ecology Ltd
3	2	FINAL version 2	8 th August 2024	Fern Harrison BSc (hons) MSc, Estrada Ecology Ltd	Sam Toon BSc (hons), Estrada Ecology Ltd

1 Executive Summary

- 1.1 Overall, the proposals for the current development scheme will result in a net gain of +0.05 area habitat units, representing a +12.63% net gain for area habitats.
- 1.2 The Trading Summaries were satisfied within the current development proposals.

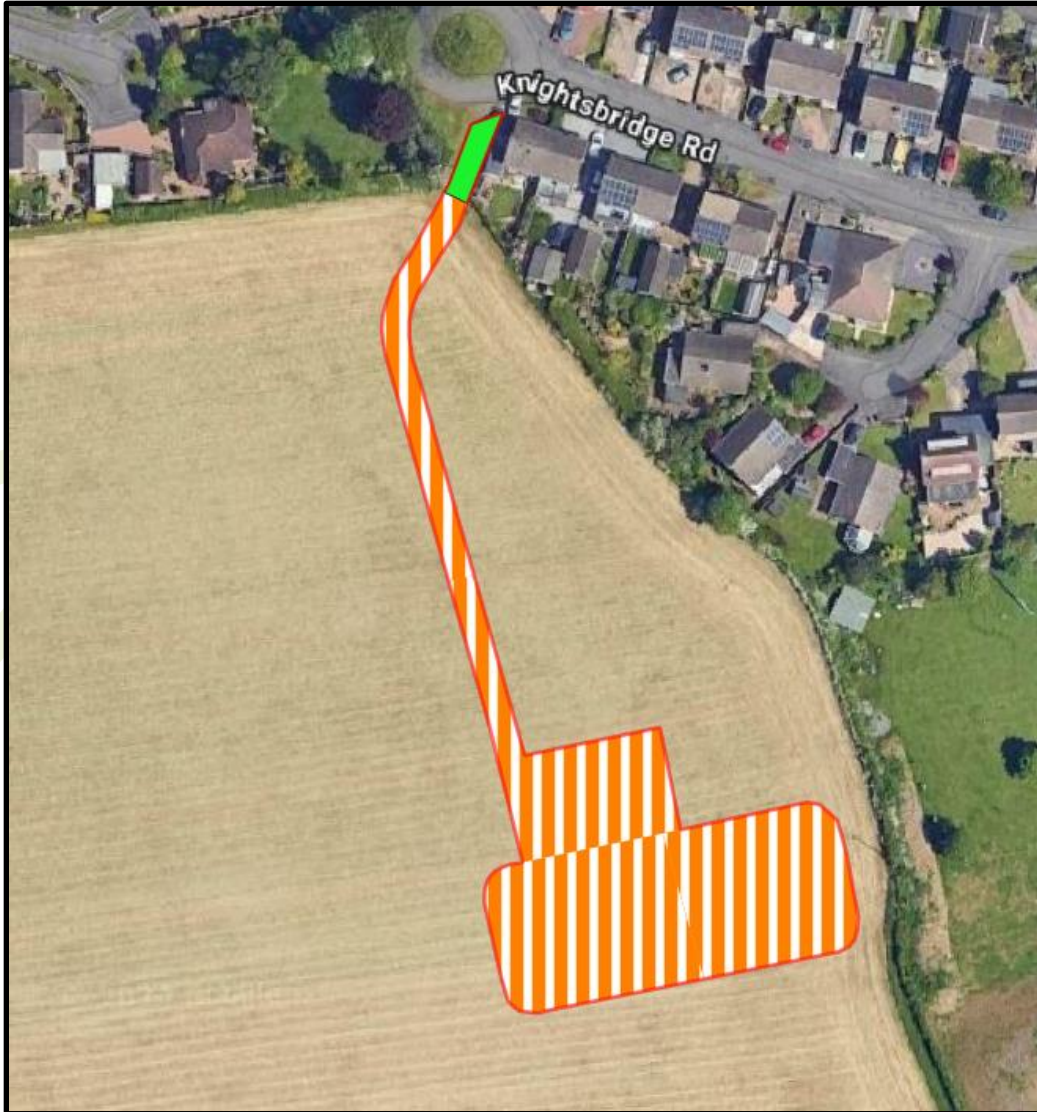
2 Introduction

- 2.1 Biodiversity metric calculations were requested by the client to determine the extent of net loss, no net loss, or net gain for proposed development plan for the site. The calculations were required for submission as part of a planning application, in accordance with local and national planning policies.
- 2.2 Biodiversity metric calculations were therefore undertaken for baseline and post-development habitats for the development site, using the Statutory Biodiversity Metric) developed by DEFRA. This assessment evaluates the impact of current development proposals on existing biodiversity resources within the development site.
- 2.3 The site area has been calculated at 0.22 hectares.




3 Baseline and Post Development Scheme Designs

- 3.1 Figure 1 presents the baseline UK HABS habitat classification map for the site as identified via field survey (May 2024).
- 3.2 Figure 2 presents a summary of Statutory Metric results for the current development proposal.
- 3.3 Appendix 1 shows the proposed development scheme.

Figure 1 : Baseline UK HABS Habitat Classification Map



Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community.

Baseline Habitats Key		UK HABS Codes	
		Primary	Secondary
	Redline Development Boundary	-	-
	Modified Grassland	g4	106
	Temporary Grass and Clover Leys	c1b	-

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 A survey of the site conducted in May 2024 recorded baseline habitats which were classified according to UKHABS Habitat Classification (2024), as shown in Figure 1.
- 4.3 The Statutory Metric 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 three 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.
- The strategic significance of all baseline habitats has been considered as "Area/compensation not in local strategy/ no local strategy" for all baseline habitats, following a review of the 'Lincolnshire Biodiversity Action Plan 2011 - 2020'.
- The distinctiveness of each habitat type is automatically calculated within the Statutory Metric tool.

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 habitat 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 This BNG assessment has been calculated using the Statutory metric and follows guidance and best practice at the time of the initial assessment.

6 UK HABS Habitat Classification Codes

6.1 The UK HABS habitat classifications used within the Statutory Biodiversity Metric and applicable to the site pre- and post-development are provided in Table 1 with their associated habitat codes.

Table 1. UK HABS Classification with Codes Used in the Metric

Habitats		UK HABS Codes	
<i>Pre-development</i>	<i>Post-development</i>	<i>Primary</i>	<i>Secondary</i>
Modified Grassland	Developed Land; Sealed Surface	g4	106
Temporary Grass and Clover Leys	Developed Land; Sealed Surface	c1b	-
Temporary Grass and Clover Leys	Artificial Unvegetated Unsealed Surface	u1c	-
-	Developed Land (Buildings)	u1b5	-
-	Individual Trees	-	200

7 Biodiversity Net Gain

7.1 The total baseline for biodiversity units for the site were calculated at 0.43 area habitat units. No watercourse units or hedgerow units were calculated at the baseline. No irreplaceable habitats are present at the baseline.

7.2 A total of 0.13 units can be delivered on site post development via the planting of eight small native trees of good condition.

7.3 A total of 0.36 units can be delivered off site within the blue line boundary via the planting of 23 new small native trees of good condition.

8 Overall Development

- 8.1 Overall, the proposals for the current development scheme will result in a net gain of +0.05 area habitat units, representing a + 12.63% net gain for area habitats (Figure 2).
- 8.2 The Trading Summaries are satisfied for the current development proposal.

Figure 2: Summary of Statutory Metric Results

FINAL RESULTS					
Total net unit change <small>(Including all on-site & off-site habitat retention, creation & enhancement)</small>	Habitat units	0.05			
	Hedgerow units	0.00			
	Watercourse units	0.00			
Total net % change <small>(Including all on-site & off-site habitat retention, creation & enhancement)</small>	Habitat units	12.63%			
	Hedgerow units	0.00%			
	Watercourse units	0.00%			
Trading rules satisfied?	Yes ✓				
Unit Type	Target	Baseline Units	Units Required	Unit Deficit	
Habitat units	10.00%	0.43	0.47	0.00	No additional area habitat units required to meet target ✓
Hedgerow units	10.00%	0.00	0.00	0.00	No additional hedgerow units required to meet target ✓
Watercourse units	10.00%	0.00	0.00	0.00	No additional watercourse units required to meet target ✓

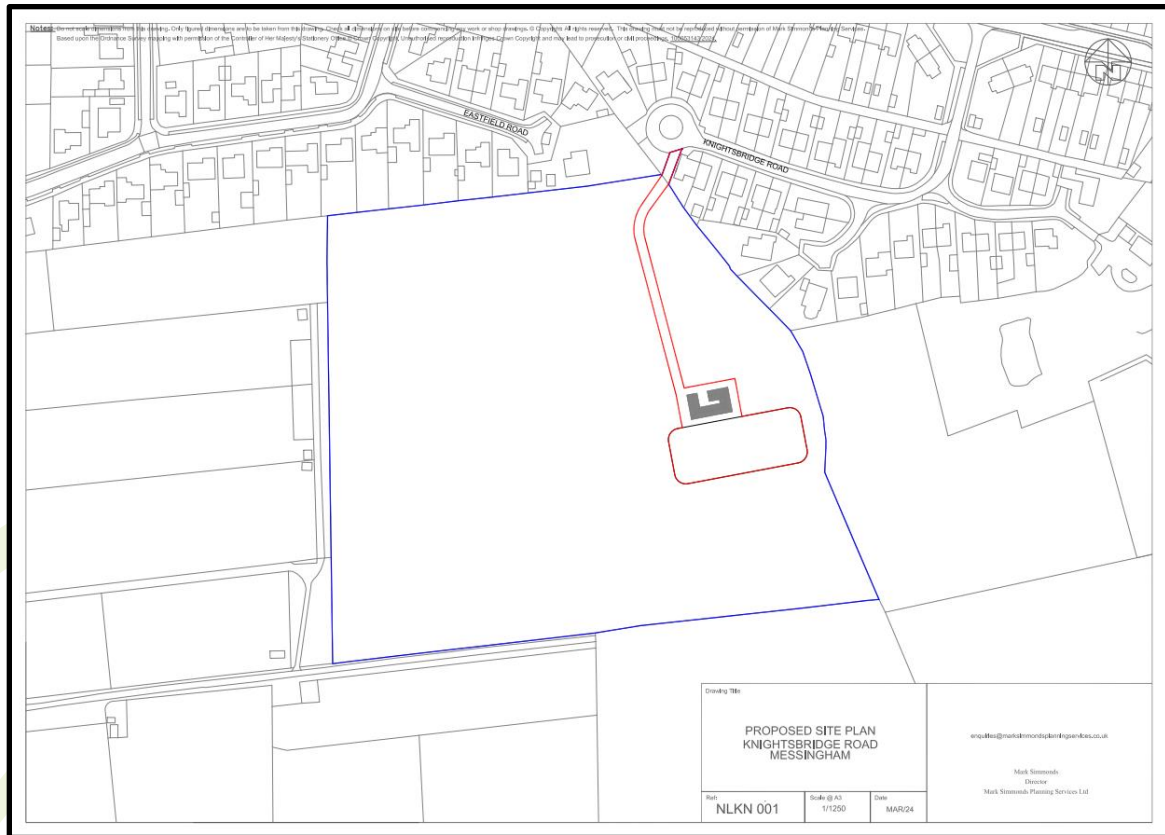
9 Recommendations

- 9.1 The site under the current proposed development scheme will result in a net gain of over ten percent for area habitat biodiversity units. Consequently, the Trading Summaries for area habitats are satisfied in the metric results.
- 9.2 The post-development on site habitats are comprised of very-low distinctiveness habitats and a single medium distinctiveness habitat (individual trees).




- 9.3 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 take into account any changes in a final landscape masterplan.



Appendix One: Proposed Post-Development Scheme



Appendix Two: Baseline Habitat Areas on Site

Baseline Habitats Key		Calculated Areas / Lengths
	Redline Development Boundary	-
	Modified Grassland	0.005 ha
	Temporary Grass and Clover Leys	0.21 ha



References:

Lincolnshire Biodiversity Partnership (2011 - 2020) Lincolnshire Biodiversity Action Plan. Available online at <https://www.nelincs.gov.uk/wp-content/uploads/2016/02/2011110-LincolnshireBAP-3rd-edition.pdf>

Department for Environment, Food and Rural Affairs (DEFRA) (2020). Documents related to the 2020 Environment Bill. Available online at: <https://www.gov.uk/government/publications/environment-bill-2020>

DEFRA (2024) The Statutory Biodiversity Metric User Guide. Available online at https://assets.publishing.service.gov.uk/media/65c60e0514b83c000ca715f3/The_Statutory_Biodiversity_Metric_-_User_Guide_.pdf

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/>

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

