Croft Street, Birkenshaw

Biodiversity Net Gain Assessment

Report Ref. ER-7290-03A

18/06/2024

Riva Homes

Report reference		**ER-7290-03A – Biodiversity Net Gain Assessment**
Author		Christopher Shaw BSc (Hons) MCIEEM Principal Ecologist
Technical Review		Peter Brooks BSc (Hons), MA CIEEM, CEnv Managing Director
QA		Ruth Highley BSc(Hons) MBiol Assistant Ecologist
Authorised		Peter Brooks BSc (Hons), MA CIEEM, CEnv Managing Director
Date		18/06/2024
Amended: 09/01/2025	**Author:** SW	Updated BNG calculations to latest landscaping
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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Unit A, 1 Station Road, Guiseley, Leeds, LS20 8BX
Phone: 01943 884451
01943 879129
www.brooks-ecological.co.uk
Registered in England Number 5351418

Introduction

1. Brooks Ecological Ltd was commissioned by Riva Homes to carry out a Biodiversity Net Gain (BNG) Assessment of the proposed development Site at Croft Street, Birkenshaw.
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-7290-01.
4. Biodiversity Accounting metrics are used to quantify the value of a site in Biodiversity Units. This helps in assessing the ecological impacts of the proposed development and 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.
5. For the purposes of metric calculations, the Site area has been measured using GIS against the provided red line boundary as 0.85ha
6. Our assessment has made use of the Statutory Biodiversity Metric Calculation Tool, and extracts from this have been used throughout the report. The full spreadsheet has been provided digitally as file BM-7290-01B and should be submitted as part of the application.

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

Part 1

Pre-development baseline

Habitats Identified.

7. Habitats present on-Site are outlined in Table 1, opposite. These are shown in relation to location and extent in Figure 2 overleaf.

Condition Assessment

8. Habitat condition has been assessed as part of the Preliminary Ecological Appraisal of the Site.
9. Information on condition assessments is provided in the Excel spreadsheet CA-7290-01 provided alongside this report.

Strategic Significance

10. None of the habitats on-Site fall within or close to the WHN, and so all are mapped as 'area/compensation not in local strategy/ no local strategy'.

Irreplaceable habitat

11. Irreplaceable habitats have not been found on-Site.

Biodiversity Metric

12. Habitat types, conditions, and areas have been entered into the Statutory Biodiversity Metric Calculation Tool, alongside information on their strategic significance.
13. The Statutory Biodiversity Metric Calculation Tool is provided alongside this assessment, in Excel spreadsheet BM-7290-01B, and may be useful in investigating design options for the Site.

Table 1 Habitat Types.

Habitat	Label ref.	Irreplaceable?	Distinctiveness	Condition	See Condition Assessment sheet
Modified grassland	MG1, MG2	No	Low	Moderate	5B
Mixed Scrub	MS1	No	Medium	Moderate	20B
Bramble Scrub	BS1, BS2, BS3, BS4, BS5	No	Medium	N/A	N/A
Other woodland; broadleaved	W1, W2	No	Medium	Poor	24B
Artificial unvegetated, unsealed surface	-	No	Very Low	N/A	N/A
Developed land; sealed surface	-	No	Very Low	N/A	N/A
Individual Trees	-	No	Medium	Moderate	9B
Line of Trees	-	No	Low	Moderate	16A

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

Figure 3 Extract from the Statutory Biodiversity Metric Calculation Tool showing entered information and resultant Biodiversity Units[1].

	Existing area habitats				Distinctiveness	Condition	Strategic significance	Required Action to Meet Trading Rules	Ecological baseline
Ref	Broad Habitat	Habitat Type	Irreplaceable habitat	Area (hectares)	Distinctiveness	Condition	Strategic significance		Total habitat units
1	Grassland	Modified grassland	No	0.0345	Low	Moderate	Area/compensation not in local strategy/ no local strategy	Same distinctiveness or better habitat required ≥	0.14
2	Heathland and shrub	Bramble scrub	No	0.3155	Medium	Condition Assessment N/A	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat required (≥)	1.26
3	Heathland and shrub	Mixed scrub	No	0.1124	Medium	Poor	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat required (≥)	0.45
4	Urban	Artificial unvegetated, unsealed surface	No	0.0564	V.Low	N/A - Other	Area/compensation not in local strategy/ no local strategy	Compensation Not Required	0.00
5	Urban	Developed land; sealed surface	No	0.0023	V.Low	N/A - Other	Area/compensation not in local strategy/ no local strategy	Compensation Not Required	0.00
6	Woodland and forest	Other woodland; broadleaved	No	0.3173	Medium	Poor	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat required (≥)	1.27
7	Individual trees	Urban tree	No	0.1782	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat required (≥)	1.43
8									
9									
10									
11									
			Total habitat area	1.02					4.54
		Site Area (Excluding area of individual trees, green walls, intertidal hard structures)		0.84					

	Existing hedgerow habitats			Distinctiveness	Condition	Strategic significance	Required Action to Meet Trading Rules	Ecological baseline
Ref	Hedge number	Habitat type	Length (km)	Distinctiveness	Condition	Strategic significance		Total hedgerow units
1	1	Line of trees	0.019	Low	Moderate	Area/compensation not in local strategy/ no local strategy	Same distinctiveness band or better	0.08
2								
3								
4								
5								
6								
			0.02					0.08

[1] Our report provides an estimate of the Site's value in Biodiversity Units. This is based on thorough assessment at the time of survey and using the information available at this time. In this assessment we have used the Statutory Biodiversity Metric Calculation Tool, the UK Habitats Classification, and relevant guidance. This assessment requires subjective judgments to be made in terms of habitat type and condition and could be open to other interpretations. Reliance on the Unit Score, or conversion of this into a monetary value, would be at the developer's own risk. Where conversion to monetary value is required, it is always advisable to get calculations checked independently.

Trading Rules

14. As part of delivering a Net Gain for biodiversity, the BNG process requires that trading rules are complied with, such that loss of habitats is compensated for in a like-for-like or like-for-better fashion. This is based on habitat distinctiveness.
15. Once trading rules are complied with, the 'gain' component can come from any distinctiveness category.

Habitat Unit Score

16. The Site has been assessed as having a baseline score of 4.54 Habitat Units. These break down as shown in Table 2, below.

Table 2 Habitat Units broken down by distinctiveness at this Site.

Distinctiveness	Units	Approach to compensation if lost
Very Low	0	No compensation required.
Low	0.14	Losses must be replaced with area habitat units of the same or higher distinctiveness.
Medium	4.40	Losses must be replaced by area habitat units of either medium distinctiveness habitats within the same broad habitat type (in this case "heathland and shrub", "individual trees" and "woodland and forest"), or any habitat from a higher distinctiveness from any broad habitat type.
High	0	Losses must be replaced with area habitat units of the same habitat type.
Very High	0	Priority should be given to replacing losses with area habitat units of the same habitat type.
Irreplaceable	0	Cannot be compensated for.

Hedgerow Unit Score

17. The Site has been assessed as having a baseline score of 0.08 Hedgerow Units. These break down as shown in Table 3, below.

Table 3 Hedgerow Units broken down by distinctiveness at this Site.

Distinctiveness	Units	Approach to compensation if lost
Very Low	0	Losses must be replaced with hedgerow units of the same or of a higher distinctiveness.
Low	0.08	Losses must be replaced with hedgerow units of the same or of a higher distinctiveness.
Medium	0	Losses must be replaced with hedgerow units of the same or of a higher distinctiveness.
High	0	Losses must be replaced with hedgerow units of the same habitat type or of a higher distinctiveness.
Very High	0	Losses must be replaced with hedgerow units of the same habitat type.

Part 2

Post-development value

18. This section calculates the Biodiversity Unit value of the post-development Site and quantifies any gain or shortfall in Units.

Proposed habitats

19. Habitats present on-Site post-development have been based on the Landscape Proposals (Figure 4, opposite) dwg. LDP-24-P216 1001 Rev. F (Studio 413).

20. Planting types specified in the Landscape Proposals have been assigned a UK Habitat Classification description that best fits the target habitat.

21. Habitats assigned are shown in Figure 5 overleaf.

Condition assessment

22. The condition assessment for each proposed habitat is based on what is realistic and achievable for the Site, based on the Landscape Proposals.

23. Achieving these conditions scores may be reliant on specific, ecologically-driven management recommendations. These can be outlined in a Biodiversity Enhancement and Management Plan (BEMP) or similar.

Figure 4 Landscape Proposals

Post-development habitats

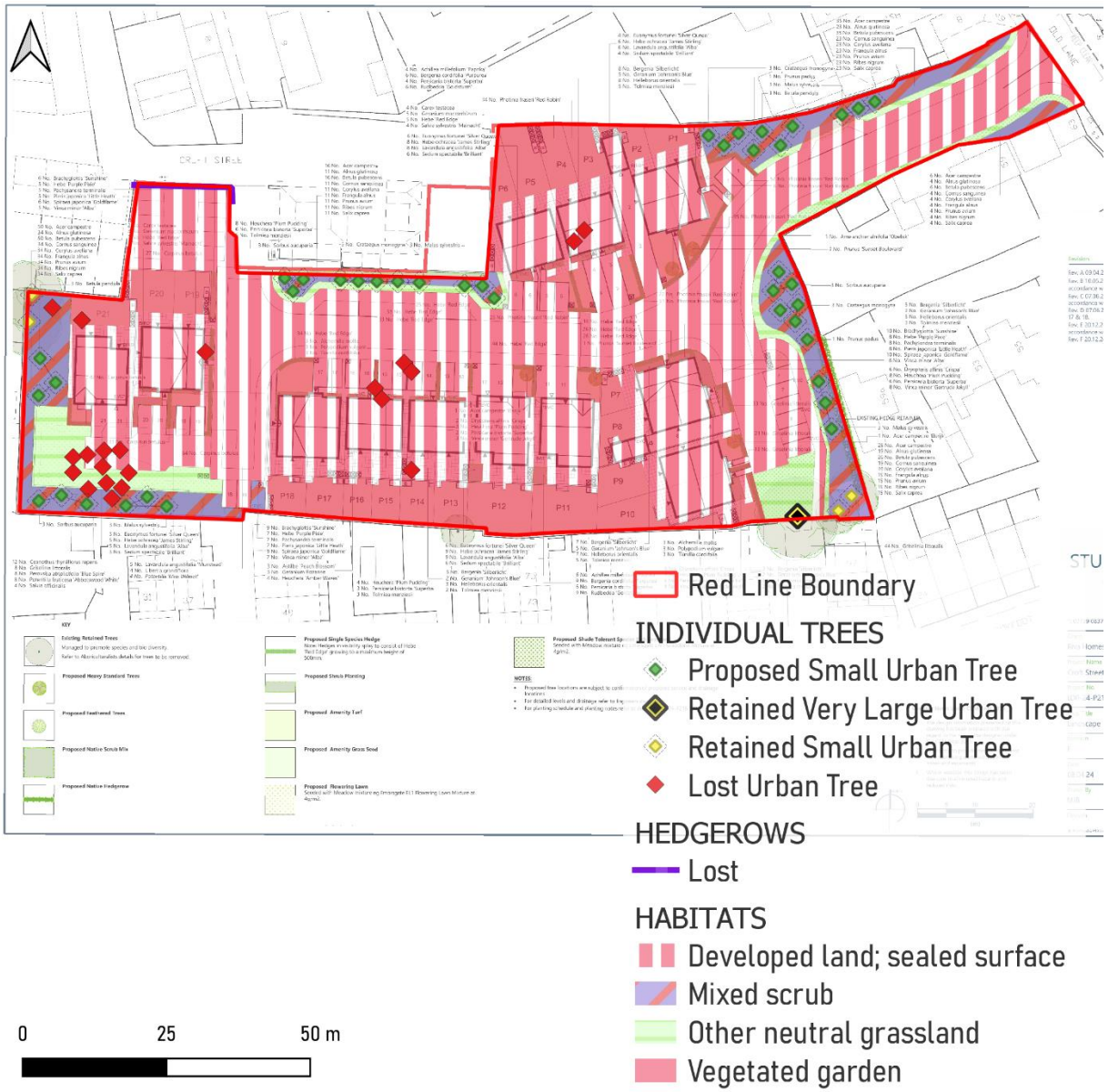
Habitat Score

24. The Site has been assessed as having a post-development score of 1.75 Habitat Units and 0 Hedgerow Units.
25. This score is based on our interpretation of the Landscape Masterplan, as shown in Figure 5 opposite.
26. Calculations for the change in Habitat Units have been based on the entire Site being cleared of existing habitats and land reprofiled, except for five individual trees.
27. Post development, Habitat Units are generated through the creation of Vegetated Gardens, as well as flower rich grassland, mixed native woody planting, and individual trees within POS.
28. No Hedgerow Units are generated. Hedgerows will be created within gardens, but are assessed within the vegetated garden habitat type, as per guidance.

Habitat Retention

29. All onsite habitats will be lost with the exception of 5 trees. These trees are shown in Figure 5 opposite.

Figure 5 Post-development habitats.



DEFRA Metric[2] (Post-development)

30. This metric sets out the predicted score for the Site following the completion of development. This is based on the Landscape Masterplan provided by the client.

Figure 6 On-Site habitat creation.

	Post intervention habitats									
				Distinctiveness	Condition	Strategic significance	Temporal multiplier		Difficulty	
Ref	Broad Habitat	Proposed habitat	Area (hectares)	Distinctiveness	Condition	Strategic significance	Standard or adjusted time to target condition	Final time to target condition (years)	Final difficulty of creation	Habitat units delivered
1	Grassland	Other neutral grassland	0.0518	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	5	Low	0.35
2	Heathland and shrub	Mixed scrub	0.0925	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	5	Low	0.62
3	Urban	Developed land; sealed surface	0.5486	V.Low	N/A - Other	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	0	Low	0.00
4	Urban	Vegetated garden	0.146	Low	Condition Assessment N/A	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	1	Low	0.28
5	Individual trees	Urban tree	0.1629	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	27	Low	0.50
6										
7										
8										
9										
		Total habitat area	1.00							1.75

[2] Our report provides an estimate of the Site's value in Biodiversity Units. This is based on thorough assessment at the time of survey and using the information available at this time. In this assessment we have used the Statutory Biodiversity Metric Calculation Tool, the UK Habitats Classification, and relevant guidance. This assessment requires subjective judgments to be made in terms of habitat type and condition and could be open to other interpretations. Reliance on the Unit Score, or conversion of this into a monetary value, would be at the developer's own risk. Where conversion to monetary value is required, it is always advisable to get calculations checked independently.

Final Results

31. The Statutory Metric has been used to calculate the net unit change for the Site, which has been predicted an overall net loss of 2.06 Habitat Units (-45.26%) and a loss of all 0.08 Hedgerow Units (-100%).
32. A copy of the Statutory Biodiversity Metric Calculation Tool Excel spreadsheet (ref. BM-7290-01B) and Condition Assessment sheets (CA-7290-01) have been provided with this report and should be submitted digitally as part of the application.
33. There is a mandatory requirement for all developments to demonstrate at least a 10% net gain in each unit measurement, as well as to satisfy Trading rules. Notwithstanding Trading rules, the scheme will need to secure an additional 0.45 Habitat Units, on top of the current deficit of 2.06 Habitat Units, to demonstrate a 10% net gain (2.51 Habitat Units total).

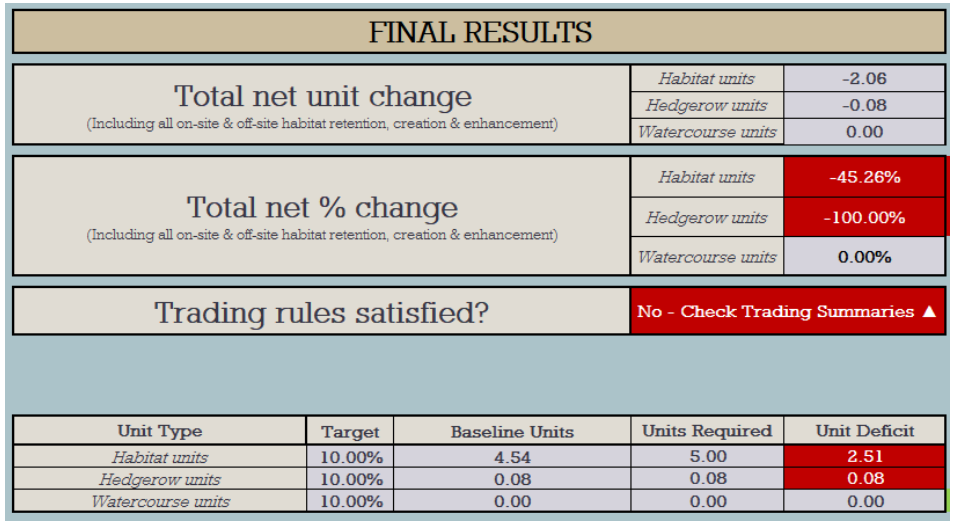
Trading Rules

34. Habitat types are separated out into distinctiveness categories (Very low to Very High) which dictate what mitigation/ compensation is required for their loss. This is assessment is separate to the 'net unit change' score quoted above.
35. To satisfy Trading Rules for this development, compensatory units will need to be generated from the following broad Habitat Types, as outline in the Table 4, opposite.
36. A total of 2.55 Habitat Units will need to be generated through offsetting. This figure is higher than that stipulated in the Final Results above.

Requirements for Planning

37. A standard planning condition will be imposed that will require the development to demonstrate (i) a minimum 10% net gain and (ii) that Trading rules have been satisfied. To achieve this, **2.55 Habitat Units** will need to be generated within the broad habitats shown in Table 4.
38. These Units will need to be secured through offsetting, with offsite land Registered with Natural England. Once this offsetting has been secured, the Biodiversity Metric will need to be finalised (ref. BM-7290-01B) before submission to the LPA.
39. A Net Gain Plan and Habitat Monitoring and Management Plan will also be required to discharge the planning condition that will be imposed.

Figure 7 Biodiversity Metric Summary.



FINAL RESULTS

Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	-2.06
	Hedgerow units	-0.08
	Watercourse units	0.00
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	-45.26%
	Hedgerow units	-100.00%
	Watercourse units	0.00%
Trading rules satisfied?		No - Check Trading Summaries ▲

Unit Type	Target	Baseline Units	Units Required	Unit Deficit
Habitat units	10.00%	4.54	5.00	2.51
Hedgerow units	10.00%	0.08	0.08	0.08
Watercourse units	10.00%	0.00	0.00	0.00

Table 4 Trading rule summary

Distinctiveness	Broad Habitat Type	Habitat Units requried
Medium*	Heathland and Shrub	1.09
Medium*	Woodland	1.27
Medium*	Individual Trees	0.19
	Total Units	**2.55 Units**

* Compensation for habitats of medium distinctiveness must be in the same broad habitat type, or any habitat type in a higher distinctiveness category.

References

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Appendices

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

- BM-7290-01B – Statutory Biodiversity Metric Calculation Tool
- CA-7290-01 – Statutory Biodiversity Metric Condition Assessments
- ER-7290-01 – Preliminary Ecological Appraisal