Biodiversity Net Gain Assessment

2 Cotswold Road

Worthing

West Sussex

BN13 2LA



28th August 2025

Sylvatica Ecology Ltd

Company Registration Number: 07705793

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Limitations and Liabilities

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It should be borne in mind that the behaviour of animals can be unpredictable and may not conform to standard patterns recorded in scientific literature. Therefore, this report cannot predict with absolute certainty that animal species will occur in apparently suitable locations or habitats, or that they will not occur in locations or habitats that appear unsuitable.

In order to minimise the likelihood of adverse effects on protected animal species over time, it is accepted good practice, in accordance with Natural England (NE) (formerly English Nature) guidance for ecological surveys to be repeated should works be deferred for over 12 - 18 months from the date of initial survey.

It is the duty of the landowner, developer and operations managers to act responsibly and to comply with current environmental legislation if protected species are suspected or found prior to, or during works.

The recommendations and information contained within this report are based on the information provided on the development works prior to the surveys being carried out. Should the development proposals change then the findings and recommendations contained within would potentially require revision.

The findings within this report do not constitute legal advice. Should this be required, then a suitably qualified professional practitioner should be contacted.

Author	Signed	Contact
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1.0 INTRODUCTION

1.1 This document presents the small sites biodiversity net gain (BNG) assessment relating to 2 Cotswold Road, Worthing West Sussex, BN13 2LA This assessment aims to quantify the predicted change in ecological value of the site following the proposed development works to be carried out at this location. The site area was approximately 150m^2.

1.2 BNG became effective in January 2024 (April 2024 for smaller sites) following the Environmental Act 2021, which states that a target of 10% net gain in biodiversity should be achieved, with biodiversity value being maximised on site whenever possible.

1.3 Should any changes to the design of the development be made then the BNG score and metric would need to be updated in-line with any such changes. The measures would be carried forward for a period of 30 years after planning permission has been granted and also during the construction phase.

Previous Surveys

1.4 A site walkover to map the habitats was conducted in accordance with guidance un the UK Habitat Classification System (UKHab) and the Charted Institute of Ecological and Environmental Management (CIEEM) (2017) Guidelines for Preliminary Ecological Appraisal, in accordance with BS42020:2013 Biodiversity.

1.5 A walkover was conducted by Arbtech Consultancy on the 22nd November 2023 with an updated walkover survey conducted by Sylvatica Ecology Ltd on the 5th June 2025.

Development Proposal

1.6 it is proposed to install two commercial units at this location. The installed habitats will comprise of a small area of hedgerow planting and amenity garden space to the front.

Site Description and Adjacent Habitat

1.7 The site at 2 Cotswold Road, Worthing, West Sussex BN13 2LA comprised a single timber building with associated hardstanding and a small garden area. The front of the building included paving slabs, while the garden to the rear consisted of bare ground with limited vegetation and some rubble piles. The vegetated area supported occasional patches of bramble, dandelion, thistle, dock, nettles and other common ruderal species. The garden was enclosed by timber fencing and a small brick wall, with no notable habitats or invasive plant species recorded. One small bay tree was present but did not support features suitable for roosting bats. Overall, the site supported only low-quality, urban fringe habitats of limited ecological value.

1.8 The surrounding landscape was predominantly residential, comprising roads, buildings, and domestic gardens, with very limited natural habitat connectivity. There were no designated statutory sites within 2.0km, and limited sub-optimal bat foraging opportunities existed in nearby gardens and playing fields. Woodland patches located approximately 1.35km northeast offered higher quality habitat for bats, but no strong habitat linkages to the site were identified. Overall, the surrounding area was heavily urbanised with fragmented and low-value ecological features.

1.9 ***Figure 1: Site Survey Location (Red Line Boundary)***



2.0 METHODOLOGY

Good Practice Principles

2.1 To calculate the ecological value of the pre and post development site, the Department for Environmental, Food & Rural Affaires (DEFRA) Small Sites Statutory Biodiversity Metric (4.0) was used, following best practice from DEFRA and Natural England. The completed statutory biodiversity metric is provided as a separate document and this report provides additional information on how the calculations have been undertaken.

2.2 Good practice guidance from the Chartered Institute for Ecology and Environmental Management (CIEEM) provides a framework that helps to improve the UK's biodiversity by contributing towards strategic principles to conserve and enhance nature while progressing

with sustainable development. ***Table 1*** provides additional information on each of these principles and how the development has or can achieve these requirements.

2.3 ***Table 1: Good Practice Principles and Discussion***

Good Practice Principle	Discussion
1: Apply the Mitigation Hierarchy	The habitats present on site are common and widespread. The comprised entirely of hardstanding, a building and ruderal vegetation.
2: Avoid Losing Biodiversity that Cannot be Offset by Gains Elsewhere	There were not any irreplaceable habitats affected by the proposed development.
3: Be Inclusive and Equitable	Sylvatica Ecology has provided advice on measures to achieve the 10% net gain target.
4: Address Risks	The ecologists at Sylvatica Ecology have provided input to both protect and improve biodiversity. The statutory biodiversity metric also included inbuilt risk factors with contribute towards calculating overall biodiversity value.
5:Make a Measurable Net Gain Contribution	The development is likely to achieve a net gain in biodiversity through on-site provision. This will ensure that there are on site local gains whilst also contributing to provision of biodiverse habitats at a wider scale.
6: Achieve the Best Outcomes for Biodiversity	The landscape design improves the biodiversity value on site.
7: Be Additional	The proposals will look to meet a minimum of 10% BNG. The small size of the site and heavily urbanised location limits the potential ecological enhancement opportunities. Planting of native species hedging will take place as an additional ecological benefit.
8: Create a Net Gain Legacy	The detail relating to the project will be secured within the planning condition.
9: Optimise Sustainability	The design has been created with biodiversity in mind.
10: Be Transparent	Advice on enhancing the ecological value of the site was provided during the design process and will be used as part of the development of the detailed design should outline planning permission be granted.

Habitat Mapping, Condition Assessment and Baseline Calculation Methods

2.4 Condition assessment were not required as part of this small sites calculation and the habitat mapping was carried out using QGIS

2.5 The tree helper within the statutory metric was used to determine the area of the trees based on their size at diameter at breast height (dbh). Trees smaller than 7.5cm dbh were not included in the calculations.

2.6 The updated site survey data used for the calculations was 5th June 2025 as this appeared to be a good representation of the habitats present on site with an earlier date not required.

Successful Habitat Creation and Condition

2.7 The time that will elapse between site habitat clearance and habitat re-creation is, as yet, unknown. This time is recorded within the Statutory Biodiversity Metric as a temporal multiplier called 'delay in starting habitat', which is added to each post development habitat type, and increases 'time to target condition'. As a general pattern, the longer the time elapsed between habitat clearance and creation, the longer it takes to achieve the targeted habitat condition, which can lower the metric score.

2.8 Currently it is assumed that a 0-year delay has currently been used for each post-development habitat type. The target habitat conditions for the created habitats post development are given as moderate/ good.

Competencies

2.9 The survey work and reporting has been led by Richard Law BSc MRes CEnv MCIEEM FLS. Richard has been undertaking ecological survey work within the last 18 years on many different locations throughout the United Kingdom, for a variety of protected species, including bats (Class 2 2015-12576), reptiles, amphibians including great crested newt (*Triturus cristatus*) (Class 1 2016-20290) and terrestrial mammals including dormice (*Muscardinus avellanarius*) (Class 1 2015-13188) and birds including barn owl (*Tyto alba*) licence (CL29/00236). Richard is also qualified in track and sign and trailing *via* an international system of assessment (www.trackercertification.com).

3.0 RESULTS

3.1 This section presents the findings of the biodiversity net gain calculation, the units present onsite prior to development (baseline), the units present post development and the total biodiversity net gain change in units as a percentage calculation.

Baseline Conditions

3.2 ***Table 2: Onsite Baseline Conditions***

Onsite Baseline	**Habitat Units**	**0.0224**
	Hedgerow Units	**N/A**

3.3 The size and condition of habitats present onsite at the time of the survey gives a total of 0.0224 habitat units. This was comprised of hard standing/ a building and ruderal vegetation.

3.4 No irreplaceable habitats are present within the development footprint.

Post Development Habitats

3.5 ***Table 3: Post Development Habitats***

Onsite Post Intervention	**Habitat Units**	**0.0284**
	Hedgerow Units	**0.1571**

3.6 With the post development habitats created and the associated target conditions achieved, this gives a total 0.0284 habitat units.

3.7 Post development the site is proposed to contain the following habitats: Developed land/ sealed surface, vegetated garden and the planting of two small trees to the front of the property as part of the garden areas. The recommended trees would comprise of rowan *Sorbus aucuparia*.

4.0 LONG TERM MANAGEMENT

4.1 The habitats present on site post development would not require any long-term management agreement to be in place. A planning condition can be implemented to ensure watering of the small trees and replacement should the growing of this not be successful.

5.0 NET GAIN SUMMARY & CONCLUSIONS

5.1 The baseline habitats present on sites provide 0.0224 habitat units. At the post development stage taking into account the newly created habitat, it is anticipated that there will be 0.0284 habitat units following implementation of the scheme. ***Table 4*** below is a summary of the change in habitat and hedgerow units present on site. Full headline results are also shown in ***Appendix C***.

5.2 ***Table 4: Total Net Unit Change and Percentage Change***

Total Net % Change	**Habitat Units**	**0.006 (+26.59%)**
	Hedgerow Units	**0.1571**

5.3 The post development habitat creation within the design of the scheme has resulted in a total increase of 0.006 habitat units which give a Biodiversity Net Gain of +26.59%.

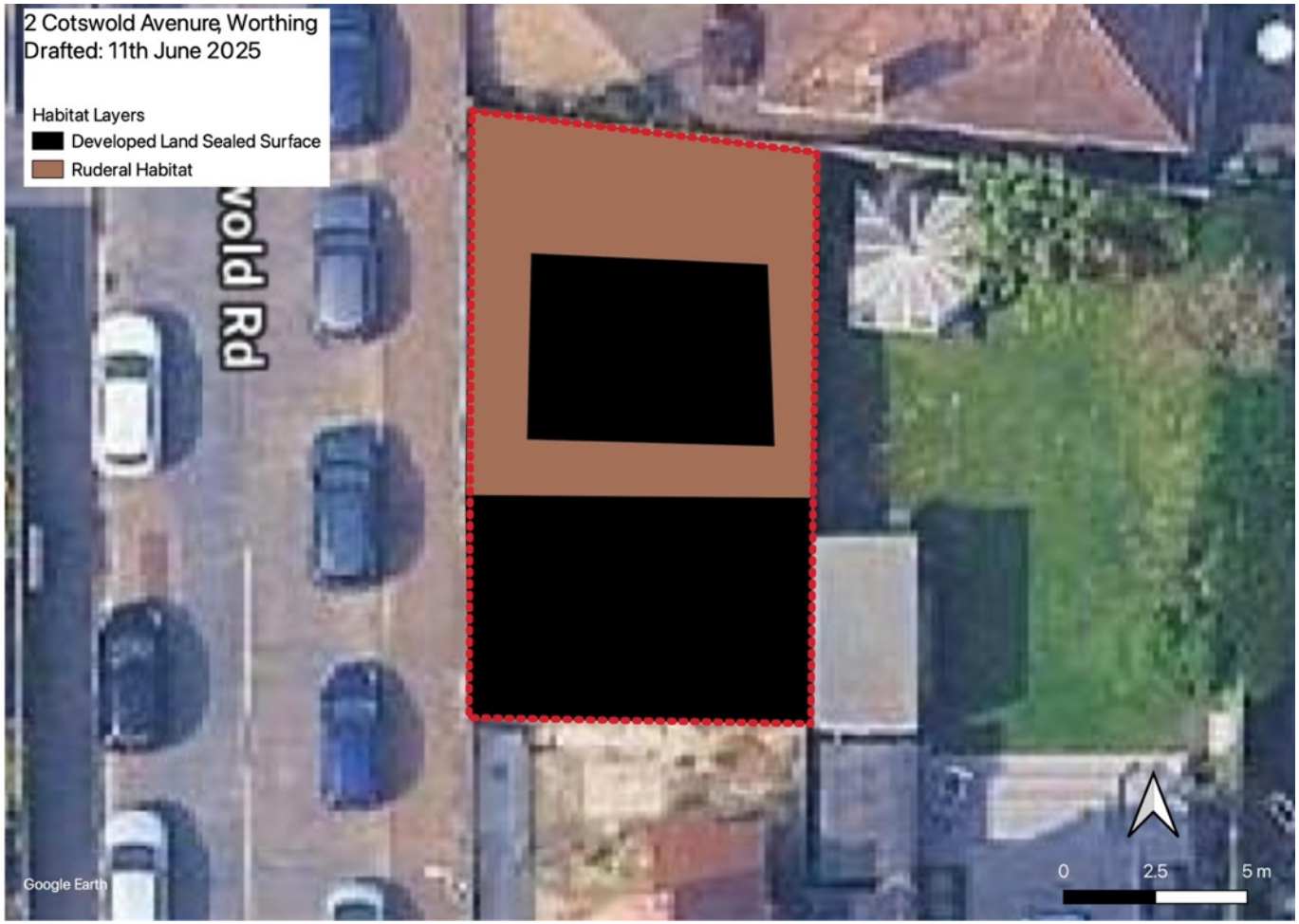
6.0 REFERENCES

CIEEM (2016) Biodiversity Net Gain – Good Practice Principles for Development

DEFRA (2023) Statutory Biodiversity Metric Draft User Guide

Natural England (2023) The Statutory Biodiversity Metric and Small Sites Metric – QGIS Template and QGIS Import Tool User

APPENDIX A: BASELINE HABITATS



APPENDIX B: HABITATS POST DEVELOPMENT



APPENDIX C: HEADLINE RESULTS OF NET GAIN ASSESSMENT

Headline Results

Headline		BNG Targets Met ✓
Trading Rules		Trading Rules Satisfied ✓
Next steps		Check for input errors/rule breaks present in the metric ⚠
Baseline Units	*Habitat units*	0.0224
	Hedgerow units	Zero Units Baseline
	Watercourse units	Zero Units Baseline
Post-development Units	*Habitat units*	0.0284
	Hedgerow units	0.1571
	Watercourse units	0.0000
Total net unit change	*Habitat units*	0.0060
	Hedgerow units	0.1571
	Watercourse units	0.0000
Total net % change	*Habitat units*	26.59%
	Hedgerow units	% target not appropriate
	Watercourse units	% target not appropriate
Habitats units required to meet target		0.0000
Hedgerow units required to meet target		0.0000
Watercourse units required to meet target		0.0000

Chart 1 - Unit change by habitat group

