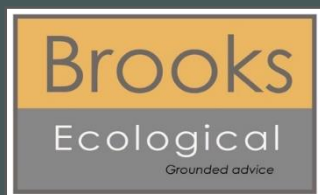




Biodiversity Net Gain Assessment (Baseline)

Report Ref. ER-7053-02

30/08/2023



Report reference	ER-7053-02 - Biodiversity Net Gain Assessment (Baseline)
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Date	30/08/2023
Report duration	In accordance with CIEEM (2019), unless otherwise stated the findings of this report remain valid for a period of 18 months. After this period advice should be sought on the scope of any updating work required.



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Introduction

1. Brooks Ecological Ltd was commissioned by Faith Homes Ltd to carry out a Biodiversity Net Gain (BNG) Assessment of the proposed development Site at Main Street, Styrrup.
2. The assessment applies to the parcel of land shown in Figure 1 opposite.
3. The assessment is informed by a Preliminary Ecological Appraisal Survey of the Site detailed in our report ER-7053-01.
4. Biodiversity Accounting metrics are used to quantify the value of a site in Biodiversity Units, which helps in assessing the ecological impacts of the proposed development on the Site.
5. Biodiversity Units can help to inform avoidance, or on-Site mitigation levels required; or as a last resort can translate to a direct monetary value where compensation (off-Site) is required.

Figure 1 Extent of BNG assessment (red line boundary).



Part 1

Pre-development baseline

Habitats identified

6. The Site supports the following habitats: These are shown in relation to location and extent on the following page.

Condition Assessment

7. Condition has been assessed as part of the Preliminary Ecological Appraisal of the Site.
8. Information on condition assessment is provided on the Biodiversity Metric 4.0 - Technical Annex 1- Condition Assessment Sheets provided alongside this report.

Biodiversity Metric

9. Habitat types, conditions and areas have been entered into the DEFRA Biodiversity Metric 4.0 Calculation Tool, alongside information on their strategic significance.
10. The DEFRA Biodiversity Metric 4.0 Calculation Tool is provided alongside this assessment and may be useful in investigating design options for the Site.

Table 1 Habitat Types

UK Habitats as per DEFRA Metric	Label Reference - see plan below	Distinctiveness	Condition assessment	See Condition assessment sheet
Cereal Crops	CC	Low	n/a	n/a
Modified grassland	G1	Low	Moderate	5A
Mixed Scrub	Sc1	Medium	Moderate	20B
Hawthorn Scrub	Sc2	Medium	Poor	20B
Bramble Scrub	BS	Medium	n/a	n/a
Individual Trees	T1-4	Medium	Moderate	9B

Figure 2 The Site's habitats assigned to types used in the relevant DEFRA Biodiversity Metric. Labelled codes cross reference to our condition assessment and description in the PEAR which should be read in conjunction with this report.



Habitat score

11. The Site has been assessed as having a baseline score of 3.23 Habitat Units. These break down as follows:

Table 3 Habitat Units vs distinctiveness at this Site

Habitat distinctiveness	Units	Approach to compensation if lost
Very Low	0	No compensation required
Low	1.28	Can be replaced with habitat of the same distinctiveness - this can include gardens and landscaping.
Medium	1.95	Can only be replaced with habitat from the same broad categories - in this case, trees and scrub.
High	0	Can only be replaced with the same habitat
Very High	0	Bespoke compensation would be required

Planning your development

Mitigation hierarchy

12. To engage with the Biodiversity Gain process a project must be able to demonstrate that it has complied with the Mitigation Hierarchy of Avoid - Mitigate - Compensate. Its relevance to this Site is set out in the table below:

Table 4 Mitigation hierarchy summary

Level of Hierarchy	Requirement at this Site
<i>First</i>	
Avoid	The PEA has established that there are no high or very high distinctiveness habitats. Of the medium distinctiveness habitats present, retention of the connectivity and structure provided by frontage trees has been advised - achieving this in a layout would engage with this part of the hierarchy, and helps avoid loss of biodiversity units
<i>then</i> Mitigate	It would be very difficult to retain the Site's scrub within any development, the structure and habitat it provides would be lost. This loss could be mitigated in part by designing in structured landscaping with native species and native hedge planting to new boundaries.
<i>then</i> Compensate	Any residual loss would need to be compensated off-Site. It will not be possible to deliver a net gain on Site alongside development here, so this element will be required.

Biodiversity Units required

13. Given a typical residential development scenario of 70% built development and 30% landscaping and gardens and retention of the Site's trees; the following is likely at this Site. Please note this is not a final calculation.

Table 5 Approach to off-setting lost Biodiversity Units

Habitat type	Notes	Units likely for 'no net loss'.	Units likely for '10% net gain'
Low distinctiveness habitats	Some of this loss will be off-set on Site through landscaping and gardens. These units can be offset elsewhere using any other habitat units.	0.99	1.09
Medium distinctiveness habitats	These cannot be off-set by landscaping and gardens. There may be scope to off-set them in small part by retention and enhancement of areas of grassland such as for POS. Planting new street trees is a means of offsetting some of these units on Site - provision of 30 new trees could off-set 0.37 units. These units can be off-set off Site using a mix (tbc) of the following broad habitat categories: <ul style="list-style-type: none"> • Heathland and shrub • Grassland 	0.77	0.85

Summary and Recommendations

14. Assuming the recommendations set out above can be followed it seems likely that the mitigation hierarchy can be complied with. These recommendations should be a consideration of any design work.
15. Development of the Site is likely to result in the requirement to off-set losses elsewhere, potential means of achieving this would be:
- Making use (through contribution) of any Local Authority habitat banking scheme - if this is available.
 - Purchasing the necessary units from a broker or habitat banking scheme - as locally as possible.
 - Creating a bespoke off-set on land available to the developer- as locally as possible.
 - Purchasing units from the UK government scheme (this is the last resort and is not available yet at the time of writing).
16. Finding a means of off-setting losses from the Site should be part of the project planning and any pre-application discussions.

Table 6 Summary of recommendations

Planning considerations		
Recommendation	Rationale	When
R1 Produce a layout which minimises loss of biodiversity	Engage with the recommendations set out above, involve your ecologist in designs at an early stage - as required. The proposals will need to consider the NPPF hierarchy of Avoid–Mitigate–Compensate in minimising any loss of biodiversity.	During the design process
R2 Biodiversity Gain Strategy (BGS)	Engage an ecologist to work with the design team to maximise available Biodiversity Units on-Site. Identify opportunities to address any losses off-site.	During the design process
R3 Landscape Design	Make sure your landscape architect follows ecological advice or the BGS to maximise Biodiversity Units on-Site and make sure there are no design conflicts.	During the design process
R4 Calculate final Biodiversity Impact Score	Using DEFRA Metric to quantify net gain/loss of biodiversity - complete part 2 of this report.	After a fixed design is agreed

Part 2

Post-development value

17. This section calculates the biodiversity value of the post-development Site and quantifies and shortfall in biodiversity units.
18. It can only be completed once a design for the Site is fixed.

References

CIEEM (2019) Advice Note - On the Lifespan of Ecological Reports and Surveys

DEFRA (2023) Biodiversity Metric 4.0 Calculation Tool - macro-enabled

DEFRA (2023) Biodiversity Metric 4.0 - Technical Annex 1 - Condition Assessment Sheet and Methodology

DEFRA (2023) Biodiversity Metric 4.0 - Technical Annex 2 - Technical Information

DEFRA (2023) Biodiversity Metric 4.0 - User Guide

Appendices

The following reports / digital documents have been provided alongside this report and should be read in conjunction with it:

- Biodiversity Metric 4.0 Calculation Tool - BM-7053-01
- Biodiversity Metric 4.0 - Technical Annex 1- Condition Assessment Sheets CA-7053-01
- Preliminary Ecological Appraisal ER-7053-01