Heybeck Lane, Chidswell

High-Level Biodiversity Net Gain Assessment

ER-6441-02

The Church Commissioners for England

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Introduction

1. Brooks Ecological Ltd was commissioned by The Church Commissioners for England to carry out an updating high-level Biodiversity Net Gain (BNG) Assessment of the proposed development Site known as Heybeck Lane, Chidswell. The assessment applies to the parcel of land shown in Figure 1 opposite.
2. A similar assessment was undertaken in December 2019, using the DEFRA Metric 2.0 Calculator tool. Given the amount of time that has elapsed since this assessment was completed, and the subsequent release of new versions of the DEFRA Metric, an updating assessment was considered appropriate.
3. Ultimately, further versions of the DEFRA Metric will likely be released between now and any future Reserved Matters applications coming forward, and each phase of development will need a detailed BNG Assessment based on the fixed site layout and landscape proposals. The following high-level assessment has therefore been completed to demonstrate, and reassure, the LPA, that development here could achieve a 10% net gain.
4. The assessment is informed by an updating walkover survey carried out by Brooks Ecological in October 2022. Although carried out at a sub-optimal time of year, the simple nature of the habitats present, and extensive survey of the Site previously means that this was not considered to represent a significant constraint. To conform with DEFRA's Biodiversity Metric 3.1, habitats have been mapped in accordance with the UK Habitats Classification.
5. 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.
6. 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).

Pre-development baseline

Habitats identified

7. Habitats present on Site pre-development have been mapped as shown in the figure opposite. This is based on a walkover survey undertaken in October 2022.

Condition assessment

8. The condition assessment for each habitat is based on the available criteria set out in the DEFRA (2022) Biodiversity Metric 3.1 Technical Supplement.
9. Details of the condition criteria met for each habitat types is present in Appendix 1.

Habitat score (onsite)

10. The Site has been assessed as having a baseline score of:
   - 14.04 Habitat Units
   - 4.20 Hedgerow Units

Habitat score (offsite)

11. A strip of land along the Site's eastern boundary, between the development site and Dum Wood, has also been included in the assessment. This area has been assessed as having a baseline score of:
   - 1.74 Habitat Units
12. Extracts from the DEFRA Metric 3.1 Calculator are presented in Appendix 3.

Figure 2 Pre-development habitats.

Post-development Baseline

Proposed habitats

13. At present, the scheme is only seeking Outline Permission, and all plans are therefore high level. As such, a broad-scale approach to mapping post development habitats has been completed, based on the Illustrative Plan produced by Enjoy design; see figure opposite.
14. Until such time as the more detailed plans are produced (at Reserved Matters stage when the Layout, Landscape Masterplan and Biodiversity Management Plan are fixed), only high-level calculations can be produced.
15. Broad planting types/ areas have been assigned a UK Habitat Classification description that best fits the target habitat. Habitats assigned are shown in Figure 4 overleaf.

Condition assessment

16. The habitat and hedgerow condition assessment for each proposed habitat is based on what is realistic and achievable for the Site.

Figure 3 Illustrative Plan

Post-development Score

17. The calculations have been based on the following:

Residential development has been mapped as a single area, and then put through the Metric as a 70:30 spilt of Developed land: Vegetated garden. In reality, the split is likely to be more balanced than this at RM stage, and an increased score for this area can be expected.

Greenspace created between the residential and industrial development has been mapped as either low distinctiveness 'modified grassland' or medium distinctiveness, neutral grassland'. In reality, at the RM stage, a much more diverse and better structured planting scheme will be developed, with areas of mixed scrub, woodland and wetland habitats incorporated. This area could therefore be expected to generate a higher score at RM.

Buffer planting situated offsite within the 20m standoffs from the woodland edges (blue line land) will comprise of mixed native woody species, managed in moderate condition.

Hedgerows that are retained will be enhanced by diversifying them and uplifting their condition scores.

Dum Wood has not been considered within this assessment, but ultimately will be managed to increase its condition score and minimize the impacts of increased recreational pressure. This will likely generate additional units.

Figure 4 Post-development habitats.

Net Gain Assessment

18. A high-level assessment, using the most recent iteration of the DEFRA Metric calculator (vers. 3.1) has been completed for the scheme, using illustrative plans provided.
19. This demonstrates that development at the Site can be expected to comfortably achieve a 10% net gain in both Habitat and Hedgerow measures. Once detailed landscape proposals are produced for the scheme at RM, and a Woodland Management Plan produced for Dum Wood, a greater increase in Habitat and Hedgerow Units could be expected.
20. The vast majority of habitat lost to development is low distinctiveness cereal crop, as such, it will be easy to satisfy the trading rules post development.
21. The client has been provided with a copy of the Biodiversity Metric 3.1 Calculation Tool Excel spreadsheet (ref. BM-6441-01). This can be made available for review if required.

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Headline Results

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On-site baseline	*Habitat units*	14.04
	Hedgerow units	4.35
	River units	0.00
On-site post-intervention (Including habitat retention, creation & enhancement)	*Habitat units*	10.71
	Hedgerow units	4.81
	River units	0.00
On-site net % change (Including habitat retention, creation & enhancement)	*Habitat units*	-23.74%
	Hedgerow units	10.61%
	River units	0.00%
Off-site baseline	*Habitat units*	1.74
	Hedgerow units	0.00
	River units	0.00
Off-site post-intervention (Including habitat retention, creation & enhancement)	*Habitat units*	6.48
	Hedgerow units	0.00
	River units	0.00
Total net unit change (including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	1.41
	Hedgerow units	0.46
	River units	0.00
Total on-site net % change plus off-site surplus (including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	10.03%
	Hedgerow units	10.61%
	River units	0.00%
Trading rules Satisfied?	Yes ✓	

References

DEFRA (2022) Biodiversity Metric 3.1 - Auditing and accounting for biodiversity calculation tool (macro enabled)

DEFRA (2022) Biodiversity Metric 3.1 - Technical Supplement

DEFRA (2022) Biodiversity Metric 3.1 - User Guide

Appendix 1 – Kirklees Wildlife Habitat Network (KWHN)

Appendix 2 – DEFRA Metric Extracts

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A-1 Site Habitat Baseline

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	Habitats and areas			Distinctiveness	Condition	Strategic significance	Suggested action to address habitat losses	Ecological baseline	Retention category biodiversity value					
Ref	Broad Habitat	Habitat Type	Area (hectares)	Distinctiveness	Condition	Strategic significance		Total habitat units	Area retained	Area enhanced	Baseline units retained	Baseline units enhanced	Area habitat lost	Units lost
1	Cropland	Cereal crops	6.99	Low	Condition Assessment N/A	Area/compensation not in local strategy/ no local strategy	Same distinctiveness or better habitat required≥	13.98	0	0	0.00	0.00	6.99	13.98
2	Urban	Developed land; sealed surface	0.03	V.Low	N/A - Other	Area/compensation not in local strategy/ no local strategy	Compensation Not Required	0.00	0	0	0.00	0.00	0.03	0.00
3	Urban	Vegetated garden	0.03	Low	Condition Assessment N/A	Area/compensation not in local strategy/ no local strategy	Same distinctiveness or better habitat required≥	0.06	0	0	0.00	0.00	0.03	0.06
4														
5														
		Total habitat area	7.05					14.04	0.00	0.00	0.00	0.00	7.05	14.04

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A-2 Site Habitat Creation

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Post development/ post intervention habitats											Com
			Distinctiveness	Condition	Strategic significance	Temporal multiplier		Difficulty			
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	Assessor comments
Urban	Developed land; sealed surface	4.45	V.Low	N/A - Other	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	0	Medium	0.00	Roads + 70% of residential area
Urban	Vegetated garden	1.47	Low	Condition Assessment N/A	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	1	Low	2.84	30% of residential area
Grassland	Modified grassland	0.4	Low	Moderate	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	4	Low	1.39	POS
Grassland	Other neutral grassland	0.74	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	5	Low	4.95	POS (Wildflower planting)
Urban	Urban Tree	0.5	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	27	Low	1.53	New small tree planting. Est. #120
	Total habitat area	7.56							10.71	
	Site Area (Excluding area of Urban trees and Green walls)	7.06								

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D-1 Off Site Habitat Baseline

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	Habitats and areas			Habitat distinctiveness	Habitat condition	Strategic significance	Suggested action to address habitat losses	Ecological baseline
Baseline ref	Broad habitat	Habitat type	Area (hectares)	Distinctiveness	Condition	Strategic significance		Total habitat units
1	Cropland	Cereal crops	0.87	Low	Condition Assessment N/A	Area/compensation not in local strategy/ no local strategy	Same distinctiveness or better habitat required ≥	1.74
2								
3								
4								
5								
			0.87				Total Site baseline	1.74

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D-2 Off Site Habitat Creation

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Post development/ post intervention habitats					Strategic significance	Temporal risk multiplier		Difficulty	Spatial risk multiplier	
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	Spatial risk category	Habitat units delivered
Heathland and shrub	Mixed scrub	0.88	Medium	Moderate	Location ecologically desirable but not in local strategy	Standard time to target condition applied	5	Low	Compensation inside LPA or NCA, or deemed to be sufficiently local, to site of biodiversity loss	6.48
	Total Length	0.88								6.48

B-1 Site Hedge Baseline

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	UK Habitats – existing habitats			Habitat distinctiveness	Habitat condition	Strategic significance	Suggested action to address habitat losses	Ecological baseline	Retention category biodiversity value					
Baseline ref	Hedge number	Hedgerow type	Length (km)	Distinctiveness	Condition	Strategic significance		Total hedgerow units	Length retained	Length enhanced	Units retained	Units enhanced	Length lost	Units lost
1	H1	Native Hedgerow with trees	0.151	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	Like for like or better	1.21	0.137	0	1.10	0.00	0.01	0.11
2	H2	Native Hedgerow with trees	0.149	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	Like for like or better	1.19	0.113	0	0.90	0.00	0.04	0.29
3	H3	Native Species Rich Hedgerow	0.082	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	Like for like or better	0.66	0	0	0.00	0.00	0.08	0.66
4	H4	Native Hedgerow	0.042	Low	Moderate	Area/compensation not in local strategy/ no local strategy	Same distinctiveness band	0.17	0.042	0	0.17	0.00	0.00	0.00
5	LT1	Line of Trees (Ecologically Valuable)	0.122	Medium	Moderate	Formally identified in local strategy	Like for like or better	1.12	0.105	0	0.97	0.00	0.02	0.16
			0.55					4.35	0.40	0.00	3.13	0.00	0.15	1.21

B-2 Site Hedge Creation

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		Proposed habitats		Habitat distinctiveness	Habitat condition	Strategic significance	Temporal multiplier		Difficulty risk multipliers	Hedge units delivered
Baseline ref	New hedge number	Habitat type	Length (km)	Distinctiveness	Condition	Strategic significance	Standard or adjusted time to target condition	Final time to target condition/years	Final difficulty of creation	
1		Native Species Rich Hedgerow	0.25	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	5	Low	1.67
2										
3										
4										
5										
			0.25							1.67