LAND WEST OF BILSHAM ROAD, YAPTON

Biodiversity Net Gain Assessment - Baseline

794-ENV-ECO-21633
Final
April 2025

rpsgroup.com

Document status

Version	Purpose of document	Authored by	Reviewed by	Approved by	Review date
A	Draft, for comment	DLS	EW	EW	April 2025

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Prepared for:

Redrow Homes Limited

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1 INTRODUCTION

1.1 Purpose and Scope of this Report

1.1.1 RPS were commissioned by Redrow Homes Limited to undertake a Biodiversity Net Gain (BNG) baseline assessment of the Land West of Bilsham Road, Yapton, BN18 0LA (henceforth referred to as The Site).

1.1.2 In order to determine the habitats present on The Site, a UK Habitat Survey was undertaken on the 24th October 2024. This followed standard best-practice guidelines (UKHab, 2023).

1.1.3 This BNG baseline assessment report aims to:

- calculate and assess the baseline ecological status and condition of current habitats identified onsite;

1.1.4 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 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 As outlined in the Mid Sussex District Council Site Allocations Development Plan Document (MSDC 2022) it is required that developments:

> *"Conserve and enhance areas of wildlife value and ensure there is a net gain to biodiversity overall… Avoid any loss of biodiversity through ecological protection and enhancement, and good design. Where this is not possible, mitigate and as a last resort, compensate for any loss."*

1.2.4 There is no single set method for quantifying the assessment of BNG, but one method is the use of biodiversity calculators to assess the biodiversity value of habitats pre- and post-development based on habitat type, distinctiveness and condition.

1.2.5 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 (onsite or offsite), and where habitats of a higher value are not replaced exclusively with habitats of a lower value.

1.2.6 Defra made available its beta test update of its BNG assessment tool in April 2023 (to Version 4.0). This tool has been used for the assessment in this report. The tool and associated documents were downloaded from:

http://publications.naturalengland.org.uk/publication/5850908674228224.

Condition Assessment

1.2.7 Using the data collected from the UK Habitat 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 in the Biodiversity Metric 4.0 -Technical Annex 1: Condition Assessment Sheets and Methodology (Panks, *et al*., 2023).

1.2.8 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.

1.2.9 Each habitat was scored the following:

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

1.2.10 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.

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

2 BASELINE DESCRIPTION

2.1.1 The baseline description is taken from the habitat assessment conducted during the Phase 1 Habitat Survey. Botanical assessment was carried out according to the DAFOR botanical scale. Only habitats that were deemed to have an ecological value are discussed further.

2.2 UK Habitat Survey – Overview

2.2.1 The UK Habitat Survey identified that the Site comprised predominately modified grassland bordered by a native hedgerow with trees and dense and scattered scrub. A wet ditch was present along the western boundary.

2.2.2 A full list of the onsite habitats identified in the Phase 1 Habitat Survey on the Site is provided below, with the associated habitat represented in the BNG assessment:

- g4.517: Modified Grassland
- h2a, 200,203: Native Hedgerow with trees
- h3: Dense Scrub
- h10: Scattered Scrub
- h2.50: Ditch

2.3 Habitat Condition Assessment

2.3.1 The assessments below relate to the condition of the habitats present onsite at the time of the UK Habitat Survey undertaken in October 2024. The extent, distinctiveness and condition of the baseline habitats onsite are summarised respectively in the Statutory Metric.

2.3.2 Numbers in the tables in this section are copied from those generated by the Statutory metric. Note that the spreadsheet rounds the figures of credits to two decimal places which occasionally generates apparent minor discrepancies due to rounding errors when numbers are placed into tables.

2.3.3 A summary of the baseline habitat areas, habitat units, area retained, and habitat units lost is provided in the BNG metric submitted with this report.

g4.517: Modified Grassland

2.3.4 The majority of the site is an open field, characteristic of a modified grassland with evidence of recent management in the past three years. The site has previously been used as arable land, with the 2021 survey recording a monoculture of winter sown cereal, likely wheat or barley. Although, it is currently unmanaged with the 2023 survey recording remnants of a self-seeded cereal crop and fodder crop growing in areas. The grassland was dominated by *Lolium* sp. with abundant false-oat grass *Arrhenatherum elatius* and creeping bent *Agrostis stolonifera*, with frequently occurring cock's-foot *Dactylis glomerata*, sowthistle *Sonchus* sp., dandelion *Asteraceae* spp., and common ragwort *Jacobaea vulgaris*. Occasionally curled dock *Rumex crispus*, creeping thistle *Cirsium arvense*, bristly oxtongue *Helminthotheca echioides*, and broadleaf plantain *Plantago major* were present. In addition, the following species were rare within the site, creeping buttercup *Ranunculus repens*, oxeye daisy *Leucanthemum vulgare*, cleavers *Galium aparine* and ribwort plantain *Plantago lanceolata*.

2.3.5 Closer to the boundaries of the grassland, frequently occurring timothy *Phleum pratense*, yorkshire fog *Holcus lanatus*, common nettle *Urtica dioica* and hairy willow herb *Epilobium hirsutum* were present.

2.3.6 Given that the grassland satisfied five criteria but failed the essential criteria, following the Natural England condition assessment, it would be categorised as '***poor***' condition.

h2a,200,203: Native Hedgerow with Trees

Hedgerow 1

2.3.7 A native hedgerow (H1.1) is located along the eastern boundary, between the site and Bilsham Road. A small section of the eastern hedgerow (H1.2) is defunct in nature with a number of gaps, located towards the southern end of the site. Both are dominated by common hazel *Corylus avellana*, blackthorn *Prunus spinosa* and bramble. Frequently occurring field maple *Acer campestre*, pedunculate oak and elder *Sambucus nigra* was also present with some occasional goat willow.

2.3.8 Given that H1.1 satisfied six criteria, but failing more than one criterion in the same functional group (A1, B1, B2, C2), following the Natural England condition assessment this would be categorised as 'moderate' condition.

2.3.9 Given that the defunct hedgerow, H1.2 satisfied only 5 criteria, failing both attributes in more than one functional group (failing: A1, A2, B1, B2, C2), following the Natural England condition assessment this would be categorised as '***poor***' condition.

Hedgerow 2

2.3.10 A second hedgerow (H2) is located along the southern boundary of the site, dominated by goat willow *Salix caprea* with occasional common hawthorn *Crataegus monogyna*, pedunculate oak *Quercus*

robur, common ash *Fraxinus excelsior* and english elm *Ulmus procera*. Ground flora included hairy willow herb, common nettle, white dead nettle *Lamium album*, creeping thistle and cock's-foot.

2.3.11 Given that the hedgerow satisfied six criteria, but failing more than one criterion in the same functional group (C2, E1, E2), following the Natural England condition assessment this would be categorised as '***moderate***' condition.

h3 Dense Scrub

2.3.12 A dense section of scrub is present along the eastern boundary of the site, in the north-eastern direction. This was dominated by bracken *Pteridium aquilinum*, with abundant bramble and common nettle. Occasional common ivy *Hedera helix*, blackthorn, creeping thistle, and elder were also present. Butterfly bush *Buddleja* was noted in a section of scrub located next to the gate where the new access road is proposed.

2.3.13 Given that the dense scrub satisfied less than two criteria, following the Natural England condition assessment this would be categorised as '***poor***' condition.

h10 Scattered Scrub

2.3.14 Smaller areas of scattered scrub were present along the western boundary comprising predominantly bramble with occasional cock's-foot, curled dock, and dogwood *Cornus sanguinea*.

2.3.15 Given that the scattered scrub fields satisfied less than two criteria, following the Natural England condition assessment this would be categorised as '***poor***' condition.

h2.50 Ditch

2.3.16 A ditch, referred to as Ryebank Rife, runs along the western boundary of the site. It is approximately two meters deep with steep banks, running parallel to the western site boundary. At the time of survey, the water level was approximately 20 – 30 cm deep. The ditch supports abundant hemlock-water dropwort *Oenanthe crocata* and common nettle, with occasional hart's-tongue fern *Asplenium scolopendrium,* hedge bindweed *Calystegia sepium*, bramble *Rubus fruticosus*, meadow sweet *Filipendula ulmaria*, and pendoulous sedge *Carex pendula.*

2.3.17 Given that the ditch satisfied only four criteria, following the Natural England condition assessment this would be categorised as '***poor***' condition.

3 CONCLUSIONS / SUMMARY

3.1.1 The application site, pre-development comprised predominantly modified grassland with dense and scattered scrub around the margins, and a wet ditch along the western boundary. Two native hedgerows with mature scattered trees ran along the eastern and southern boundaries. The baseline position of this site was calculated to be **20.54 habitat units and 3.88 hedgerow units, with 1.86 watercourse units.**

REFERENCES

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Panks, S., White, N., Newsome, A., Nash, M., Potter, J., Heydon, M., Mayhew, E., Alvarez, M., Russell, T., Cashon, C., Goddard, E., Scott, S.J., Heaver, M., Scott, S.H., Treweek, J., Butcher, B. and Stone, D. (2023. *Biodiversity metric 4.0: Auditing and accounting for biodiversity – User Guide.* Natural England.

UKHAB. (2023). "The UK Habitat Classification, Habitat Definitions Version 2.0". Accessed online

APPENDICES

Appendix A Site Photographs

Evidence of damage to modified grassland, from heavy machinery access.

Section of defunct native hedgerow along the eastern boundary, H1.2.

Native hedgerow H2 along southern boundary.

Dense scrub present along the eastern boundary of the site, in the north-eastern direction.

Scattered scrub along western boundary.

Section of ditch, Ryebank Rife, running along the western boundary of the site.