

AWE 250 BROOK DRIVE

Biodiversity Net Gain Assessment

LAN5156-770 AWE 250
Brook Drive
AWE: BNG Assessment
Final
September 2025

REPORT

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Contents

1 INTRODUCTION 1

1.1 Purpose and Scope of this Report 1

1.2 Biodiversity Net Gain Definition and Methods.....1

2 BASELINE DESCRIPTION.....3

2.2 UK Habitat Survey – Overview.....3

3 BIODIVERSITY ENHANCEMENT STRATEGY 6

3.1 Habitats 6

4 CONCLUSIONS AND SUMMARY 8

5 REFERENCES 9

Tables

Table 2.1: Habitat Condition Assessments – Native Hedgerow.....3

Table 2.2: Habitat Condition Assessments – Individual Trees.....4

Table 2.3: Habitat Condition Assessments – Grassland 4

Table 2.4: Habitat Condition Assessments – Bare ground.....4

Figures

Figure 2.1: Phase 1 Habitat Survey (pre-development habitat) 5

Figure 3.1: Post-development habitat.....7

Figure 4.1: Statutory Metric Calculation Tool Headline Results 8

1 INTRODUCTION

1.1 Purpose and Scope of this Report

- 1.1.1 RPS was commissioned by AWE to produce a Biodiversity Net Gain (BNG) Assessment for the development works at AWE 250 Brook Drive, Reading RG2 6UA.
- 1.1.2 The site was 0.41 hectares (ha) in size and comprised artificial unsealed surface and developed land, sealed surface (both buildings and car park/road areas), a small area of amenity grassland, a number of individual trees and native hedgerows. The National Grid coordinates for the centre of the site are SU704699.
- 1.1.3 The site proposals consist of the removal of two trees, a small section of hedgerow, a small area of grassland, and the creation of paths, shelters and security upgrades to the site.
- 1.1.4 A UK Habitat (UKHab) survey and habitat condition assessment was undertaken by RPS in May 2024, with a Preliminary Ecological Appraisal issued in 2025 (RPS, 2025). These provided the ecological baseline necessary to undertake a BNG Assessment of the site.
- 1.1.5 This BNG assessment report aims to:
- Calculate and assess the baseline ecological status and condition of current habitats identified on site;
 - Calculate the biodiversity value of the site post-development; and
 - Provide a summary of the habitat enhancements and creation proposals designed to ensure net gain is achieved.
- 1.1.6 The recommendations included within this report are the professional opinion of an experienced ecologist and therefore the view of RPS.

1.2 Biodiversity Net Gain Definition and Methods

- 1.2.1 Biodiversity Net Gain is defined in Baker *et al.* (2019) as:
- "Development that leaves biodiversity in a better state than before"*
- 1.2.2 The requirement for developments to seek to achieve BNG arises from the National Planning Policy Framework (NPPF, 2024), which states in Para. 187 (d) that:
- "Planning policies and decisions should contribute to and enhance the natural and local environment by ... minimising impacts on and providing net gains for biodiversity."*
- 1.2.3 An accepted method of assessing BNG is through the use of biodiversity calculators to assess the biodiversity value of habitats pre- and post-development based on habitat type, distinctiveness and condition.
- 1.2.4 A biodiversity index is derived for the baseline and for the proposed development, and BNG is considered to be achieved where an increase in value is delivered (on or offsite), and where habitats of a higher value are not replaced exclusively with habitats of a lower value.
- 1.2.5 The methods of calculating BNG for this project followed the guidance produced by DEFRA for their Statutory Biodiversity Metric (DEFRA, 2024). The tool and associated documents were downloaded from: [Statutory biodiversity metric tools and guides - GOV.UK](https://www.gov.uk/guidance/statutory-biodiversity-metric-tools-and-guides)

Condition Assessment

- 1.2.6 In conjunction with the UKHab Survey, a habitat condition assessment was undertaken for the habitats present within the project boundary. The appropriate 'condition sheet' was first selected via the Table TS1-1a in the technical supplement provided by Pank *et al.* (2023).
- 1.2.7 The condition sheet was then used to assess the individual habitats by comparing how they scored against pre-set condition assessment criteria. The criteria describe what components are needed for the habitat to be of good, moderate or poor value.

1.2.8 Each habitat was scored the following:

- 1 – Poor;
- 2 – Moderate; and
- 3 – Good.

1.2.9 The calculator allows these to be further divided and provides categories for fairly good and fairly poor. The ecologist undertaking the assessment used their professional judgement, considering the habitat condition assessment criteria, to decide when it was suitable to use these categories.

1.2.10 It should be noted that some habitats are given a fixed score and do not need assessing.

2 BASELINE DESCRIPTION

2.1.1 The pre-development habitat is shown on Figure 2.1. Only habitats that were deemed to have an ecological value are discussed further.

2.2 UK Habitat Survey – Overview

2.2.1 A full list of the habitats identified within the redline boundary are provided below:

- Native Hedgerow;
- Modified Grassland;
- Bare Ground;
- Individual Trees;
- *Introduced Shrub*
- *Developed Land – Hardstanding*; and
- *Artificial unvegetated, unsealed surface*.

2.2.2 The habitats in italics were considered to be of no ecological value or were not going to be impacted by the development and therefore are not considered further in terms of the BNG assessment.

Native Hedgerow

2.2.3 Native hedgerow was found within the car park, between areas of parking. These hedgerows were species poor, comprising of only field maple *Acer campestre*.

2.2.4 The hedgerow measured 0.012 kilometres (km) in total, with all of this being removed post-development, and gave a poor condition score. The hedgerow provided **0.02 hedgerow units**.

2.2.5 A condition assessment for the hedgerow described above is provided in Table 2.1.

Table 2.1: Habitat Condition Assessments – Native Hedgerow

Category	Height >1.5m	Width >1.5m	Gap between ground & base <0.5m	Gaps make up less than 10% total length	Undistur bed ground for >90% of length	Plant species indicativ e of nutrient rich soils	Free of invasive species	Free of damage	Score and Condition
Native Hedge	Y	N	N	N	N	N	Y	N	Poor

Individual Trees

2.2.6 Four individual trees were present within the redline boundary. The trees were located within the car park area. These four trees were field maple, and common alder *Alnus glutinosa*.

2.2.7 The area of four small, moderate condition trees measured 0.0163 ha (providing **0.13 habitat units**). Two of these trees are being removed during the development.

2.2.8 A condition assessment for each group of trees described above is provided in Table 2.2.

Table 2.2: Habitat Condition Assessments – Individual Trees

Category	Native species	Canopy gaps <10%	Mature	No human adverse impact	Vertebrate ecological niches present	20% tree canopy vegetation beneath	Score and Condition
1 x small tree	Y	N	N	Y	N	Y	Moderate
3 x small tree	Y	Y	N	N	Y	Y	Moderate

Modified Grassland

- 2.2.9 An area of amenity grassland was present on site, located around the paths and building. This is defined in the BNG metric as “Grassland – Modified grassland”.
- 2.2.10 Species present include those typical of this habitat type, such as perennial ryegrass *Lolium perenne*, coach grass *Agropyron repens* and Yorkshire fog *Holcus lanatus*.
- 2.2.11 The area of poor condition modified grassland measured 0.035 ha, equivalent to **0.07 habitat units**. Most of this habitat will be lost to build hardstanding post-development.
- 2.2.12 A condition assessment for the grassland described above is provided in Table 2.3.

Table 2.3: Habitat Condition Assessments – Grassland

Grassland habitats	6-8 vascular species*	Varied sward height	Scrub > 20%	Physical damage > 5%	Bare ground between 1- 10%	Bracken cover > 20%	Absence of Invasives	Score and Condition
Modified Grassland	N	N	Y	N	N	Y	Y	Poor

*This criterion is essential for achieving moderate or good condition score.

Bare Ground

- 2.2.13 Areas of bare ground can be split into 3 categories: tree beds, almost empty flower beds, and bare ground with small areas of scrub (but mainly bare ground). The tree beds and flower beds are found in the car park, and the bare ground with scattered scrub is located at the front of the site, surrounding the car park and entrance to the site.
- 2.2.14 The area of poor condition amenity grassland measured 0.034 ha, equivalent to **0.07 habitat units**. 0.024 ha of this habitat will be retained post-development.
- 2.2.15 A condition assessment for the bare ground described above is provided in Table 2.4.

Table 2.4: Habitat Condition Assessments – Bare ground

Grassland habitats	Vegetation structure is varied	Plant species beneficial for wildlife	Invasive non-native > 5%	Score and Condition
Bare ground (tree beds, flower beds etc)	N	N	Y	Poor
Bare ground (entrance)	N	N	Y	Poor

Figure 2.1: Phase 1 Habitat Survey (pre-development habitat)



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LEGEND

- Site boundary
- Survey area
- Heathland and shrub - Mixed scrub
- Urban tree
- Buildings
- Hardstanding - paths
- Introduced shrub
- Modified grassland
- Sparsely vegetated land – Ruderal / Ephemeral
- Urban - bare ground
- Hedgerow



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Client **AWE**

Project **250 Brook Drive, Reading**

Title **Baseline UKHab Classification Map**

Status	Drawn By	PM/Checked By
FINAL	LP	LC
Project Number	Scale @ A3	Date Created
LAN5156-770	1:750	SEP 2025

Figure Number	Rev
2.1	04

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3 BIODIVERSITY ENHANCEMENT STRATEGY

3.1 Habitats

3.1.1 The habitats on the proposed development site are shown on Figure 3.1.

3.1.2 No post-development biodiversity enhancements will be undertaken on site. Offsite credits will be purchased in order to meet biodiversity net gain.

Figure 3.1: Post-development habitat.



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LEGEND

- Site boundary
- Survey area
- Heathland and shrub - Mixed scrub
- Urban tree to be retained
- Urban tree to be removed
- Buildings
- Hardstanding - paths
- Introduced shrub
- Modified grassland
- Sparsely vegetated land – Ruderal / Ephemeral
- Urban - bare ground
- Hedgerow to be retained
- Hedgerow to be removed
- Built urban features (Proposed security fence)

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Client	AWE	
Project	250 Brook Drive, Reading	
Title	Post-development Habitats	
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FINAL	LP	LC
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4 CONCLUSIONS AND SUMMARY

- 4.1.1 The development plans and post-development site enhancements result in a total net unit change of **-57.32% for habitat units**, and a total net percentage change of **-100% for hedgerow units**.
- 4.1.2 However, due to the small size of the redline boundary, achieving BNG and satisfying the trading rules has not been possible.
- 4.1.3 The total habitat units post-development delivered by the proposals is **-0.15 habitat units** and **-0.02 hedgerow units**.
- 4.1.4 A summary screenshot from the calculator tool is provided in Figure 4.1 below.
- 4.1.5 To achieve a net gain of 10% for habitats and hedgerows a financial contribution to BioCap (or a similar offsetting provider) will be provided.

Figure 4.1: Statutory Metric Calculation Tool Headline Results

FINAL RESULTS		
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Area habitat units	-0.15
	Hedgerow units	-0.02
	Watercourse units	0.00
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	Area habitat units	-57.32%
	Hedgerow units	-100.00%
	Watercourse units	0.00%
Trading rules satisfied?	No - Check Trading Summaries ▲	

Unit Type	Target	Baseline Units	Units Required	Unit Deficit
Area habitat units	10.00%	0.27	0.30	0.18
Hedgerow units	10.00%	0.02	0.03	0.03
Watercourse units	10.00%	0.00	0.00	0.00

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