

Biodiversity Net Gain Assessment

Oakfield

Coolham Road

Horsham

RH13 8QE

NGR: TQ 11476 20641



28th April 2026

Sylvatica Ecology Ltd

Company Registration Number: 07705793

<https://se-planning.com>

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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.

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1.0 INTRODUCTION

- 1.1 This document presents the small sites biodiversity net gain (BNG) assessment relating to land at Oakfield, Coolham Road, Horsham, RH13 8QE, NGR: TQ 11476 20641. 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.
- 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 on the UK Habitat Classification System (UKHab) and the Chartered 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 Sylvatica Ecology Ltd on the 16th April 2026.

Development Proposal

- 1.6 A planning application is to be submitted for the removal of three pre-existing buildings, which will lead to the construction of three new dwellings. This will include associated access routes, the introduction of new gardens, hedging and tree planting.

Site Description and Adjacent Habitat

- 1.7 The site comprised a mosaic of predominantly low ecological value habitats, dominated by hard-standing yards and sealed surfaces (u1b / u1c) associated with the existing farmstead, together with species-poor modified grassland (g4), a small area of recently scraped ground supporting pioneer ruderal vegetation, and a native species-rich hedgerow (h2a) of hawthorn with blackthorn, elder, field maple and bramble along the eastern boundary. Three pedunculate oaks *Quercus robur* were present, including one veteran standing dead / moribund tree and one mature, wide-crowned field-grown oak, alongside a line of semi-mature hawthorns along the access track.

- 1.8 No statutory designated sites lay within the 2.0 km search radius; the closest internationally designated site, The Mens SAC, was located 9.6 km to the west. Given the absence of direct impacts on hedgerows, trees or surrounding habitats, and the lack of any ecological corridor connecting the site to these features, no significant effects on designated sites or Priority Habitats are predicted.

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 Affairs (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
<i>1: Apply the Mitigation Hierarchy</i>	The habitats present within the works impact zone were bare ground, medium sized trees, sealed surface, modified grassland, as well as native hedges some mature/ veteran trees outside of the impact area.
<i>2: Avoid Losing Biodiversity that Cannot be Offset by Gains Elsewhere</i>	There were not irreplaceable habitats affected by the proposed development, and biodiversity will be increased by tree and native hedge planting.
<i>3: Be Inclusive and Equitable</i>	Sylvatica Ecology has provided advice on measures to achieve the 10% net gain target.
<i>4: Address Risks</i>	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.
<i>5: Make a Measurable Net Gain Contribution</i>	The overall design of the scheme will create an overall increase of biodiversity and of hedgerow units. It will include the planting of 34 medium sized trees.
<i>6: Achieve the Best Outcomes for Biodiversity</i>	The landscape design will incorporate ecological enhancement measures to support local species.
<i>7: Be Additional</i>	The proposed plans go beyond the stipulated BNG targets for an additional improvement to local diversity
<i>8: Create a Net Gain Legacy</i>	The plans will support an almost immediate habitat improvement which will continue to improve over the prescribed 30-year period.
<i>9: Optimise Sustainability</i>	The design is being developed with biodiversity in mind.
<i>10: Be Transparent</i>	Advice on enhancing the ecological value of the site was provided within the preliminary ecological assessment.

Habitat Mapping, Condition Assessment and Baseline Calculation Methods

2.4 Habitat mapping was carried out QGIS V 3.22.14-Bailowieza for MacOS 14.1. Habitat areas were calculated using this QGIS software.

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 site survey data used for the calculations was 16 April 2026 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

2.8 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.

2.9 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 normally given as moderate/ good.

Competencies

2.10 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	2.2681
	Hedgerow Units	0.18

- 3.3 The size and condition of habitats present onsite at the time of the survey gives a total of 2.27681habitat units and 0.18 hedgerow units.

Baseline Habitat Types Impacted by the Scheme and Condition Assessment

- 3.4 **Developed Land – Sealed and Unsealed Surfaces (UKHab: u1b, u1c):** The central area of the site is dominated by the agricultural buildings and their associated yards. Hard-standings of concrete slab, compacted hardcore and gravel extend between the structures, with no vegetation present. These areas are of negligible intrinsic botanical value.
- 3.5 **Modified Grassland** (UKHab: g4): The sward comprised of Yorkshire fog (*Holcus lanatus*), perennial ryegrass *Lolium perenne*, common bent *Agrostis capillaris*, white clover *Trifolium repens*, ribwort plantain *Plantago lanceolata*, meadow buttercup *Ranunculus acris*, and daisy *Bellis perennis*.
- 3.6 **Medium Sized and Large/ Veteran Deciduous Trees:** A large standing dead / moribund English oak stood within the scraped area, approximately 1.1–1.3 m DBH, with a skeletal retrenched crown, extensive deadwood, sloughing bark and evident rot-pockets and broken limb stubs. A mature, wide-crowned field-grown oak stood in front of the buildings, approximately 1.0–1.2 m DBH, in full leaf and good vigour, with a low, spreading, multi-limbed canopy, fissured bark, pruning wounds and early bark-plate separation. A short line of semi-mature, multi-stemmed hawthorns *Crataegus monogyna* ran along the gravel access track, 3–5 m tall with stems 8–15 cm diameter, growing as an open row with occasional bramble *Rubis fruticosus agg* and young elder *Sambucus nigra* at the base.
- 3.7 **Native Species Hedgerow:** A mature native hedgerow was along the eastern edge of the site. The hedge is dominated by hawthorn with occasional blackthorn *Prunus spinosa*, elder, field

maple *Acer campestre* and bramble within the overall structure. Ivy *Hedera helix* was also present on stems. The hedgerow is continuous, of varying height (approximately 2–4 m).

- 3.8 **Unmanaged Vegetated Garden and Bare ground:** A large rectangular area adjacent to the buildings has been recently scraped. Vegetation cover at the time of survey was very sparse, with pioneer and ruderal regrowth colonising the bare substrate. Species visible included creeping thistle *Cirsium arvense*, groundsel *Senecio vulgaris*, shepherd's-purse *Capsella bursa-pastoris*, and nettle *Urtica dioica*.

4.0 LONG TERM MANAGEMENT

- 4.1 The introduced Hedgerow and tree planting may require a Habitat Management and Monitoring Plan (HMMP) to be drafted to ensure the long-term viability of these over the required 30-year time-period.

5.0 NET GAIN SUMMARY & CONCLUSIONS

- 5.1 The baseline habitats present on site provides 2.27 habitat and 0.18 hedgerow units. At the post development stage taking into account the retained and newly created habitat, it is anticipated that there will be 3.1358 habitat units and 0.5947 hedgerow 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**

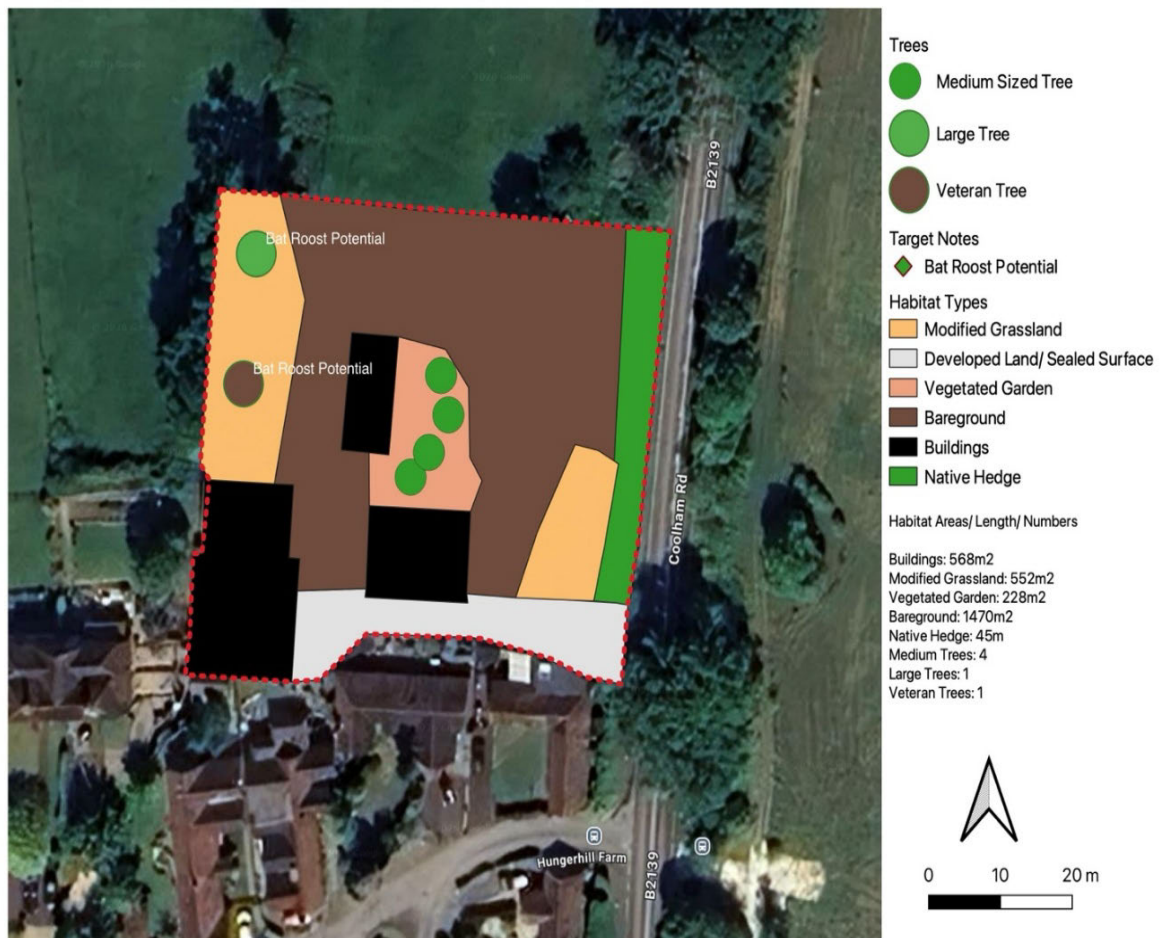
Total Net % Change	Habitat Units	+3.1358 (38.25%)
	Hedgerow Units	+0.5947 (230.41%)

- 5.3 The post development habitat creation within the design of the scheme has resulted in the gain of 0.8677 habitat units which give a biodiversity net gain of 38.25% and 0.59 hedgerow units, with a +230.41% change in hedgerow units.

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

Site Name		Oakfield	
Sheet Name		Headline Results	
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	2.2681	
	Hedgerow units	0.1800	
	Watercourse units	Zero Units Baseline	
Post-development Units	Habitat units	3.1358	
	Hedgerow units	0.5947	
	Watercourse units	0.0000	
Total net unit change	Habitat units	0.8677	✓
	Hedgerow units	0.4147	✓
	Watercourse units	0.0000	
Total net % change	Habitat units	38.25%	✓
	Hedgerow units	230.41%	✓
	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

