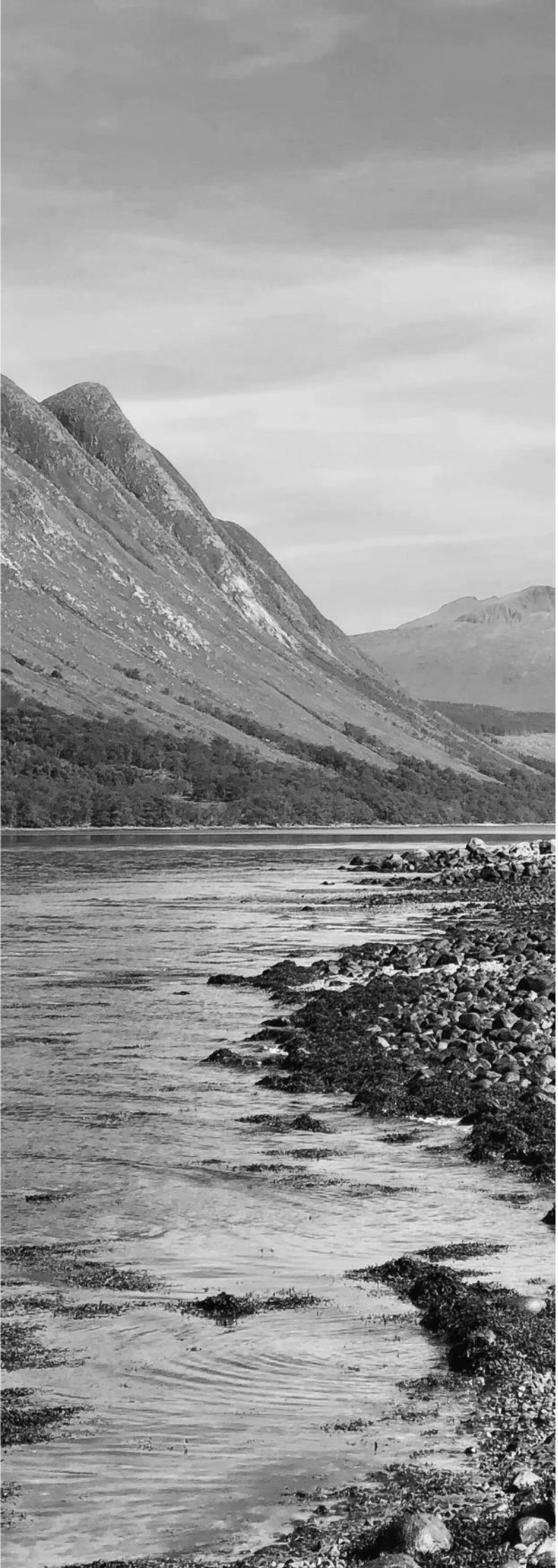

BIODIVERSITY NET GAIN ASSESSMENT

LAND REAR OF LANGLEY COMMON

ET PLANNING

13/11/2025

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Project name	Land Rear of Langley Common
Project number	P25021
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Revision History

Revision	Date	Prepared By	Reviewed By	Approved By	Comments
0.1	17/03/2025	JB			Draft for client comment
1.0	09/09/2025	AB		CB	Changes, final draft
2.0	13/11/2025	AB		CB	Changes to proposed development

Quality Assurance

This report has been prepared according to Gavia Environmental Quality Management Process. Gavia Environmental employs consultant scientists who are members of appropriate professional institutions and adhere to professional codes of conduct.

Disclaimer

This report is presented to ET Planning in respect of Biodiversity Net Gain Assessment, and may not be used or relied on by any other person or by the client in relation to other matters not covered specifically by the scope of this report.

Notwithstanding anything to the contrary contained in the report, Gavia Environmental Ltd is obliged to exercise reasonable skill, care, and diligence in the performance of the services required by ET Planning and shall not be liable except to the extent that it has failed to exercise reasonable skill care and diligence, and this report shall be read and construed accordingly.

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Contents

1 Introduction

Project Background

Gavia Environmental Ltd. ('GEL') was commissioned by ET Planning ('the Client') to undertake a Biodiversity Net Gain (BNG) assessment on Land Rear of Langley Common and South of School Road, Barkham, hereafter referred to as 'the Site'.

The Proposed Development includes an outline application for the phased development of 27 dwellings including new access onto School Road, landscaping, infrastructure, 1 self-build plot and overflow parking for the benefit of the local area (with all matters reserved except access into the site).

This report has been prepared for the exclusive use of ET Planning and the Applicant. No part of this report should be used as legal advice.

Site Description

The Site is located in Barkham, Wokingham (central grid reference SU 76887 66757). The Site was found to be characterised by moderate ecological value *Holcus-juncus* neutral grassland and other neutral grassland and high value other lowland mixed deciduous woodland. Other habitats on Site included a native hedgerow with trees, lines of trees, artificial unvegetated unsealed surface and developed land, sealed surface. The wider ownership boundary was found to be characterised by *Holcus-juncus* neutral grassland and lowland mixed deciduous woodland. Additionally, in the wider ownership boundary, a stream lined by willow scrub was noted, as well as a line of trees along the western wider ownership boundary.

Project Description

The relevant proposals within this application are for the construction of 27 new dwellings with associated roads, car parking and soft landscaping including lowland meadow creation, tree planting, hedgerow creation and woodland enhancements.

This BNG assessment is based on the proposals current at the time of writing this report (August 2025, drawing number: 25-01-PL-201 Rev B) with the substitution of ornamental shrub to retained grasslands, and therefore should not be considered valid for any subsequent design revisions. Landscape proposals are provided in **Appendix A: Figure 2**.

Purpose of Assessment

In accordance with the National Planning Policy Framework (NPPF) proposals should seek to demonstrate BNG. The NPPF states plans should 'promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity'.

The adopted Wokingham Local Plan[1] does not specify a requirement for BNG, however the latest draft of the emerging Local Plan[2] includes Policy NE2: Biodiversity net gain which states:

"*All development proposals should demonstrate a minimum biodiversity net gain of 10%...calculated via the most up-to-date national biodiversity accounting metric and provide details of the long-term maintenance and management of the net gain. This should be delivered on site in the first instance, or through biodiversity off-setting where appropriate.*"

[1] Wokingham Borough Council (2010). Local Development Framework.
[2] Wokingham Borough Council (no date). Wokingham Borough Local Plan Update 2023-2040. Proposed Submission Plan.

With the passing of the Environment Act (2021)[3], there is a mandatory requirement for projects which fit the criteria for a major development to deliver a minimum of 10% Biodiversity Net Gain (BNG).

The assessment has examined baseline ecological information and current landscape proposals to identify the current BNG provision and any risks in achieving BNG and identifies further actions required to secure BNG through the proposals.

This report presents the results of the BNG assessment of the planning application at Land Rear of Langley Common. BNG data should be considered part of an iterative process of calculation and design alteration. This report provides a BNG assessment for design as of the date of this report, therefore should not be considered valid for subsequent design revisions.

Policy and Legislation

- The Conservation of Habitats and Species Regulations 2017 (SI 2017/1012), as amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (SI 2019/579).
- The Wildlife and Countryside Act 1981 (as amended).
- The Natural Environment and Rural Communities Act 2006 (NERC Act).
- The Countryside and Rights of Way Act (CRoW Act), 2000 (as amended).
- The Protection of Badgers Act 1992.
- The National Planning Policy Framework (NPPF) (September 2023).
- Environment Act 2021
- The Biodiversity Gain Requirements (Exemptions) Regulations 2024
- The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024
- The Biodiversity Gain (Town and Country Planning) (Modifications and Amendments) (England) Regulations 2024
- Mandatory BNG (February 2024/April 2024)
- Wokingham Borough Local Development Framework (Adopted January 2010).
- Wokingham Borough Emerging Local Plan 2023-2040.
- Wokingham Borough Council Biodiversity Action Plan 2012-2024 (Adopted 2014).

[3] https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted Accessed on 07.08.2025

2 Methodology

2.1 UK Habitats Survey

A baseline assessment of area, linear and watercourse habitats was undertaken using the UKHab Version 2.0 which is the current and most up to date version of this assessment methodology for the classification of habitats.

2.2 Habitat Condition Assessment

Habitat condition was assessed following the methodologies set out in Statutory biodiversity metric condition assessment sheets. This methodology uses a list of condition criteria to create a score based on the number of criteria present/absent in the habitat. Habitats are classified within three condition bands: good, moderate, and poor. Justifications are provided within the condition sheets and explained within this report.

2.3 Biodiversity Net Gain Assessment

The BNG calculations were undertaken using 'The Statutory Biodiversity Metric, a Microsoft Excel-based tool which is the mandated tool for BNG in England. For this assessment, the Statutory Metric produces a numerical definition, or relative value of BNG in order to represent a minimum uplift of 10% in biodiversity units; this assessment is based on habitat condition and type and habitats are automatically assigned a distinctiveness band.

This assessment was carried out in cognisance of the British Standard for designing for BNG[4], the Good Practice Principles for Development[5] guidance and the following Statutory Instruments:

- The Biodiversity Gain Requirements (Exemptions) Regulations 2024[6]
- The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024[7]
- The Biodiversity Gain (Town and Country Planning) (Modifications and Amendments) (England) Regulations 2024[8]

The Statutory Biodiversity Metric distinguishes three broad categories of habitats:

- Area-based habitats that are measured in hectares (e.g. woodland, grassland or lakes);
- Terrestrial linear habitats that are measured in kilometres (hedgerows and tree lines); and
- Aquatic linear habitats that are also measured in kilometres (rivers and streams).

Linear habitats are addressed separately to area-based habitats in the metric. To achieve a minimum 10% increase requires a minimum increase in area-based habitat units, a separate minimum 10% increase in terrestrial linear units, and a separate minimum 10% increase in aquatic linear units. Any assessment of watercourses is undertaken using a separate software and transposed into the Statutory Metric. Details of the watercourse assessment are provided in a separate report (**Appendix B**: Storm Geomatics, 2025).

[4] BSI (2021). Process for designing and implementing Biodiversity Net Gain. British Standards Institution, Bristol.
[5] Baker J., Hoskins R. and Butterworth T. (2019). Biodiversity Net Gain. Good practice principles for development: A practical guide. Ciria, London.
[6] The Biodiversity Gain Requirements (Exemptions) Regulations 2024 (legislation.gov.uk)
[7] The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024 (legislation.gov.uk)
[8] The Biodiversity Gain (Town and Country Planning) (Modifications and Amendments) (England) Regulations 2024 (legislation.gov.uk)

It is also important to note that units calculated for area-based habitats, terrestrial linear, and aquatic linear are unique and cannot be used to offset one another (e.g., the loss of rivers cannot be offset by creating grassland).

To complete the Statutory Biodiversity Metric and calculate a biodiversity unit score, users must input data pertaining to different aspects of each habitat parcel. These are described in Table 1 below.

Table 1: Components of the Statutory Biodiversity Metric.

Component	Description
Irreplaceable habitats	Habitats defined as irreplaceable as per The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024 Statutory Instrument. Total on and off-site areas of irreplaceable habitats are recorded on the 'start' and 'irreplaceable habitats' tabs of the metric.
Habitat Type	The types of habitats according to the 'UKHab' classification system. The Statutory Biodiversity Metric automatically assigns a habitat 'distinctiveness' score based on the type of habitat present. For example, modified grassland is given a distinctiveness score of "2" and is categorised as 'low' distinctiveness.
Habitat Area	The size of each habitat parcel (in hectares or, if linear, kilometres).
Habitat Condition	A score based on the quality of the habitat. This is determined by condition criteria set out in the Statutory Metric Condition Assessment Sheets.
Strategic Significance	A score based on whether the location of the development and/or off-site interventions has been identified locally as significant for nature.

Once all fields are complete, the metric generates the biodiversity unit scores for each habitat type.

2.4 BNG Assessment Limitations

The Statutory Metric allows for a quantitative assessment of losses and gains as a result of development or land management changes. While the metric assessment is the established method for calculating BNG in England, it should not be considered a complete tool in the assessment of BNG, but rather a development management tool that facilitates the creation and enhancement of habitats, the creation of habitat connectivity at a landscape scale and long-term climate resilience and the creation of habitats and ecotones that benefit a variety of species. Professional judgement is therefore used where appropriate and is detailed within this qualitative assessment of BNG.

2.5 Baseline Calculations

To inform baseline calculations, an ecological walkover of the Site and Wider Ownership Boundary to confirm the extent, distribution and condition of habitats present was undertaken. This was carried out by Jasmine Bernard BSc (Hons), a Qualifying Member of CIEEM and Areti Panopoulou BSc MSc, a Qualifying Member of CIEEM. Habitats were recorded using the UKHab classification system for use within the Statutory Metric.

To calculate the ecological baseline units for the Site, the following assessments were carried out:

- The areas and lengths of habitats within the application boundary were calculated from the UKHab mapping using QGIS. The UKHab map is present in **Appendix A: Figure 1** of this report.
- Habitats were assigned a condition score of 'poor', 'moderate' or 'good', with any habitats meeting 'fairly poor' or 'fairly good' appropriately justified within the metric, condition sheets and this report. The condition of the habitat is considered to be a measure of the habitat quality and measures the 'working-order' against the optimal potential of the habitat type.
- Habitats were assigned a strategic significance classification based on its position within the surrounding landscape. This assessment includes a desk based review of local plans to ascertain the significance of habitats present within the application boundary and local priorities for biodiversity.
- An assessment of the offsite BNG baseline (i.e. those habitats within the Wider Ownership Boundary) was undertaken and the process above followed for offsite habitats.

2.6 Post Development Calculations

The post development scenario was informed by the frozen scheme of design provided by The Richards Partnership.

The following process was followed for the post development calculations:

- The loss of baseline habitats (both area and linear data) was calculated by overlaying the footprint of the proposals onto the UKHab mapping using QGIS. Using this method, the area of loss to each habitat was determined, thus guiding any additional need for habitat creation and enhancement.
- Proposals were reviewed to identify habitats created, retained and enhanced. Proposed habitats were assigned a condition score where relevant and applicable. The target conditions were chosen using Gavia's depth of ecological knowledge and best practice in relation to key factors that will influence the success of habitats such as soil type and condition, surrounding landscape (including factors such as air quality), the future functionality of the site and protected species. These habitats were also subject to strategic significance assessments as undertaken for the baseline habitats.
- Where new habitats have been created, additional consideration has been given towards the time taken for habitats to establish and reach their target condition (temporal multiplier) and the difficulty of habitat re-creation (difficulty multiplier). This assessment closely follows the user guide's recommendations for habitat creation.

2.7 Data Summary and Discussion

The results of the Statutory Metric assessment are presented below as a detailed summary of the resultant biodiversity unit change by habitat type. The assessment follows the trading rules as set out in the Metric and supporting guidance which considers habitats in isolation and replacement of any losses within broad habitat types. However, occasionally there are instances where trading rules cannot be met or the Metric highlights areas in which a bespoke agreement may need to be reached with the Local Planning Authority. Where this is required, this consultation is highlighted within the Metric and this report.

The final outcome of the assessment is presented as a percentage change in biodiversity units delivered by the development proposals.

The discussion also considers other factors which will influence the success of habitat creation and enhancement such as climate change and associated mitigation, the surrounding

landscape, the creation of ecotones and connectivity of habitats that will benefit species known to utilise the Site and surrounding landscape and ultimately how the development will compliment and contribute to local, regional and national objectives for biodiversity.

2.8 Survey Limitations

The habitat survey was undertaken outside of the optimal flowering season, which is generally considered to be April to September, inclusive. Therefore, some species may have been missed, particularly forb species, or in some cases, species identification was only able to be classified to genus level, rather than species level. However, the level of identification accurately classified the habitat type by identifying key indicator species across the grassland. Additionally, the Site was visited again during optimal flowering season to undertake phase 2 surveys (GCN eDNA, badger, reptile, bat static surveys) and the grassland species were reviewed during these visits, with species lists updated if any new species were identified. Therefore, this is not considered a significant limitation. The Site is partially classified as a priority habitat (lowland mixed deciduous woodland), which can support rarer species, however tree identification can be undertaken at any time of the year, so this is not considered a significant limitation. One species which was identified in the previous PEA, Midland hawthorn (*Crataegus laevigata*), could not be distinguished from common hawthorn (*Crataegus monogyna*) at this time of the year due to the defining features being the number of seeds within the fruits. As a precautionary approach, it was assumed this species was still present within the woodland on Site.

The biodiversity unit scores generated by the metric are a proxy for the relative biodiversity value of a habitat or site. This assessment does not account for landscape or site-based nuance or real-world changes that are assessed in detail within this supporting report. The metric outputs should, therefore, be interpreted alongside the ecological expertise that informs this report, the final design and the Habitat Management and Monitoring Plan. Gavia has, for example, influenced the composition of plant species included in the final masterplan design.

3 Results

3.1 Baseline BNG Assessment - UKHab

The results of the habitat condition assessment and the corresponding scores are presented below in **Table 2**.

The Site was found to be characterised by moderate ecological value *Holcus-juncus* neutral grassland and other neutral grassland and high value other lowland mixed deciduous woodland. Other habitats on Site included a native hedgerow with trees, lines of trees, artificial unvegetated unsealed surface and developed land, sealed surface. The wider ownership boundary was found to be characterised by *Holcus-juncus* neutral grassland and lowland mixed deciduous woodland. Additionally, in the wider ownership boundary, a stream lined by willow scrub was noted, as well as a line of trees along the western wider ownership boundary. The strategic significance of all habitats on and off Site at baseline and post intervention have been assigned 'low'. No Local Nature Recovery Strategy (LNRS) was available. A Local Biodiversity Action Plan (LBAP) and Local Plan were available but neither highlight the Site location for any habitats. A Habitat BAP (HBAP) for woodlands, grasslands and hedgerows is available but as these habitats are not specified within the site location in the plans, strategic significance has been set to low.

Table 2 Summary of Baseline Assessment

Habitat Reference Number	UKHab Code and Habitat Type	Area (ha) / Length (km)	Habitat Distinctiveness	Condition
Area Habitats – On Site				
4, 9, 8	g3c Other Neutral grassland	2.3199	Medium	Moderate
5	w1f7 Other lowland mixed deciduous woodland	0.1101	High	Moderate
6	u1c Artificial unvegetated, unsealed surface	0.0571	Very low	N/A
7	u1b Developed land, sealed surface	0.0184	Very low	N/A
T27, T28, T141, T142	Individual rural trees	0.1212	Medium	Good
3	Watercourse footprint	0.0603	Very low	N/A
1	h3j Willow scrub	0.1348	Medium	Poor
Linear Habitats – On Site				
H1	h2a Native hedgerow / 276 hedgerow with trees	0.13	Medium	Good
LT1	33 Line of trees	0.14	Low	Good
LT2	33 Line of trees	0.16	Low	Moderate

Habitat Reference Number	UKHab Code and Habitat Type	Area (ha) / Length (km)	Habitat Distinctiveness	Condition
R1	r2b Other rivers and streams	0.59	High	Good
Area Habitats – Off Site				
4	g3c Other neutral grassland	0.9698	Medium	Moderate
2	w1f7 Other lowland mixed deciduous woodland	0.6295	High	Moderate
Linear Habitats – Off Site				
LT3	33 Line of trees	0.07	Low	Good

3.2 Proposed Development

Proposals within this application include for the enhancement of existing neutral grassland and woodlands, as well as tree planting and native hedgerows. The outline application includes the phased development of 27 dwellings including new access onto School Road, landscaping, infrastructure, 1 self-build plot and overflow parking for the benefit of the local area (with all matters reserved except access into the site).

3.2.1.1 Retained Habitats

On Site

The neutral grassland will be largely lost, though 54.83% will be enhanced through common areas outwith residential plots (see below). The linear habitats will be retained, however, four trees within the lines of trees will be removed and are considered as individual trees in the metric.

Table 3 Retained Area and Linear Habitats on Site

Habitat Reference Number	UKHab Code and Habitat Type	Baseline area (ha) / length (km)	Retained Habitat area (ha) / length (km)	% Retained
Area Habitats				
5	w1f7 Other lowland mixed deciduous woodland	0.1101	0.1101	100%
Linear Habitats				
H1	h2a Native hedgerow / 276 hedgerow with trees	0.13	0.13	100%
LT1	33 Line of trees	0.14	0.14	100%*
LT2	33 Line of trees	0.16	0.16	100%*

** Considered 100% retained as individual tree removal has been considered under baseline areas – see rural tree condition and assessment.*

Off site

No off-site habitats will be retained (see below).

3.2.1.2 Enhanced Habitats

On Site

The remainder of other neutral grassland will be enhanced to traditional orchard by planting open-grown fruit trees of the Rosaceae family with a minimum of 5 trees. To achieve good condition within 30 years there must be: presence of ancient and/or veteran trees; less than 5% fruit trees smothered by scrub; evidence of formative and/or restorative pruning to maintain longevity of trees; presence of standing and/or fallen dead wood; at least 95% of trees should be free from damage caused by humans or animals; sward height should remain varied as baseline condition of existing grassland; species richness of existing grassland should be equivalent to medium, high, or very high distinctiveness, as baseline condition is; there should be an absence of invasive non-native species, and undesirable species should make up less than 10% of ground cover, as baseline condition of existing grassland.

The willow scrub will be managed to achieve good condition by pruning the existing shrub to allow for regeneration (criteria B) and encourage growth of native species other than goat willow to enhance native species composition (criteria A). A well-developed edge should be encouraged by allowing tall grassland and/or forbs to grow (criteria D), and the habitat should be maintained with clearings, glades or rides (criteria E) to sustain regeneration and sheltered areas for a variety of species.

Off Site

Other neutral grassland in the Wider Ownership Boundary will be enhanced to create g3a lowland meadow. To ensure this is successful, the soil nutrient status will first need to be tested to ensure the phosphorus levels are low enough to support this habitat type. The soil will also be scarified with topsoil and turf removed to eliminate nutrients. Once the soil is ready, with large areas of bare ground present, the habitat area will be seeded. This could be done by spreading green hay from other local lowland meadow sites to spread plant species of local provenance and value. All hay will need to be certified from a licenced supplier. Alternatively (or in combination), an appropriate meadow seed mix could be used which would encourage quicker establishment. Seed mixes should include species such as bird's foot trefoil *Lotus corniculatus*, lady's bedstraw *Galium verum*, orchids, meadow vetchling *Lathyrus pratensis*, field scabious *Knautia arvensis* and black knapweed *Centaurea nigra*. Yellow-rattle *Rhinanthus minor* should be incorporated into the seed mix to suppress growth of grasses and encourage other flowers to establish. Management should include a combination of grazing (preferably cattle and sheep), alongside hay cuts after midsummer, once the meadow flowers have dropped their seed. This soil preparation, correct choice of seed mixes, and appropriate management should result in a species and structurally diverse sward and therefore criteria A, B and F are expected to pass.

During the seeding, small areas of bare ground will be left unseeded (covering less than 5% of total meadow area). These areas will regularly be monitored and management undertaken to ensure they remain bare, to provide opportunities for invertebrates, reptiles and mammals. Therefore, criteria C is expected to pass. A scrub management plan will be implemented to ensure the retained/enhanced areas of scrub on Site (see above) don't encroach into the meadow area to ensure scrub covers less than 5% of the habitat. Bracken will also be controlled, if present, so it covers less than 20%. Therefore, criteria D is expected to pass.

Regular monitoring and management visits will be undertaken to check for and remove invasive non-native plant species and species indicative of sub-optimal condition. The meadow area will be publicly accessible, however designated pathways will be created through the meadows and it will be clearly signposted to ensure physical damage accounts for less than

5% of the total area and so criteria E is expected to pass. Therefore, the lowland meadow is expected to pass all six criteria and so the target condition has been set to 'Good'.

Other lowland mixed deciduous woodland in the west of the Wider Ownership Boundary will be enhanced from 'Moderate' condition to 'Good' condition. This includes allowing trees to reach maturity and ensuring all three age-classes are present in the woodland; limiting herbivore damage from deer; maintaining the absence of invasive non-native species; maintaining five or more native tree or shrub species; maintaining native species coverage to at least 80%, as baseline condition of existing woodland; allowing open space within woodland to decrease from 50% down to at least 20%; limiting pest and disease in tree populations; allowing establishment and enhancement of ground plant community; allowing multiple storeys in woodland, i.e., shrub layer and varied tree heights; allowing trees to reach maturity and maintain veteran trees within woodland; allowing deadwood to remain in woodland up to 50% in parcels; limit damaged ground and trampling of vegetation.

Table 4 Enhanced Area and Linear Habitats on Site

Habitat Reference Number	UKHab Code and Habitat Type	Baseline area (ha) / length (km)	Enhanced Habitat area (ha) / length (km)	% Enhanced
3, 4, 9, 8	g3c Other neutral grassland	2.3199	1.2721	54.83%
1	Willow scrub	0.1348	0.0821	60.91%

Table 5 Enhanced Area and Linear Habitats off Site

Habitat Reference Number	UKHab Code and Habitat Type	Baseline area (ha) / length (km)	Enhanced Habitat area (ha) / length (km)	% Enhanced
4	g3c Other neutral grassland	0.9698	0.9018	92.99%
2	w1f7 Other lowland mixed deciduous woodland	0.6295	0.6295	100%

3.2.1.3 Created Habitats

On Site, buildings and roads will take up the majority of the habitat created, followed by vegetated gardens for residential plots. Non-native hedgerows will be planted, and an unsealed footpath will be created through existing grassland for leisure and access.

Table 6 Created Area and Linear Habitats on Site

Habitat Reference Number	UKHab Code and Habitat Type	Created Area (ha) / length (km)
1	Developed land sealed surface	0.6796
2	Built-up areas and garden – vegetated garden	0.4421

Habitat Reference Number	UKHab Code and Habitat Type	Created Area (ha) / length (km)
4	u1c Artificial unvegetated unsealed surface	0.0548
H1	Non-native hedgerows	0.48

4 Climate Change, Adaptation and Mitigation

A summary of baseline climate data at the closest weather station (Reading University, Whiteknights) to the Site location between 1991-2020 is provided below in **Table 8** (Met Office, No date)**.**

Table 7: Climate data near the Site between 1991-2020

	Maximum temperature (°C)	Minimum temperature (°C)	Days of air frost (days)	Sunshine (hours)	Rainfall (mm)	Days of rainfall ≥1 mm (days)	Monthly mean wind speed at 10 m (knots)
Annual average	14.90	6.92	37.63	1577.47	658.24	113.87	-

It is predicted the average global temperature will increase by 2°C with the potential to increase by 4°C by the end of the century. This will result in more extreme weather events, including severe drought and flooding and will impact the species and habitats that can survive.

Climate change poses a risk to the design as the proposed habitats will be sensitive to temperature and rainfall changes. However, climate resilience has been built into the design, with permeable paving used to reduce surface water runoff and ponding and therefore minimise flood risk which will be vital during the predicted increase in periods of heavy rainfall as a result of climate change and provide benefits to the surrounding habitat creation.

Additionally, species diverse mixes have been chosen for every habitat to reduce the risk of pests and disease, which pose a higher risk in monoculture habitats, with all species to be obtained from reputable nurseries that will ensure a high level of biosecurity. A minimum of 5 new trees will be planted within the Site, which will increase carbon sequestration and the amount of shade on Site, which will be beneficial during heatwaves. These trees will be strategically placed in line with their water demand and in line with Site's soil moisture levels, so as not to compromise the success of other habitats.

A Habitat Management and Monitoring Plan (HMMP) will need to be prepared and include detail on remedial measures should changes in the climate impact the establishment of the habitats. This includes changes in the irrigation frequency and replacing failed specimens with different species with greater resilience to climate change.

5 Results and Interpretation

The outcome of the BNG assessment of the proposals is summarised below. Full calculations are provided within the supporting metric.

Supporting figures are provided in Appendices A and B, and within the Statutory Metric and detail the following: baseline, post development and off site BNG.

The current development **does not meet the 10% net gain criteria** and will require off-site credits to be purchased. However, the enhancements outlined above have lowered the units needed, resulting in 1.26 habitat units and 0.71 watercourse units. The main limitations and enhancements are outlined below.

5.1 Overview of Changes

The greatest contributor to the loss of habitat units are the changes in medium distinctiveness grassland area, loss of four good condition individual trees, and no change in watercourse units due to the high baseline condition. Although both on and off Site grassland increases in distinctiveness (from medium to high and very high), the nearly halved area lowers the total habitat units. For bought credits, the required units must be doubled, therefore the missing credits come out to **2.52** of the **A1 tier** (i.e., medium distinctiveness habitat units) and **1.42** of the **W tier** (i.e., watercourse units).

5.2 Trading Rules

Assuming the shortfall units are acquired through off-site credit purchase or re-development planning, the trading rules will be satisfied.

6 Further enhancement opportunities

While the metric does not account for species specific enhancements such as bat and bird boxes and hibernacula, these additional enhancements and further opportunities are detailed in the Preliminary Ecological Appraisal (PEA) Report (Gavia, 2025) and outlined below.

It should be noted, however, that the GEL ecology and biodiversity experts have extensive experience and understanding of species ecology and how a range of species utilise the wider landscape, and thus the biodiversity design aims to create a well-connected landscape that benefits both habitats and species.

6.1 Protected Species

The following species may use the Site based on the habitats present, local records and anecdotal evidence and therefore proposals have targeted enhancements to such species.

6.1.1 Badger

[redacted]

6.1.2 Bats

The Site and wider ownership boundary provided suitable foraging and roosting opportunities for bats, particularly within the lowland mixed deciduous woodland, tree lines, neutral grassland, and willow scrub. Hedgerows, tree lines, and the stream, which provide key foraging and commuting corridors will be retained, ensuring continued connectivity.

Bat boxes can be installed on nearby mature trees or on raised poles to provide additional roost features for bats. For longevity, woodcrete (a mixture of wood and concrete) or styrocrete (a mixture of polystyrene and concrete) bat boxes are recommended. It is recommended that 2-3 bat boxes are installed throughout the Site.

Some example bat boxes are detailed in **Table 8** below. Bat boxes should be sited facing south or south-east, at a height of at least 4m to avoid predation.

Table 8 Bat Box Types

Bat Box Type	Example	
External	There are a variety of ready-made external bat boxes suitable for buildings and trees, available in a range of finishes to blend into the buildings, disguise or indeed to highlight their presence. Some example external boxes are illustrated below.	
		https://www.nhbs.com/beaumaris-woodstone-bat-box

Bat Box Type	Example	
		https://www.nhbs.com/low-profile-woodstone-bat-box
		Two crevice back bat box available in different colours from: https://www.greenwoodsecohabitats.co.uk/shop
		Example of a pole mounted bat box. https://www.nhbs.com/pole-mounted-maternity-bat-box

Please note, as bats are vulnerable to disturbance and fully protected under UK law, bat boxes must only be opened (after installation) by a licensed bat worker. Seasonal checks of use by a licensed Ecologist or local bat group should be undertaken to monitor the success of these boxes.

Lighting in the vicinity of a bat roost causing disturbance and potential abandonment of the roost could constitute an offence both to a population and to individuals. However, lighting close to foraging habitat can also be beneficial. Insects are attracted to the lights and bats utilise these areas for feeding. It is important that the use of an area by bats is thoroughly assessed before artificial lighting is changed or added in the vicinity of a roost or where bats may commute or forage.

Lighting of the land, should planning consent be granted, must be directed away from the boundary features and preferably use 'bat friendly' sources. For more information of the specification of lighting and additional details of lighting schemes, please read the Bat Conservation Trust (2023), Bats and Artificial Lighting Guidance[9].

6.1.3 Birds

The Site provided suitable opportunities for nesting birds and for foraging due to neutral grassland, lowland mixed deciduous woodland, tree lines, native hedgerow and willow scrub.

[9] Bat Conservation Trust/Institute of Lighting Engineers (2023) Bats and Artificial Lighting at night– Guidance note 08/23.

Bird boxes can be installed on nearby trees and structures to provide additional nesting opportunities for birds. These should target species of local importance which are known to be present in the wider area. Nest boxes are best put up during the autumn and should be at least 3m high and avoid well-used paths / doorways. Prevailing wind, rain and strong sunlight should be avoided by angling the box slightly downwards and facing it between north and east.

Some examples of bird boxes are provided below in **Table 9**.

Table 9: Bird Box examples

Bird Box Type	Example	
External		Woodcrete bird box for a wide range of garden birds, including blue tit, marsh tit, redstart and house sparrow. https://www.nhbs.com/1b-schwegler-nest-box
		Woodstone bird box suitable for a range of species, including wrens, robins, spotted flycatchers, pied wagtails and blackbirds. https://www.nhbs.com/vivara-pro-barcelona-woodstone-open-nest-box
		Nest box for treecreeper. https://www.nhbs.com/treecreeper-fsc-nest-box

Bird Box Type	Example	
		Woodstone nest box for swifts. This box should be installed at least 5m above the ground and if possible, under the shelter of eaves or overhanging roofs. https://www.nhbs.com/search?q=swift+nest+box&qtview=200401

Birds are protected under The Wildlife and Countryside Act 1981 (as amended) and therefore bird boxes should be left undisturbed during the nesting bird season. Old nests can be removed, and the box cleaned out between 1st September and 31st January[10]. Any dead eggs must be destroyed promptly and cannot be kept or sold.

6.1.4 Reptiles

Suitable habitat for reptiles was identified on Site, including the tussocky *Holcus-juncus* neutral grassland which offered both basking and sheltering opportunities. The hedgerows and tree lines on Site provided sheltering and hibernation opportunities, while the wider ownership boundary contained piles of wood and rocks scattered throughout the grassland and woodland habitats, creating further basking and hibernation opportunities. All hedgerows, woodland and tree lines will be retained on Site, preserving habitat connectivity for reptiles.

Hibernacula can be created to create sheltering opportunities for reptiles and amphibians. Hibernacula should be created in a warm sunny area, facing south and consist of a hole of approximately 50cm deep and up to 1.5m wide. The hole should be filled with rocks, bricks, logs and twigs, with lots of gaps and holes in between so reptiles can enter, and covered with the previously removed soil. Wildflower seeds should be sowed over the top of the soil to attract invertebrates and enhance the opportunities provided by the hibernacula[11].

6.1.5 Amphibians

Suitable terrestrial habitat on Site for amphibians, including Great Crested Newts (GCN), due to tussocky grassland, native hedgerow, woodland and tree lines. Suitable breeding habitat on Site is limited; flow within the stream is too sporadic to support breeding amphibians. However, three ponds and three ditches were identified within 250m of the Site which provided potential breeding opportunities.

See 'Reptiles' section above for how hibernacula can be created to support sheltering amphibians.

[10] https://www.bto.org/how-you-can-help/providing-birds/putting-nest-boxes-birds/putting-nest-box Accessed on 14/05/2024

[11] Peoples trust for endangered species. How to make a reptile hibernaculum https://ptes.org/wp-content/uploads/2020/09/How-to-make-a-reptile-hibernaculum.pdf Accessed on 11/06/2024

7 Ensuring Deliverance and Securing a Net Gain for Biodiversity

A Habitat Monitoring and Management Plan (HMMP) for the Site will need to be prepared. The HMMP should detail how the final landscaping and ecological enhancements will be delivered within the Site, as well as ongoing management to ensure that habitats reach and maintain their targeted condition for the next 30 years. The HMMP should include:

- How the on-Site enhancements and newly created habitats will be managed, taking into account any legal restrictions and requirements;
- How and when the habitats will be monitored;
- How and when the monitoring results will be reported;
- How and when the management proposals will be reviewed; and
- How the way the management of the habitat will change, so that the habitats or wider outcomes are achieved.

Appendix A: List of Figures

Appendix B: Additional Documents

Storm Geomatics, 2025. Langley Common MoRPh5 River Condition Assessment Report. 25GEL12684

Storm Geomatics, 2025. Langley Common River Condition Assessment Survey Report. 25GEL12684_RPT

Appendix C: Condition Assessment Proformas

On Site

Area Habitats

Table C.1: Grassland (Medium, High, Very High Distinctiveness) Habitat Type

Condition Sheet: GRASSLAND Habitat Type (medium, high and very high distinctiveness)			
On-site or off-site, site name and location	On-site – Land Rear of Langley Common	**Survey date and Surveyor name**	Areti Panopoulou / 14/02/2025
Limitations (if applicable)		**Survey reference (if relating to a wider survey)**	N/A
Grid reference	SU 76934 66751	**Habitat parcel reference**	9
Habitat Description			
Holcus-juncus neutral grassland			

Condition Assessment Criteria		**Criterion passed (Yes or No)**	**Notes (such as justification)**
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. **Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.**	Yes	Good example of *holcus-juncus* neutral grassland with indicator species such as Yorkshire fog, soft rush, creeping bent and creeping buttercup dominant/frequent.
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 insects, birds and small mammals to live and breed.	Yes	The grassland was tussocky with a varied sward height throughout providing opportunities for invertebrates, small mammals and reptiles.

C	Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens.	Yes	Between 1 and 5% bare ground.
D	Cover of bracken *Pteridium aquilinum* is less than 20% and cover of scrub (including bramble *Rubus fruticosus* agg.) is less than 5%.	No	Bramble scrub present in the south covering approximately 5% of the grassland area.
E	Combined cover of species indicative of suboptimal condition 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 (as listed on Schedule 9 of WCA) are present, this criterion is automatically failed.	No	Creeping buttercup, a species indicative of suboptimal condition, covers more than 5% of the grassland.
Additional Criterion - must be assessed for all non-acid grassland types			
F	There are 10 or more vascular plant species per m^2 present, including forbs that are characteristic of the habitat type. **Note - this criterion is essential for achieving Good condition for non-acid grassland types only.**	No	8 species per m^2.
Essential criterion for Good condition achieved (for non-acid grassland) (Yes or No)		No	
Number of criteria passed		3	
Condition Assessment Result	**Condition Assessment Score**	**Score Achieved ×/✓**	
Non-acid grassland types (Result out of 6 criteria)			
Passes 5 or 6 criteria, including essential criterion A and additional criterion F.	Good (3)		
Passes 3 - 5 criteria, including essential criterion A.	Moderate (2)	✓	

Passes 2 or fewer criteria; OR Passes 3 or 4 criteria excluding criterion A and F.	Poor (1)	
Suggested enhancement interventions to improve condition score		

Table C.2: Grassland (Medium, High, Very High Distinctiveness) Habitat Type

Condition Sheet: GRASSLAND Habitat Type (medium, high and very high distinctiveness)			
On-site or off-site, site name and location	On-site – Land Rear of Langley Common	**Survey date and Surveyor name**	Areti Panopoulou / 14/02/2025
Limitations (if applicable)		**Survey reference (if relating to a wider survey)**	N/A
Grid reference	SU 77004 66673	**Habitat parcel reference**	8
Habitat Description			
Other neutral grassland dominated by Yorkshire fog (*Holcus lanatus*), with frequent creeping buttercup (*Ranunculus repens*), occasional ragwort (*Senecio jacobaea*), perennial ryegrass (*Lolium perenne*), creeping bent (*Agrostis stolonifera*), and common daisy (*Bellis perennis*). Locally rare species included ribwort plantain (*Plantago lanceolata*), dandelion (*Taraxacum* spp.), white clover (*Trifolium repens*), and rough meadow grass (*Poa trivialis*).			
Condition Assessment Criteria		**Criterion passed (Yes or No)**	**Notes (such as justification)**
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. **Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.**	Yes	Good example of other neutral grassland with 8 species per m2, less than 30% white clover and perennial rye grass and presence of grass species that is not generally sown for intensive agricultural

			production (Yorkshire fog, creeping bent and rough meadow grass).
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 insects, birds and small mammals to live and breed.	Yes	The grassland was tussocky with a varied sward height throughout providing opportunities for invertebrates, small mammals and reptiles.
C	Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens.	No	10% bare ground.
D	Cover of bracken *Pteridium aquilinum* is less than 20% and cover of scrub (including bramble *Rubus fruticosus* agg.) is less than 5%.	Yes	No bracken and less than 5% bramble.
E	Combined cover of species indicative of suboptimal condition 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 (as listed on Schedule 9 of WCA) are present, this criterion is automatically failed.	No	Creeping buttercup, a species indicative of suboptimal condition, covers more than 5% of the grassland.
Additional Criterion - must be assessed for all non-acid grassland types			
F	There are 10 or more vascular plant species per m^2 present, including forbs that are characteristic of the habitat type. **Note - this criterion is essential for achieving Good condition for non-acid grassland types only.**	No	8 species per m2.

Essential criterion for Good condition achieved (for non-acid grassland) (Yes or No)		No
Number of criteria passed		3
Condition Assessment Result	**Condition Assessment Score**	**Score Achieved ×/✓**
Non-acid grassland types (Result out of 6 criteria)		
Passes 5 or 6 criteria, including essential criterion A and additional criterion F.	Good (3)	
Passes 3 - 5 criteria, including essential criterion A.	Moderate (2)	✓
Passes 2 or fewer criteria; OR Passes 3 or 4 criteria excluding criterion A and F.	Poor (1)	
Suggested enhancement interventions to improve condition score		

Table C.3: Urban

Condition Sheet: URBAN Habitat Type			
Habitat Description			
Sparsely vegetated urban land			
On-site or off-site, site name and location	Land Rear of Langley Common – On Site	**Survey date and Surveyor name**	Areti Panopoulou / 14/02/2025
Limitations (if applicable)		**Survey reference (if relating to a wider survey)**	N/A

Grid reference	SU 77021 66639	**Habitat parcel reference**	6
Condition Assessment Criteria		**Criterion passed (Yes or No)**	**Notes (such as justification)**
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.	No	Low growing grassland and forb species accounts for more than 80% of total habitat area. Limited opportunities for breeding invertebrates and vertebrates.
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	Different plant species present including bristly oxtongue, ragwort, common nettle, ribwort plantain, Yorkshire fog, spear thistle, mouse ear chickweed, doves foot cranesbill and bramble.
C	Invasive non-native plant species (listed on Schedule 9 of WCA) 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).**	Yes	Absence of invasive non-native species.
Essential criteria relevant for habitat type achieved (Yes or No):		Yes	
Number of criteria passed:		2	
Condition Assessment Result	**Condition Assessment Score**	**Score Achieved ×/✓**	
• Passes all 3 core criteria; AND	Good (3)		

• 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)	
Suggested enhancement interventions to improve condition score		

Table C.4: Woodland Habitat Type

Condition Sheet: WOODLAND Habitat Type					
Habitat Description					
On-site or off-site, site name and location	Land Rear of Langley Common – on Site	**Survey date and Surveyor name**	Jasmine Bernard / 14/02/2025		
Limitations (if applicable)		**Survey reference (if relating to a wider survey)**	N/A		
Grid reference	SU 76921 66657	**Habitat parcel reference**	5		
Condition Assessment Criteria					
Indicator	**Good (3 points)**	**Moderate (2 points)**	**Poor (1 point)**	**Score per indicator**	**Notes (such as justification)**

A	**Age distribution of trees**	Three age-classes present.	Two age-classes present.	One age-class present.	2	Two age-classes present (young and intermediate).
B	**Wild, domestic and feral herbivore damage**	No significant browsing damage evident in woodland.	Evidence of significant browsing pressure is present in less than 40% of whole woodland.	Evidence of significant browsing pressure is present in 40% or more of whole woodland.	2	15% of vegetation had herbivore damage.
C	**Invasive plant species**	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	No invasive non-native species were identified.
D	**Number of native tree species**	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.	2	Ash, elder, English oak and hawthorn present.
E	**Cover of native tree and shrub species**	>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.	3	100% native trees and shrubs.
F	**Open space within woodland**	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%	3	Woodland less than 10ha and 15% open space.

				temporary open space, please see Good category.		
G	**Woodland regeneration**	All three classes present in woodland; trees 4 - 7 cm 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	Small trees (4-7cm DBH) present.
H	**Tree health**	Tree mortality 10% or less, no pests or diseases and no crown dieback.	11% to 25% tree mortality and or crown dieback or low-risk pest or disease present.	Greater than 25% tree mortality and or any high-risk pest or disease present.	1	Ash dieback present.
I	**Vegetation and ground flora**	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	No recognisable woodland NVC plant community present.
J	**Woodland vertical structure**	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.	1	Upper layer only.
K	**Veteran trees**	Two or more veteran trees per hectare.	One veteran tree per hectare.	No veteran trees present in woodland.	2	One veteran tree present.

L	**Amount of deadwood**	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[13].	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	15% of woodland had deadwood present.
M	**Woodland disturbance**	No nutrient enrichment or damaged ground evident.	Less than 1 hectare in total of nutrient enrichment across woodland area, and or less than 20% of woodland area has damaged ground.	1 hectare or more of nutrient enrichment, and or 20% or more of woodland area has damaged ground.	1	20% damaged ground – rubble piles and vandalism.
Total Score (out of a possible 39):					29	
Condition Assessment Result				**Condition Assessment Score**		**Result Achieved**
Total score >32 (33 to 39)				Good (3)		
Total score 26 to 32				Moderate (2)		✓
Total score <26 (13 to 25)				Poor (1)		
Suggested enhancement interventions to improve condition score						

Table C.5: Scrub Habitat Type

Condition Sheet: SCRUB Habitat Type
Habitat Description

On-site or off-site, site name and location	Land Rear of Langley Common – On Site	**Survey date and Surveyor name**	Jasmine Bernard / 14/02/2025
Limitations (if applicable)		**Survey reference (if relating to a wider survey)**	N/A
Grid reference	SU 76893 66776	**Habitat parcel reference**	1

Condition Assessment Criteria		**Criterion passed (Yes or No)**	**Notes (such as justification)**
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). - At least 80% of scrub is native, - There are at least three native woody species, - No single species comprises more than 75% of the cover (except hazel *Corylus avellana*, common juniper *Juniperus communis*, sea buckthorn *Hippophae rhamnoides* (only in its restricted native range), or box *Buxus sempervirens*, which can be up to 100% cover).	No	Previous data indicates this habitat used to be a hedgerow which has been left unmanaged and subsequently grown into tall dense scrub dominated by willow. Although more than three native woody species are present (goat willow, blackthorn and alder), goat willow covers more than 75% of the habitat.
B	Seedlings, saplings, young shrubs and mature (or ancient or veteran) shrubs are all present.	No	Dominated by mature shrubs with little regeneration due to dense cover and lack of light.
C	There is an absence of invasive non-native plant species (as listed on Schedule 9 of WCA) and species indicative of suboptimal condition make up less than 5% of ground cover.	Yes	No invasive non-native species or species indicative of suboptimal condition present.

D	The scrub has a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat.	No	There is no gradient between the scrub and neutral grassland adjacent.
E	There are clearings, glades or rides present within the scrub, providing sheltered edges.	No	The scrub is very dense with the majority difficult to access and no clearings, glades or rides were present.
Number of criteria passed:		1	
Condition Assessment Result (out of 5 criteria)	**Condition Assessment Score**	**Score Achieved ×/✓**	
Passes 5 criteria	Good (3)		
Passes 3 or 4 criteria	Moderate (2)		
Passes 2 or fewer criteria	Poor (1)	✓	
Suggested enhancement interventions to improve condition score			

Linear Habitats

Table C.6: Hedgerow Habitat Type

Condition sheet: HEDGEROW Habitat Types
UK Habitat Classification (UKHab) Habitat Types
Native hedgerow **Native hedgerow - associated with bank or ditch** **Native hedgerow with trees** **Native hedgerow with trees - associated with bank or ditch** **Species-rich native hedgerow** **Species-rich native hedgerow - associated with bank or ditch** **Species-rich native hedgerow with trees** **Species-rich native hedgerow with trees - associated with bank or ditch**
Habitat Description
Native hedgerow with trees was dominated by bramble (*Rubus fruticosus* agg.), with frequent hawthorn (*Crataegus monogyna*), and multiple ash trees (*Fraxinus excelsior*). There was also occasional birch (*Betula* spp.), three hawthorn trees and two poplar trees present.

On-site or off-site, site name and location		Land Rear of Langley Common – On Site	**Survey date and Surveyor name**	Jasmine Bernard / 14/02/2025	
Limitations (if applicable)			**Survey reference (if relating to a wider survey)**	N/A	
Grid reference		SU 77024 66690	**Habitat parcel reference**	H1	
Hedgerow favourable condition attributes					
Attributes and functional groupings (A, B, C, D and E)		**Criteria - the minimum requirements for 'favourable condition'**	**Criteria description**	**Criterion passed (Yes or No)**	**Notes (such as justification)**
Core groups - applicable to all hedgerow types					
A1.	Height	>1.5 m average along length	The average height of woody growth estimated from base of stem to the top of the shoots, excluding any bank beneath the hedgerow, any gaps or isolated trees.	Yes	4.5m high along length.
A2.	Width	>1.5 m average along length	The average width of woody growth estimated at the widest point of the canopy, excluding gaps and isolated trees.	Yes	4m wide along length.
B1.	Gap - hedge base	Gap between ground and base of canopy <0.5 m for >90% of length	This is the vertical 'gappiness' of the woody component of the hedgerow, and its distance from the ground to the lowest leafy growth.	Yes	Gap between ground and base of canopy was less than 0.5m for more than 90% of length.

B2.	Gap - hedge canopy continuity	Gaps make up <10% of total length; and No canopy gaps >5 m	This is the horizontal 'gappiness' of the woody component of the hedgerow. Gaps are complete breaks in the woody canopy (no matter how small).	Yes	No canopy gaps.
C1.	Undisturbed ground and perennial vegetation	>1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: · Measured from outer edge of hedgerow; and · Is present on one side of the hedgerow (at least).	Undisturbed ground is present for at least 90% of the hedgerow length, greater than 1 m in width and must be present along at least one side of the hedgerow.	Yes	Undisturbed ground with perennial vegetation present along the south side of the hedgerow.
C2.	Nutrient-enriched perennial vegetation	Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground.	The indicator species used are nettles *Urtica* spp., cleavers *Galium aparine* and docks *Rumex* spp. Their presence, either singly or together, does not exceed the 20% cover threshold.	Yes	Less than 20% of ground cover had nettles, cleavers and docks present.
D1.	Invasive and neophyte species	>90% of the hedgerow and undisturbed ground is free of invasive non-native plant species (including those listed on Schedule 9 of WCA) and recently introduced species.	Recently introduced species refer to plants that have naturalised in the UK since AD 1500 (neophytes). Archaeophytes count as natives.	Yes	No invasive non-native species or recently introduced species present.
D2.	Current damage	>90% of the hedgerow or undisturbed ground is free of damage caused by human activities.	This could include evidence of pollution, piles of manure or rubble, or inappropriate management practices (for example, excessive hedgerow cutting).	Yes	No signs of damage.
Additional group - applicable to hedgerows with trees only					

E1.	Tree class	There is more than one age-class (or morphology) of tree present (for example: young, mature, veteran and or ancient), and there is on average at least one mature, ancient or veteran tree present per 20 - 50m of hedgerow.	This criterion addresses if there are a range of age-classes or morphologies which allow for replacement of trees and provide opportunities for different species.	No	Less than one mature, ancient or veteran tree per 20-50m of hedgerow.
E2.	Tree health	At least 95% of hedgerow trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.	This criterion identifies if the trees are subject to damage which compromises the survival and health of the individual specimens.	Yes	No signs of impacts on tree health.
Number of criteria passed				**9/10**	
Condition categories for hedgerows with trees					
Category		**Category Requirements**	**Metric score**	**Score achieved ×/✓**	
Good		No more than 2 failures in total; **AND** No more than 1 failure in any functional group.	3	✓	
Moderate		No more than 5 failures in total; **AND** Does not fail both attributes in more than one functional group	2		

	(for example, fails attributes A1, A2, B1, C2 and E1 = Moderate condition).		
Poor	Fails a total of more than 5 attributes; **OR** Fails both attributes in more than one functional group (for example, fails attributes A1, A2, B1 and B2 = Poor condition).	1	
Suggested enhancement interventions to improve condition score			

Table C.7: Line of Trees Habitat Type

Condition Sheet: LINE OF TREES Habitat Type			
Habitat Description			
Tree line along the northern boundary, adjacent to School road, dominated by oak, with locally rare ash and elm.			
On-site or off-site, site name and location	Land Rear of Langley Common – On Site	**Survey date and Surveyor name**	Jasmine Bernard 14/02/2025
Limitations (if applicable)		**Survey reference (if relating to a wider survey)**	N/A
Grid reference	SU 76940 66839	**Habitat parcel reference**	LT1
Condition Assessment Criteria		**Criterion passed (Yes or No)**	**Notes (such as justification)**

A	At least 70% of trees are native species.	Yes	Dominated by oak *Quercus robur*
B	Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide.	Yes	Less than 10% of canopy area has gaps and no gaps more than 5m wide.
C	One or more trees has veteran features and or natural ecological niches for vertebrates and invertebrates, such as presence of standing and attached deadwood, cavities, ivy or loose bark.	Yes	Ecological niches present including split limbs and decay.
D	There is an undisturbed naturally-vegetated strip of at least 6 m on both sides to protect the line of trees from farming and other human activities (excluding grazing). Where veteran trees are present, root protection areas should follow standing advice[2].	No	School road adjacent to the north of the tree line.
E	At least 95% of the trees are in a healthy condition (deadwood or veteran features valuable for wildlife are excluded from this). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.	Yes	More than 95% of trees healthy. Small area of fly tipped rubbish around central gateway.
Number of criteria passed		4	
Condition Assessment Result (out of 5 criteria)	**Condition Assessment Score**	**Score Achieved ×/✓**	
Passes 5 criteria	Good (3)		
Passes 3 or 4 criteria	Moderate (2)	✓	
Passes 2 or fewer criteria	Poor (1)		
Suggested enhancement interventions to improve condition score			
N/A			

Table C.8: Line of Trees Habitat Type

Condition Sheet: LINE OF TREES Habitat Type
Habitat Description

Tree line along the eastern boundary dominated by oak, with occasional ash and locally rare goat willow.			
On-site or off-site, site name and location	Land Rear of Langley Common – On Site	**Survey date and Surveyor name**	Jasmine Bernard / 14/02/2025
Limitations (if applicable)		**Survey reference (if relating to a wider survey)**	N/A
Grid reference	SU 76975 66766	**Habitat parcel reference**	LT2
Condition Assessment Criteria		**Criterion passed (Yes or No)**	**Notes (such as justification)**
A	At least 70% of trees are native species.	Yes	The tree line was dominated by oak, with occasional ash and locally rare goat willow.
B	Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide.	Yes	Less than 10% of canopy area has gaps and no gaps more than 5m wide.
C	One or more trees has veteran features and or natural ecological niches for vertebrates and invertebrates, such as presence of standing and attached deadwood, cavities, ivy or loose bark.	Yes	Ecological niches present including split limbs and decay.
D	There is an undisturbed naturally-vegetated strip of at least 6 m on both sides to protect the line of trees from farming and other human activities (excluding grazing). Where veteran trees are present, root protection areas should follow standing advice[2].	Yes	Woodland/scrub to the east and neutral grassland to the west.
E	At least 95% of the trees are in a healthy condition (deadwood or veteran features valuable for wildlife are excluded from this). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.	Yes	More than 95% of trees healthy.
Number of criteria passed		5	

Condition Assessment Result (out of 5 criteria)	Condition Assessment Score	Score Achieved ×/✓
Passes 5 criteria	Good (3)	✓
Passes 3 or 4 criteria	Moderate (2)	
Passes 2 or fewer criteria	Poor (1)	
Suggested enhancement interventions to improve condition score		
N/A		

Wider ownership boundary

Table C.9: Grassland (Medium, High, Very High Distinctiveness) Habitat Type

Condition Sheet: GRASSLAND Habitat Type (medium, high and very high distinctiveness)			
On-site or off-site, site name and location	Land Rear of Langley Common – Wider ownership boundary	**Survey date and Surveyor name**	Jasmine Bernard / 14/02/2025
Limitations (if applicable)		**Survey reference (if relating to a wider survey)**	N/A
Grid reference	SU 76836 66745	**Habitat parcel reference**	4
Habitat Description			

Condition Assessment Criteria		**Criterion passed (Yes or No)**	**Notes (such as justification)**
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. **Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.**	Yes	Good example of *holcus-juncus* neutral grassland with indicator species such as Yorkshire fog, soft rush, creeping bent and creeping buttercup dominant/frequent.

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 insects, birds and small mammals to live and breed.	Yes	The grassland was tussocky with a varied sward height throughout providing opportunities for invertebrates, small mammals and reptiles.
C	Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens.	Yes	Between 1 and 5% bare ground.
D	Cover of bracken *Pteridium aquilinum* is less than 20% and cover of scrub (including bramble *Rubus fruticosus* agg.) is less than 5%.	Yes	No bracken present and scrub accounts for less than 5% of total area.
E	Combined cover of species indicative of suboptimal condition 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 (as listed on Schedule 9 of WCA) are present, this criterion is automatically failed.	No	Creeping buttercup, a species indicative of suboptimal condition, covers more than 5% of the grassland.
Additional Criterion - must be assessed for all non-acid grassland types			
F	There are 10 or more vascular plant species per m^2 present, including forbs that are characteristic of the habitat type. **Note - this criterion is essential for achieving Good condition for non-acid grassland types only.**	No	9
Essential criterion for Good condition achieved (for non-acid grassland) (Yes or No)		No	
Number of criteria passed		3	
Condition Assessment Result	**Condition Assessment Score**	**Score Achieved ×/✓**	

Passes 5 or 6 criteria, including essential criterion A and additional criterion F.	Good (3)	
Passes 3 - 5 criteria, including essential criterion A.	Moderate (2)	✓
Passes 2 or fewer criteria; OR Passes 3 or 4 criteria excluding criterion A and F.	Poor (1)	
Suggested enhancement interventions to improve condition score		

Table C.10: Woodland Habitat Type

Condition Sheet: WOODLAND Habitat Type					
Habitat Description					
On-site or off-site, site name and location	Land Rear of Langley Common – Wider ownership boundary	**Survey date and Surveyor name**	Jasmine Bernard / 14/02/2025		
Limitations (if applicable)		**Survey reference (if relating to a wider survey)**	N/A		
Grid reference	SU 76759 66717	**Habitat parcel reference**	2		
Condition Assessment Criteria					
Indicator	**Good (3 points)**	**Moderate (2 points)**	**Poor (1 point)**	**Score per**	**Notes (such as justification)**

					indicator	
A	**Age distribution of trees**	Three age-classes present.	Two age-classes present.	One age-class present.	2	Young and intermediate trees only.
B	**Wild, domestic and feral herbivore damage**	No significant browsing damage evident in woodland.	Evidence of significant browsing pressure is present in less than 40% of whole woodland.	Evidence of significant browsing pressure is present in 40% or more of whole woodland.	2	15% vegetation with herbivore damage (deer).
C	**Invasive plant species**	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	No invasive non-native species present.
D	**Number of native tree species**	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	Species include common lime, elder, English oak, grey willow, hawthorn, holly, Midland hawthorn and silver birch.
E	**Cover of native tree and shrub species**	>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.	3	100% native tree and shrub species.

F	**Open space within woodland**	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.	1	50% open space.
G	**Woodland regeneration**	All three classes present in woodland; trees 4 - 7 cm 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	Small trees (DBH 4-7cm) only.
H	**Tree health**	Tree mortality 10% or less, no pests or diseases and no crown dieback.	11% to 25% tree mortality and or crown dieback or low-risk pest or disease present.	Greater than 25% tree mortality and or any high-risk pest or disease present.	2	15% tree mortality.
I	**Vegetation and ground flora**	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.	2	Ground flora includes cleavers, common ivy, common nettle, foxglove, ground-ivy, lords-and-ladies and wood avens.
J	**Woodland vertical structure**	Three or more storeys across all survey plots, or a complex woodland.	Two storeys across all survey plots.	One or less storey across all	1	Upper storey only.

				survey plots.		
K	**Veteran trees**	Two or more veteran trees per hectare.	One veteran tree per hectare.	No veteran trees present in woodland.	1	No veteran trees present.
L	**Amount of deadwood**	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[13].	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.	2	30% deadwood.
M	**Woodland disturbance**	No nutrient enrichment or damaged ground evident.	Less than 1 hectare in total of nutrient enrichment across woodland area, and or less than 20% of woodland area has damaged ground.	1 hectare or more of nutrient enrichment, and or 20% or more of woodland area has damaged ground.	2	5% damaged ground from litter and deer trampling of vegetation.
Total Score (out of a possible 39):					28	
Condition Assessment Result				**Condition Assessment Score**		**Result Achieved**
Total score >32 (33 to 39)				Good (3)		

Total score 26 to 32	Moderate (2)	✓
Total score <26 (13 to 25)	Poor (1)	
Suggested enhancement interventions to improve condition score		

Table C.11: Line of Trees Habitat Type

Condition Sheet: LINE OF TREES Habitat Type			
Habitat Description			
Tree line along the western wider ownership boundary dominated by oak with occasional hawthorn, and locally rare willow, crack willow, and ash.			
On-site or off-site, site name and location	Land Rear of Langley Common – Wider ownership boundary	**Survey date and Surveyor name**	Jasmine Bernard / 14/02/2025
Limitations (if applicable)		**Survey reference (if relating to a wider survey)**	N/A
Grid reference	SU 76853 66821	**Habitat parcel reference**	LT3
Condition Assessment Criteria		**Criterion passed (Yes or No)**	**Notes (such as justification)**
A	At least 70% of trees are native species.	Yes	Dominated by oak with occasional hawthorn, and locally rare crack willow, and ash.
B	Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide.	Yes	Less than 10% of canopy area has gaps and no gaps more than 5m wide.
C	One or more trees has veteran features and or natural ecological niches for vertebrates and invertebrates, such as presence of standing and attached deadwood, cavities, ivy or loose bark.	Yes	Ecological niches present including ivy and decay.

D	There is an undisturbed naturally-vegetated strip of at least 6 m on both sides to protect the line of trees from farming and other human activities (excluding grazing). Where veteran trees are present, root protection areas should follow standing advice[2].	Yes	Neutral grassland to the east and pastoral fields to the west.
E	At least 95% of the trees are in a healthy condition (deadwood or veteran features valuable for wildlife are excluded from this). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.	Yes	More than 95% of trees healthy.
Number of criteria passed		5	

Condition Assessment Result (out of 5 criteria)	**Condition Assessment Score**	**Score Achieved ×/✓**
Passes 5 criteria	Good (3)	✓
Passes 3 or 4 criteria	Moderate (2)	
Passes 2 or fewer criteria	Poor (1)	

Suggested enhancement interventions to improve condition score
N/A

Table C.12: Ditch Habitat Type

Condition Sheet: DITCH Habitat Type			
Habitat Type			
Watercourses - Ditches			
Habitat Description			
Shaded ditch running adjacent to the southwestern boundary. Water levels were low with no aquatic or marginal vegetation. Bramble *Rubus fruticosus* agg. and holly *Ilex aquifolium* were present on the bank tops.			
On-site or off-site, site name and location	Land Rear of Langley Common (wider ownership boundary)	**Survey date and Surveyor name**	Jasmine Bernard / 14/02/2025

Limitations (if applicable)		**Survey reference (if relating to a wider survey)**	N/A
Grid reference	SU 76786 66670	**Habitat parcel reference**	D1
Condition Assessment Criteria		**Criterion passed (Yes or No)**	**Notes (such as justification)**
A	The ditch is of good water quality, with clear water (low turbidity) indicating no obvious signs of pollution.	No	Water was clear, however the ditch lacked vegetation and invertebrates, indicating poor water quality.
B	A range of emergent, submerged and floating-leaved plants are present. As a guide >10 species of emergent, floating or submerged plants present in a 20 m ditch length.	No	No emergent, submerged or floating-leaved plants were present.
C	There is less than 10% cover of filamentous algae and or duckweed *Lemna* spp. (these are signs of eutrophication).	Yes	No filamentous algae or duckweed present.
D	A fringe of aquatic marginal vegetation is present along more than 75% of the ditch.	No	No aquatic marginal vegetation present.
E	Physical damage is evident along less than 5% of the ditch, with examples of damage including: excessive poaching, damage from machinery use or storage, or any other damaging management activities.	No	Evidence of fly tipping in ditch and excessive poaching from deer.
F	Sufficient water levels are maintained - as a guide a minimum summer depth of approximately 50 cm in minor ditches and 1 m in main drains.	No	Water levels approximately 10cm deep (winter).
G	Less than 10% of the ditch is heavily shaded.	No	90% of the ditch was shaded by overhanding scrub and trees.
H	There is an absence of non-native plant and animal species.	Yes	No invasive non-native species present.
Number of criteria passed:		2	

Condition Assessment Result (out of 8 criteria)	Condition Assessment Score	Score Achieved ×/✓
Passes 8 criteria	Good (3)	
Passes 6 or 7 criteria	Moderate (2)	
Passes 5 or fewer criteria	Poor (1)	✓
Suggested enhancement interventions to improve condition score		