



BIODIVERSITY NET GAIN DESIGN REPORT

147-149 College Lane,
Hurstpierpoint, East Sussex

A REPORT FOR EARLSWOOD HOMES

This report provides an independent assessment of the value of the proposed habitats pre- and post-development in order to establish if the statutory requirement of Biodiversity Net Gain is achieved.

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Table 0.1 - Document and Version Control

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The surveys and assessment have been drafted to be in accordance with the British Standard for Biodiversity BS42020:2013, Biodiversity - Code for planning and development and the Code of Professional Conduct published by the Chartered Institute of Ecology and Environmental management.

N.B It must be noted that investigations of this sort provide only a snapshot in time of the ecological conditions of a site, are limited in extent and cannot capture the full picture of the biodiversity interests at the given location.

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Summary of Assessment

Earlswood homes commissioned Co-ecology Ltd to provide advice and support relating to the proposed development of seven new homes with associated hard and soft landscaping at land situated between 147-149 College Lane, Hurstpierpoint. The following points summarise the main results of this Biodiversity Net Gain Design Report:

- 1.1. The proposals include the creation of a mosaic of habitats which will increase biodiversity and complexity of the site. These include areas of species-rich *other neutral grassland*, native scrub and hedgerows, and native tree planting throughout the site.
- 1.2. A 2024 biodiversity net gain assessment by Derek Finnie Associates Ltd (2024b) established the baseline for BNG calculations, classifying all onsite trees as individual, non-native fruit trees in poor condition. However, this baseline was found to be incomplete. A subsequent review in 2025, informed by an Arboricultural Method Statement and a site visit, identified that some trees had been excluded from the original survey, including mature native broadleaved trees and trees at the site entrance. To ensure an accurate BNG calculation, a repeat assessment was undertaken. This updated assessment, included in this report, incorporates Condition Assessments for all trees to provide a correct and complete baseline.
- 1.3. The habitats within the proposed red line boundary were dominated by *g4- modified grassland – 32 Scattered trees (0.62ha)*, *h2a native hedgerow (0.020km)* and *h2b non-native and ornamental hedgerow (0.025km)*.
- 1.4. Under current proposals all modified grassland will be lost to facilitate the proposals; 0.24ha will be lost to developed land and 0.23ha to vegetated gardens. The remaining grassland will be used to create areas of wildflower-rich *other neutral grassland* and *mixed scrub*.
- 1.5. There are 22 trees within the red line boundary, the majority of which are non-native fruit trees. Eighteen trees will be lost to facilitate the development. To compensate for the loss of trees, 34 medium sized and 14 small sized native urban trees will be planted.
- 1.6. The objective of the proposed biodiversity measures was to increase the structural and biological complexity of the site and create habitats that benefit both on site and the surrounding landscape.
- 1.7. Proposed habitats comprise the creation of:
 - 0.145ha of *g3c – other neutral grassland*, poor condition;
 - 53 (0.6107ha) medium and small size urban *Individual Trees*, poor condition
 - 0.0047ha of *h3h – mixed scrub*, poor condition;
 - 0.2301ha – vegetated garden;
 - 0.2353ha *u1b developed land; sealed surface*;
 - 0.207km – *h2a native hedgerow (non-priority)*, poor condition.
- 1.8. The proposed-on site habitat creation with compensation for habitat loss are in line with environmental policies included within Mid Sussex District Council Adopted Local Plan.
- 1.9. Under the current ecological and landscape design for the site, a **11% net gain** for habitat value and **553% net gain** for linear value is predicted. There are no watercourses onsite.

2 Background

Overview of the commission and the proposals

- 2.1. Earlswood homes commissioned Co-ecology Ltd to provide advice and support relating to the proposed development of seven new homes with associated hard and soft landscaping at land situated between 147-149 College Lane, Hurstpierpoint.
- 2.2. The proposals include the creation of a mosaic of habitats which will increase biodiversity and complexity of the site. These include areas of species-rich wildflower meadow, native scrub and hedgerows, and native tree planting.

Objectives of this assessment

- 2.3. The aim of this report is to summarise the results and supporting information behind the accompanying Biodiversity Net Gain (BNG) calculation that determines the biodiversity value of the habitats on site pre- and post- development and to determine whether a diversity net gain can be achieved.
- 2.4. The retention, enhancement and creation of habitats, are detailed as required in order to reach a minimum of 10% net gain and the approach taken for this assessment is consistent with the mitigation hierarchy where impacts were avoided wherever practicable.

Site context and legislation

- 2.5. The site is located in a semi-rural landscape on the outskirts of Hurstpierpoint centred around national grid reference TQ 29235 16936.
- 2.6. The site is bordered on the north and east by agricultural pasture and on the west and south by residential houses and gardens. The site is well connected to the wider landscape via a network of native hedgerows and trees.
- 2.7. Habitats in the wider landscape are predominantly urban, with the towns of Burgess Hill, Hassocks and Hurstpierpoint all within 1.5km. Small farmland areas intersect these towns, comprising of pasture and mature hedgerows.
- 2.8. A 2024 biodiversity net gain assessment by Derek Finnie Associates Ltd (2024b) established the baseline for BNG calculations, classifying all onsite trees as individual, non-native fruit trees in poor condition. However, this baseline was found to be incomplete. A subsequent review in 2025, informed by an Arboricultural Method Statement and a site visit, identified that several trees had been excluded from the original survey, including mature native broadleaved trees and trees at the site entrance. To ensure an accurate BNG calculation, a repeat assessment was undertaken. This updated assessment, included in this report, incorporates Condition Assessments for all trees to provide a correct and complete baseline.
- 2.9. The following pieces of legislation and National policy are relevant to this scheme and have been used to inform this appraisal:
 - The Environment Act (2021)
 - Natural Environment and Rural Communities Act 2006
 - The National Planning Policy Framework 2023
 - Biodiversity and geological conservation: circular 06/2005

2.10. The National Planning Policy Framework (Department of Communities and Local Government, 2024) requires local authorities to avoid and minimise impacts on biodiversity and to provide net gains in biodiversity when making planning decisions.

2.1. The following local policies are extracted from the Mid Sussex District Council Adopted Local Plan 2014 – 2031 (adopted March 2018)¹:

- *DP37: Trees Woodland and Hedgerows*

“The District Council will support the protection and enhancement of trees, woodland and hedgerows, and encourage new planting. In particular, ancient woodland and aged or veteran trees will be protected. Development that will damage or lead to the loss of trees, woodland or hedgerows that contribute, either individually or as part of a group, to the visual amenity value or character of an area, and/ or that have landscape, historic or wildlife importance, will not normally be permitted.”

- *DP38: Biodiversity*

“The District Plan recognises the importance of the protection and conservation of areas of importance for nature conservation and the valuable contribution made by these sites and features in conserving biodiversity and geodiversity of our natural heritage, together with opportunities for education and employment. The District Plan also recognises the importance of the protection and conservation of areas outside of designated areas where these are of nature conservation value or geological interest especially where they contribute to wider ecological networks.”

¹ [Mid Sussex District Plan 2014-2031](#)

3 Methodology

Personnel

- 3.1. The initial UKHabs Survey was undertaken in 2024 (Derek Finnie Associates Ltd, 2024a) and repeated in January 2026 by Co-ecology ecologist Orlando Campbell BSc (hons) MCIEEM, an ecologist with over nine years' experience. Subsequent Biodiversity Net Gain Calculation and reporting were completed in January 2026.
- 3.2. The final site layout and landscaping have been designed by the architects, Clive Warwick Landscape Design Ltd with input from the ecologist and landowner.

UK Habitats Classification and Condition Assessment

- 3.3. Orlando Campbell BSc (hons) MCIEEM undertook the UK Habitats survey in January 2026. During the survey, Orlando recorded all identifiable plant species with an indication of their relative abundance following the DAFOR² scale. The purpose of the survey was to complete a baseline habitat survey of the developable areas of the site using the UK Habitats classification system. Secondary Codes were utilised where the relevant conditions pertained. During the survey, each habitat parcel was assessed using the Statutory Biodiversity Metric – Condition Assessment Sheets and Methodology.
- 3.4. Using open-source software, QGIS (v 3.40), recorded habitats were digitally mapped according to UK Habitats Classification to allow the quantification of the area occupied by each habitat to produce a baseline (pre-development) map.

Biodiversity Net Gain Calculation

- 3.5. This report provides a summary of the results of a Biodiversity calculation using the *Statutory Biodiversity Metric Calculation Tool* (version 1.0.4). The baseline habitats on site were inputted onto the QGIS BNG Template from Natural England and the condition assessment for each polygon was updated along with the proposed habitat creation. All shapefiles were then entered into the Statutory Biodiversity Metric Calculation Tool (this report should be viewed in conjunction with the spreadsheet).

Constraints

- 3.6. There were no noteworthy constraints to the habitats survey or Biodiversity Net Gain calculation. Although the habitat survey was undertaken in January when plants with an later flowering phenology may have been absent, it was possible to accurately identify the habitat types present and complete condition assessments.

² Dominant, Abundant, Frequent, Occasional, Rare

4 Baseline Conditions

HABITATS

Irreplaceable and Priority habitats

- 4.1. There are no irreplaceable habitats onsite.
- 4.2. The eastern section of the site is mapped as Traditional Orchard BAP Priority Habitat, that holds some integral value. However, this is limited due to the poor quality of the orchard trees onsite and their limited lifespan without severe positive intervention (Derek Finnie, 2024b).
- 4.3. The fruit trees onsite have therefore been assessed as individual trees rather than an orchard as the density and spacing of trees is lower than that given by Maddock (2008) for this habitat type. The trees are also absent from pre-1970s OS maps, suggesting they are a relatively recent addition to the site and more representative of fruit trees planted in a domestic garden rather than a traditional orchard (Derek Finnie, 2004b).
- 4.4. Other Priority Habitats within 2km of the site are limited to small pockets of Deciduous Woodland, including some areas of Ancient Woodland.

On-Site Habitats

- 4.5. The habitats within the proposed red line boundary were dominated by *g4- modified grassland – 32 Scattered trees, h2a native hedgerow and h2b non-native and ornamental hedgerow*. For details on each habitat refer to the Preliminary Ecological Assessment (Derek Finnie, 2024a). For details on each habitat refer to the Ecological Assessment (Derek Finnie, 2024a).

g4 – modified grassland – 32 Scattered Trees (0.062ha)

- 4.6. The site was dominated by modified grassland characterised by a sward of common, widespread grasses including perennial rye grass *Lolium perenne*, cock's-foot *Dactylis glomerata*, Yorkshire fog *Holcus lanatus*, and creeping bent *Agrostis capillaris*. Forbs such as white clover *Trifolium repens* and cow parsley *Anthriscus sylvestris* are infrequent. This low-diversity assemblage resulted in the habitat being of negligible ecological value.
- 4.7. Onsite trees comprised a scattered collection of individual specimens, primarily non-native fruit trees (plum *Prunus* sp. and Pear *Pyrus* sp.) assessed to be in poor arboricultural condition with limited life expectancy (David Archer, 2024). These trees were absent from pre-1970s maps and sparsely distributed at a density too low to be classified as an orchard, suggesting they were planted as part of a domestic garden. Additionally, two mature native broadleaved trees - pedunculate oak *Quercus robur* and Ash *Fraxinus excelsior* - were present along the eastern boundary.
- 4.8. The grassland is assessed as being in poor condition primarily due to intense, regular management, notably mowing and grazing, which maintains an even sward height and prevents the structural variation necessary for invertebrates and other fauna. Crucially, it fails the essential condition criterion for species diversity, lacking the required 6-8 vascular plant species per square metre. The sward is heavily dominated by perennial rye grass (up to 80%), suppressing forb diversity and resulting in a simple, species-poor plant community of low distinctiveness.
- 4.9. All fruit trees were classified as 'Rural Trees' in **poor or moderate condition** due to factors such as a lack of continuous canopy, limited maturity, and the absence of significant ecological niches like abundant deadwood. The native oak and ash trees were assessed as being in **good condition** due to their maturity, canopy, ecological niches and native status.

h2a native hedgerow – (0.020km)

- 4.10. A native hedgerow, approximately 20m in length was present on the western boundary of the site, at the entrance from College lane. The hedgerow comprised of a single species, field maple *Acer campestre*, and had undergone intensive management to create short (1m high and narrow (1m width) hedgerow.
- 4.11. The single species and short length indicative that it does not qualify as a species rich or UK BAP Priority habitat hedgerow.
- 4.12. The hedgerow was assessed as being of poor condition due to the height, width and intensive management.

h2b – non-native and ornamental hedge (0.025km).

- 4.13. The southern boundary was partially defined by a non-native hedge dominated by Leyland cypress *Cupressus × leylandii*.
- 4.14. The hedge is automatically assessed as **poor condition** under BNG rules due its non-native status.

Habitat Evaluation

- 4.15. The site was dominated by *g4 – modified grassland*, secondary code 32 scattered trees. The grassland was assessed as being of poor condition.
- 4.16. The majority of the fruit trees onsite were assessed as being of poor or moderate condition. Native oak and ash trees onsite were assessed as being of good condition due to their maturity and ecological niches.
- 4.17. The native hedge at the site entrance comprised of a single species (field maple) and was intensively managed, deeming it of poor condition.
- 4.18. The non-native hedge on the southern boundary was assessed as being of Poor condition automatically under BNG rules.
- 4.19. The site had limited diversity of habitat types and structure with plant species limited to those typically to be found in modified grassland areas with limited intrinsic biodiversity value.

PROTECTED SPECIES

- 4.20. There were very limited opportunities for protected species. For details protected species potential refer to the Ecological Assessment (Derek Finnie, 2024a).
 - **Bats:** Very low potential; four trees on site (one oak and three plum) have minor features (woodpecker holes, cracks, rot holes) that could offer low-to-medium potential for opportunistic roosting, but no direct evidence of use was found.
 - **Badgers:** Negligible potential; survey found no evidence of activity (setts, paths, latrines) and habitat was assessed as having limited suitability.
 - **Great Crested Newts & Amphibians:** Negligible potential; no ponds or waterbodies exist on site or in the immediate vicinity, eliminating essential breeding habitat.
 - **Reptiles:** Negligible potential; the site's short, managed grassland and lack of features like scrub, log piles, or bare ground provides unsuitable habitat.
 - **Notable Birds:** Negligible potential for uncommon species; the site is likely to support only common, widespread bird species associated with the agricultural landscape.
 - **Invasive Plants:** Low potential as none were recorded during the survey.

Baseline metric calculations

- 4.21. The table below provides the baseline information for the on-site habitats, as illustrated by Figure 1 – Habitats map.

Table 4.1. Baseline metric calculation - habitats

Habitat type	Area (ha)	Distinctiveness	Condition	Habitat Units
Modified grassland	0.62	Low	Poor	1.26
Individual trees	0.22	Medium	Poor Moderate Good	0.16 0.49 1.50

Table 4.2. Baseline metric calculation - linear

Habitat type	Length (km)	Distinctiveness	Condition	Habitat Units
Non-native and ornamental hedgerow	0.025	Very Low	Poor	0.03
Native hedgerow	0.02	Low	Poor	0.04

Figure 1 – Baseline Habitats



5 BNG Good Practice Principles for Development

- 5.1. BNG Good Practice Principles for Development were followed from the initial stages of the project. Table 5.1 below summarises the principles and their implementation within the project.
- 5.2. Inherent within the design of the scheme is the iterative application of the mitigation hierarchy as discussed between the client and the landscape architects. This design, by default, has been adjusted to avoid all and de-minimis impacts on the more significant habitats. Figure 2 on the last page of this report shows the final proposed layout (including landscape) for the site.
- 5.3. The proposal for the site includes measures to increase the structural complexity of habitats that will act as ecotones between the proposed application area and the wider landscape.
- 5.4. The proposed habitats would provide suitable habitats for insects, breeding birds, foraging bats and reptiles ensuring that the ecological coherence of the site and the wider landscape is strengthened.
- 5.5. Table 5.1 below details the BNG Good Practice Principles relevant to the proposed development.

Table 5.1. BNG Good Practice Principles for Development

Principle		Comments
Apply the mitigation hierarchy	Avoid	The project design has aimed to avoid impacts on ecological receptors, such as protected species.
	Minimise	During the creation process, the working areas will be segregated from all retained boundary habitats by the installation of temporary fencing.
	Compensate	In order to compensate for the loss of modified grassland and individual trees, and to increase the structural complexity of the site areas of mixed scrub, native tree planting, native hedgerows and wildflower-rich other neutral grassland will be created.
Avoid losing biodiversity that cannot be offset elsewhere		No irreplaceable habitats will be impacted as a consequence of the proposed development.
Be inclusive and equitable		During the planning process, the applicant and their team have engaged with different stake holders including the planning authorities and ecologists.
Address risk		The proposed new and enhanced habitats are expected to be established (although not in a mature stage) at the completion of the works on site.
Make a measurable net gain contribution		Under the current landscape design for the site, a 11.00% net gain for habitat units and a 553% net gain for hedgerow units.

6 Project Design

Overview

- 6.1. Following the identification and assessment of the development impacts on important ecological receptors on site, this chapter describes and assesses the need for compensation and enhancement measures.
- 6.2. Table 6.1 below summaries the results of the metric calculations for the proposed habitats. Figure 2, on the following pages, details the proposed habitats and habitat creation measures for the site.

Table 6.1. Summary of predicted profit and loss of habitats on site

Habitats	Baseline		Proposed (Area: ha)				Proposed (Units)				Total change
	Area	Units	Retained	Lost	Created	Enhanced	Retained	Lost	Created	Enhanced	Units
g4 - modified grassland	0.62	1.26	0.0067	0.62	n/a	n/a	0.02	1.26	n/a	n/a	-1.25
Individual trees	0.22	2.16	0.0855	0.1303	0.6107	n/a	1.07	1.09	1.71	n/a	+0.62
g3c – other neutral grassland	n/a	n/a	n/a	n/a	0.1449	n/a	n/a	n/a	0.49	n/a	+0.54
h3h – mixed scrub	n/a	n/a	n/a	n/a	0.0047	n/a	n/a	n/a	0.02	n/a	+0.02
Vegetated garden	n/a	n/a	n/a	n/a	0.2301	n/a	n/a	n/a	0.44	n/a	+0.44
u1b - developed land; sealed surface	n/a	n/a	n/a	n/a	0.2353	n/a	n/a	n/a	n/a	n/a	n/a

- 6.3. Table 6.2 below summaries the results of the Metric Calculations for the onsite linear habitats.

Table 6.2. Summary of predicted profit and loss of habitats on site

Habitats	Baseline		Proposed (Length: km)				Proposed (Units)				Total change
	Km	Units	Retained	Lost	Created	Enhanced	Retained	Lost	Created	Enhanced	Units
h2b non-native and ornamental hedge	0.025	0.03	0.025	n/a	n/a	n/a	0.025	n/a	n/a	n/a	n/a
h2a native hedgerow	0.020	0.04	n/a	0.020	0.207	n/a	n/a	0.04	0.40	n/a	+0.36

Compensation

- 6.4. Integrated within the core design of the development is the aim to avoid any impact to habitats within the wider landscape.
- 6.5. Habitat compensation measures for the project include the creation of other neutral grassland, mixed scrub, native tree planting, and vegetated gardens. This will increase foraging opportunities for birds, bats, reptiles and badgers and offer a source of nectar for insect pollinators.
- 6.6. All newly created features to be managed for the life of the scheme.

Habitat Creation

- 6.7. Creation of the habitats on site is the main objective for delivering the BNG calculation. The habitats to be created include:
 - *g3c – other neutral grassland* – The 0.1449ha of wildflower-rich grassland to be planted throughout the site, outside of the residential curtilage, is to be other neutral grassland, poor condition.
 - *Individual trees* – A total of 34 medium size urban trees and 14 small size urban trees will be planted along the western and southern grassland areas, outside of the residential curtilage, poor condition. Other trees are also proposed within the vegetated gardens, however these have been excluded from the metric.
 - *h3h – mixed scrub* – an of 0.0047ha of native mixed scrub will be created along the western boundary of the site, poor condition.
 - *h2a native hedgerow (non-priority)* - a total of 207m of native hedgerow will be created along the western and southern boundary of the site, poor condition.
 - *Vegetated garden* – surround each of the seven residential plots, including further tree and hedge planting, totalling 0.0.2301ha.
- 6.8. All created habitats will be of poor condition. A habitat management and monitoring plan will therefore not be required due to Mid Sussex Council's position that only major development which contains significant on-site enhancements are to be managed and monitored for 30 years (Place services, 2025).

Conclusion

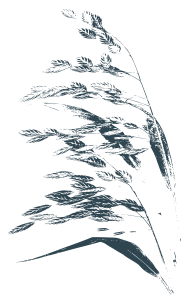
- 6.9. Overall, it is considered that the development presents opportunities for the site to be improved through active management and incorporating appropriate compensation and enhancement measures.
- 6.10. The creation of a more complex spatial structure within the site combined with the improved habitat connectivity from site habitats to the wider landscape will enhance the ecological value of the site in the local landscape

Figure 2 – Retained and Created Habitats



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