

Biodiversity Net Gain Report

For:	JJL Design and Build
Site:	1 Peckleton Lane, Desford, Leicester, LE9 9JT
Report Date:	9 th September 2024
Report Reference:	SQ-2349

Client:	JJL Design and Build
Site Name:	1 Peckleton Lane, Desford, Leicester, LE9 9JT
Report:	Biodiversity Net Gain Assessment
Survey Date:	3 rd April 2024
Surveyed by:	Sam Toon BSc (hons)

Issue:	Revision:	Stage:	Date:	Prepared by:	Approved by:
1	-	Draft for review	6 th September 2024	Sam Toon BSc (hons), Estrada Ecology Ltd	Natasha Estrada MRes, MCIEEM, Estrada Ecology Ltd
2	n/a	FINAL	6 th September 2024	Sam Toon BSc (hons), Estrada Ecology Ltd	Natasha Estrada MRes, MCIEEM, Estrada Ecology Ltd
3	Revision B	Final V2	22 nd November 2024	Sam Toon BSc (hons), Estrada Ecology Ltd	Natasha Estrada MRes, MCIEEM, Estrada Ecology Ltd

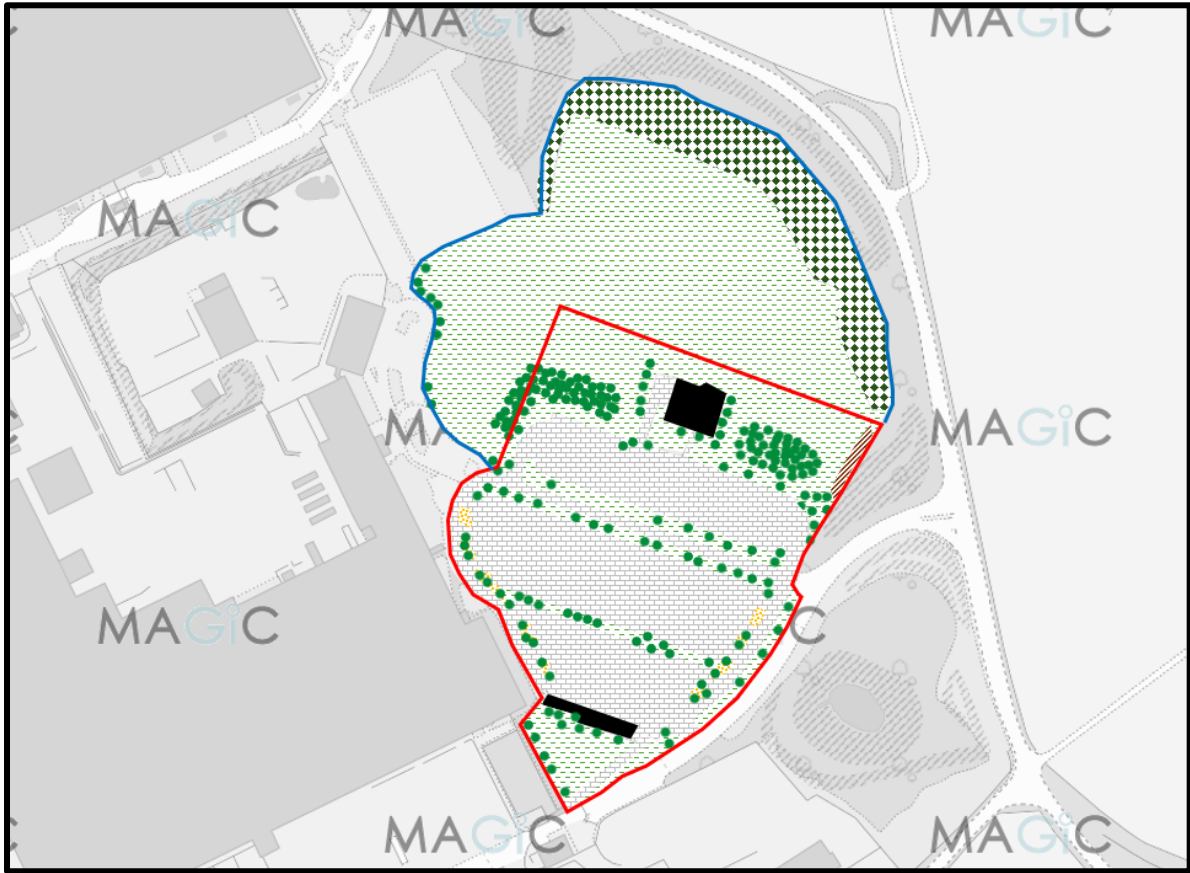
1.1 Introduction

- 1.1.1 Biodiversity Metric calculations were requested by the client to determine the extent of net loss, no net loss, or net gain for the Biodiversity Net Gain requirements of Hinckley and Bosworth Borough Council. The calculations were required for submission as part of a planning application, in accordance with local and national planning policies.
- 1.1.2 Biodiversity Metric calculations were therefore undertaken for baseline and post-development habitats for the development site, using the Defra Statutory Metric tool developed by DEFRA. This assessment evaluates the impact of current development proposals on existing biodiversity resources within the development site.

1.2 Baseline and Post Development Scheme Designs

- 1.2.1 The UK HABS habitat classification map in Figure 1 summarises the habitats identified via field survey undertaken in April 2024.
- 1.2.2 Figure 2 provides a map of the proposed areas for offsetting required within the scheme.
- 1.2.3 Figure 3 presents the summary of the DEFRA metric calculations.
- 1.2.4 Figure 4 shows the deficits that exist within the metric related to the scheme.

Figure 1 : UK HABS Habitat Classification Map



Magic Map

KEY	UK Habs Code	
Site Boundary		
Wider Site Boundary (Surveyed)		
Built Linear Features	u1e	
Developed Land, Sealed Surface	u1b	
Mixed Scrub	h3h	
Modified Grassland	g4	
Mixed Woodland	w1h5	
		Secondary Codes
Scattered Trees	32	
Introduced Shrub	847	

1.3 Methodology

- 1.3.1 The Environment Bill (2020) seeks to improve biodiversity through several means, including the implementation 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.
- 1.3.2 Baseline habitats were surveyed, and their condition assessed during a site assessment in April 2024 and based on the UK HABS Habitat Classification map (Figure 1). Post-development habitats were measured using AutoCAD 2022, based on the planting scheme of the proposed development.
- 1.3.3 The DEFRA Statutory Metric was used to calculate biodiversity units for baseline and post-development habitats 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.
- Habitat areas were rounded, with the minimum mappable unit being one square meter. The canopy areas of Individual trees were calculated using the Urban Tree Helper tool. Linear habitat features such as hedgerows and ditches were measured in meters.
 - 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.

- 1.3.4 Biodiversity unit calculations are based on the retention and/or enhancement of existing habitats within the proposed scheme design, and the creation of new habitats. Biodiversity units for linear habitat features are calculated separately within the metric.

1.4 Limitations

- 1.4.1 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 Biodiversity Metric 4.0 are calculated and accurate to two decimal places.
- 1.4.2 Habitat areas used in the calculations are based on two-dimensional plans, and so will not necessarily take into account an increase in overall surface area as a result of slopes and banks.

1.5 UK HABS Habitat Classification Codes

- 1.5.1 The UK HABS habitat classifications used within the DEFRA Statutory Metric and applicable to the site are provided in Table 1 with their associated habitat codes.

Table 1 : UK HABS habitat classifications and codes

Phase 1 Habitat Type	Primary Code	Secondary Codes
On-site		
Built Linear Features	u1e	-
Developed Land, Sealed Surface	u1b	-
Mixed Scrub	h3h	-
Modified Grassland	g4	-
Scattered Trees	-	32
Introduced Shrub	-	847
Off-site		
Mixed Woodland	w1h5	-
Modified Grassland	g4	-
Scattered Trees	-	32

1.6 Biodiversity Net Gain

- 1.6.1 The total baseline habitat biodiversity units for the site were calculated at 15.54 units. No hedgerow units were calculated. No river units were present at the baseline. No irreplaceable habitats are present at the baseline.
- 1.6.2 The total biodiversity units of on-site habitats post development are 8.60 units for habitats. No linear units are proposed post-development.
- 1.6.3 Under current development proposals, post-development habitats on-site with their target conditions will result in a net loss of 44.68% (-6.94 units).
- 1.6.4 Further land within the ownership was investigated for their baseline values as a result of the net loss in line with the scheme. This is shown in Figure 2.

Figure 2: Proposed Offsetting Areas within the wider site.



- 1.6.5 The total off-site baseline habitat biodiversity units were calculated at 1.85 units, comprising solely of poor modified grassland. No hedgerow units were calculated. No river units were present at the baseline. No irreplaceable habitats are present at the baseline.
- 1.6.6 The total biodiversity units of off-site habitats post development are 5.14 units for habitats, utilising tree plantings required for the trading summary deficit. No linear units are proposed post-development.
- 1.6.7 Overall, when considering onsite and off-site habitats at both baseline and creation, the scheme is deemed to achieve a -23.50% net loss, representing a -3.65 net unit loss. Furthermore, a deficit of 4.70 units is still present within the medium distinctiveness banding of the trading summary, solely for individual trees.

Figure 3: Summary of Defra Metric results.

FINAL RESULTS		
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	<i>Habitat units</i>	-3.65
	<i>Hedgerow units</i>	0.00
	<i>Watercourse units</i>	0.00
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	<i>Habitat units</i>	-23.50%
	<i>Hedgerow units</i>	0.00%
	<i>Watercourse units</i>	0.00%
Trading rules satisfied?	No - Check Trading Summaries ▲	

- 1.6.8 Furthermore, a deficit of 5.21 units is present within the metric, which is required to achieve the 10% net gain for the scheme.

Figure 4: Biodiversity Unit Deficits

Medium Distinctiveness					
Habitat group	Group	On-site unit change	Off-site unit change	Project wide unit change	Cumulative broad habitat change
Cropland - Arable field margins cultivated annually	Cropland	0.00	0.00	0.00	0.00
Cropland - Arable field margins game bird mix	Cropland	0.00	0.00	0.00	
Cropland - Arable field margins pollen and nectar	Cropland	0.00	0.00	0.00	
Cropland - Arable field margins tussocky	Cropland	0.00	0.00	0.00	
Grassland - Other lowland acid grassland	Grassland	0.00	0.00	0.00	0.75 ✓
Grassland - Other neutral grassland	Grassland	0.75	0.00	0.75	
Grassland - Upland acid grassland	Grassland	0.00	0.00	0.00	1.09 ✓
Heathland and shrub - Blackthorn scrub	Heathland and shrub	0.00	0.00	0.00	
Heathland and shrub - Bramble scrub	Heathland and shrub	-0.77	0.00	-0.77	
Heathland and shrub - Gorse scrub	Heathland and shrub	0.00	0.00	0.00	
Heathland and shrub - Hawthorn scrub	Heathland and shrub	0.00	0.00	0.00	
Heathland and shrub - Willow scrub	Heathland and shrub	0.00	0.00	0.00	
Heathland and shrub - Hazel scrub	Heathland and shrub	0.00	0.00	0.00	
Heathland and shrub - Mixed scrub	Heathland and shrub	1.86	0.00	1.86	0.00
Lakes - Ponds (non-priority habitat)	Lakes	0.00	0.00	0.00	
Lakes - Reservoirs	Lakes	0.00	0.00	0.00	0.00
Sparsely vegetated land - Other inland rock and scree	Sparsely vegetated land	0.00	0.00	0.00	
Urban - Cemeteries and churchyards	Urban	0.00	0.00	0.00	0.00
Urban - Biodiverse green roof	Urban	0.00	0.00	0.00	
Individual trees - Urban tree	Individual trees	-7.99	3.29	-4.70	-4.70 ⚠
Individual trees - Rural tree	Individual trees	0.00	0.00	0.00	
Woodland and forest - Other Scot's pine woodland	Woodland and forest	0.00	0.00	0.00	0.00
Woodland and forest - Other woodland; broadleaved	Woodland and forest	0.00	0.00	0.00	
Woodland and forest - Other woodland; mixed	Woodland and forest	0.00	0.00	0.00	
Intertidal sediment - Littoral coarse sediment	Intertidal sediment	0.00	0.00	0.00	0.00
Intertidal sediment - Littoral sand	Intertidal sediment	0.00	0.00	0.00	
Intertidal hard structures - Artificial hard structures with integrated greening of grey infrastructure (IGGI)	Intertidal hard structures	0.00	0.00	0.00	
		-6.15	3.29	-2.85	

Unit Type	Target	Baseline Units	Units Required	Unit Deficit
<i>Habitat units</i>	10.00%	15.54	17.09	5.21
<i>Hedgerow units</i>	10.00%	0.00	0.00	0.00
<i>Watercourse units</i>	10.00%	0.00	0.00	0.00

1.7 Recommendations

- 1.7.1 The site, with current proposed scheme design will result in a net loss for habitats.
- 1.7.2 No sizes were given for the trees within the scheme. As a result, the four hundred and fifty-eight trees, for both on site (175) and off site (283), that are to be incorporated within the scheme have been categorised as small size (between 7.5cm and 30cm diameter at breast height after 30 years planting).
- 1.7.3 Prior to the scheme being accepted, due to land within the ownership being proposed for offsetting, the land will be required to be registered with Natural England. This is to ensure that the net gain assessment detailed within this report is monitored and allows for management to be undertaken and reported.
- 1.7.4 Furthermore, suitable habitat banks should be sought to provide offsetting for the remaining deficit outstanding within the scheme.
- 1.7.5 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 masterplan.
- 1.7.6 The calculations in this report are based on target habitat conditions post-development and post-management, taking future land usage and public access into consideration.

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. [Online]. Accessed September 2024. Available at: <https://www.environmentbank.com/blog/the-environment-bill-and-biodiversity-net-gain-delivery-what-planning-authorities-need-to-know/>

Natural England (2023) *Statutory Biodiversity Metric User Guide*.

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