



Biodiversity Net Gain Assessment – Part 2

Report Ref. ER-7645-03A

05/09/2024

Naylor Concrete Products



Report reference	ER-7645-03A - Biodiversity Net Gain Assessment (Post-Development)
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Date	05/09/2024
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.

Amendment	Date	Author	QA	Summary of changes
ER-7645-03A	27/11/2024	DL	CF	Updated to reflect red line boundary changes.



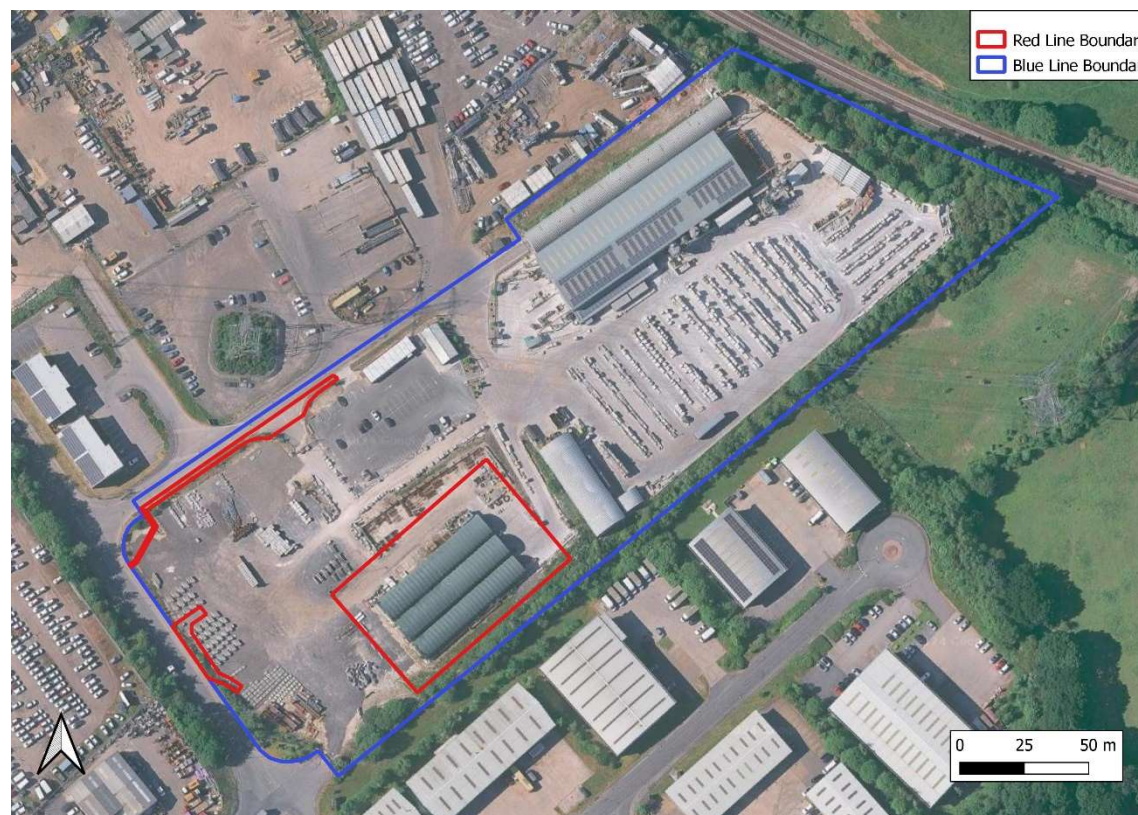
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Introduction

1. Brooks Ecological Ltd was commissioned by Naylor Concrete Products to carry out a Biodiversity Net Gain (BNG) Assessment of the proposed development Site at Whaley Road, Barnsley.
2. The assessment applies to the parcels of land shown in Figure 1 opposite, with both the development footprint (red-line boundary) and off-site land under the same ownership (blue-line land) assessed.
3. The assessment is informed by a Preliminary Ecological Appraisal Survey of the Site detailed in our report ER-7645-01A.
4. At this time Brooks Ecological also carried out an assessment of the baseline value of the Site in relation to BNG and presented this alongside advice on achieving the best BNG position in our report ER-7645-02. This current report supersedes ER-7645-02 and reproduces the relevant information on the Site's baseline.
5. 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.
6. For the purposes of metric calculations, the Site area has been measured using GIS against the provided red line boundary as 0.46ha.
7. 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-7645-01B and should be submitted as part of the application.

Figure 1 Extent of BNG assessment (red and blue line boundaries).



Part 1

Pre-development baseline

Habitats identified

8. 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

9. Habitat condition has been assessed as part of the Preliminary Ecological Appraisal of the Site.
10. Information on condition assessments is provided in the Excel spreadsheet CA-7645-01 provided alongside this report.

Strategic Significance

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

Irreplaceable habitat

12. Irreplaceable habitats have not been found on Site

Habitat Degradation

13. There is no evidence on Site or in aerial mapping of the Site which suggests that it has been deliberately degraded.

Biodiversity Metric

14. Habitat types, conditions, and areas have been entered into the Statutory Biodiversity Metric

Calculation Tool, alongside information on their strategic significance.

15. The Statutory Biodiversity Metric Calculation Tool is provided alongside this assessment, in Excel spreadsheet BM-7645-01B, and may be useful in investigating design options for the Site.

Table 1 Red-line habitat Types.

Habitat	Label ref.	Irreplaceable?	Distinctiveness	Condition	See Condition Assessment sheet
Developed land; sealed surface	DL1	No	Very low	N/A	N/A
Artificial unvegetated. Unsealed surface	AU1	No	Very low	N/A	N/A
Vacant or derelict land	V1	No	Low	Poor	22A

Table 2 Blue-line habitat Types.

Habitat	Label ref.	Irreplaceable?	Distinctiveness	Condition	See Condition Assessment sheet
Developed land; sealed surface	DL2, DL3	No	Very low	N/A	N/A
Artificial unvegetated. Unsealed surface	AU2, AU3	No	Very low	N/A	N/A
Mixed scrub	MS1	No	Medium	Poor	20A
Other neutral grassland	ONG1	No	Medium	Moderate	6B
Other neutral grassland	ONG2	No	Medium	Poor	6B

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 red-line land Biodiversity Units¹.

Ref	Existing area habitats				Distinctiveness		Condition		Strategic significance			Required Action to Meet Trading Rules	Ecological baseline Total habitat units
	Broad Habitat	Habitat Type	Irreplaceable habitat	Area (hectares)	Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic significance multiplier		
1	Urban	Developed land; sealed surface	No	0.2733	V.Low	0	N/A - Other	0	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Compensation Not Required	0.00
2	Urban	Artificial unvegetated, unsealed surface	No	0.1344	V.Low	0	N/A - Other	0	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Compensation Not Required	0.00
3	Urban	Vacant or derelict land	No	0.052	Low	2	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required ≥	0.10
4													
5													
6													
7													
8													
				Total habitat area		0.46							0.10
				Site Area (Excluding area of individual trees, green walls, intertidal hard structures)		0.46							

Figure 4 Extract from the Statutory Biodiversity Metric Calculation Tool showing entered information and resultant blue-line land Biodiversity

Ref	Existing area habitats				Distinctiveness		Condition		Strategic significance			Required Action to Meet Trading Rules	Spatial risk multiplier Spatial risk category	Ecological baseline Total habitat units
	Broad habitat	Habitat type	Irreplaceable habitat	Area (hectares)	Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic significance multiplier			
1	Urban	Artificial unvegetated, unsealed surface	No	2.2217	V.Low	0	N/A - Other	0	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Compensation Not Required	Compensation inside LPA boundary or NCA of impact site	0.00
2	Urban	Developed land; sealed surface	No	0.8664	V.Low	0	N/A - Other	0	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Compensation Not Required	Compensation inside LPA boundary or NCA of impact site	0.00
3	Urban	Introduced shrub	No	0.0182	Low	2	Condition Assessment N/A	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required ≥	Compensation inside LPA boundary or NCA of impact site	0.04
4	Heathland and shrub	Mixed scrub	No	0.5676	Medium	4	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required (≥)	Compensation inside LPA boundary or NCA of impact site	2.27
5	Grassland	Other neutral grassland	No	0.1009	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required (≥)	Compensation inside LPA boundary or NCA of impact site	0.81
6	Grassland	Other neutral grassland	No	0.0251	Medium	4	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required (≥)	Compensation inside LPA boundary or NCA of impact site	0.10
7	Urban	Vacant or derelict land	No	0.0143	Low	2	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required ≥	Compensation inside LPA boundary or NCA of impact site	0.03
8														
9														
10														
11														
12														
				Total habitat area		3.81								3.84

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

16. 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.
17. Once trading rules are complied with, the 'gain' component can come from any distinctiveness category.

Habitat Unit Score

18. The Site has been assessed as having a baseline score of 0.10 Habitat Units. These break down as shown in Table 3, below.

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

Distinctiveness	Units	Approach to compensation if lost
Very Low	0	No compensation required.
Low	0.10	Can be replaced with <u>any</u> habitat of the same distinctiveness (low) or any habitat from a higher distinctiveness (Medium, High or Very High)
Medium	0	<u>Can not</u> be replaced with habitats from a lower distinctiveness. Compensation needs to be like for like, or like for better. This means it can only be replaced by habitat from the same broad categories in Medium distinctiveness, or any habitat from a higher distinctiveness category (High or Very High).
High	0	Can only be replaced with the same habitat.
Very High	0	Can only be replaced with the same habitat; bespoke compensation required.
Irreplaceable	0	Bespoke compensation required, outside of BNG.

Part 2

Post-development value

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

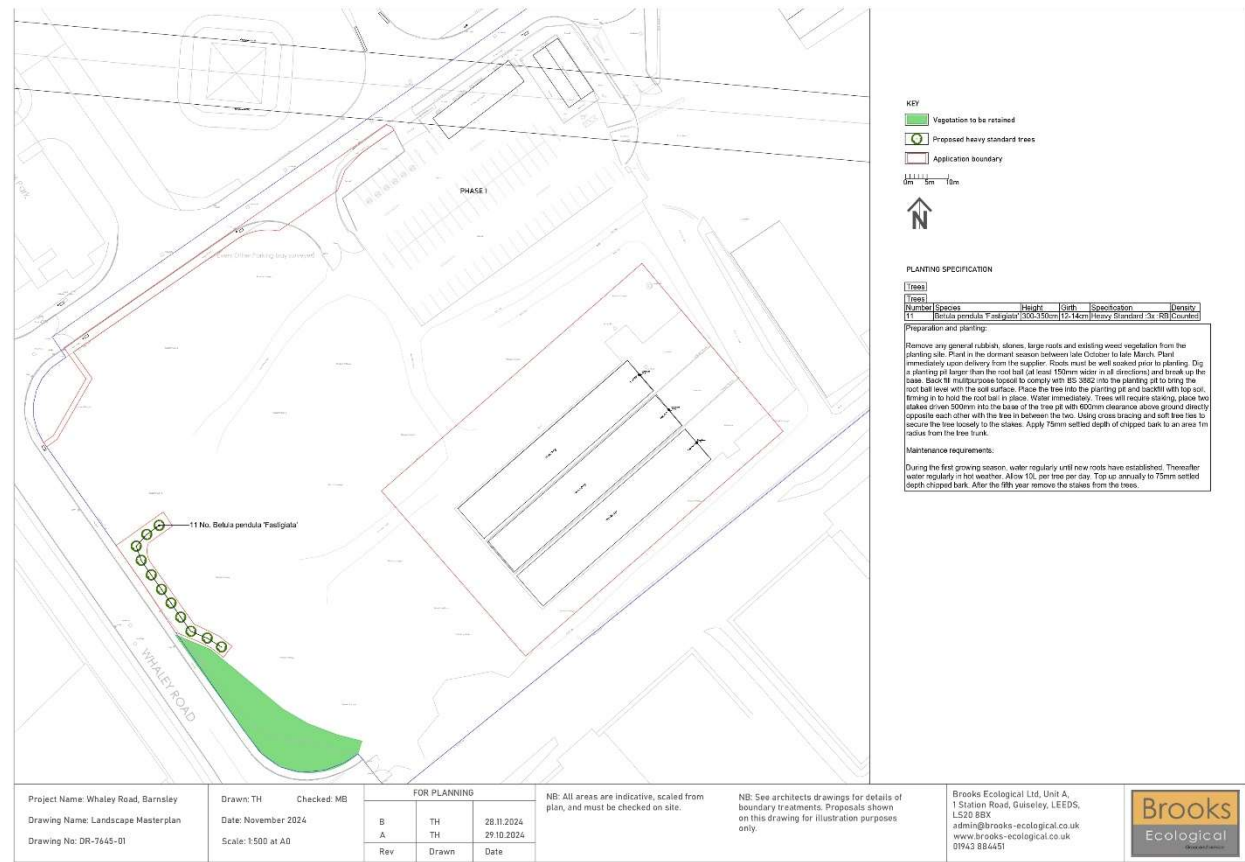
Proposed habitats

20. Habitats present on-Site post-development have been based on the Landscape Masterplan (Figure 5, opposite) dwg. DR-7645-01 Rev B (Brooks Ecological, November 2024).
21. Planting types specified in the Landscape Masterplan have been assigned a UK Habitat Classification description that best fits the target habitat.
22. Habitats assigned are shown in Figure 5 overleaf.

Condition assessment

23. The condition assessment for each proposed habitat is based on what is realistic and achievable for the Site, based on the Proposed Site Plan.
24. 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 5 Proposed Site Plan dwg. DR-7645-01 Rev B (Brooks Ecological, November 2024)

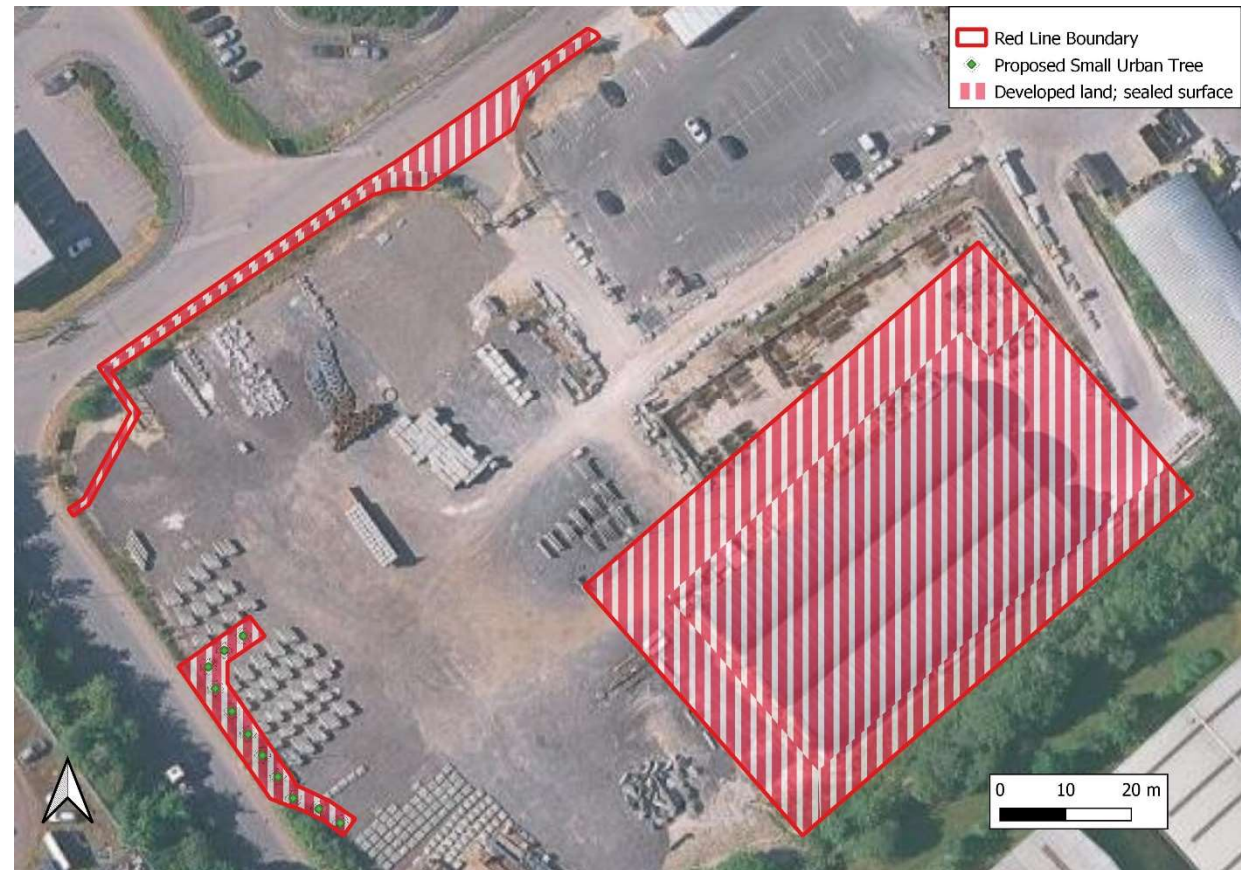


Post-development habitats

Habitat Score

25. The Site has been assessed as having a post-development score of 0.13 Habitat Units.
26. This score is based on our interpretation of the Landscape Masterplan, as shown in Figure 5 opposite.
27. Calculations for the change in Habitat Units have been based on the entire Site being cleared of existing habitats and land reprofiled, which results in the loss of all 0.10 Habitat Units present pre-development.
28. Post-development calculations are based on proposals for the red-line land to be resurfaced and covered with hard standing tarmacadam/concrete.
29. The red-line boundary has been mapped as *developed land; sealed surface*, which contributes no Habitat Units to the post-development score.
30. Eleven small birch trees are proposed to be planted along the western edge of the Site. These contribute the entire 0.13 Habitat Units created at the Site.
31. The loss of Low-distinctiveness *vacant/derelict land* habitat is compensated for by the creation of new habitats on-Site (*individual urban trees*). This means that the trading rule is satisfied.

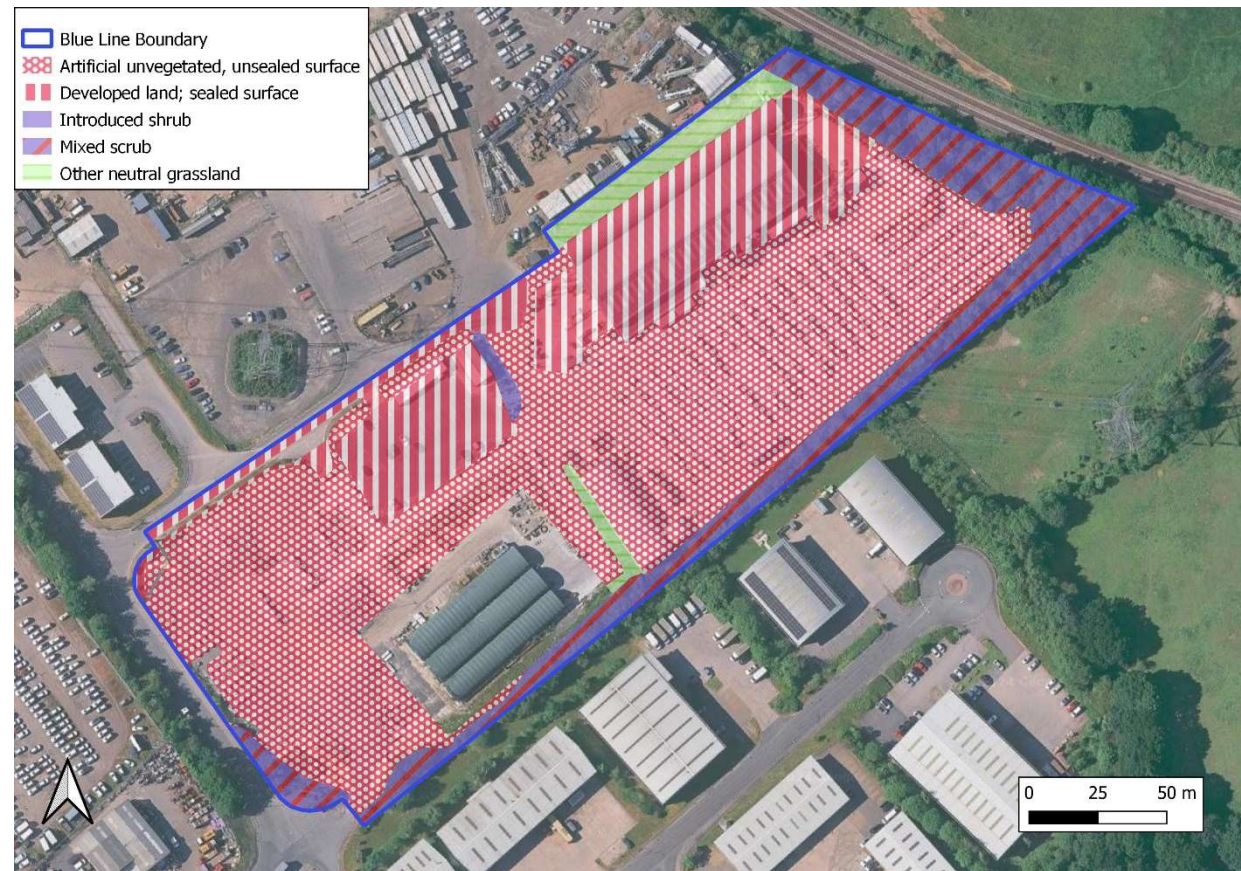
Figure 6 Post-development habitats.



Habitat Retention

32. The plan opposite shows the areas of the blue-line land which it will be possible to retain without impact. This information allows us to see which areas can be identified as retained or enhanced in the metric calculations.
33. This plan is based on information provided by the developer who will have considered / consulted their team on requirements to provide (amongst other things) Site compounds, to store and move materials, to install drainage, flood storage, access and services - all with suitable easements.
34. At this stage metric calculations assume that it will be possible to fence off and protect the areas shown opposite from any impacts of Site clearance and construction and that any enhancement can be carried out alongside relevant phases of the proposed development.

Figure 7 Habitat retention



DEFRA Metric² (Post-development)

35. This metric sets out the predicted score for the Site following the completion of development. This is based on the Proposed Site Plan provided by the client.

Figure 8 On-Site habitat creation.

	Post intervention habitats										
Ref	Broad Habitat	Proposed habitat	Area (hectares)	Distinctiveness	Condition	Strategic significance	Temporal multiplier		Difficulty multiplier	Habitat units delivered	
				Distinctiveness	Condition	Strategic significance	Standard or adjusted time to target condition	Final time to target condition (years)	Final difficulty of creation		
1	Urban	Developed land; sealed surface	0.1677	V.Low	N/A - Other	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	0	Low	0.00	
2	Individual trees	Urban tree	0.0448	Medium	Poor	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	10	Low	0.13	
3											
4											
5											
6											
Total habitat area			0.21								0.13
Site Area (Excluding area of individual trees, green walls, intertidal hard structures)			0.17								

Figure 9 Off-Site habitat retention.

	Existing area habitats				Distinctiveness		Condition		Strategic significance			Required Action to Meet Trading Rules	Spatial risk multiplier		Ecological baseline						
Ref	Broad habitat	Habitat type	Irreplaceable habitat	Area (hectares)	Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic significance multiplier		Spatial risk category	Total habitat units	Area retained	Area enhanced	Baseline units retained	Baseline units enhanced	Area lost	Units lost	
1	Urban	Artificial unvegetated, unsealed surface	No	2.2217	V.Low	0	N/A - Other	0	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Compensation Not Required	Compensation inside LPA boundary or NCA of impact site	0.00	2.2217		0.00	0.00	0.00	0.00	
2	Urban	Developed land, sealed surface	No	0.8664	V.Low	0	N/A - Other	0	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Compensation Not Required	Compensation inside LPA boundary or NCA of impact site	0.00	0.8664		0.00	0.00	0.00	0.00	
3	Urban	Introduced shrub	No	0.0182	Low	2	Condition Assessment: N/A	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required 2	Compensation inside LPA boundary or NCA of impact site	0.04	0.0182		0.04	0.00	0.00	0.00	
4	Heathland and shrub	Mixed scrub	No	0.5678	Medium	4	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required 2	Compensation inside LPA boundary or NCA of impact site	2.27	0.5678		2.27	0.00	0.00	0.00	
5	Grassland	Other neutral grassland	No	0.1009	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required 2	Compensation inside LPA boundary or NCA of impact site	0.81	0.1009		0.81	0.00	0.00	0.00	
6	Grassland	Other neutral grassland	No	0.0251	Medium	4	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required 2	Compensation inside LPA boundary or NCA of impact site	0.10	0.0251		0.10	0.00	0.00	0.00	
7	Urban	Vacant or derelict land	No	0.0143	Low	2	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required 2	Compensation inside LPA boundary or NCA of impact site	0.03	0.0143		0.03	0.00	0.00	0.00	
8																					
9																					
10																					
11																					
12																					
13																					
Total habitat area				3.81									3.84		3.81	0.00	3.84	0.00	0.00	0.00	

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

- 36. The Statutory Metric has been used to calculate the net unit change for the Site, which has been predicted an overall net gain of 0.02 Habitat Units (+20.66%).
- 37. A copy of the Statutory Biodiversity Metric Calculation Tool Excel spreadsheet (ref. BM-7645-01B) and Condition Assessment sheets (CA-7645-01) have been provided with this report and should be submitted digitally as part of the application.
- 38. 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.
- 39. The creation of new habitat on-site in the form of urban trees leads to a gain of 0.02/20.66% Habitat Units.

Trading Rules

- 40. Habitat types are separated out into distinctiveness categories (Very low to Very High) which dictate what mitigation/ compensation is required for their loss. This assessment is separate to the 'net unit change' score quoted above.
- 41. To satisfy Trading Rules for this development, compensatory units can come from any broad Habitat Type with low or greater distinctiveness.
- 42. As a gain in Habitat Units is achieved on-site, the Trading Rules are satisfied.

Requirements for Planning

- 43. 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. Current proposals achieve both these requirements.
- 44. A Net Gain Plan and Habitat Monitoring and Management Plan will also be required in order to discharge the planning condition that will be imposed.

Figure 10 Biodiversity Metric Summary.

FINAL RESULTS		
Total net unit change <small>(Including all on-site & off-site habitat retention, creation & enhancement)</small>	Habitat units	0.02
	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	20.66%
	Hedgerow units	0.00%
	Watercourse units	0.00%
Trading rules satisfied?	Yes ✓	

References

Chartered Institute of Ecology and Environmental Management (CIEEM). 2019. *Advice note: on the lifespan of ecological reports and surveys*. Winchester: Chartered Institute of Ecology and Environmental Management. [Online]. Available from: <https://cieem.net/resource/advice-note-on-the-lifespan-of-ecological-reports-and-surveys/>

The Statutory Biodiversity Metric User Guide (draft). 2023. London: Department for Environment, Food and Rural Affairs (DEFRA). [Online]. Available from: <https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides>

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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-7645-01B – Statutory Biodiversity Metric Calculation Tool
- CA-7645-01 – Statutory Biodiversity Metric Condition Assessments
- ER-7645-01A – Preliminary Ecological Appraisal