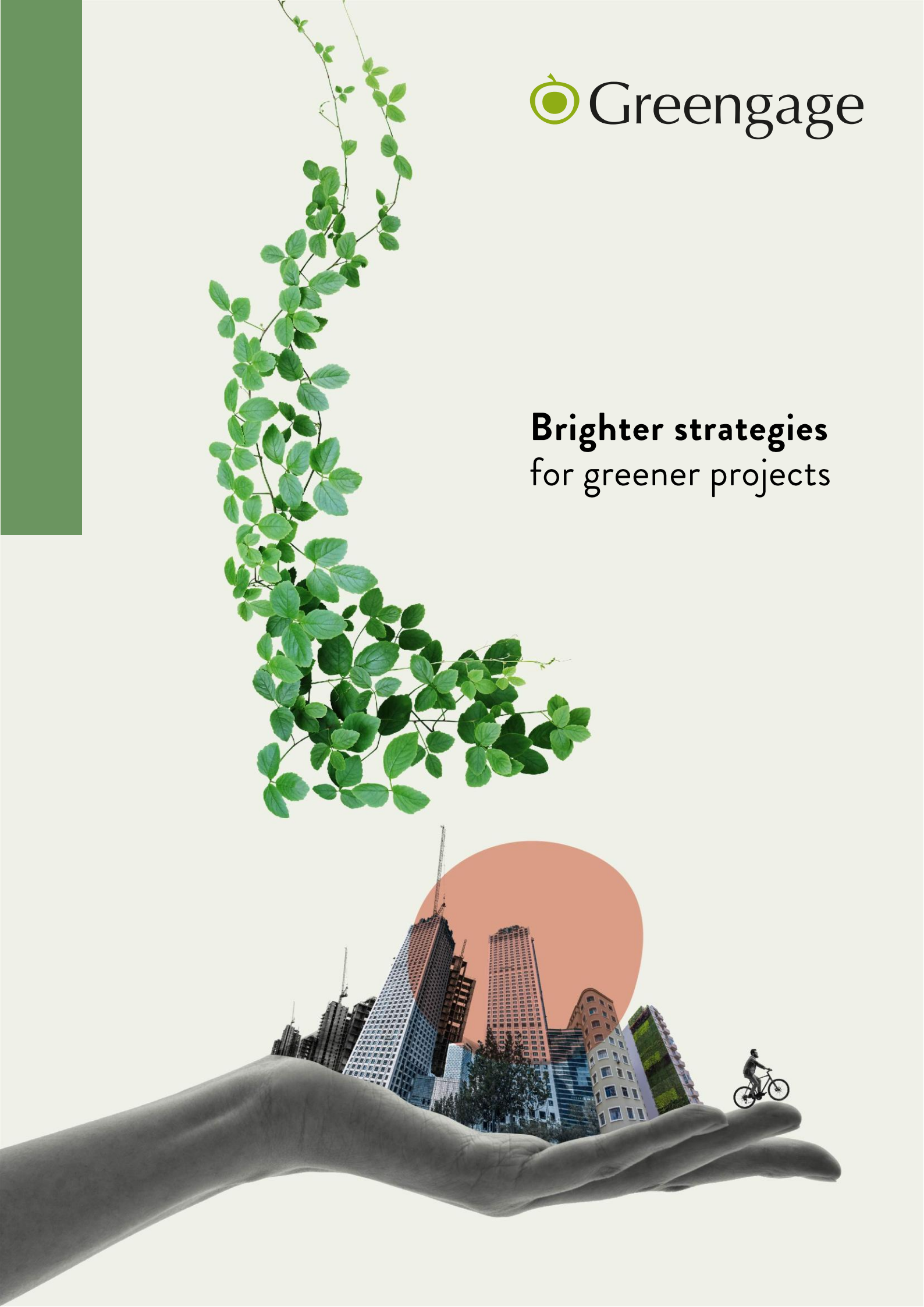
Greengage

Brighter strategies
for greener projects



Client: Lovell Homes

Project: Novartis Phase 1 & 2

Report: Biodiversity Net Gain Assessment

QUALITY ASSURANCE

Issue/Revision:	Draft	Final
Date:	March 2025	March 2025
Comments:		
Prepared by:	Fern Oscroft	Fern Oscroft
Authorised by:	Sophie Trigg	Alexandra Wadia
File Reference:	552977fo11Mar25DV01_BNGA	552977fo11Mar25FV01_BNGA

CONTENTS

Tables

Figures

Plates

1.0 EXECUTIVE SUMMARY

Greengage Environmental Ltd (Greengage) was commissioned by Lovell Homes to undertake a Biodiversity Net Gain Assessment (BNGA), using the Statutory Biodiversity Metric (SBM), for an area of land known as Novartis Phase 1&2, in Horsham, West Sussex, hereafter referred to as 'the site'.

The BNGA aims to quantify the predicted change in biodiversity value of the site in light of the proposed development to assess compliance against national and local planning policy and against the BNG mandate set out in the Environment Act 2021, which states that all planning permissions granted in England (with a few exemptions) will have to deliver at least 10% biodiversity net gain.

The site extends to 2.63 hectares (ha) and comprised 'Developed land; sealed surface', 'Introduced shrub', 'Vacant or derelict land', 'Modified grassland', 'Other neutral grassland', 'Bramble scrub', 'Willow scrub', 'Ornamental lake or pond', 'Other woodland; mixed', 'Urban tree' and 'Native hedgerow', as identified from site walkovers undertaken in November 2024 and February 2025, alongside data received from a desk study, as per the Greengage Preliminary Ecological Appraisal (PEA)[1].

Proposed habitat creation includes; 1.6629 hectares (ha) of 'Developed land; sealed surface', 0.4122 ha of 'Vegetated garden', 0.3583 ha of 'Urban tree' (equivalent to 88 small trees), 0.0569 ha of 'Rain garden', 0.1548 ha of 'Other neutral grassland', 0.3387ha of introduced shrub. The development seeks to retain 0.3216 ha of 'Urban trees' (equivalent to 7 large and 4 medium trees).

The locations, extents, conditions and habitat parcel reference numbers of the pre-development (baseline) and post development habitats are mapped in Figure A.1 and Figure B.1. The habitat values are split into two categories: area-based 'Habitat Units' (HU), and linear-based 'Hedgerow Units' (HeU) respectively, where applicable to the site.

The baseline values for the site have been calculated as 25.02 HU and 0.17 HeU.

The 10% BNG targets are therefore 27.53 for HU and 0.19 for HeU, ideally delivered fully on-site.

The post-development design proposals are predicted to deliver 7.29HU. This is a net loss of 17.74HU (equivalent to - 70.88 % for HU).

The post-development design proposals are predicted to deliver 0.45 HeU. This is a net gain of 0.28 HeU (equivalent to + 158.44% for HeU).

The design proposals do not meet the BNG Trading Rules for area-based habitats.

The BNGA has identified that the 10% BNG target will not be fully delivered on-site. An additional 20.24 HU will therefore be required to be provided through off-site compensation. In order to meet the trading rules, the off-site compensation should include a minimum of 0.37 HU of 'Low' distinctiveness habitat or higher, 2.85 HU of Medium distinctiveness grassland (ideally 'Other neutral grassland'), 2.47 HU of Medium distinctiveness Heathland and shrub habitat, 11.67 HU of Medium distinctiveness Individual trees, and 0.39 HU of Medium distinctiveness woodland (ideally 'Other woodland; mixed').

Off-site compensation options should be investigated following the BNG mitigation hierarchy order:

- Off-site (within or outside the client's ownership) within the same Local Planning Authority (LPA) or National Character Area (NCA);
- Off-site (within or outside of the client's ownership) within the neighbouring LPA or NCA;
- Off-site (within or outside of the client's ownership) outside of both of the above;
- Using an off-site third-party provider (Local Market Analysis) or Purchasing Statutory Credits (as a last resort).

The on-site areas of biodiversity value are not considered to be significant due to the small scale of habitat creation; the post-development is dominated by 'Developed land; sealed surface', and the created habitats being of a common habitat type within the context of the wider landscape and of a small extent. 'Other neutral grassland' collectively comprises 0.1548ha of the site, split across 12 parcels, compared to the site area of 2.63ha. Additionally, the 'Urban trees' proposed will be predominantly street trees with the condition criteria passed relating to relaxed management/pruning regime and vegetation beneath, which are proposed within the post-development plans. Therefore, it is considered that detail relating to the proposed biodiversity compensation and enhancement actions in relation to habitat creation and management can be provided within a Landscape and Ecological Management Plan (LEMP) for the site which could be secured through planning condition. Providing these recommendations are adhered to, the proposals stand to be compliant with legislation and current planning policy.

For the off-site habitat creation, a Habitat Management and Monitoring Plan (HMMP) for the habitat creation and long-term management over 30 years (minimum) will be required for submission to the LPA. When these recommendations are adhered to, the proposals stand to be compliant with legislation and current planning policy.

Upon receiving planning permission, the submission of a Biodiversity Gain Plan (BGP) to the LPA will be required. This BGP must include details of the proposed off-site BNG compensation, including the Biodiversity Gain Site Register Reference.

Qualitative habitat enhancement recommendations have also been given, within the PEA report, to further increase the ecological value of the scheme.

2.0 INTRODUCTION

Greengage Environmental Limited (Greengage) was commissioned by Lovell Homes to undertake a Biodiversity Net Gain Assessment (BNGA), using the Statutory Biodiversity Metric (SBM), for an area of land known as Novartis Phase 1&2, in Horsham, West Sussex, hereafter referred to as 'the site'.

Under the Environment Act 2021, developments are mandated to achieve a 10% Biodiversity Net Gain (BNG), and they may also be required to under local policy. Most Local Planning Authorities (LPA) require a 10% BNG delivered against a site's pre-development (baseline) value. This is determined through assessing the condition of pre-development habitats on the site i.e. calculating the baseline at the Biodiversity Net Gain Assessment (BNGA) baseline stage, followed by comparison against the anticipated changes in biodiversity value based on the development proposals.

This BNGA Final Stage report identifies that the 10% BNG target will not be reached on-site, and therefore off-site or third-party compensation will be required.

This BNGA has been undertaken in March 2025. Any further changes to the design will impact upon the BNG score and the SBM calculations will need to be updated to reflect such changes. This also carries forward throughout the entire lifetime of the project, including after planning permission has been granted, in and throughout the construction phase. BNG aims to give an accurate reflection of the changes happening on site.

2.1 SITE DESCRIPTION

The site extends to approximately 2.63 hectares (ha) and is centred on National Grid Reference TQ 17809 31816, OS Co-ordinates 517809, 131816. The site can be seen in Appendix A.

The site is comprised primarily of developed land; sealed surface, with one large existing building located inside the site's eastern boundary which contains a courtyard. The courtyard included a pond, surrounded by bramble scrub, modified grassland and individual trees. Two large patches of sparsely vegetated urban land were located towards the centre of the site, both of which were which bordered by large patches of bramble scrub. Multiple areas of other neutral grassland were located throughout the site, positioned around the centre of the site, and in the northeast and northwest corners of the site. Two patches of willow scrub were located adjacent to the western site boundary, with an area of modified grassland located towards the northwest corner. At the entrance to the site along the western boundary, a small patch of 'other woodland - mixed - mainly conifer' was present to the south, with bramble scrub to the north, bordered by a native hedgerow. Individual trees were located throughout the site, with the highest density located along the northern boundary of the site.

The site is located in the centre of Horsham and therefore situated in an urban setting, primarily surrounded by residential buildings and gardens. Parsonage road and Wimblehurst road run along the northern and western boundaries of the site respectively, with a railway line running adjacent to the southern boundary, with an additional railway line located in close proximity to the east of the site.

Fragmented priority woodland is found throughout Horsham with the closest found in Horsham Park approximately 480 metres (m) south of the site boundary. Warnham Local Nature Reserve (LNR) is

located approximately 665 m northwest of the site boundary, with a golf course located directly south of the LNR. Large areas of ancient woodland can be found within the wider area, with the closest located in approximately 850 m north of the site boundary. Multiple parcels of different priority habitats are located between 1 km to 2 km from the site boundary. These include woodland pasture and parks, good quality semi-improved grassland (non-priority), ancient replacement woodland, and lowland meadows which are all classified as priority habitats.

2.2 PROPOSED DEVELOPMENT

The proposed development proposes to deliver 43 units of residential housing, as well as three flat blocks, one of which will be within the footprint of the existing building on-site. The soft landscaping will include vegetated garden associated with the 43 residential units, and the creation of 'Other neutral grassland', 'Introduced shrub', 'Rain garden', 88 small 'Urban trees', 'Vegetated gardens', and 'Native hedgerow'.

The 'Landscape General Arrangement Plans' (Sheet 1[2], Sheet 2[3], and Sheet 3[4]) produced by Fabrik, dated March 2025, has been used as the basis for information regarding the proposed post-development habitats and has been used to inform the comparison against the baseline values.

This has been supplemented by the following documents:

- Hard and Soft Landscape Legend[5]; and
- Site Wide Concept[6].

3.0 METHODOLOGY

3.1 PRE-DEVELOPMENT (BASELINE)

Habitat Data

A Preliminary Ecological Appraisal (PEA)[7] has been undertaken by Greengage in accordance with guidance in the UK Habitat Classification System (UKHab)[8] and the Chartered Institute of Ecological and Environmental Management (CIEEM) (2017) Guidelines for Preliminary Ecological Appraisal[9], in accordance with British Standard (BS) 42020: 2013: Biodiversity[10]. The PEA included a site walkover which identified and mapped the extent and distribution of different habitat types on site according to the standard UKHab classification methodology, i.e. using Primary Codes, and supplemented with Secondary Codes. A UKHab habitat map was produced to illustrate the results, which is provided as Appendix A.

During the PEA, the habitats were also subject to Condition Assessments, where relevant, in accordance with the SBM Condition Assessments. (See 'Habitat Condition' below).

Statutory Biodiversity Metric Calculation Tool

This BNGA uses the government mandated methodology within the 'Statutory Biodiversity Metric User Guide' (SBM User Guide), distributed by Department for Food Environment and Rural Affairs (Defra), February 2024[11].

BNG uses habitat type and condition as a proxy for overall biodiversity value, measured in Biodiversity Units (BU) which are calculated using the SBM. The BU are separated into area-based Habitat Units (HU), linear-based Hedgerow Units (HeU) and aquatic linear-based Watercourse Units (WU), as applicable to a site, respectively. For this site, HU and HeU are applicable.

The following information on each habitat type are the required SBM inputs:

- Type;
- Area/length;
- Condition; and
- Strategic significance.

The areas of each habitat parcel are measured, with each habitat parcel assigned a 'Distinctiveness', 'Condition' and 'Strategic Significance' score. Distinctiveness is a default score for the habitat classification, representing its inherent biodiversity value, whereas condition refers to the state each habitat parcel is in relative to a predetermined set of criteria outlined in the SBM User Guide.

Strategic significance draws upon priorities and objectives within local plans and strategies, and is measured by providing habitats with a score from low to high as follows:

- Low - "area / compensation not in local strategy";

- Medium - "location ecologically desirable but not in local strategy"; and
- High - "formally identified in local strategy".

To calculate the pre-development (baseline) BU value, habitat data collected during the PEA has been used. A BNGA habitat map has been created based on the data collected in the field using Coreo[12] software. The area extents for each habitat type shown in the BNGA habitat map were then measured using Quantum Geographical Information System (QGIS) software. See Appendix A.

To calculate the HU associated with trees on site, stem diameters of each tree were used to assign each tree a rating of 'small', 'medium', 'large' or 'extra-large', in line with the User Guide. The rating corresponds to an area value to be used.

Distinctiveness values were automatically calculated for the site and habitat conditions were assessed both in the field and retrospectively using site photos.

Type and Area/Length

Habitat types documented in the PEA use UKHab classifications and Primary Codes supplemented by Secondary Codes, where applicable. The SBM uses a classification system based mainly on the UKHab Classification System[8] but with input also from other systems including the Water Framework Directive (WFD) Lakes Typology[13], the European Nature Information System (EUNIS) habitat definitions[14], Habitats Directive Annex 1 definitions[15].

As such, UKHab classifications used in the PEA do not always translate directly into the SBM habitat types that are available for selection within the pre-set drop-down menus. Occasionally UKHab secondary codes provide the key information to be able to allocate the SBM 'best fit' selection for the UKHab habitat type. Habitat conversions that are applicable to the site are listed in Table 3.1 below. The SBM classifications are hereafter used throughout the report.

Table 3.1 UKHab to SBM habitat conversions

UKHab Habitat Type	SBM Habitat Type	Reasoning
Grassland - Other neutral grassland	Grassland - Other neutral grassland	Direct translation.
Grassland - Modified grassland	Grassland - Modified grassland	Direct translation.
Heathland and shrub - Bramble scrub	Heathland and shrub - Bramble scrub	Direct translation.
Heathland and shrub - Willow scrub	Heathland and shrub - Willow scrub	Direct translation.
Heathland and shrub - Dense scrub	Urban - Introduced shrub	Scrub description better matched 'introduced shrub', due to the dominant presence of non-native species.

UKHab Habitat Type	SBM Habitat Type	Reasoning
Woodland - Other woodland; mixed	Woodland - Other woodland; mixed	Direct translation.
Urban – Developed land; sealed surface	Urban - Developed land; sealed surface	Direct translation.
Urban – Buildings	Urban - Developed land; sealed surface	The SBM does not distinguish between buildings and hardstanding.
Urban - Sparsely vegetated urban land	Urban - Vacant or derelict land	Species and habitat type better matched the description for 'vacant and derelict land' within the SBM.
Rivers and Lakes - Other standing water	Lakes - Ornamental Lake or Pond	SBM includes pond habitats within Lakes, but separates out between natural Ponds (priority and non-priority) and Ornamental ponds.
Hedgerow - Other native hedgerow	Hedgerow - Native hedgerow	Direct translation.
Secondary code: 32 - Scattered trees	Individual trees - Urban trees	Trees are considered as their own habitat type within the SBM.

For the purposes of this report, a habitat parcel reference has been applied to each area-based and hedgerow-based habitat type on the site, which is cross-referenced within the SBM calculation tool and Figure A.1.

For individual trees present on the site, the area extent attributed to individual trees has been calculated using the 'Tree helper' within the SBM calculation tool. This is based upon using Diameter at Breast Height (DBM) in centimetres (cm). In accordance with the SBM User Guide, based on 'Diameter at breast height (centimetres (cm)), tree sizes have been recorded as follows;

- Small is less than 30 cm diameter,
- Medium is greater than 30 cm, to less than or equal to, 60 cm;
- Large is greater than 60 cm, to less than or equal to 90 cm; and,
- Extra-large is greater than 90 cm.

A Tree Survey & Constraints Plan[16] of the site was produced by Hayden's Arboricultural Consultants in March 2025. This tree survey provided the DBH measurements that were used to categorise the trees within the site. Additionally, the tree survey allocated each tree a habitat parcel reference (e.g. T001, H001, G001), for consistency across reporting, therefore this BNGA uses the same habitat parcel references. Groups of trees have been labelled by Hayden's Arboricultural Consultants with references beginning with 'G' or 'H' (e.g. G001, H001).

An update site walkover of the courtyard area of the existing building was undertaken in February 2025, during which an additional tree (additional to the arborist report) was identified. This was labelled as T50 to remain consistent and continuing the above-mentioned numbering system.

Since the Tree Survey, it has been determined that Trees T049 and G002 (three trees) within the Tree Survey & Constraints Plan are outside of the site boundary and therefore will not be included for BNG purposes. Tree T005 was removed as part of a previous planning application (DC/23/0183), and as such is no longer extant within the site. As per the BNG guidance, trees removed under previous applications do not count as degradation, and therefore no precautionary condition assessment has been applied to this tree, and it has been excluded from the baseline calculations.

Each tree has been given a habitat parcel number and referred to within the 'Comments' box within the SBM.

Habitat Condition

Where applicable, habitats were subject to a condition assessment in accordance with the SBM Condition Assessments. Formalised copies of the Condition Assessments for the Baseline habitats are provided as Appendix C.

Habitats must be assessed using criteria set out by the SBM Condition Assessments to determine their relative condition.

The condition of a habitat is a measure of the biological 'working-order' of a habitat type judged against the perceived ecological optimum state for that particular habitat.

The condition of each habitat type was assessed against pre-set criteria and categorised as either 'Good', 'Fairly Good', 'Moderate', 'Fairly Poor' or 'Poor'. Where a habitat type varies in condition within the site this was recorded and mapped.

Strategic Significance

The SBM calculation tool accounts for whether the habitat is situated in an area locally identified as significant for nature.

Data on areas and habitats locally identified as significant for nature were obtained from the following:

- Multi-Agency Geographical Information for the Countryside (MAGIC) website for mapped statutory designated sites;
- Sussex Biodiversity Record Centre (SxBRC) was consulted in December 2024 during the PEA for records of statutory and non-statutory designated sites for nature conservation within and adjacent to the site;
- Habitats listed within the Horsham District Planning Framework (2015)[17] and the West Sussex Planning Policy; and
- Sussex Local Nature Recovery Strategy (in production) have published a shortlist of Habitat Priorities and their outcomes[18].

Using the SBM calculation tool, habitat values have been calculated based on whether they occur commonly or whether they are rare, their area (ha) (or length (km) for linear features such as hedgerows), condition and importance within the local area, usually identified from local relevant planning policies or documents.

3.2 POST- DEVELOPMENT (PROPOSED)

To calculate the post-development BU value, the area extents for each habitat type were measured based on the 'Landscape General Arrangement Plan', using Quantum Geographical Information System (QGIS) software. See Appendix B.

Habitat types were inferred from the species list provided as part of the 'Landscape General Arrangement Plan'. Where justification for habitat types is required, this has been included in Section 4.0.

Targeted condition scores were assigned by Greengage, using the SBM habitat condition criteria, whilst considering the likely future use of each area on the 'Landscape General Arrangement Plan' and what was considered feasible to reach.

In accordance with the BNG Trading Rules, changes in broader habitat types (for example, 'Urban', 'Woodland' and 'Grassland' habitats) are also tracked, and trading habitats is discouraged unless specifically targeted within a local strategy. Trading down of habitats is not permitted.

The definition of 'significant enhancements', in accordance with government guidance (www.gov.uk) is 'areas of habitat enhancement which contribute significantly to the proposed development's BNG, relative to the biodiversity value before development'.

Retention of existing habitat does not count as an on-site enhancement.

What counts as a significant enhancement will vary depending on the scale of development and existing habitat, but these would normally be:

- habitats of medium or higher distinctiveness in the biodiversity metric;
- habitats of low distinctiveness which create a large number of biodiversity units relative to the biodiversity value of the site before development;
- habitat creation or enhancement where distinctiveness is increased relative to the distinctiveness of the habitat before development;
- areas of habitat creation or enhancement which are significant in area relative to the size of the development; and
- enhancements to habitat condition, for example from poor or moderate to good.

3.3 COMPETENICES

In accordance with 'British Standard: 8683 (BS:8683) Process for designing and implementing biodiversity net gain – Specification', this BNGA and all associated condition assessments have been completed by competent, suitability trained and qualified ecologists.

Fern Oscroft, Consultant, has an undergraduate degree in Conservation Biology (BSc Hons) and is a Qualifying member of CIEEM. Fern has four years' experience in the commercial sector. Fern's experience spans terrestrial environments, with PEA and Biodiversity Net Gain (BNG) being a particular interest.

Sophie Trigg, Senior Consultant, has an undergraduate degree in Zoology (BSc Hons) and has over six years of experience in ecological consultancy. Sophie holds a Natural England Great Crested Newt Licence and has experience in a wide range of survey and assessment types, with a particular interest in BNG.

Alexandra Wadia, Principal Consultant, has a BSc (Hons) in Biology, and a MSc in Ecology & Environmental Management, and is a Full member of CIEEM. Alexandra holds a Natural England Great Crested Newt Licence and has over eight years' experience in ecological survey, assessment and reporting.

This report was written by Fern Oscroft, reviewed by Sophie Trigg, and verified by Alexandra Wadia who confirms in writing (see the QA sheet at the front of this report) that the report is in line with the following:

- Represents sound industry practice;
- Reports and recommends correctly, truthfully and objectively;
- Is appropriate given the local site conditions and scope of works proposed; and
- Avoids invalid, biased, and exaggerated statements.

3.4 CONSTRAINTS AND ASSUMPTIONS

General

The PEA site walkover was undertaken outside of the optimal botanical growing season (i.e. outside April to September inclusive). Whilst this has meant that not all species that may be present within the habitat would be present at the time of the site walkover and therefore recorded, key indicator species were still present to categorise the habitats found on the site at the time of the site walkover. Therefore, it is not considered a significant constraint as key indicator species were present to be able to correctly identify the habitats present on site.

As per the Tree Survey and Constraints Plan, groups of small trees have been labelled together (e.g. H001 and H002).

Since the Tree Survey, it has been determined that Trees T049 and G002 (three trees) within the Tree Survey & Constraints Plan are outside of the site boundary and therefore will not be included for BNG

purposes. Tree T005 was removed as part of a previous planning application (DC/23/0183), and as such is no longer extant within the site. As per the BNG guidance, trees removed under previous applications do not count as degradation, and therefore no precautionary condition assessment has been applied to this tree, and it has been excluded from the baseline calculations.

Statutory Biodiversity Metric Calculation Tool

Strategic significance for the baseline has been determined to be "area / compensation not in local strategy" for all habitats following a review of Horsham District Planning Framework and Sussex LNRS Shortlisted Priority Habitat and Outcomes.

Strategic significance post-development has been determined to be "area / compensation not in local strategy".

The condition of the habitats, either for the baseline or that a habitat is considered to be able to reach post-development, has been assessed using information within the SBM User Guide and based upon the ecologist's judgement of the habitats/input from the landscape architect.

Note the sum of the values shown in columns within the Biodiversity Units tables may differ from the total units stated. This is due to rounding and is not considered significant. The totals stated reflect those calculated within the SBM calculation tool, based on the SBM User Guide.

4.0 RESULTS

4.1 PRE-DEVELOPMENT (BASELINE)

Desk Study

Statutory Designated Sites

The desk study had identified one statutory designated site within 2km of the site; Warnham Local Nature Reserve (LNR), located 665m northwest. Within the Warnham LNR, over 400 species of plants, over 100 species of bird, and over 21 species of butterfly, moth, and dragonfly have been recorded.

For best practice, it is acknowledged here that measures to protect this designated site from impacts by any future development should be undertaken and are fully detailed in the PEA. Additionally full details of the statutory designated sites are shown in the PEA.

Non-statutory Designated Sites and/or Local Nature Reserves

The desk study had identified four non-statutory designated sites within 2km of the site; comprising Warnham Mill Pond Local Wildlife Site (LWS) 665m northwest, Leechpool & Owlbeech Woods LWS 1.51km east, Denne Road Cemetery LWS 1.53km south, and Chesworth Farm LWS, 1.64km south.

For best practice, it is acknowledged here that measures to protect these designated sites from impacts by any future development should be undertaken and are fully detailed in the PEA.

Ancient Woodland Inventory

The desk study had identified one area of Ancient Woodland 850m north of the site, and one area of Ancient replanted woodland 1.72km east. Full details of the ancient woodland sites are shown in the PEA.

Statutory Biodiversity Metric Calculation Tool

Using the SBM calculation tool the baseline biodiversity values of the site have been identified to be 25.02 HU and 0.17 HeU.

A breakdown of the baseline calculations for HU is provided in Table 4.1 below.

Table 4.1 Baseline Habitat Units

Broad Habitat	Habitat Type	Area (Hectares)	Distinctiveness	Condition	Habitat Units
Urban	Developed land; sealed surface	0.9067	V. Low	N/A	0.00
Urban	Introduced shrub	0.0154	Low	N/A	0.03

Broad Habitat	Habitat Type	Area (Hectares)	Distinctiveness	Condition	Habitat Units
Urban	Vacant or derelict land	0.1997	Low	Moderate	0.80
Urban	Vacant or derelict land	0.4297	Low	Poor	0.86
Grassland	Modified grassland	0.0107	Low	Good	0.06
Grassland	Modified grassland	0.0769	Low	Moderate	0.31
Grassland	Modified grassland	0.0079	Low	Poor	0.02
Grassland	Other neutral grassland	0.2507	Medium	Good	3.01
Grassland	Other neutral grassland	0.054	Medium	Moderate	0.43
Grassland	Other neutral grassland	0.1116	Medium	Poor	0.45
Heathland and shrub	Bramble scrub	0.3906	Medium	N/A	1.56
Heathland and shrub	Willow scrub	0.1129	Medium	Moderate	0.90
Woodland and forest	Other woodland; mixed	0.0484	Medium	Moderate	0.39
Individual trees	Urban trees	0.8894*	Medium	Good	10.67
Individual trees	Urban trees	0.6885*	Medium	Moderate	5.51
Lakes	Ornamental Pond	0.0135	Medium	Moderate	0.03
*Individual trees are not included in the total site area to avoid double counting **Totals may differ due to rounding within the SBM				TOTAL	25.02**

A breakdown of the baseline calculations for HeU is provided in Table 4.1 below:

Table 4.2 Baseline Hedgerow Units

Broad Habitat	Habitat Type	Length (Km)	Distinctiveness	Condition	Hedgerow Units
Hedgerow	Native hedgerow	0.029	Medium	Good	0.17
				TOTAL	0.17

All habitat parcels detailed below are visible within Figure A.1. The full condition assessment sheets for the below are included in Appendix C.

The above tables have been completed based on the methodologies detailed in Section 3.0 and on application of the below points:

- The pre-development (baseline) habitats did not appear to have been subject to degradation prior to the condition assessment i.e. the default condition level of 'Good' has not had to be assigned to any habitat within the site.
- In accordance with the SBM User Guide, 'Developed land; sealed surface' (Habitat Parcel: U1), 'Introduced shrub' (Habitat Parcel: U2), and 'Bramble scrub' (Habitat Parcel: S1 to S5) have no condition assessment.
- 'Vacant or derelict land' habitat parcels achieved two different condition assessments 'Moderate' and 'Poor'.
    - The habitat parcel (Habitat Parcel: U3) scoring 'Moderate' did so due to achieving Criterion A "Vegetation structure is varied..." and Criterion B "The habitat parcel contains different plant species that are beneficial to wildlife...". The habitat parcel failed Criterion C due to the presence of Buddleja (*Buddleia davidii*).
    - The habitat parcels (Habitat Parcels: U4 and U5) scored 'Poor' due to achieving Criterion A only. The poor floral species diversity and presence of Buddleja within the habitat parcels meant these failed Criteria B and C.
- 'Modified grassland' habitat parcels achieved three different condition assessments of 'Good', 'Moderate', and 'Poor'.
    - The habitat parcel (Habitat Parcel: G1) scoring 'Good' did so due to achieving Essential Criterion A "There are 6-8 vascular plant species per m^2...", Criterion B "Sward height is varied...", Criterion D "Physical damage is evident in less than 5% grassland area...", Criterion E "Cover of bare ground is between 1% and 10%...", Criterion E "Cover of bare ground is between 1% and 10%...", Criterion F "Cover of bracken is less than 20%", and Criterion E "There is an absence of invasive non-native plant species...".

- The habitat parcels scoring 'Moderate' (Habitat Parcels: G2 and G6) both passed Essential Criteria A, D, F, and G. Habitat Parcel G2 also passed Criterion B. Habitat Parcel G6 also passed Criterion C "Any scrub present accounts for less than 20% of the total grassland area...".
- The habitat parcels scoring 'Poor' (Habitat Parcels: G3, G4, and G5) did not pass Essential Criterion A, but all three habitat parcels passed Criteria D, E, and F. Habitat Parcel G5 also passed Criterion C.

- 'Other neutral grassland' habitat parcels achieved three different condition assessments of 'Good', 'Moderate', and 'Poor'.
  - The habitat parcels scoring 'Good' (Habitat Parcels G7 and G10) passed Essential Criterion A "The parcel represents a good example of its habitat type with a consistently high proportion of characteristic indicator species present..." as well as Essential Criterion F "There are 10 or more vascular plant species per m^2 present...". These habitat parcels both also passed Criterion B "Sward height is varied", and Criterion D "Cover of bracken is less than 20%". Habitat Parcel G7 also passed Criterion C "Cover of bare ground is between 1% and 5%...". Habitat Parcel G10 also passed Criterion E "Combined cover of species indicative of suboptimal condition and physical damage".
  - The habitat parcels scoring 'Moderate' (Habitat Parcels G8 and G9) both passed Essential Criterion A, Criterion B, and Criterion E. Habitat Parcel G8 also passed Criterion D. Habitat Parcel G9 also passed Criterion C.
  - The habitat parcels scoring 'Poor' (Habitat Parcels G11 and G12) both passed Essential Criterion A and Criterion B.
- 'Willow scrub' habitat parcels (Habitat Parcel: S6 and S7) both scored 'Moderate' condition as both of the habitat parcels passed Criterion C "There is an absence of Invasive Non-Native Species...", Criterion D "The scrub has a well-developed edge...", and Criterion E "There are clearings, glade, or rides present within the scrub...".
- 'Other woodland; mixed' habitat (Habitat Parcel W1) scored 29 points, out of a possible 39, achieving 'Moderate' condition. There were "Three age classes of trees present" (Criterion A - 3 points), "No significant browsing damage evident" (Criterion B - 3 points), "No invasive species present in woodland" (Criterion C - 3 points), "Five or more native tree or shrub species" (Criterion D - 3 points), "50-80% of canopy trees and understorey shrubs are native" (Criterion E - 2 points), "21-40% of woodland has areas of temporary open space" (Criterion F - 2 points), "One or two classes only present in woodland" (Criterion G - 2 points), "Tree mortality 10% or less, no pests or diseases and no crown dieback" (Criterion H - 3 points), "No recognisable woodland NVC plant community at ground layer present" (Criterion I - 1 point), "Two storeys across all survey plots" (Criterion J - 2 points), "No veteran trees present" (Criterion K - 1 point), "Less than 25% of all survey plots within the woodland parcel have deadwood" (Criterion L - 1 point), and "No nutrient enrichment or damaged ground evident" (Criterion M - 3 points).

- 'Ornamental pond' (Habitat Parcel P1) achieved 'Moderate' condition due to passing Criterion A "The pond is of good water quality, with clear water...", Criteria D "The pond is not artificially connected to other water bodies...", Criterion E "Pond water levels can fluctuate naturally throughout the year", and Criterion G "The pond is not artificially stocked with fish".
- 58 'Urban trees' were identified within the site boundary and achieved two different condition scores of 'Good' and 'Moderate'.
    - 27 trees in total were assessed as 'Good' condition (Habitat Parcels T004, T006-T008, T012-T014, T016-T020, T035-T039, T041, T045, T046, T048, and H002 (6 trees)). All trees passed Criterion B "The tree canopy is predominantly continuous..." and Criterion C "The tree is mature...", and Criterion D "There is little or no evidence of an adverse impact on tree health by human activities...", and all (except T004) passed Criterion F ""More than 20% of the tree canopy area is oversailing vegetation". 15 trees (T004, T006-T008, T012-T014, T016-T020, T035, T045, and T048) passed Criterion A "The tree is a native species", 14 trees (T004, T0013, T036, T038, T039, T041, T046, T048, and H002) passed Criterion E "Natural ecological niches for vertebrates and invertebrates are present...".
    - 27 trees in total were assessed as 'Moderate' condition (Habitat Parcels T001-T003, T009-T011, T015, T032-T034, T040-T044, T047, T050 and H001 (11 trees)). All trees passed Criterion B, and all (except T003) passed Criterion F. 23 trees passed Criterion D (T001-T003, T009-T011, T015, T033, T034, T040, T044, T050, and H001).
    - Five trees passed Criteria A (T001, T002, T015, T034, T044). Six trees passed Criteria C (T003, T032, T033, T042, T043, and T047). Three trees passed Criteria E (T032, T042, and T043).
- 'Native hedgerow' habitat has been assigned a condition score of "Good" due to passing all but one condition criteria. The hedgerow met the following: more than >1.5m in height and width (Criteria A.1 and A.2); the gap between the ground and base of canopy was <0.5m and gaps made up less than 10% of total length (Criteria B.1 and B.2); there was >1m width of undisturbed ground with perennial herbaceous vegetation and plant species indicative of suboptimal condition made up <20% of the undisturbed ground (Criteria C.1 and C.2); >90% of the hedgerow and undisturbed ground is free of Invasive Non-Native Species and >90% of the hedgerow is free from anthropogenic damage (Criteria D.1 and D.2); and at least 95% of the hedgerow trees are in a healthy condition (Criterion E.2).

4.2 POST-DEVELOPMENT (PROPOSED)

Using the SBM calculation tool, the proposed development is predicted to deliver 7.29 HU, and 0.45 HeU respectively, as shown in Table 4.3 and Table 4.4 below.

Table 4.3 Post-Development Habitat Units

Broad Habitat	Habitat Type	Area (Hectares)	Distinctiveness	Condition	Habitat Units
Retained					
Individual trees	Urban trees	0.2117*	Medium	Good	2.54
Individual trees	Urban trees	0.1099*	Medium	Moderate	0.88
Created					
Urban	Developed land; sealed surface	1.6629	V. Low	N/A	0.00
Urban	Vegetated garden	0.4122	Low	N/A	0.80
Urban	Introduced shrub	0.3387	Low	N/A	0.65
Urban	Rain garden	0.0569	Low	Good	0.29
Grassland	Other neutral grassland	0.1548	Medium	Moderate	1.04
Individual trees	Urban trees	0.3583*	Medium	Moderate	1.10
*Urban trees and green walls are not included in the total site area to avoid double counting. ** Totals may differ due to rounding within the SBM				TOTAL	7.29**

Table 4.4 Post-Development Hedgerow Units

Broad Habitat	Habitat Type	Length (Km)	Distinctiveness	Condition	Hedgerow Units
Created					
Hedgerow	Native hedgerow	0.233	Low	Poor	0.45
				TOTAL	0.45

The above tables have been completed based on the methodologies detailed in Section 3.0 and on application of the below points:

- The metric calculation reflects area-based and hedgerow habitats only as no watercourse habitats are proposed within the post-development design. The metric calculation also assumes that no hedgerow habitat on site is being retained. Eleven trees will be retained post-development (T002 - T004, T006-T009, T012, T013, T045, and T048).
- 'Developed land; sealed surface' relates to all areas of hardstanding, building and impermeable surfaces within the proposed development design. The habitat has no habitat condition within the SBM and does not contribute any biodiversity units to the calculation.
- 'Vegetated garden' relates to all areas that will become private gardens within the proposed development design. The habitat has no habitat condition within the SBM.
- 'Introduced shrub' will consist of planted areas of flowering and evergreen amenity shrubs. The species mix to be used cannot be confirmed as planting plans are not yet available. Introduced shrub can be designed to provide a biodiverse rich area for pollinators and other wildlife. In line with the SBM, this habitat has a pre-set condition of 'Condition assessment N/A'.
- 'Rain gardens' will be created on-site. It is recommended that these are created using a mix of ferns, flowers, bulbs and grasses, that no invasive species are to be planted and that the planting mix is to provide varied vegetation structure. It is expected that the 'Rain Gardens' can fulfil all three condition criteria; Criterion A "Vegetation structure is varied, providing opportunities for vertebrate and invertebrates to live, eat, and breed. A single structural habitat component or vegetation type does not account for more than 80% of the total habitat area", Criterion B "The habitat parcel contains different plant species that are beneficial for wildlife, for example, flowering species providing nectar sources for a range of invertebrates at different times of year", and Criterion C "Invasive non-native plant species and others which are to the detriment of native wildlife must be absent".
- 'Other neutral grassland' is predicted to score 'Moderate' condition, meaning 3 or 4 of 6 criteria must be passed. It is deemed reasonable for the habitat to fulfil essential Criterion A "The parcel represents a good example of its habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type", Criterion D "Cover of bracken is less than 20% and cover of scrub is less than 5%", and Criterion F "There are 10 or more vascular plant species per m2 present, including forbs that are characteristic of the habitat type".
- Approximately 88 'Urban trees' of native and non-native species will be planted throughout the site consisting of field maple (*Acer campestre*), silver birch (*Betula pendula*), English oak (*Quercus robur*), common lime (*Tilia europaeus*), small-leaved lime (*Tilia cordata*), Magnolia (*Magnolia sp.*), dawn redwood (*Metasequoia glyptostroboides*), birch bark cherry (*Prunus serrula*), Yoshino cherry (*Prunus yedoensis*), juneberry (*Amelanchier lamarckii*), ornamental pear tree (*Pyrus calleryana 'Chanticleer'*), elm (*Ulmus 'Lutece'*), and birch 'Fascination' (*Betula albosinensis 'Fascination'*). These trees are expected to reach 'Moderate' condition by meeting Criterion A "The tree is a native species" (where applicable), Criterion B "The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5m wide", Criterion E "Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy, or

loose bark", and Criterion F "More than 20% of the tree canopy area is oversailing vegetation beneath". Criterion E can be met on planted trees by the creation or addition of additional habitats for vertebrates, such as bird boxes, bat boxes, or tree veteranisation.

- 'Native hedgerow' is predicted to score 'Poor' condition, due to the residential nature of the development and the likelihood that the hedgerow will be subject to management to maintain them for this purpose. Therefore, it is predicted that the hedgerows will achieve condition Criterion B2 "Gaps make up <10% of the total length, and no canopy gaps >5m", and Criterion D1 ">90% of the hedgerow is free from invasive non-native plant species and recently introduced species". The remaining criteria will not be achievable.

5.0 EVALUATION AND DISCUSSION

Under the proposals, as set out in the 'Landscape General Arrangement Plan' drawings, and in the absence of additional enhancement measures and habitat creation, the development is predicted to deliver 7.29 HU, which is a decrease of -17.74 HU. This corresponds to an equivalent -70.88% BNG. Hedgerows were predicted to deliver 0.45 HeU, which is an increase of 0.28 HeU, corresponding to a 158.44% BNG. BNG Trading Rules have been satisfied for hedgerow, but not for area habitats. A copy of the SBM calculation tool outputs is provided as Appendix E.

Table 5.1 below evaluates whether the habitat types that will be present post-development will contribute 'significant enhancements'.

Table 5.1 Significant Enhancements Evaluation

Criteria	Present/Absent	Comments
Habitats of medium or higher distinctiveness in the biodiversity metric (created)	Present	Through creation of 'Other neutral grassland' and planting of 'Urban trees'. However, these are common habitat types in the context of the wider landscape and are of limited extent within the site and therefore are not considered to contribute to a 'Significant enhancement'.
Habitats of low distinctiveness which create a large number of biodiversity units relative to the biodiversity value of the site before development	Absent	Low distinctiveness habitats contribute 1.73 HU post-development, compared to a baseline of 25.02 HU.
Habitat creation or enhancement where distinctiveness is increased relative to the distinctiveness of the habitat before development	Absent	Pre = Very Low, Low, Medium - dominated by ' Medium' distinctiveness habitat Post = Very Low, Low, Medium - dominated by 'Low' and 'Very Low' distinctiveness habitat.
Areas of habitat creation or enhancement which are significant in area relative to the size of the development	Absent	Largest collective area is dominated by 'Other neutral grassland' and covers 0.087 ha compared to the site area of 2.63 ha.
Enhancements to habitat condition, for example from poor or moderate to good	Absent	No enhancement as all area habitats are expected to be 'Lost' during development.

Further qualitative ecological enhancement should ideally also be targeted on site through the provision of invertebrate habitat features (such as pollinator posts or bee bricks), bird boxes (such as for garden birds) and bat boxes, to help protect nationally and locally important species, including those specified in national, regional, and local Biodiversity Action Plans. These have been recommended within the PEA report.

The on-site areas of biodiversity value are not considered to be significant due to the small scale of habitat creation; the post-development is dominated by 'Developed land; sealed surface', and the created habitats being of a common habitat type within the context of the wider landscape and of a small extent. 'Other neutral grassland' collectively comprises 0.1548ha of the site, split across 12 parcels, compared to the site area of 2.63ha. Additionally, the 'Urban trees' proposed will be predominantly street trees with the condition criteria passed relating to relaxed management/pruning regime and vegetation beneath, which are proposed within the post-development plans. Therefore, it is considered that detail relating to the proposed biodiversity compensation and enhancement actions in relation to habitat creation and management can be provided within a Landscape and Ecological Management Plan (LEMP) for the site which could be secured through planning condition. Providing these recommendations are adhered to, the proposals stand to be compliant with legislation and current planning policy.

6.0 OFF-SITE COMPENSATION

It was identified in Section 4.0 that a 10% BNG in area-based habitat on-site was not achievable with the post-development proposals detailed within the 'Landscape General Arrangement Plan'. The development is predicted to deliver 7.29 HU, which is a net loss of -17.74 HU, which corresponds to a -70.88% net loss.

The off-site compensation required to meet 10% BNG is 20.24 HU. This will need to be provided through off-site compensation from a third-party organisation or habitat bank.

Table 6.1 below outline the Baseline HU, the HU requirements to meet 10% BNG, and the deficit of the current proposal as per the 'General Landscape Arrangement Plan'.

Table 6.1 HU requirements for the site as per the 'Landscape General Arrangement Plan'

Baseline HU	10% of Baseline HU	Baseline +10% (i.e. HU required)	Post-development HU	HU Deficit
25.02	2.50	27.53	7.29	20.24

The off-site compensation required to meet 10% BNG is 20.24 HU. Additionally, in order to meet Trading Rules, off-site compensation will be required to include 0.37 HU of 'Low' distinctiveness habitat or higher, 2.85 HU of Medium distinctiveness grassland (ideally 'Other neutral grassland'), 2.47 HU of Medium distinctiveness Heathland and shrub habitat, 11.67 HU of Medium distinctiveness Individual trees, and 0.39 HU of Medium distinctiveness woodland (ideally 'Other woodland; mixed').

At the time of writing, investigation for off-site compensation has been started and five-offsite compensation providers have been approached. Currently two of those providers have off-site compensation HU within the same National Character Area as the site, therefore it is possible to fulfil the mandated 10% BNG within the local area off-site, following the next step in the BNG mitigation hierarchy.

A Habitat Management and Monitoring Plan (HMMP) will be required for the off-site delivery of HU (in addition to the on-site delivery LEMP).

Upon receiving planning permission, the submission of a Biodiversity Gain Plan (BGP) to the LPA will be required. This BGP must include details of the off-site compensation, including the Biodiversity Gain Site Register Reference.

7.0 SUMMARY AND CONCLUSIONS

In accordance with the Environment Act 2021, the National Planning Policy Framework and local policy (Appendix E), developments (with a few exemptions) have to deliver at least a 10% BNG in biodiversity, which should be evidenced through a complete BNGA using the SBM.

This BNGA has been completed to identify the pre-development (baseline) biodiversity value of the site and compare against the predicted post-development biodiversity value.

The baseline values for the site have been calculated as 25.02 HU and 0.17 HeU.

The 10% BNG targets are therefore 27.53 for HU and 0.19 for HeU, ideally delivered fully on-site.

The post-development design proposals are predicted to deliver 7.29HU. This is a net loss of 17.74HU (equivalent to - 70.88 % for HU).

The post-development design proposals are predicted to deliver 0.45 HeU. This is a net gain of 0.28 HeU (equivalent to + 158.44% for HeU).

The design proposals do not meet the BNG Trading Rules for area-based habitats.

The BNGA has identified that the 10% BNG target will not be fully delivered on-site. An additional 20.24 HU will therefore be required to be provided through off-site compensation. In order to meet the trading rules, the off-site compensation should include a minimum of 0.37 HU of 'Low' distinctiveness habitat or higher, 2.85 HU of Medium distinctiveness grassland (ideally 'Other neutral grassland'), 2.47 HU of Medium distinctiveness Heathland and shrub habitat, 11.67 HU of Medium distinctiveness Individual trees, and 0.39 HU of Medium distinctiveness woodland (ideally 'Other woodland; mixed').

Off-site compensation options should be investigated following the BNG mitigation hierarchy order:

- Off-site (within or outside the client's ownership) within the same LPA or NCA;
- Off-site (within or outside of the client's ownership) within the neighbouring LPA or NCA;
- Off-site (within or outside of the client's ownership) outside of both of the above;
- Using an off-site third-party provider (Local Market Analysis) or Purchasing Statutory Credits (as a last resort).

The on-site areas of biodiversity value are not considered to be significant due to the small scale of habitat creation; the post-development is dominated by 'Developed land; sealed surface', and the created habitats being of a common habitat type within the context of the wider landscape and of a small extent. 'Other neutral grassland' collectively comprises 0.1548ha of the site, split across 12 parcels, compared to the site area of 2.63ha. Additionally, the 'Urban trees' proposed will be predominantly street trees with the condition criteria passed relating to relaxed management/pruning regime and vegetation beneath, which are proposed within the post-development plans. Therefore, it is considered that detail relating to the proposed biodiversity compensation and enhancement actions in relation to habitat creation and management can be provided within a Landscape and Ecological

Management Plan (LEMP) for the site which could be secured through planning condition. Providing these recommendations are adhered to, the proposals stand to be compliant with legislation and current planning policy.

For the off-site habitat creation, a Habitat Management and Monitoring Plan (HMMP) for the habitat creation and long-term management over 30 years (minimum) will be required for submission to the LPA. When these recommendations are adhered to, the proposals stand to be compliant with legislation and current planning policy.

Upon receiving planning permission, the submission of a Biodiversity Gain Plan (BGP) to the LPA will be required. This BGP must include details of the proposed off-site BNG compensation, including the Biodiversity Gain Site Register Reference.

Qualitative habitat enhancement recommendations have also been given, within the PEA report, to further increase the ecological value of the scheme.

APPENDIX A PRE-DEVELOPMENT (BASELINE) HABITAT MAP

Figure A.1 Pre-development (Baseline) Habitat Map

NOVARTIS SITE PHASE 1 & 2

- Red Line Boundary
- Native hedgerow
- Existing Very Large Urban Tree
- Existing Large Urban Tree
- Existing Medium Urban Tree
- Existing Small Urban Tree
- Bramble scrub
- Developed land; sealed surface
- Introduced shrub
- Modified grassland
- Other neutral grassland
- Other woodland; mixed
- Ponds (non-priority habitat)
- Vacant or derelict land
- Willow scrub

TXXX - Tree reference number
UX / GX / SX - Habitat Parcel reference

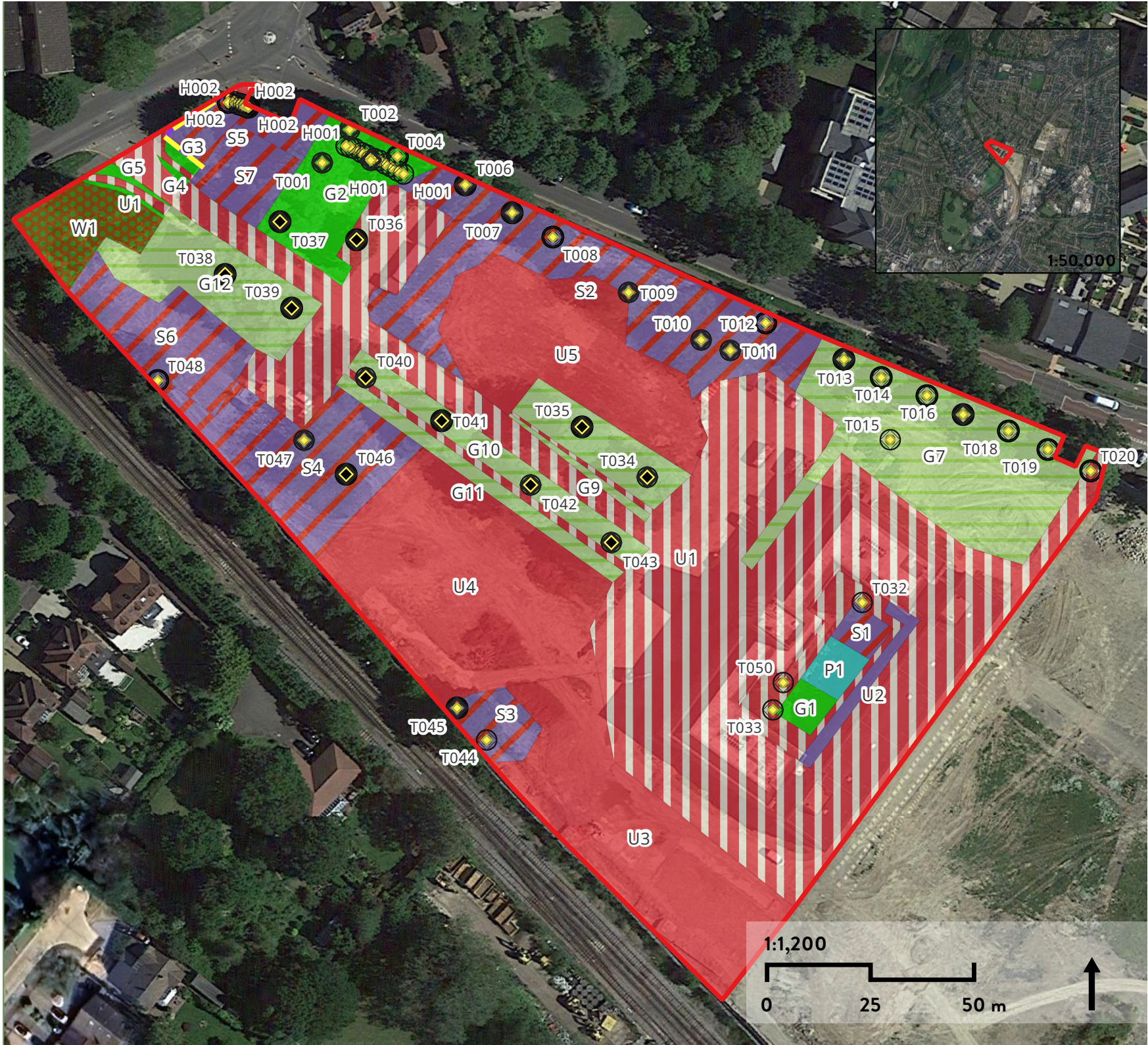
Title: Figure A.1

Drawn by: FO
Date: 17/03/2025

Reviewed by: ST
Date: 17/03/2025

Project number: 552979
Sources: ESRI World Topo, Greenspace Information for Greater London (GiGL), Natural England

Greengage

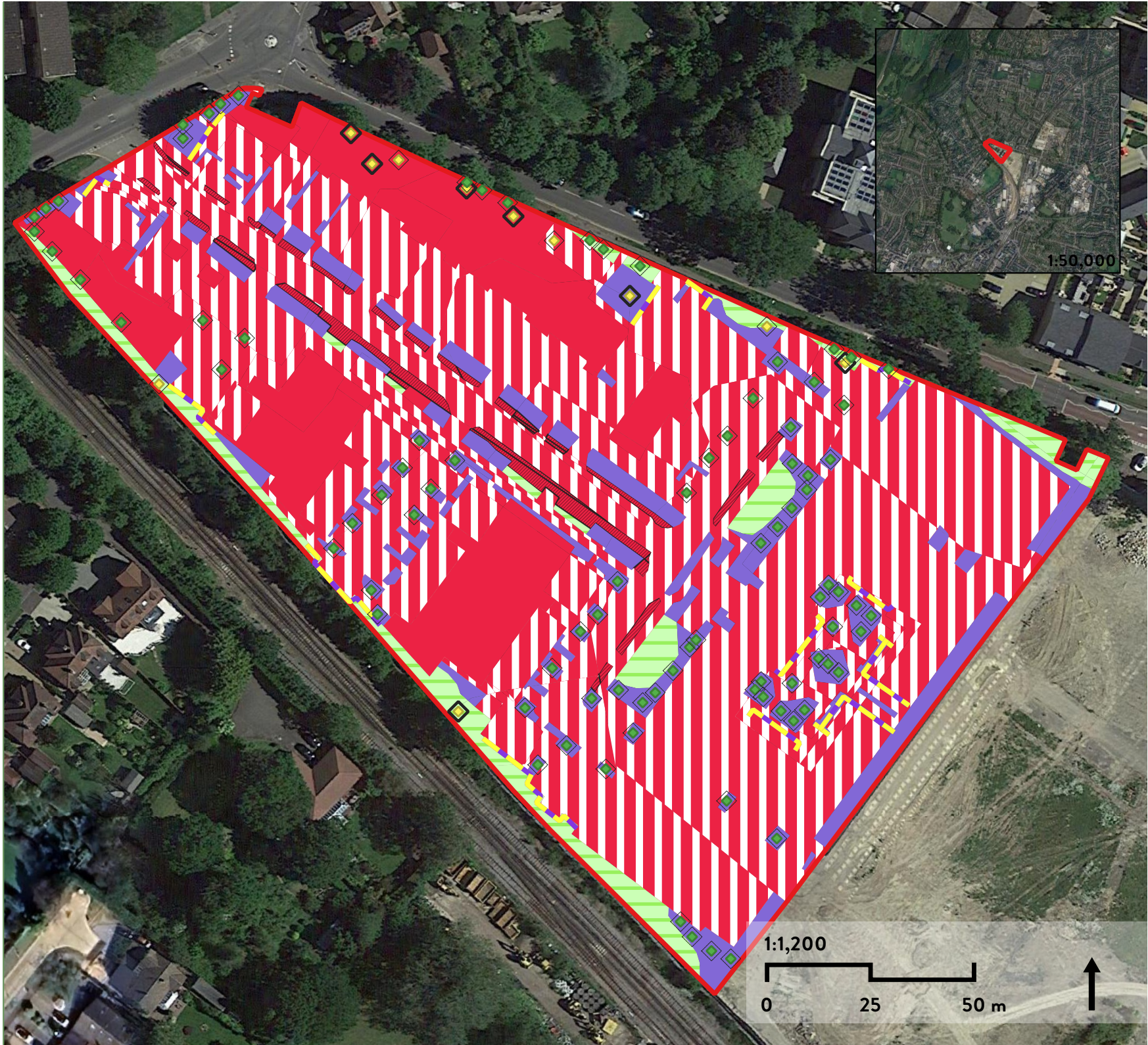


APPENDIX B POST-DEVELOPMENT HABITAT MAP

Figure B.1 Post-development Habitat Map

NOVARTISE SITE PHASE 1 & 2

- Red Line Boundary
- Proposed Small Urban Tree
- Retained Large Urban Tree
- Retained Medium Urban Tree
- Native hedgerow
- Developed land; sealed surface
- Introduced shrub
- Other neutral grassland
- Rain garden
- Vegetated garden



Title: Figure B.1

Drawn by: FO
Date: 21/03/2025

Reviewed by: ST
Date: 21/03/2025

Project number: 552979
Sources: ESRI World Topo, Greenspace Information for Greater London (GiGL), Natural England

Greengage

APPENDIX C CONDITION ASSESSMENTS

The highlighted green text below indicates which condition has been achieved for each habitat.

C.1 BASELINE HABITATS

Urban

Urban - Developed Land; Sealed Surface

No assessment is required for this habitat as the condition is fixed within the SBM as N/A.

Urban - Introduced Shrub

No assessment is required for this habitat as the condition is fixed within the SBM as N/A.

Urban - Vacant or derelict land

Habitat Parcel - U3 - Moderate condition

Condition Assessment Criteria		Criterion Passes? (Yes or No)
Core Criteria - must be assessed for all urban habitat types:		
A	Vegetation structure is varied, providing opportunities for vertebrates and invertebrates to live, eat and breed. A single structural habitat component or vegetation type does not account for more than 80% of the total habitat area.	Yes
B	The habitat parcel contains different plant species that are beneficial for wildlife, for example flowering species providing nectar sources for a range of invertebrates at different times of year.	Yes
C	Invasive non-native plant species (listed on Schedule 9 of WCA1) and others which are to the detriment of native wildlife (using professional judgement) cover less than 5% of the total vegetated area. Note - to achieve Good condition, this criterion must be satisfied by a complete absence of invasive non-native species (rather than <5% cover).	No

Condition Assessment Result	Condition Assessment Score
Results for habitats requiring assessment of 3 core criteria only (all listed urban habitats except Open mosaic habitat on previously developed land, Bioswale, SuDS and Green roofs):	
Passes all 3 criteria; AND	Good (3)

Condition Assessment Result	Condition Assessment Score
Meets the requirements for Good condition within criterion C	
Passes 2 of 3 core criteria; OR Passes 3 of 3 core criteria but does not meet the requirements for Good condition within criterion C.	Moderate (2)
Passes 0 or 1 of 3 core criteria.	Poor (1)

Habitat Parcel - U4 and U5 - Poor condition

Condition Assessment Criteria		Criterion Passes? (Yes or No)
Core Criteria - must be assessed for all urban habitat types:		
A	Vegetation structure is varied, providing opportunities for vertebrates and invertebrates to live, eat and breed. A single structural habitat component or vegetation type does not account for more than 80% of the total habitat area.	Yes
B	The habitat parcel contains different plant species that are beneficial for wildlife, for example flowering species providing nectar sources for a range of invertebrates at different times of year.	No
C	Invasive non-native plant species (listed on Schedule 9 of WCA1) and others which are to the detriment of native wildlife (using professional judgement) cover less than 5% of the total vegetated area. Note - to achieve Good condition, this criterion must be satisfied by a complete absence of invasive non-native species (rather than <5% cover).	No

Condition Assessment Result	Condition Assessment Score
Results for habitats requiring assessment of 3 core criteria only (all listed urban habitats except Open mosaic habitat on previously developed land, Bioswale, SuDS and Green roofs):	
Passes all 3 criteria; AND Meets the requirements for Good condition within criterion C	Good (3)

Condition Assessment Result	Condition Assessment Score
Passes 2 of 3 core criteria; OR Passes 3 of 3 core criteria but does not meet the requirements for Good condition within criterion C.	Moderate (2)
Passes 0 or 1 of 3 core criteria.	Poor (1)

Grassland

Modified Grassland

Habitat Parcel - G1 - Good condition

Condition Assessment Criteria		Criterion Passes? (Yes or No)
A	There are 6-8 vascular plant species per m2 present, including at least 2 forbs (these may include those listed in Footnote 1). Note - this criterion is essential for achieving Moderate or Good condition.	Yes
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.	Yes
C	Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble (*Rubus fruticosus agg.*) may be present).	No
D	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities (Footnote 2).	Yes
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens).	Yes
F	Cover of bracken Pteridium aquilinum is less than 20%.	Yes
G	There is an absence of invasive non-native plant species (Footnote 3) (as listed on Schedule 9 of WCA (Footnote 4)).	Yes
Essential criterion achieved (Yes or No)		Yes

Condition Assessment Criteria		Criterion Passes? (Yes or No)
Number of criteria passed		6
Condition Assessment Result	Condition Assessment Score	
Passes 6 or 7 criteria including passing essential criterion A	Good (3)	
Passes 4 or 5 criteria including passing essential criterion A	Moderate (2)	
Passes 3 or fewer criteria; OR Passes 4 -6 criteria (excluding criterion A)	Poor (1)	
Footnotes		
Footnote 1 - Creeping thistle Cirsium arvense, spear thistle Cirsium vulgare, curled dock Rumex crispus, broad-leaved dock Rumex obtusifolius, common nettle Urtica dioica, creeping buttercup Ranunculus repens, greater plantain Plantago major, white clover Trifolium repens and cow parsley Anthriscus sylvestris. Footnote 2 - For example, this could include small, scattered areas of bare ground allowing establishment of new species, or localised patches where not exceeding 10% cover. Footnote 3 - Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels, accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement. Footnote 4 - Wildlife and Countryside Act 1981 (as amended).		

Habitat Parcel - G2 and G6 - Moderate condition

Condition Assessment Criteria		Criterion Passes? (Yes or No)	
	Habitat Parcel	G2	G6
A	There are 6-8 vascular plant species per m2 present, including at least 2 forbs (these may include those listed in Footnote 1). Note - this criterion is essential for achieving Moderate or Good condition.	Yes	Yes
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.	Yes	No

Condition Assessment Criteria		Criterion Passes? (Yes or No)	
C	Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble (Rubus fruticosus agg.) may be present).	No	Yes
D	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities (Footnote 2).	Yes	Yes
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens).	No	No
F	Cover of bracken Pteridium aquilinum is less than 20%.	Yes	Yes
G	There is an absence of invasive non-native plant species (Footnote 3) (as listed on Schedule 9 of WCA (Footnote 4)).	Yes	Yes
Essential criterion achieved (Yes or No)		Yes	Yes
Number of criteria passed		5	5

Condition Assessment Result	Condition Assessment Score
Passes 6 or 7 criteria including passing essential criterion A	Good (3)
Passes 4 or 5 criteria including passing essential criterion A	Moderate (2)
Passes 3 or fewer criteria; OR Passes 4 -6 criteria (excluding criterion A)	Poor (1)

Footnotes

Footnote 1 - Creeping thistle Cirsium arvense, spear thistle Cirsium vulgare, curled dock Rumex crispus, broad-leaved dock Rumex obtusifolius, common nettle Urtica dioica, creeping buttercup Ranunculus repens, greater plantain Plantago major, white clover Trifolium repens and cow parsley Anthriscus sylvestris.
Footnote 2 - For example, this could include small, scattered areas of bare ground allowing establishment of new species, or localised patches where not exceeding 10% cover.
Footnote 3 - Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels, accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement.
Footnote 4 - Wildlife and Countryside Act 1981 (as amended).

Habitat Parcel - G3, G4, and G5 - Poor condition

Condition Assessment Criteria		Criterion Passes? (Yes or No)		
Habitat Parcel		G3	G4	G5
A	There are 6-8 vascular plant species per m2 present, including at least 2 forbs (these may include those listed in Footnote 1). Note - this criterion is essential for achieving Moderate or Good condition.	No	No	No
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.	No	No	No
C	Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble (Rubus fruticosus agg.) may be present).	No	No	Yes
D	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities (Footnote 2).	Yes	Yes	Yes
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens).	Yes	Yes	Yes
F	Cover of bracken Pteridium aquilinum is less than 20%.	Yes	Yes	Yes
G	There is an absence of invasive non-native plant species (Footnote 3) (as listed on Schedule 9 of WCA (Footnote 4)).	Yes	Yes	Yes
Essential criterion achieved (Yes or No)		No	No	No
Number of criteria passed		4	4	5

Condition Assessment Result	Condition Assessment Score
Passes 6 or 7 criteria including passing essential criterion A	Good (3)
Passes 4 or 5 criteria including passing essential criterion A	Moderate (2)
Passes 3 or fewer criteria; OR Passes 4 -6 criteria (excluding criterion A)	Poor (1)
Footnotes	

Condition Assessment Criteria	Criterion Passes? (Yes or No)
Footnote 1 - Creeping thistle Cirsium arvense, spear thistle Cirsium vulgare, curled dock Rumex crispus, broad-leaved dock Rumex obtusifolius, common nettle Urtica dioica, creeping buttercup Ranunculus repens, greater plantain Plantago major, white clover Trifolium repens and cow parsley Anthriscus sylvestris. Footnote 2 - For example, this could include small, scattered areas of bare ground allowing establishment of new species, or localised patches where not exceeding 10% cover. Footnote 3 - Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels, accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement. Footnote 4 - Wildlife and Countryside Act 1981 (as amended).	

Other neutral grassland

Habitat Parcel - G7 and G10 - Good condition

Condition Assessment Criteria		Criterion Passes (Yes/No)?	
A	The parcel represents a good example of its habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type (and relative to Footnote 3 suboptimal species which may be listed in the UKHab description - Footnote 1). Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.	Yes	Yes
B	Sward height is varied (at least 20% of the sward is less than 7cm and at least 20% is more than 7cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.	Yes	Yes
C	Cover of bare ground is between 1% and 10%, including localised areas, for example, rabbit warrens (see Footnote 2).	Yes	No
D	Cover of bracken Pteridium aquilinum is less than 20% and cover of scrub (including bramble Rubus fruitcosus agg.) is less than 5%.	Yes	Yes

Condition Assessment Criteria		Criterion Passes (Yes/No)?	
E	Combined cover of species indicative of suboptimal condition (see Footnote 3) and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species (see Footnote 4) (as listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), see Footnote 5) are present, this criterion is automatically failed.	No	Yes
Additional criterion			
F	There are 10 or more vascular plant species per m2 present, including forbs that are characteristic of the habitat type (species referenced in Footnote 3 and 5 (see Footnotes below) cannot contribute towards this count). Note - this criterion is essential for achieving Good condition for non-acid grassland types only.	Yes	Yes
Essential criterion achieved (Yes or No)		Yes	Yes
Number of criteria passed		5	5

Condition Assessment Result	Condition Assessment Score
Passes 5 or 6 criteria including passing essential criterion A and additional criterion F.	Good (3)
Passes 3 - 4 criteria including passing essential criterion A	Moderate (2)
Passes 2 or fewer criteria; OR Passes 3 -4 criteria (excluding criterion A and F)	Poor (1)

Footnotes (within the SBM Condition Assessment)

Footnote 1 - Professional judgement should be used alongside the UKHab description.
Footnote 2 - For example, this could include small, scattered areas of bare ground allowing for plant colonisation, or localised patches where not exceeding 5% cover.
Footnote 3 - Species indicative of suboptimal condition for this habitat type include: creeping thistle (Cirsium arvense) spear thistle (Cirsium vulgare), curled dock (Rumex crispus), broad-leaved dock (Rumex obtusifolius), common nettle (Urtica dioica), creeping buttercup (Ranunculus repens), greater plantain (Plantago major), white clover (Trifolium repens) and cow parsley (Anthriscus sylvestris). There may be additional relevant species local to the region and or site.
Footnote 4 - Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the

Condition Assessment Criteria	Criterion Passes (Yes/No)?
invasive non-native species with a size relative to its risk of spread into adjacent habitat, by applying professional judgment. Footnote 5 - Wildlife and Countryside Act 1981 (as amended).	

Habitat Parcel - G8 and G9 - Moderate condition

Condition Assessment Criteria		Criterion Passes (Yes/No)?	
A	The parcel represents a good example of its habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type (and relative to Footnote 3 suboptimal species which may be listed in the UKHab description - Footnote 1). Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.	Yes	Yes
B	Sward height is varied (at least 20% of the sward is less than 7cm and at least 20% is more than 7cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.	Yes	Yes
C	Cover of bare ground is between 1% and 10%, including localised areas, for example, rabbit warrens (see Footnote 2).	No	Yes
D	Cover of bracken Pteridium aquilinum is less than 20% and cover of scrub (including bramble Rubus fruitcosus agg.) is less than 5%.	Yes	No
E	Combined cover of species indicative of suboptimal condition (see Footnote 3) and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species (see Footnote 4) (as listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), see Footnote 5) are present, this criterion is automatically failed.	Yes	Yes
Additional criterion			

Condition Assessment Criteria		Criterion Passes (Yes/No)?	
F	There are 10 or more vascular plant species per m2 present, including forbs that are characteristic of the habitat type (species referenced in Footnote 3 and 5 (see Footnotes below) cannot contribute towards this count). Note - this criterion is essential for achieving Good condition for non-acid grassland types only.	No	No
Essential criterion achieved (Yes or No)		No	No
Number of criteria passed		4	4

Condition Assessment Result	Condition Assessment Score
Passes 5 or 6 criteria including passing essential criterion A and additional criterion F.	Good (3)
Passes 3 - 4 criteria including passing essential criterion A	Moderate (2)
Passes 2 or fewer criteria; OR Passes 3 -4 criteria (excluding criterion A and F)	Poor (1)

Footnotes (within the SBM Condition Assessment)

Footnote 1 - Professional judgement should be used alongside the UKHab description.
Footnote 2 - For example, this could include small, scattered areas of bare ground allowing for plant colonisation, or localised patches where not exceeding 5% cover.
Footnote 3 - Species indicative of suboptimal condition for this habitat type include: creeping thistle (Cirsium arvense) spear thistle (Cirsium vulgare), curled dock (Rumex crispus), broad-leaved dock (Rumex obtusifolius), common nettle (Urtica dioica), creeping buttercup (Ranunculus repens), greater plantain (Plantago major), white clover (Trifolium repens) and cow parsley (Anthriscus sylvestris). There may be additional relevant species local to the region and or site.
Footnote 4 - Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, by applying professional judegement.
Footnote 5 - Wildlife and Countryside Act 1981 (as amended).

Habitat Parcel - G11 and G12 - Poor condition

Condition Assessment Criteria		Criterion Passes (Yes/No)?	
A	The parcel represents a good example of its habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type (and relative to Footnote 3 suboptimal species which may be listed in the UKHab description - Footnote 1). Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.	Yes	Yes
B	Sward height is varied (at least 20% of the sward is less than 7cm and at least 20% is more than 7cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.	Yes	Yes
C	Cover of bare ground is between 1% and 10%, including localised areas, for example, rabbit warrens (see Footnote 2).	No	No
D	Cover of bracken Pteridium aquilinum is less than 20% and cover of scrub (including bramble Rubus fruitcosus agg.) is less than 5%.	No	No
E	Combined cover of species indicative of suboptimal condition (see Footnote 3) and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species (see Footnote 4) (as listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), see Footnote 5) are present, this criterion is automatically failed.	No	No
Additional criterion			
F	There are 10 or more vascular plant species per m2 present, including forbs that are characteristic of the habitat type (species referenced in Footnote 3 and 5 (see Footnotes below) cannot contribute towards this count). Note - this criterion is essential for achieving Good condition for non-acid grassland types only.	No	No
Essential criterion achieved (Yes or No)		No	No
Number of criteria passed		2	2

Condition Assessment Criteria		Criterion Passes (Yes/No)?
Condition Assessment Result	Condition Assessment Score	
Passes 5 or 6 criteria including passing essential criterion A and additional criterion F.	Good (3)	
Passes 3 - 4 criteria including passing essential criterion A	Moderate (2)	
Passes 2 or fewer criteria; OR Passes 3 -4 criteria (excluding criterion A and F)	Poor (1)	
Footnotes (within the SBM Condition Assessment)		
Footnote 1 - Professional judgement should be used alongside the UKHab description. Footnote 2 - For example, this could include small, scattered areas of bare ground allowing for plant colonisation, or localised patches where not exceeding 5% cover. Footnote 3 - Species indicative of suboptimal condition for this habitat type include: creeping thistle (Cirsium arvense) spear thistle (Cirsium vulgare), curled dock (Rumex crispus), broad-leaved dock (Rumex obtusifolius), common nettle (Urtica dioica), creeping buttercup (Ranunculus repens), greater plantain (Plantago major), white clover (Trifolium repens) and cow parsley (Anthriscus sylvestris). There may be additional relevant species local to the region and or site. Footnote 4 - Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, by applying professional judegement. Footnote 5 - Wildlife and Countryside Act 1981 (as amended).		

Heathland and shrub

Bramble scrub

No assessment is required for this habitat as the condition is fixed within the SBM as N/A.

Willow scrub

Habitat parcel - S6 and S7 - Moderate condition

	Condition Assessment Criteria	Criterion Passes? (Yes/No)	
	Habitat Parcel	S6	S7

	Condition Assessment Criteria	Criterion Passes? (Yes/No)	
A	The parcel represents a good example of its habitat type - the appearance and composition of the vegetation closely matches its UKHab description (where in its natural range) (Footnote 1). • At least 80% of scrub is native, • There are at least three native woody species (Footnote 2), • No single species comprises more than 75% of the cover (except hazel Corylus avellana, common juniper Juniperus communis, sea buckthorn Hippophae rhamnoides or box Buxus sempervirens, which can be up to 100% cover).	No	No
B	Seedlings, saplings, young shrubs and mature (ancient or veteran) (Footnote 3) shrubs are all present.	No	No
C	There is an absence of invasive non-native plant species (Footnote 4) (as listed on Schedule 9 of WCA) (Footnote 5) and species indicative of suboptimal condition make up less than 5% of ground cover.	Yes	Yes
D	The scrub has a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat.	Yes	Yes
E	There are clearings, glades or rides present within the scrub, providing sheltered edges.	Yes	Yes

Condition Assessment Result	Condition Assessment Score
Passes 5 criteria	Good (3)
Passes 3 or 4 criteria	Moderate (2)
Passes 2 or fewer criteria	Poor (1)

Footnotes

Footnote 1 - Professional judgement should be used alongside the UKHab description.
Footnote 2 - Native woody species as defined and listed in the Hedgerow Survey Handbook: Defra (2007) Hedgerow Survey Handbook: A standard procedure for local surveys in the UK. 2nd ed. [online]. Defra, London. PB1195. Available from: Hedgerow survey handbook - GOV.UK (www.gov.uk)
Footnote 3 - See gov.uk standing advice on ancient and veteran species. Available from: Keepers of time: ancient and native woodland and trees policy in England (publishing.service.gov.uk) and Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk)
Footnote 4 - Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the

Condition Assessment Result	Condition Assessment Score
invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement. Footnote 5 - Wildlife and Countryside Act 1981 (as amended) Footnote 6 - Species indicative of suboptimal condition for this habitat type may include: non-native conifers, tree-of-heaven (Alianthus altissima), holm oak (Quercus ilex), European turkey oak (Quercus cerris), cherry laurel (Prunus laurocerasus), snowberry (Symphoricarpos spp.), shallon (Gaultheria shallon), American skunk cabbage (Lysichiton americanus), buddleia (Buddleja spp.), cotoneaster (Cotoneaster spp.), Spanish bluebell (Hyacinthoides hispanica and hybrid bluebells (Hycynthoides x massartiana). There may be additional relevant species local to the region and or site.	

Woodland

Other woodland; mixed

Habitat parcel - W1 - Moderate

Condition Assessment Criteria					Score per indicator
Indicator		Good (3 points)	Moderate (2 points)	Poor (1 point)	
A	Age distribution of trees (footnote 1)	Three age-classes present.	Two age-classes present.	One age-classes present.	3
B	Wild, domestic and feral herbivore damage (footnote 2)	No significant browsing damage evident in woodland.	Evidence of significant browsing pressure is present in less than 40% of the whole woodland.	Evidence of significant browsing pressure is present in 40% or more of the whole woodland.	3
C	Invasive plant species (footnote 3)	No invasive species present in woodland.	Rhododendron Rhododendron ponticum or cherry laurel Prunus laurocerasus not present, and other invasive species <10% cover.	Rhododendron or cherry laurel present, or other invasive species ≥10% cover.	3

Condition Assessment Criteria					Score per indicator
Indicator		Good (3 points)	Moderate (2 points)	Poor (1 point)	
D	Number of native tree species (footnote 4)	Five or more native tree or shrub species found across woodland parcel.	Three to four native tree or shrub species found across woodland parcel.	Two or less native tree or shrub species across woodland parcel.	3
E	Cover of native tree and shrub species (footnote 5)	>80% of canopy trees and >80% of understory shrubs are native.	50 - 80% of canopy trees and 50 - 80% of understory shrubs are native.	<50% of canopy trees and <50% of understory shrubs are native.	2
F	Open space within woodland (footnote 6 and 7)	10 - 20% of woodland has areas of temporary open space. Unless woodland is <10ha, in which case 0 - 20% temporary open space is permitted.	21 - 40% of woodland has areas of temporary open space.	<10% or >40% of woodland has areas of temporary open space. But if woodland <10ha has <10% temporary open space, please see Good category.	2
G	Woodland regeneration (footnote 8)	All three classes present in woodland; trees 4 - 7cm Diameter at Breast Height (DBH), saplings and seedlings or advanced coppice regrowth.	One or two classes only present in woodland.	No classes or coppice regrowth present in woodland.	2
H	Tree health (footnote 9)	Tree mortality 10% or less, no pests or diseases	11% to 25% tree mortality and or crown dieback or	Greater than 25% tree mortality and or any high-risk	3

Condition Assessment Criteria					Score per indicator
Indicator		Good (3 points)	Moderate (2 points)	Poor (1 point)	
		and no crown dieback.	low-risk pest or disease present.	pest or disease present.	
I	Vegetation and ground flora (footnote 10)	Recognisable NVC plant community at ground layer present, strongly characterised by ancient woodland flora specialists.	Recognisable woodland NVC plant community at ground layer present.	No recognisable woodland NVC plant community at ground layer present.	1
J	Woodland vertical structure (footnote 11)	Three or more storeys across all survey plots, or a complex woodland.	Two storeys across all survey plots.	One or less storey across all survey plots.	2
K	Veteran trees (footnote 12)	Two or more veteran trees per hectare.	One veteran tree per hectare.	No veteran trees present in woodland.	1
L	Amount of deadwood (footnote 13)	50% of all survey plots within the woodland parcel have deadwood, such as standing and fallen deadwood, large dead branches and or stems, branch stubs and stumps, or an abundance of small cavities.	Between 25% and 50% of all survey plots within the woodland parcel have deadwood, such as standing and fallen deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities.	Less than 25% of all survey plots within the woodland parcel have deadwood, such as standing and fallen deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities.	1
M	Woodland disturbance (footnote 14)	No nutrient enrichment or damaged ground evident.	Less than 1 hectare in total of nutrient enrichment across	1 hectare or more of nutrient enrichment, and or 20% or more of	3

Condition Assessment Criteria					Score per indicator
Indicator		Good (3 points)	Moderate (2 points)	Poor (1 point)	
			woodland area, and or less than 20% of woodland area has damaged ground.	woodland area has damaged ground.	
Total score (out of a possible 39)					29

Condition Assessment Result	Condition Assessment Score
Total score >32 (33 to 39)	Good (3)
Total score 26 to 32	Moderate (2)
Total score <26 (13 to 25)	Poor (1)

Footnotes

Footnotes below refer to the EWBG woodland condition assessment details: EWBG (No date). Assessing your Woodland's Condition [online]. Available from: Woodland Wildlife Toolkit (sylva.org.uk).

The woodland condition assessment survey methodology is outlined in the EWBG toolkit. However, the criteria on this sheet are those specific to the SBM and must be used when assessing woodland condition.

Footnote 1 - See EWBG method INDICATOR 1 for more information. If tree species is not a birch Betula sp., cherry Prunus sp. or Sorbus sp.: 0 - 20 years (Young); 21 - 150 years (Intermediate); and >150 years (Old). For birch, cherry or Sorbus species; 0 - 20 years = Young; 21 - 60 years =Intermediate; >60 years = Old. A recognisable age-class should be a consistent recognisable layer across the woodland or stand being assessed. Presence of a few saplings would not indicate that the woodland has an 'age-class' of young trees.

Footnote 2 - See EWBG method INDICATOR 2 for more information. Browsing pressure is considered to be significant where >20% of vegetation visible within each survey plot shows damage from any type of browsing pressure listed.

Footnote 3 - See EWBG method INDICATOR 3 for more information. Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly. Check for the presence of all plant species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), particularly the following invasive non-native species: American skunk cabbage Lysichiton americanus; Himalayan balsam Impatiens glandulifera; Japanese knotweed Reynoutria japonica; cherry laurel Prunus laurocerasus; shallon Gaultheria shallon; snowberry Symphoricarpos albus; variegated yellow archangel Lamiastrum galeobdolon subsp. argentatum; rhododendron Rhododendron ponticum; and tree-of-heaven Alianthus altissima.

Condition Assessment Criteria				Score per indicator
Indicator	Good (3 points)	Moderate (2 points)	Poor (1 point)	
Footnote 4 - See EWBG method INDICATOR 4 and Table 2 for more information. The number of different native tree or shrub species including young trees and shrubs. A list of commonly found native tree and shrub species is provided in Table 2. Not all species listed are native to all parts of the UK. Note a list of commonly found non-native tree species are also included and should be recorded if present. Footnote 5 - See EWBG method INDICATOR 5 and for more information. The abundance of native tree species in upper (>5 m) and understorey (up to 5 m) layers including young trees and shrubs. Footnote 6 - See EWBG method INDICATOR 6 for more information. Open space within woodland in this context is temporary open space in which trees can be expected to regenerate (for example, glades, rides, footpaths, areas of clear-fell). This differs from permanent open space where tree regeneration is not possible or desirable (for example, tarmac, buildings, rivers). Area is at least 10 m wide with less than 20% covered by shrubs or trees. Footnote 7 – Given the increased ratio of edge habitat to woodland where the woodland is <10ha. Footnote 8 - See EWBG method INDICATOR 8 for more information. This indicator measures regeneration potential of the woodland by considering three classes: seedlings; saplings; and young trees of 4-7cm DBH. All three classes would fall in the 'young' category of the 'age distribution of trees' indicator, but the regeneration indicator gathers additional information by considering regeneration potential - if seedlings, saplings and young trees are all present that means natural regeneration processes are happening. Footnote 9 - See EWBG method INDICATOR 9 for more information and Table 3 for a list of diseases and pests and their risk level. Footnote 10 - See EWBG method INDICATOR 10 directing to NVC key for more information. The 'UKHab to NVC translation table' in the UK Habitat Classification resources may also be useful to assess this. Footnote 11 – This criterion looks at structural diversity and is useful to understand in conjunction with the age of trees in a woodland. Vertical structure is defined as the number of canopy storeys present. Possible storey values are: 1) Upper; 2) Complex: recorded when the stand is composed of multiple tree heights that cannot easily be stratified into broad height bands (such as upper, middle or lower); 3) Middle; 4) Lower; and 5) Shrub layer. There might be no storeys where the woodland has been felled. See EWBG INDICATOR 11 for more information. Footnote 12 - See gov.uk standing advice on ancient and veteran species[19],[20]. EWBG INDICATOR 12 is the relevant indicator. Footnote 13 – See EWBG method INDICATOR 13 for more information. This includes logs, large dead branches on the forest floor and stumps (<1 m tall) >20cm diameter at narrowest point and >50cm long. Also includes standing dead trees (>1 m tall) and also deadwood on standing live trees. Diameter is measured at the narrowest point on the stem. Minimum diameter of 20cm.				

Condition Assessment Criteria				Score per indicator
Indicator	Good (3 points)	Moderate (2 points)	Poor (1 point)	
Footnote 14 - See EWBG method INDICATOR 15 for more information. Examples of disturbance are: significant nutrient enrichment; soil compaction from trampling, machinery, animal poaching or litter.				

Individual Trees

Urban trees

Habitat Parcel - T004, T006-T008, T012-T014, T016-T020, T035-T039, T041, T045, T046, T048, and H002 (6 trees) - Good condition

Condition Assessment Criteria		Criterion Passes? (Yes/No)			
	Habitat Parcels	T006 - T008, T012, T014, T016 - T020, T035, T045	T004	T013 and T048	T036 - T038, T039, T041, T046 and H002.
A	The tree is a native species (or more than 70% within the block are native species).	Yes	Yes	Yes	No
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	Yes	Yes	Yes	Yes
C	The tree is mature (or more than 50% within the block are mature).	Yes	Yes	Yes	Yes
D	There is little or no evidence of an adverse impact on tree health by anthropogenic activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime; so the trees retain >75% of expected canopy for their age range and height.	Yes	Yes	Yes	Yes
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	No	Yes	Yes	Yes
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	Yes	No	Yes	Yes
	Number of Criteria Passed	5	5	6	5

Condition Assessment Result	Condition Assessment Score
Passes 5 or 6 of 6 criteria	Good (3)
Passes 3 or 4 of 6 criteria	Moderate (2)
Passes 2 or fewer of 6 criteria	Poor (1)

Habitat Parcel - T001-T003, T009-T011, T015, T032-T034, T040-T044, T047, T050 and H001 (11 trees) - Moderate Condition

Condition Assessment Criteria		Criterion Passes? (Yes/No)					
	Habitat Parcel	T001, T002, T015, T034, T044	T032, T042, T047	T009 - T011, T040, T050, H001	T003	T033	T047
A	The tree is a native species (or more than 70% within the block are native species).	Yes	No	No	No	No	No
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	Yes	Yes	Yes	Yes	Yes	Yes
C	The tree is mature (or more than 50% within the block are mature).	No	Yes	No	Yes	Yes	Yes
D	There is little or no evidence of an adverse impact on tree health by anthropogenic activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime; so the trees retain >75% of expected canopy for their age range and height.	Yes	No	Yes	Yes	Yes	No
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	No	Yes	No	No	No	No
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	Yes	Yes	Yes	No	Yes	Yes
	Number of Criteria passed	4	4	3	3	4	3

Condition Assessment Result	Condition Assessment Score
Passes 5 or 6 of 6 criteria	Good (3)
Passes 3 or 4 of 6 criteria	Moderate (2)
Passes 2 or fewer of 6 criteria	Poor (1)

Pond

Ornamental pondCondition Assessment Criteria		Criterion Passes? (Yes/No)
Core Criteria - applicable to all ponds (woodland and non-woodland)		
A	The pond is of good water quality, with clear water (low turbidity) indicating no obvious signs of pollution. Turbidity is acceptable if the pond is grazed by livestock.	Yes
B	There is semi-natural habitat (moderate distinctiveness or above) completely surrounding the pond, for at least 10 m from the pond edge for its entire perimeter.	No
C	Less than 10% of the water surface is covered with duckweed (Lemna spp.) or filamentous algae.	No
D	The pond is not artificially connected to other waterbodies, such as agricultural ditches or artificial pipework.	Yes
E	Pond water levels can fluctuate naturally throughout the year. No obvious artificial dams, pumps or pipework.	Yes
F	There is an absence of listed non-native plant and animal species.	No
G	The pond is not artificially stocked with fish. If the pond naturally contains fish, it is a native fish assemblage at low densities.	Yes
Additional Criteria - must be assessed for all non-woodland ponds		
H	Emergent, submerged or floating plants (excluding duckweed)4 cover at least 50% of the pond area which is less than 3 m deep.	Yes
I	The pond surface is no more than 50% shaded by adjacent trees and scrub.	No
	Number of Criteria passed	5

Condition Assessment Result	Condition Assessment Score
Results for non-woodland ponds which require assessment of 9 criteria	
Passes 9 criteria	Good (3)
Passes 6 to 8 of 9 criteria	Moderate (2)
Passes 5 or fewer of 9 criteria	Poor (1)

APPENDIX D STATUTORY BIODIVERSITY METRIC OUTPUT

Plate D.1 Headline Results

Novartis Phase 1&2				
Headline Results	Return to results menu			
Scroll down for final results ⚠				
On-site baseline	*Habitat units*	25.05		
	Hedgerow units	0.17		
	Watercourse units	0.00		
On-site post-intervention (Including habitat retention, creation & enhancement)	*Habitat units*	7.29		
	Hedgerow units	0.45		
	Watercourse units	0.00		
On-site net change (units & percentage)	*Habitat units*	-17.76	-70.91%	On-site net gain is less than target set ▲
	Hedgerow units	0.28	158.44%	
	Watercourse units	0.00	0.00%	

Plate D.2 Final Results

FINAL RESULTS			
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	-17.76	
	Hedgerow units	0.28	
	Watercourse units	0.00	
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	-70.91%	Total net gain achieved is less than target set ▲
	Hedgerow units	158.44%	
	Watercourse units	0.00%	
Trading rules satisfied?	No - Check Trading Summaries ▲		

Unit Type	Target	Baseline Units	Units Required	Unit Deficit	
Habitat units	10.00%	25.05	27.56	20.27	
Hedgerow units	10.00%	0.17	0.19	0.00	No additional hedgerow units required to meet target ✓
Watercourse units	10.00%	0.00	0.00	0.00	No additional watercourse units required to meet target ✓

APPENDIX E RELEVANT LEGISLATION AND POLICY

E.1 LEGISLATION

The BNGA has been compiled with reference to the following relevant nature conservation legislation, planning policy and the UK Biodiversity Framework from which the protection of sites, habitats and species is derived in England including:

- UK Government's 25 Year Environment Plan (DEFRA, 2018);
- Biodiversity 2020: A Strategy for England's Wildlife and Ecosystem Services (DEFRA, 2011);
- National Planning Policy Framework (NPPF) (MHCLG, 2023);
- The Natural Environment and Rural Communities (NERC) Act (HMSO, 2006); and
- The Environment Act (DEFRA, 2021).

The Environment Act, 2021

Under the Environment Act, 2021, as of 12th February 2024 and 2nd April 2024, it is mandatory in England for new developments (with a small number of exceptions) to deliver a minimum 10% biodiversity net gain (BNG), as measured by the Statutory Biodiversity Metric or Small Sites Metric (SSM) respectively, secured through planning condition as standard (as per schedule 14 of the Act). Approach to the delivery of BNG must follow the mitigation hierarchy, with avoidance of impact and on-site compensation/gains prioritised, ahead of the use of off-site compensation, or the purchase of statutory credits.

The Act introduces the condition that no development may begin unless a Biodiversity Gain Plan (BGP) has been submitted and approved by the LPA.

The Act also amends requirements of the NERC Act, 2006, adding the need to not just conserve, but enhance biodiversity through planning projects. Furthermore, it introduces the need for the LPA to have regard to relevant local nature recovery strategies and relevant species/protected site conservation strategies, when making their decision.

Under the Act, the enhancements must be maintained for at least 30 years.

E.2 PLANNING POLICY

National

National Planning Policy Framework

The National Planning Policy Framework (NPPF) 2023[21] sets out the Government's planning policies for England, including how plans and decisions are expected to apply a presumption in favour of sustainable development. Chapter 15 of the NPPF focuses on conservation and enhancement of the natural environment, stating plans should 'identify and pursue opportunities for securing measurable net gains for biodiversity'.

It goes on to state: 'if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused'. Alongside this, it acknowledges that planning should be refused where irreplaceable habitats such as ancient woodland are lost.

Regional

West Sussex Planning Policy[22]

Climate Change Resilience

No formal environmental strategy is included however key points within this document include increasing access to nature, prioritising natural flood solutions and increasing opportunities for BNG to promote the following:

- Green tourism;
- Natural capital investment funding when available;
- Sustainable businesses;
- Sustainable business growth; and
- Green innovation amongst business.

Local

Horsham District Council

Biodiversity and Green Infrastructure Planning Advice Note

To achieve biodiversity net gain, all 'Relevant Development' applications must demonstrate use of the mitigation hierarchy as set out in BS42020 Biodiversity: Code of Practice for Planning and Development[23] (and subsequent updates) and as expected in the Environment Act 2021 and emerging Regulations. In summary, the mitigation hierarchy seeks to address impacts on biodiversity in the order detailed: avoidance, minimisation, mitigation [rehabilitation / restoration], and then as a last resort compensation / off-setting for unavoidable biodiversity loss that is considered acceptable in accordance with the NPPF.

The delivery of BNG is in addition to any mitigation / compensation measures required to address any harm caused by the development to habitats in accordance with the mitigation hierarchy. The Biodiversity Metric or small sites metric, as appropriate, should be used to measure the proposed enhancements (habitat creation) against the baseline of the whole site area. This means it is important that the baseline (existing habitats) is an accurate reflection of the site. Any habitat degradation of pre development habitats since 30 January 2020 will have to be accounted for in the baseline, unless the action causing degradation has been approved by planning permission (the details and planning reference of which should be submitted).

Development proposals will be expected to take a landscape led approach. They must provide any necessary ecological / geodiversity surveys and reports in line with best practice guidance from the Chartered Institute for Ecology and Environmental Management (CIEEM)[24] and have regard to the advice from the Landscape Institute. They should also have regard to relevant British Standards, such as, BS42020[23], BS8683[25] and BS42021[26]; as well as guidance from the Planning Advisory Service (PAS) and the national PPG (which get updated regularly). Impacts arising from development such as lighting and recreational impacts, including dog walking should be assessed using professional assessment methods, and appropriately mitigated.

BNG should be delivered on site in the first instance. If this is not possible regard may be given to off-site provision if this can be secured by the applicant. The market in off-site 'Biodiversity Units' is in its infancy but is expected to rapidly grow in light of the Environment Act 2021. In the meantime, the Council will consider off-site offsetting on a case-by-case basis, and as a minimum will expect to see proof that the applicant has control of the land providing the offsetting, and a deliverable biodiversity gain plan. Any off-setting will be expected to be located within the District of Horsham, as close as practicable to the development site, unless an alternative location offers more appropriate biodiversity net gains and is agreed by the Council.

BNG projects will normally be secured by a legal agreement and require a Council approved funded management and maintenance plan. The BNG aims and objectives should be outlined in any Landscape and Ecological Management Plan (LEMP) secured as a condition of any consent. The emerging statutory requirements seek the management of sites to secure the BNG for a minimum of 30 years. Applicants are therefore expected to be mindful of this when considering future management arrangements. The council will seek to ensure there are sufficient measures in place to support long term management and monitoring and may require financial contributions in all relevant instances to monitor and provide a contingency (to resolve any situations where there is a likelihood the proposed habitat enhancements may fail to reach their target type and condition) for the delivery of BNG for the respective period.

REFERENCES

[1] *Greengage Environmental Ltd (2025) Preliminary Ecological Appraisal '552979jh06Dec24FV03_PEA'.*
[2] *Fabrik (2025) Landscape General Arrangement Plan Sheet 1 "D3438-FAB-00-XX-DR-L-1001 Landscape General Arrangement Plans Sheet 1 of 3_DRAFT PL01"*
[3] *Fabrik (2025) Landscape General Arrangement Plan Sheet 2 "D3438-FAB-00-XX-DR-L-1002 Landscape General Arrangement Plans Sheet 2 of 3_DRAFT PL01"*
[4] *Fabrik (2025) Landscape General Arrangement Plan Sheet 3 " D3438-FAB-00-XX-DR-L-1003 Landscape General Arrangement Plans Sheet 3 of 3_DRAFT PL01"*
[5] *Fabrik (2025) Hard and Soft Landscape Legend " D3438-FAB-00-XX-DR-L-1000 Hard and Soft Landscape Legend_DRAFT PL01"*
[6] *Fabrik (2025) Site Wide Concept " D3424-FAB-00-XX-MR-L-PS-1002-Site Wide Concept"*
[7] *Greengage (2025) Preliminary Ecological Appraisal. Report reference: 552979jh06Dec24FV03_PEA.*
[8] *UKHab Ltd (2023). UK Habitat Classification Version 2.0 (at https://www.ukhab.org).*
[9] *CIEEM (2017); Guidelines for Preliminary Ecological Appraisal, 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester.*
[10] *BSI (2013); British Standard 42020:2013: Biodiversity – Code of practice for planning and development, BSI Standards Publication*
[11] *Department for Environment Food and Rural Affairs (2024) The Statutory Biodiversity Metric User Guide. Available at: https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides#:~:text=The%20statutory%20biodiversity%20metric%20tool,the%20statutory%20biodiversity%20metric%20tool*
[12] *Natural Apptitude (2024) Coreo (Software Application). Available at: https://coreo.io/.*
[13] *UKTAG (UK Technical Advisory Group). (2003). Guidance on Typology for Lakes for the UK. Water Directive Framework.*
[14] *EEA (European Environment Agency). (2019). EUNIS Habitat Classification. Available at: https://www.eea.europa.eu/data-and-maps/data/eunis-habitat-classification*
[15] *JNCC (Joint Nature Conservation Committee) Annex I Habitat Types (2019) Available at: https://sac.jncc.gov.uk/habitat/*
[16] *Hayden's Arboricultural Consultants (2025) Tree Survey and Constraints Plan. "11380 - AIA - Horsham Enterprise Park, Former Novartis Site, Horsham".*
[17] *Horsham District Council (2015) Horsham District Planning Framework 2015 - 2031. Available at: Horsham District Planning Framework 2015*
[18] *West Sussex County Council (2024). Sussex LNRS: Shortlisted Habitat Priorities and their Outcomes. Available at: Shortlisted Habitat Priorities and their Outcomes 21.10.24.pdf*
[19] *Department for Environment, Food and Rural Affairs (2022) Keepers of time: ancient and native woodland and trees policy in England. Defra, London. PB14749. Available from Keepers of time: ancient and native woodland and trees policy in England. (publishing.gov.uk)*
[20] *GOV.UK. (2022). Guidance: Ancient woodland, ancient trees and veteran trees: advice for making planning decisions. Available at: https://www.gov.uk/guidance/ancient-woodland-ancient-trees-and-veteran-trees-advice-for-making-planning-decisions*
[21] *GOV.UK. (2023). National Planning Policy Framework. [online] Available at: https://www.gov.uk/government/publications/national-planning-policy-framework--2*
[22] *West Sussex county council (2020). Climate Change Strategy. Available at: https://www.westsussex.gov.uk/leisure-recreation-and-community/west-sussex-climate-action/climate-change-strategy/#:~:text=Our%20strategy,source%20and%20use%20resources%20sustainably*
[23] *BSI Standards Publication (2013). Biodiversity – Code of practice for planning and development, Ref: BS 42020:2013. Available at: https://www.omegawestdocuments.com/media/documents/43/43.35%20BSI%20Biodiveristy%20Code%20of%20Practice.pdf*

[24] *CIEEM, IEMA, ciria (2019). Further guidance CIEEM/CIRIA (2016) Biodiversity Net Gain: Good Practice Principles, and CIEEM/CIRIA (2019) Biodiversity Net Gain: A good practice guide. Available at: https://cieem.net/wp-content/uploads/2019/02/C776a-Biodiversity-net-gain.-Good-practice-principles-for-development.-A-practical-guide-web.pdf*

[25] *BSI Standards Publication (2021). Process for designing and implementing Biodiversity Net Gain. Specification, Ref: BS 8683:2021. Available at: https://knowledge.bsigroup.com/products/process-for-designing-and-implementing-biodiversity-net-gain-specification?version=standard*

[26] *BSI Standards Publication (2023). Integral nest boxes. Selection and installation for new developments. Specification, Ref: BS 42021:2022. Available at: https://knowledge.bsigroup.com/products/integral-nest-boxes-selection-and-installation-for-new-developments-specification-1?version=standard*